SoCalREN 2024–2027 PORTFOLIO PLAN

SoCalREN

As we approach the end of the first quarter of the twenty-first century, the world is running out of time to tackle the urgent climate crisis we collectively face. California, under a State of Emergency for this very reason, faces unprecedented wildfires and drought, grid reliability and resilience shortfalls, and rampant environmental and social inequity. In parallel, Californians face the highest inflation in 40 years and the lasting impacts of the COVID-19 pandemic, creating a disproportional burden on underserved residents and small businesses, disadvantaged communities, and the public agencies that serve them.

The interlinked climate and grid resiliency threat requires a complete transition away from fossil fuels toward an efficient and optimized energy system. Key to that transition is ensuring that all communities are given equitable access to the technical and financial services necessary to identify, develop, fund, implement, commission, and operate energy-efficient buildings, facilities, and equipment. This must include access to tools and services so that local and diverse businesses have the proper resources to effectively participate in the energy efficiency market, while also ensuring that underserved communities are able to leverage those services while the State advances through the energy transition.

California has long been recognized as a leader in these areas, but much work remains to be done. Historically, the California Investor-Owned Utilities (IOUs) have made huge strides in reducing energy demand for many of their customers. The disproportionate costs, timelines, complexity, and the lack of resources to carry out work in certain regions and customer subsectors, however, have left large gaps in who can and who does not participate in energy efficiency programs. Regional Energy Networks were created to address this very gap and the Southern California Regional Energy Network (SoCalREN) has nearly a decade of demonstrated successful experience closing those gaps.

SoCalREN's 2024–2027 Portfolio Plan is founded on this demonstrated success and built to fill the immediate regional needs to take on these challenges.

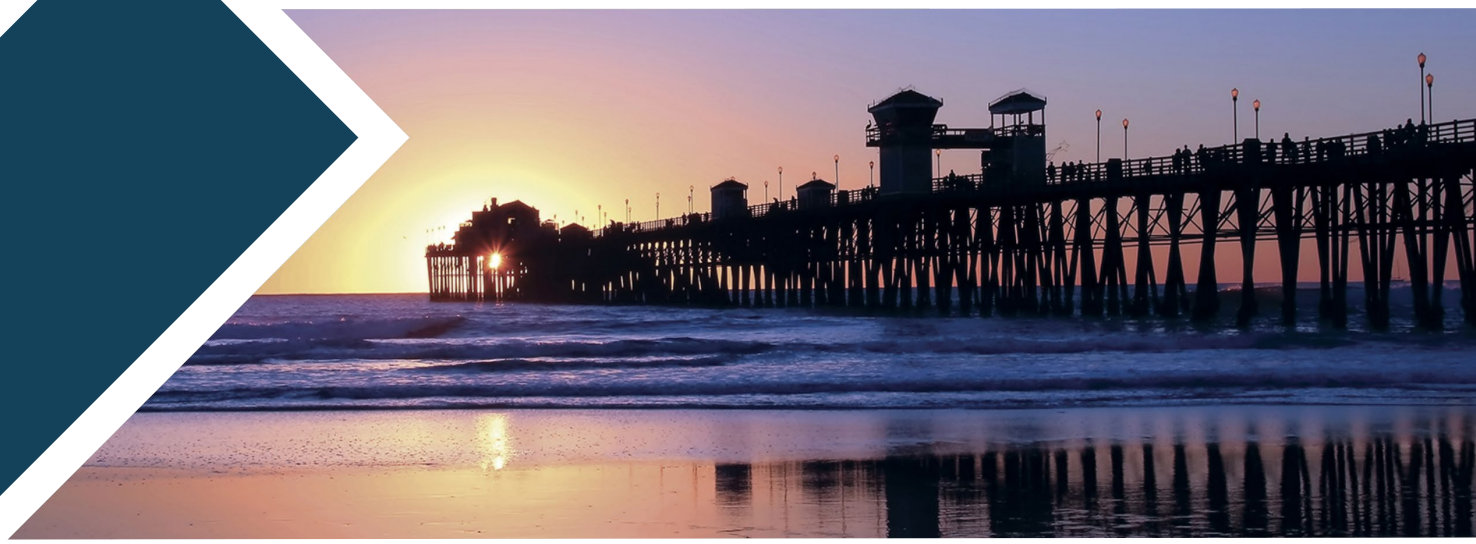

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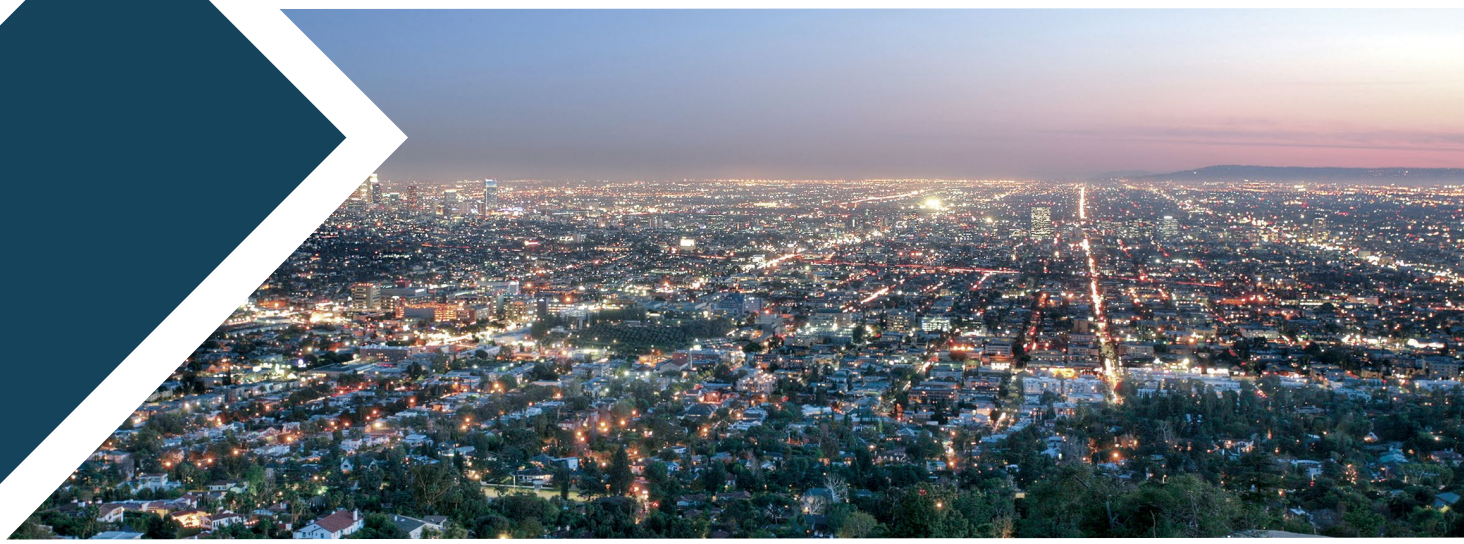
TABLE OF ACRONYMS

Acronym	Definition
SoCalREN	Southern California Regional Energy Network
AB	Assembly Bill
ACES	Architecture Construction Engineering Students
Ag	Agriculture/Agricultural
C&S	Codes and Standards
CBO	Community Based Organization
CCA	Community Choice Aggregator
CEC	California Energy Commission
CPUC	California Public Utilities Commission
DAC	Disadvantaged Communities
DER	Distributed Energy Resources
DI	Direct Install
EE	Energy Efficiency
ESJ	Environmental and Social Justice
ESJAP	Environmental and Social Justice Action Plan
EV	Electric Vehicle
EVSE	Electric Vehicle Supply Equipment
FDEEE	Food Desert Energy Efficiency Equity
GHG	Greenhouse Gas
GWh	Gigawatt-hour
HTR	Hard-to-Reach

IDSM	Integrated Demand Side Management
IOU	Investor-Owned Utility
kW	Kilowatt
kWh	Kilowatt-hour
LGP	Local Government Partnership
MF	Multifamily
NMEC	Normalized Metered Energy Consumption
PA	Program Administrator
REN	Regional Energy Network
RLF	Revolving Loan Fund
SB	Senate Bill
SCE	Southern California Edison
SMB	Small and Medium Businesses
SoCalGas®	Southern California Gas Company
SOW	Scope of Work
SWMDVBE	Small Women Minority Disadvantaged Veteran Business Enterprises
UVM	Unique Value Metrics
WE&T	Workforce Education & Training
ZNE	Zero Net Energy



1. FOUR-YEAR PORTFOLIO SUMMARY

SoCalREN envisions a Southern California in which communities are actively shaping a safe, secure, resilient, and affordable clean energy future. The strategic and targeted activities conducted by SoCalREN strengthen California's capacity to achieve its ambitious decarbonization goals through a portfolio of programs grounded in core values to deliver energy and climate impacts, build energy capacity and economic resilience, and expand energy efficiency access and benefits to underserved and hard-to-reach communities.

Los Angeles County, Program Administrator (PA) for the Southern California Regional Energy Network (SoCalREN), presents its Energy Efficiency Portfolio Business Plan for 2024-2027, the first four-year cycle of its Eight-Year Strategic Business Plan described in Exhibit I. The Business Plan embraces California's 2030 goals of doubling energy efficiency (EE) and reducing greenhouse gas (GHG) emissions by 40 percent in existing buildings, as well as California's 2045 goals of achieving 100 percent renewable and zero-carbon retail electricity and becoming entirely carbon neutral.

The Business Plan is guided by the State's high priority focus on identifying and addressing barriers to advancing EE and decarbonization actions in low-income and disadvantaged communities (DACs) as exemplified by the California Public Utilities Commission (CPUC's) Environmental and Social Justice (ESJ) Action Plan. From its inception, SoCalREN has been successfully fulfilling its purpose as outlined in D.12-11-015 that in the formation and implementation of programs it engages in activities that fill gaps, address hard-to-reach audiences, and provides programs that other PAs cannot or will not provide.

Regional Energy Network (REN) programs have proven to be a critically important complement to investor-owned utility (IOU) programs and demonstrate what mission-driven local governments can do to overcome challenging and vexing EE barriers. In SoCalREN's Business Plan, the proposed programs and strategies have successfully evolved to address critical needs and have been carefully designed using a regional lens to fully comply with CPUC guidance, focus on equity and market support segment offerings, strengthen long-term EE, and serve customers and communities in need.

In serving a diverse and vast territory, SoCalREN looks to reach every community, particularly those most in need. Underserved communities and customers are often ignored or are ineligible for many existing and emerging IOU EE programs since they cost more to serve and deliver fewer savings for each individual program intervention. Collectively, however, their overall EE savings potential is immense. SoCalREN is committed to ensuring that these communities and customers are not left behind in California's drive to a cleaner energy future. SoCalREN's proposed Portfolio invests significantly in programs and services to meet the unique needs of underserved Californians.

SoCalREN's Business Plan builds on its experience as a successful PA over the past decade. Direct connections to and collaborations with local governments and community-based stakeholders throughout the Southern California region guide and inform its program design and implementation.

Figure 2. SoCalREN Service Area

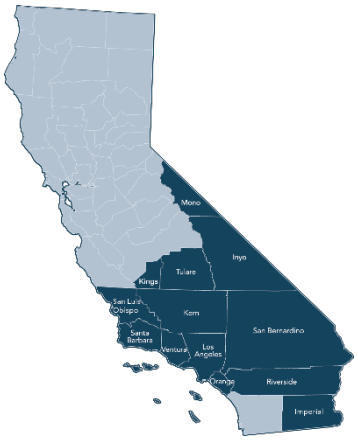
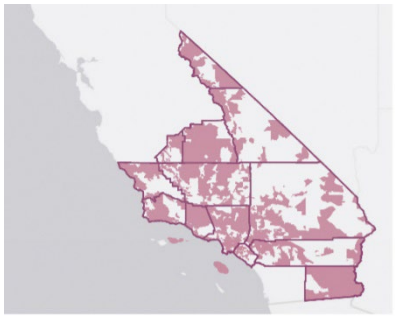


Figure 2. SoCalREN Service Area (DAC Detail)



SoCalREN continues to innovate. As in past years, SoCalREN will continue to pursue and secure additional non-ratepayer funding from various sources to enhance and augment services within programs and propel deeper and faster decarbonization actions within the region. A significant opportunity is funding through the Federal Infrastructure and Jobs Act which will provide resources to tackle the climate crisis, advance environmental justice, and invest in communities that have too often been left behind. Federal funding flowing to state and local governments will provide opportunities for public agencies to make investments in their facilities and communities. Now more than ever, SoCalREN can help leverage resources and guide public agencies to make sound investments in EE and resilient communities.

Within this Portfolio Application, SoCalREN is requesting $217 million over the four-year period of 2024 through 2027. This funding enables SoCalREN to continue and enhance the delivery of

services within its existing Public, Residential, Workforce Education & Training (WE&T), and Financing sectors and proposes needed new services for the Commercial, Agricultural, and Codes and Standards (C&S) sectors to drive EE outcomes not addressed by IOU or other Non-IOU programs. Following is a summary of continuing and new programs by sector in the SoCalREN Portfolio.

Agricultural Sector. SoCalREN will launch new programs for the agricultural sector to fill gaps in services for the region's underserved small and medium agricultural customers and rural agricultural communities by providing technical support and resource interventions to address their energy needs. SoCalREN will offer the Ag DI and Retrofit Program to deliver persistent energy savings, and the Ag-Project Delivery Program will provide project support to customers to assist in their implementation of recommended energy efficiency strategies and equipment replacements.

Codes and Standards (C&S) Cross-Cutting Sector. SoCalREN proposes to provide Codes and Standards services in 2024 by engaging and supporting local governments in improving energy code compliance and in the adoption of model/reach energy codes, standards, and policies to build the pathway to ZNE communities. The single Codes and Standards Compliance Enhancement Program will utilize a multi-pronged approach to support local code compliance strategies and assist in Advanced Energy Codes development. SoCalREN seeks to accelerate local government leadership in energy efficiency through their regulatory authority over construction and land use and implementation of model codes, standards, and policies that will improve the energy performance of existing buildings and new construction.

Commercial Sector. SoCalREN proposes to effectively penetrate often overlooked commercial segments, such as small and medium business customers, with a focus on those classified as hard-to-reach business customers. SoCalREN will provide a one-stop-shop for SMB customers through a suite of four new commercial programs. The Small Commercial Direct Install Program will provide no-cost energy efficiency retrofits at small commercial facilities. The Food Desert Energy Efficiency Equity (FDEEE) program will support corner stores and other small businesses within food deserts by funding new energy efficient refrigerators and enabling the stores to provide more healthy food options within their communities. The California Green Business Network Program will assist small to medium-sized businesses to achieve green business certification. Lastly, the Small and Medium Business Energy Advisory Program will educate business owners about the value of energy efficiency and connect owners to all applicable EE programs.

Finance Cross-Cutting Sector. SoCalREN will continue to offer the existing Public Revolving Loan Fund (RLF) program that will provide upfront construction financing to support public agency energy upgrades. The program offers opportunities to finance projects in parallel with participating ratepayer programs and drives uptake of projects that would otherwise not be implemented. SoCalREN will also leverage successes from the Public RLF program by offering a similar financing product specifically designed to support underserved agricultural communities and customers participating within SoCalREN's Agricultural programs.

Public Sector. SoCalREN will continue its successful Energy Efficiency Project Delivery Program that provides public agencies with one-stop, turnkey integrated EE solutions through detailed energy use analysis, project design assistance, procurement assistance, and construction management support. Other continuing public sector offerings include the Disadvantaged Communities Distributed Energy Resource Program (DER DAC) program which integrates DER's and other sustainability strategies to support underserved agencies; the Normalized Metered Energy Consumption (NMEC) program and the Streamlined Savings Pathway Program which offer incentives and effective methods to deliver energy savings while filling gaps in IOUs programs.

New public sector intervention strategies include four new programs that focus on equity and fill market gaps. These include a rural-HTR Public Agency Direct Install Program, services to develop Energy Resiliency Action Plans for communities for immediate and long-term energy planning and action, funding for targeted Regional Partner Initiatives, and Strategic Energy Management (SEM) services for both Water & Wastewater facilities and Underserved Schools. The Business Plan also expands SoCalREN's public sector target eligibility to include federal and state agencies and community college districts.

Residential Sector. The residential sector plays a key role in achieving California's energy efficiency, grid resiliency, and decarbonization goals. Approximately half of the region's residents living in multifamily buildings, with most of these categorized as either Hard-to-Reach or located in Disadvantaged Communities. SoCalREN will continue its successful Whole Building Comprehensive Energy Efficiency Multifamily Program as it remains a significantly underserved market. The program will incorporate new program design features including a new incentive mechanism and will target more than 60% of savings to be achieved by properties classified as HTR and/or located within DACs over the four-year period. SoCalREN will also continue the Kits4Kids program which was successfully launched in late 2021. This program delivers self-install energy-saving measures to

families through local schools and integrates with a basic energy efficiency curriculum targeted at elementary school-aged children.

New residential sector intervention programs include the Small Hard-to-Reach Multifamily Direct Install program to focus on the underserved market of smaller (less than 50 units), independently owned "mom and pop" buildings. This size customer represents a missed opportunity, as well as a current in-equity and is not being fully addressed by existing California multifamily program efforts due to the high cost to serve these customers and the relatively low energy savings per transaction.

Workforce, Education, and Training (WE&T) Cross-Cutting Sector. SoCalREN will continue to create a labor pipeline to strengthen the number and diversity of skilled local workers and contractors at all levels of the DSM and EE industry. SoCalREN will do so by continuing to offer its existing WE&T interventions consisting of E-Contractor Academy, Green Path Careers, and Architecture Construction Engineering Students (ACES) Pathway, as stand-alone programs starting in 2024. SoCalREN's WE&T programs help the IOUs and the industry meet their goal of doubling EE savings by 2030 while increasing the diversity of the utility/EE sector by overcoming the barriers/challenges connecting DAC workers and contractors to EE training, jobs, and business opportunities.
SoCalREN will also offer a new Agricultural WE&T program that will build a local regional trade ally network of qualified Agricultural EE service providers and a WE&T Opportunity Hub program that will provide direct connections to industry employers with skilled workforce thus providing a bridge between the disadvantaged workforce and the opportunities.

SoCalREN's proposed budget request reflects a balanced portfolio that aligns with its core values and with the CPUC's objectives for RENs to serve hard-to-reach customers and fill gaps. The four-year budget allocates 30% of its resources to the equity segment, 32% to the market support segment, 37% to resource acquisition (made up of 45.7% for incentives), and 1% to codes and standards enhanced compliance.

Of the $217M budget request, $55.8M or 26% is directed to new programs in the Commercial, C&S, and Agricultural sectors with an emphasis on filling gaps and addressing current inequities. The residential sector budget of $49.4 million accounts for 23%, reflecting both the continuation of existing programs and the addition of new program enhancements. The public sector segment budget accounts for $96.1 million or 44%, reflecting both the continuation of existing programs and the addition of six new programs in the resource acquisition, equity, and market support segments that provide a greater focus on resiliency and deep retrofits in hard-to-reach communities. The cross-cutting programs in WE&T and Finance account for $15.7 million or 7% of the overall budget and reflect both the continuation of existing programs as well as the addition of important new program initiatives.

SoCalREN's comprehensive and diverse portfolio of proposed programs and services follows the guidance of the CPUC to ensure disadvantaged communities are not left behind in the transformation to our clean energy future and significantly contributes to reaching California's ambitious energy, climate, and decarbonization goals.

This Business Plan is presented following the Energy Division template with some additions in compliance with D.21-05-031.

Metrics and Outcomes

Proposed Outcomes

Comprehensive EE strategies are essential for California to meet aggressive climate action goals; SoCalREN's portfolio expansion for the Business Plan seeks to deliver EE strategies to a greater number of customers, from various sectors, with the ultimate objective to motivate them to adopt more comprehensive energy efficiency approaches that are characterized by deeper, longer-lasting savings. Accordingly, the portfolio is guided by California's goals of doubling energy efficiency and reducing GHG emissions by 40% in existing buildings by 2030 and becoming entirely carbon neutral by 2045.

The portfolio is also guided by the state's increased focus on identifying and addressing barriers to advancing energy efficiency and decarbonization in low-income and disadvantaged communities, including the CPUC's ESJ Action Plan. Simultaneously, California has experienced significant grid reliability issues resulting from wildfires, extreme heat, and more frequent critical grid load events. The SoCalREN, by connecting, coordinating, and implementing multiple portfolio efforts at a regional level to deliver integrated energy solutions, is helping California to meet these various challenges and achieve its energy, climate, and equity goals.

SoCalREN Vision Statement

SoCalREN envisions a Southern California in which communities are actively shaping a safe, secure, resilient, and affordable clean energy future.

Portfolio Outcomes

In alignment with SoCalREN's core values and overarching portfolio objectives, the portfolio-level outcomes will be realized within the four-year portfolio at the sector-level as described below. Each outcome is associated with unique metrics and indicators to quantify progress of the segment's success as outlined in the subsequent performance metrics section.

Agricultural Sector Proposed Outcomes

SoCalREN's Agriculture sector programs are designed to achieve the following outcomes with measurable impacts for this customer segment that is new to SoCalREN for the new portfolio cycle.

- **Increased energy and GHG reductions for small and medium, rural, and underserved Ag customers ("Ag Customers"). SoCalREN's Ag sector resource and equity programs support activities with trackable energy savings and GHG reductions that contribute to local and state or climate goals. Comprehensive retrofit and targeted direct install offerings offered by SoCalREN overcome common barriers to participation, so participants receive the benefits of reduced energy consumption and carbon emissions. Over the eight-year period, SoCalREN will reduce energy usage of Ag customers by an average of 10% or more.**
- **Increased energy capacity, competency, and economic resilience for Ag Customers. SoCalREN's Ag sector programs will build long-term knowledge and skills that lead to energy competency, and energy management practices that will help rural, disadvantaged, small and medium agriculture customers establish sustainable energy practices. Program offerings help to build trust with Ag customers and increase knowledge about their business' energy consumption, access to funding sources, and other programs to facilitate energy actions. By 2031, over 10% of small and medium Ag customers participating in SoCalREN programs will report interest in continuing sustainable energy practices.**

Codes & Standards Cross-Cutting Sector Proposed Outcomes

SoCalREN's Codes and Standards (C&S) program envisions a future in which the C&S community effectively delivers the critically important co-benefits of proper and correct permitting and compliance at a scale needed to achieve the state's energy goals for new and existing construction.

- Increased energy and GHG reductions across communities. SoCalREN's C&S sector program supports activities that will yield energy savings and GHG reductions that contribute to the achievement of local and state climate goals. Energy and GHG savings will result from better compliance with energy code requirements, increased energy awareness, reduced energy use in new and existing buildings, and greater number of high energy

performance buildings. **By 2031, all participating agencies will have adopted advanced energy codes, standards, and/or policies.**

- Increased energy capacity, competency, and economic resilience within C&S stakeholders. SoCalREN will build local government capacity for the development, adoption, and implementation of model policies and programs that improve the EE of existing buildings and zero net energy (ZNE) building energy policies and codes for new construction and existing buildings. Local governments can also be provided technical resources and assistance that allow them to become leaders in the adoption of new codes, standards, and policies that go beyond statewide requirements and promote deeper EE, decarbonization and ZNE efforts. **By 2031, all participating agencies will see an increase in code compliance and permit closeout by 15%**.

Commercial Sector Proposed Outcomes

The Commercial sector consists of a large and diverse customer base that requires a range of products to address their energy needs. Despite this need, unique offerings and programs have diminished. CPUC encourages alternative approaches to achieve energy savings among the overlooked hard-to-reach small commercial business customer class. SoCalREN can penetrate often overlooked commercial segments such as the small and medium business (SMB) customers, with a focus on those classified as hard-to-reach (HTR) business customers. SoCalREN is well positioned and eager to reduce the drop-off in offerings to the cost-effective challenged customer segments and deliver valuable outcomes that align with SoCalREN's core values and directives.

- Increased energy and GHG reductions for SMBs. SoCalREN's commercial sector resource and equity programs support activities with trackable energy savings and GHG reductions that contribute to local and state or climate goals. Targeted direct install offerings offered by SoCalREN overcome common barriers to participation, so participants receive the benefits of reduced energy consumption and carbon emissions. **Over the four-year period, SoCalREN will reduce energy usage of enrolled SMBs by an average of 10% or more.**
- Increased energy capacity, competency, and economic resilience within SMBs. SoCalREN's commercial sector programs will build long-term knowledge and skills that lead to energy competency, and energy management practices that will help SMBs establish sustainable energy practices. Program offerings help to build trust with SMBs and increase knowledge about their business' energy consumption, and access funding sources and other programs to facilitate energy actions. **By 2027, over 75% of SMBs participating in SoCalREN programs will report interest in continuing sustainable energy practices.**

- HTR businesses gain increased access to EE benefits. All SoCalREN's commercial sector programs will focus on providing access to unique EE programs and services that enhance carbon reduction opportunities and other environmental outcomes in underserved communities supporting the advancement of the CPUC's ESJAP. **Over the four-year period, SoCalREN will target over 50% of cumulative benefits being received by a HTR business.**

Finance Cross-Cutting Sector Proposed Outcomes

Financing tools are becoming increasingly important to the success of EE programs. The CPUC already mandates that IOUs implement financing. SoCalREN embraces the growing role of EE financing by building on and complementing the success of existing programs and services to deliver the below outcomes.

- Increased energy and GHG reductions across the territory. SoCalREN's cross-cutting finance programs support activities that yield trackable reductions and contribute to local and state or climate goals. Financing programs offered by SoCalREN motivate customers to tackle projects sooner and receive the benefits of reduced energy consumption and carbon emissions. **These programs will provide bridge funding to fill the gap** between other financing product repayment like incentives and On-Bill financing so customers can pursue projects without delay.
- Underserved communities gain increased access to EE benefits. SoCalREN's finance programs target hard to reach and underserved communities, supporting the advancement of the CPUC's ESJ Action Plan. These offerings enable them to **benefit from energy savings, carbon reductions, and other environmental and health outcomes** by overcoming one of the most common barriers to completing EE projects— project funding.
- Increased energy capacity, competency, and economic resilience. SoCalREN's finance programs **will build long-term knowledge and skills** about both the lifecycle benefits of low-cost financing options and project cost savings through deliverables, workshops, and meetings that lead to continued interest and motivation to complete EE projects.

Public Sector Proposed Outcomes

Public agencies have the unique potential to lead their communities by example and set the foundation of community resilience by creating cost savings through clean, reliable energy projects that benefit the local economy and inspire local action. SoCalREN's public sector strategies will unleash this potential to lead by example and drive carbon reductions by maximizing opportunities and motivating customers to adopt more comprehensive EE approaches that are characterized by deeper, longer-lasting savings.

- Increased energy & GHG reductions across the public sector. SoCalREN's public sector programs support activities that lead to trackable energy savings that are claimable by SoCalREN's resource programs as well as third-party programs. The SoCalREN programs are designed to fill market gaps and motivate agencies to tackle projects sooner, delivering GHG emission reductions that contribute to local and state climate goals. **By 2027, the public sector will deliver over 98 GWh in trackable annual energy savings.**
- Underserved communities gain increased access to EE benefits. SoCalREN's public sector equity programs are specifically focused on providing access to unique EE programs and services that lead to carbon reduction opportunities and other beneficial environmental and health outcomes in underserved communities supporting the advancement of the CPUC's ESJ Action Plan. Public agencies serving DACs, low-income, and rural communities receive the support needed to overcome barriers to completing EE projects through SoCalREN's comprehensive services. **Over the four-year period, SoCalREN will deliver services to 70% of its enrolled agencies in underserved communities.**
- Build energy capacity and economic resilience. SoCalREN's public sector market support programs will build long-term knowledge and skills that lead to energy competency, policies, or other infrastructure that will help public agencies build long-lasting, strong, and self-sufficient economies by supporting projects and investment into their communities.

  Program offerings help agencies overcome staffing and resource constraints, increase knowledge about their facilities' energy consumption, and access funding sources to facilitate energy actions. **Over the four-year period, 100% of active participants will receive learning and training opportunities to increase their energy knowledge and skills.**

Residential Sector Proposed Outcomes

SoCalREN recognizes that the residential sector plays a key role toward California's energy efficiency, grid resiliency, and decarbonization goals with approximately half of the region's residents living in multifamily buildings, and most of these categorized as either Hard-to-Reach or located in Disadvantaged Communities. Without an enhanced focus on underserved, hard-to-reach, and disadvantaged communities these customers will be further left behind as advances in the state's energy infrastructure are realized into 2030 and beyond. The proposed outcome for the residential sector is:

- Increased energy and GHG reductions across the Residential sector. SoCalREN's Multifamily sector programs support activities that lead to trackable energy savings that are claimable by SoCalREN's resource programs as well as third-party programs. The SoCalREN programs are designed to fill market gaps and motivate property owners tackle projects

sooner, delivering GHG emission reductions that contribute to state and local climate goals. **By 2027, the multifamily sector will deliver over 28 GWh in trackable annual energy savings.**

- Increased energy capacity, competency, and economic resilience within Multifamily properties, their residents, community members (residential customers) and contractors who serve programs. Program offerings will help to build trust with property owners, their residents, schools, students, and contractors while increasing knowledge about their energy consumption, and access funding sources and other programs to facilitate energy actions. **By 2027, over 65% of SoCalREN participating properties, residents, and contractors will report interest in continuing sustainable energy practices.**
- HTR Multifamily Properties and their residents gain increased access to EE benefits. All SoCalREN's multifamily sector programs will focus on providing access to unique EE programs and services that enhance carbon reduction opportunities and other environmental outcomes in underserved communities supporting the advancement of the CPUC's ESJ Action Plan **.Over the four-year period, SoCalREN will target over 75% of cumulative benefits being received by HTR Multifamily properties.**
- Increased energy capacity, competency, and economic resilience of local communities so customers can benefit from the energy and environmental improvements that result from efficiency retrofit projects including:
  - Reduced GHG emissions that contribute to state climate goals and improve local air quality.
  - Increased economic resilience in the form of lower energy costs, and increased access to local construction jobs, improving the local economy.
- Increased innovation to the sector by leveraging non-IOU funding sources to improve HTR and DAC access to DERs through the integration of EV charging infrastructure, and self-generation opportunities into program offerings.

WE&T Cross-Cutting Sector Proposed Outcomes

SoCalREN's WE&T program helps the IOUs meet their goal of doubling EE savings by 2030 while increasing the diversity of the sector by overcoming the barriers connecting workers and contractors from DAC to EE training, jobs, and business opportunities. SoCalREN will offer training to meet the technical demands of the IOUs, including energy savings, demand response, GHG emissions reductions, clean energy generation, and other clean energy community strategies. Industry-defined basic and advanced skills training will be standardized to provide DACs with career pathways and contractor capacities in such areas as: 1) construction/EE retrofits, 2) energy professional certifications, and 3) sales/customer service, with a focus on IDSM marketing.

- Increased energy capacity, competency, and economic resilience for Small Businesses Contractors. SoCalREN's WE&T sector programs will build long-term knowledge and skills that lead to energy competency, and energy management practices that will help small and medium contractor businesses establish sustainable energy practices and helping them obtaining EE project work. Program offerings will help to create a more robust hiring and contractor training, hiring and contractor network within DACs. **By 2027, over 50% of Contractors participating in SoCalREN WE&T programs will report obtainment of project bids or be listed as active contractors within IOU or Non-IOU PA programs.**
- Disadvantaged workers and SWMDVBEs gain increased access to EE benefits. All SoCalREN's WE&T programs will focus on developing a multi-entry and multi-pathway education and training curricula into the EE sector. The WE&T sector programs will also seek to establish a specialized Clean Energy WE&T Hub - both an on-line and a physical 'marketplace' and clearinghouse within workforce and small business development agencies throughout the SoCalREN region so that the workforce and contracting industry has direct connections to EE projects and jobs. All these actions will serve for the advancement of CPUC's ESJ Action Plan. **Over the four-year period, SoCalREN will target over 75% of cumulative benefits being received by a disadvantaged workforce and** SWMDVBE**businesses.**

Portfolio Goals and Performance Metrics

Summary of Proposed Value Metrics

The above outcomes support the overall mission of SoCalREN of achieving higher levels of energy and economic security across the region. Progress toward these outcomes is monitored through specific metrics that align with the overall portfolio-level metrics. These metrics include forward-looking indicators that cascade into performance-level metrics which are then used to track overall progress to goal.

Below is the value metrics summary, organized by coordinated core value and segment. The term *Value Metric* refers to both metrics (with targets) and indicators (without targets) because both highlight SoCalREN's value. Several of these metrics overlap with Common Metrics, such as kWh, kW, therms, and tons GHG reduced. An asterisk (*) indicates that there is no planned target. These are indicators that speak to the gap filling or innovative nature of savings that occur because of SoCalREN's programs.

Resource Acquisition: Delivering Energy & Climate Impacts

Energy and GHG reductions (claimable by SoCalREN) due to SoCalREN's innovative or gap filling program offerings

- Public agencies save energy and reduce GHG through SoCalREN's innovative program offerings, specifically a new NMEC solution
- Property owners and tenants save energy and reduce GHG in a comprehensive offering

Channeled energy and GHG reductions due to SoCalREN's guided and supported services

- Public agencies save energy and reduce GHG because of SoCalREN guidance and support through IOU programs (i.e., channeled savings)
- Energy and GHG reductions outside of EE-programs via SoCalREN
- DERs/EV/sustainability projects occur in enrolled communities lead to energy savings and/or GHG reductions outside of EE programs*
- DER/Electric Vehicle Supply Equipment (EVSE) projects at multifamily sites lead to energy savings and/or GHG reductions outside of EE programs*

Equity: Expanding Access to EE Benefits

Equity-targeted populations served by SoCalREN programs

- Underserved public agencies and multifamily properties participate in SoCalREN programs
- Regional Partners engage DAC and underserved public agencies in rural and other areas who otherwise would not be served by EE programs*
- Partnerships support Small or SWMDVBE*

Energy savings in equity-targeted populations

- Public agencies, Multifamily property owners/tenants, and businesses in DAC or underserved areas save energy and reduce GHG

Utility bill savings in equity-targeted populations

- Public agencies in DAC or underserved areas save on their utility bills*
- DAC/HTR owners, as well as DAC tenants, save on their utility bills*

Inclusion of diverse workers in EE workforce

- Small or SWMDVBEcontractors are trained and/or mentored

Non-Energy Benefits for equity-targeted populations

- SoCalREN to collect information from participants to understand other benefits (e.g., health and safety benefits) that may result from participation*

SoCalREN's Public Sector programs also have initiated an Equity Action Plan to identify local underserved populations.

Market Support: Building Energy Competency & Economic Resilience

Increased demand for EE products or services among targeted groups

- Public agencies access their energy usage data and are knowledgeable about program opportunities*
- Public agency staff (trainees) have knowledge to make long-term decisions about energy management
- Students have a voice in local climate policies and projects*
- Public agency projects are initiated and completed because of SoCalREN guidance and support

Access to capital for green energy and energy saving projects

- Public agencies have access to additional capital because SoCalREN leveraged non-CPUC funds (in $) for investment in the community*
- Public agencies leverage loans that support green energy projects*
- Multifamily properties leverage external financing for both EE and DER/EVSE/sustainability projects*

Contractors (and future skilled workers) better equipped to enable EE savings

- Contractors are knowledgeable about EE technologies and know how to identify EE opportunities at a multifamily site*
- Contractors have foundational skills to work in EE*
- Contractors are equipped to participate in SoCalREN programs and submit/contribute projects*

- Contractors work on EE projects, gaining hands-on experience*
- External financing leveraged to support workforce (or future workforce)*
- Youth and transitional adults receive certifications, internships, job placement, and/or paid work experience*

Additional participant benefits (which accrue while supporting green energy and energy saving projects)

Public save funds to re-invest into the community*

Portfolio Goals by Sector

SoCalREN has outlined a discrete set of goals for each sector to ensure programs work cohesively to meet the goals set forth for the entire portfolio as described above. These goals are outlined by sector in Table 1 below.

Table 1. Portfolio Goals by Sector

Sector	Goals
Agricultural	• Increased engagement with the Public sector program and other partners to reach Ag customers across the SoCalREN territory. • Programs offered fill gaps in the market to ensure that underserved communities are not left behind in the clean energy transition. • Ag customers are aware of their energy usage/costs, and GHG consumption across their owned assets and are aware of the holistic benefits of EE and GHG reductions and take action to implement EE and GHG reduction strategies. . • Ag customers incorporates sustained integration of EE business practices. • Continuously improve service offerings based on input collected through authentic community engagement in partnership with the Public Sector.
Codes & Standards	• Provide actionable resources to enhance code compliance, reduce energy use in buildings, and advance State EE and GHG reduction goals. • Support public agencies and external C&S stakeholders to adopt, implement, and enforce advanced energy codes, standards, and policies that pave the way for improved building energy performance and promote decarbonized and ZNE construction practices. • Facilitate and assist public agencies in collecting and using C&S-related data to inform code compliance and the adoption of advanced energy codes & policies.

Sector	Goals
Commercial	• Increased engagement with partners to serve hard-to-reach small and medium businesses (SMB) across the SoCalREN territory. • SMB is aware of their energy usage, energy costs, and the holistic benefits of EE. • SMB has taken action to address clean energy and GHG reductions. • SMB incorporates sustained integration of energy-conscious business practices.
Finance	• Provide access to low cost of capital and low risk financing solutions for energy efficiency projects for SoCalREN participants. • Stimulate and increase overall participation in SoCalREN programs and accelerate project development and implementation. • Assist SoCalREN program participants, with a focus on EJ communities, in overcoming the barriers to accessing capital due to funding and budget challenges. • Build awareness of the lifecycle financial benefits of low-cost financing options as a funding source for energy efficiency projects and services.
Public	• Increased uptake of high value EE and DER projects in public agency owned facilities, with a focus on project implementation in underserved communities and critical facilities. • Public agencies are aware of their energy usage, energy costs, and GHG consumption across their owned assets. • Agencies develop and adopt a local energy resilience action plan as a roadmap for addressing clean energy and GHG reductions. • Increased number of agencies are knowledgeable and actively engaged in supporting EE and clean energy within their community or communities. • Programs offered fill gaps in the market to ensure that underserved communities are not left behind in the clean energy transition. • Public agency programs expand reach to deliver services into untouched and hard-to-reach areas of the service territory. • Local trusted regional experts, SoCalREN's regional partners, support the design and implementation of innovative, targeted programs and strategies that meet the unique needs of public agencies in their geographic spheres of influence, and; • Continuously improve service offerings and programs based on input collected through authentic community engagement.

Sector	Goals
Residential	• Increase participation and savings achieved through the multifamily segment • Increase participation by multifamily properties located in DACs • Increase participation by HTR multifamily property owners and residents • Increase engagement with mechanical, electrical, and plumbing contractors that serve both large and small multifamily properties
WE&T	• Expand the number of EE and high-performance buildings, especially in DAC/HTR communities. • Increase MWDVBE capacity in green building technologies/EE projects—through training & technical assistance • Expand EE services in DAC/HTR communities. • Increase awareness and accessibility for youth of color to high road ACE careers. • Promote local hiring standards for DAC/HTR professional workers. • Increase diversity in the EE sector. • Reduce labor shortages in the EE/RE/construction field. • Align regional WE&T and small business eco-systems in EE/clean energy opportunities and careers.

Portfolio Metrics and Targets by Sector

Agricultural Sector Metrics and Four-Year Targets

The Ag sector will assess its accomplishments in respect to the proposed outcomes through the metrics and indicators outlined in Table 2 below. Success will be verified through data collected over the course of program implementation that is then reported to the CPUC on an annual basis. All metrics and indicators will also flag for rural and underserved customers.

Table 2. Agricultural Sector Key Metrics and Four-Year Targets

Delivering Energy and Climate Impacts	
Energy and GHG reductions due to SoCalREN's innovative program offerings *Ag customers save energy and reduce GHGs through EE measures installed through direct install and low-GHG refrigerant replacement*	
Net kWh energy savings claimed by SoCalREN	**61,400,000**
Net kW energy savings claimed by SoCalREN	**60,300**
Net therms energy savings claimed by SoCalREN	**340,000**
GHG reductions	**43,513 MT CO2e**[1]
Channeled energy and GHG reductions *Ag customers save energy and reduce GHG because of SoCalREN support*	
GHG, kWh, kW, therms claimed by projects	**Indicator**
Building Energy Capacity and Economic Resilience	
Increased demand for EE products or services among SoCalREN targeted groups *Ag customers understand their energy usage and costs, and know about programs*	
Cumulative customers served by SoCalREN energy coach	**731**
Ag Customer projects are initiated and completed because of SoCalREN guidance and support	
Customer projects delivered for energy savings	**1,461**
Access to capital for green energy and energy saving projects *Ag customers leverage loans that support green energy projects*	
Number of loans; loan values	**Indicator**
Additional Benefits *Ag customers enjoy financial savings for long-term economic stability*	
Estimated energy savings on bill for Ag projects	**Indicator**

[1] Metric tons of carbon equivalent, or MT CO2e, represents an amount of a GHG whose atmospheric impact has been standardized to that of one unit mass of carbon dioxide (CO2), based on the global warming potential (GWP) of the gas. Reference https://www.epa.gov/sites/default/files/2014-12/documents/ghgcalculatorhelp.pdf for more details. For the purposes of SoCalREN programs, MT CO2e measurements are determined by CET outputs.

Expanding Access to EE Benefits	
Equity-targeted populations served by SoCalREN programs	
DAC Ag customers participate in SoCalREN programs	
Total number DAC Ag customers participating	**731**
Local trusted organization (CBO, Regional Partner) engages DAC customers	
Number of local partners engaged in outreach	**Indicator**
Number DAC customers enrolled through partner efforts	**Indicator**
Additional benefits in equity-targeted populations while supporting green energy and energy saving projects	
Additional benefits in equity-targeted populations while supporting green energy and energy saving projects	
DAC Ag Customers receive non-energy benefits because of SoCalREN programs	**Indicator**

Codes and Standards Cross-Cutting Sector Metrics and Four-Year Targets

The C&S sector will assess its accomplishments in respect to the proposed outcomes through the metrics and indicators outlined in Table 3 below. Success will be verified through data collected over the course of program implementation that is then reported to the CPUC on an annual basis.

Table 3. Codes & Standards Key Metrics and Four-Year Targets

Delivering Energy and Climate Impacts	
Energy and GHG reductions due to SoCalREN's innovative or gap filling program offerings *Support, design, and adoption of advanced building benchmarking and emissions codes and regulations*	
# of local governments adopting advanced energy codes, standards, or policies	**20**
Building Energy Capacity and Economic Resilience	
Communities are better equipped to facilitate energy efficiency savings *C&S stakeholders have the tools and assistance necessary to enhance codes and standards policies*	
# of local governments using SoCalREN data evaluation tools & assistance to enhance C&S activities and policies	**78**
Increased demand for EE products or services among SoCalREN targeted groups *Better compliance with energy code requirements, reduced energy use in new and existing buildings*	
# of jurisdictions receiving C&S services and assistance	**72**
% of increased code compliance and permit closeout in participating jurisdictions	**15%**

Commercial Sector Metrics and Four-Year Targets

The Commercial sector will assess its accomplishments in respect to the proposed outcomes through the metrics and indicators outlined in Table 4 below. Success will be verified through data collected over the course of program implementation that is then reported to the CPUC on an annual basis. All metrics and indicators will also flag for HTR SMBs.

Table 4. Commercial Sector Key Metrics and Four-Year Targets

Delivering Energy and Climate Impacts	
Energy and GHG reductions (claimable by SoCalREN) due to SoCalREN's innovative or gap filling program offerings *SMBs save energy and reduce GHGs through EE measures installed through direct install and low-GHG refrigerant replacement*	
Net kWh energy savings claimed by SoCalREN	**4,500,000**
Net kW energy savings claimed by SoCalREN	**302**
Net therms energy savings claimed by SoCalREN	**26**
GHG reductions	**932 MT CO2e**
Channeled energy and GHG reductions *SMB customers save energy and reduce GHG because of SoCalREN support*	
GHG, kWh, kW, therms claimed by projects	**Indicator**
Building Energy Capacity and Economic Resilience	
Increased demand for EE products or services among SoCalREN targeted groups *SMB customers understand their energy usage and costs, and are knowledgeable about program opportunities*	
Cumulative customers served by SoCalREN energy coach	**740**
SMB customer projects are initiated and completed because of SoCalREN guidance and support	
Customer projects delivered for energy savings	**1,480**
Access to capital for green energy and energy saving projects *SMB customers leverage loans that support green energy projects*	
Number of loans; loan values	**Indicator**
Additional Benefits *SMB customers enjoy financial savings for long-term economic stability*	
Estimated energy savings on bill for Ag projects	**Indicator**

Expanding Access to EE Benefits	
Equity-targeted populations served by SoCalREN programs	
HTR SMB customers participate in SoCalREN programs	
Total number HTR SMB customers participating	**296**
Local trusted organization (CBO, Regional Partner) engages DAC customers	
Number of local partners engaged in outreach	**Indicator**
Number HTR SMB customers enrolled through partner efforts	**Indicator**
Additional benefits in equity-targeted populations while supporting green energy and energy saving projects	
Provide additional benefits in equity-targeted populations while supporting green energy and energy saving projects	
HTR SMB Customers receive non-energy benefits because of SoCalREN programs	**Indicator**

Finance Cross-Cutting Sector Metrics and Four-Year Targets

The Finance sector will assess its accomplishments in respect to the proposed outcomes through the metrics and indicators outlined in Table 5 below. Success will be verified through data collected over the course of program implementation that is then reported to the CPUC on an annual basis. All metrics and indicators will also flag for rural and underserved customers.

Table 5. Finance Cross-Cutting Sector Key Metrics and Four-Year Targets

Delivering Energy and Climate Impacts	
Energy and GHG reductions (claimable by SoCalREN and channeled to other programs) due to SoCalREN's innovative or gap filling program offerings *Deliver additional energy savings for public sector and agriculture customers through financing support*	
kWh savings kW savings Therm savings GHG reductions	**Indicators**
Building Energy Capacity and Economic Resilience	
Access to capital for green energy and energy saving projects *Assist public agencies and agriculture customers with access to capital*	
# of public sector projects funded	**126**
# of agricultural projects funded	**200**
Dollars invested to support EE implementation	
$ amount awarded through seed funding (Public)	**$4,000,000**
$ amount awarded through seed funding (Ag)	**$2,300,000**
Support submission of applications for financing	
# of loan applications submitted (Public)	**126**
# of loan applications submitted (Ag)	**200**
Additional Benefits *SMB customers enjoy financial savings for long-term economic stability*	
Estimated energy savings on bill for Ag projects	**Indicator**
Expanding Access to EE Benefits	
Equity-targeted populations served by SoCalREN programs *Underserved public sector and agriculture customer projects supported through financing*	
% of underserved customer projects/total projects (Public)	**100%**
% of underserved customer projects/total projects (Ag)	**100%**

Public Sector Metrics and Four-Year Targets

The SoCalREN public sector metrics and indicators align with SoCalREN's core values and deliver unique benefits to the sector. All metrics and indicators will also flag for underserved participants.

Table 6. Public Sector Key Metrics and Four-Year Targets

Delivering Energy and Climate Impacts	
Energy and GHG reductions (claimable by SoCalREN) due to SoCalREN's innovative or gap filling program offerings	
Public agencies save energy through technical support/programs and DI measures	
Net kWh energy savings claimed by SoCalREN	**94,070,000**
Net kW energy savings claimed by SoCalREN	**22,400**
Net therms energy savings claimed by SoCalREN	**581,000**
GHG reductions	**66,666 MT CO2e**
Building Energy Capacity and Economic Resilience	
Increased demand for EE products or services among SoCalREN targeted groups	
Public agencies access energy usage data and are knowledgeable about programs	
Cumulative # of agencies that access energy usage data	**Indicator**
Support public agency projects	
Customer projects delivered for energy savings	**Indicator**
Provide Energy Resiliency Action Plan roadmaps for long-term planning	
Number of agencies provided roadmaps	**120**
Expanding Access to EE Benefits	
Equity-targeted populations served by SoCalREN programs	
Underserved communities access EE benefits via technical support and DI programs	
Total number underserved agencies participating	**200**
Utility bill savings in underserved communities	
Public agencies in underserved communities save on utility bills	
Amount of utility bill savings in underserved communities	**Indicator**
Additional benefits in equity-targeted populations while supporting green energy and energy saving projects	
Provide non-energy benefits in underserved communities	
# of projects improving health	
# of projects improving safety	**Indicators**
# of projects improving comfort	

Residential Sector Metrics and Four-Year Targets

The Residential sector will assess its accomplishments in respect to the proposed outcomes through the metrics and indicators outlined in Table 7 below. Success will be verified through data collected over the course of program implementation that is then reported to the CPUC on an annual basis. All metrics and indicators will also flag for Rural, DAC, and HTR customers.

Table 7. Residential Sector Key Metrics and Four-Year Targets

Core Value: Delivering Energy and Climate Impacts	
Energy and GHG reductions due to SoCalREN's innovative or gap filling program offerings	
Multifamily property owners save energy and reduce GHG in a comprehensive offering	
GHG Reductions from Common Area Projects	**163 MT CO2e**
GHG Reductions from Common Area Projects (DAC)	**304 MT CO2e**
GHG Reductions from Common Area Projects (Rural/HTR)	**479 MT CO2e**
Net kWh Reductions from Common Area Projects	**165,943**
Net kWh Reductions from Common Area Projects (DAC)	**56,736**
Net kWh Reductions from Common Area Projects (Rural/HTR)	**373,518**
Net kW Reductions from Common Area Projects	**1,242**
Net kW Reductions from Common Area Projects (DAC)	**6,901**
Net kW Reductions from Common Area Projects (Rural/HTR)	**9,838**
Net therm Reductions from Common Area Projects	**1,327,866**
Net therm Reductions from Common Area Projects (DAC)	**6,947,546**
Net therm Reductions from Common Area Projects (Rural/HTR)	**9,957,998**
Tenants save energy and reduce GHG in a comprehensive offering	
GHG Reductions from Tenant Unit Projects	**697 MT CO2e**
GHG Reductions from Tenant Unit Projects (DAC)	**1,298 MT CO2e**
GHG Reductions from Tenant Unit Projects (Rural/HTR)	**322 MT CO2e**
Net kWh Reductions from Tenant Unit Projects	**525,486**
Net kWh Reductions from Tenant Unit Projects (DAC)	**179,664**
% of net kWh Reductions from Tenant Unit Projects (Rural/HTR)	**10%, 12%, 14%, 15%**
Net kW Reductions from Tenant Unit Projects	**3,146**
Net kW Reductions from Tenant Unit Projects (DAC)	**108**
% of net kW Reductions from Tenant Unit Projects (Rural/HTR)	**10%, 12%, 14%, 15%**
Net therm Reductions from Tenant Unit Projects	**3,098,355**
Net therm Reductions from Tenant Unit Projects (DAC)	**155**
% of net therm Reductions from Tenant Unit Projects (Rural/HTR)	**10%, 12%, 14%, 15%**

Deep savings occur at MF properties through comprehensive electric and gas EE upgrades	
Percentage of projects with both gas and electric savings	**13%, 4%, 5%, 8%**
Number of projects with both gas and electric savings (DAC)	**43**
Number of projects with both gas and electric savings (Rural/HTR)	**3**
Percent savings/baseline usage from model	**39**
Percent savings/baseline usage from model (DAC)	**39**
Percent savings/baseline usage from model (Rural/HTR)	**3**
Energy and GHG reductions outside EE programs through SoCalREN efforts	
DER/Electric Vehicle Service Equipment (EVSE) at multifamily sites	
Number of sites that receive DER/EVSE	**4**
Number of sites that receive DER/EVSE (DAC)	**4**
Number of sites that receive DER/EVSE (Rural/HTR)	**0**
EV Project	**163**
EV Project (DAC)	**165,943**
EV Project (Rural/HTR)	**1,242**
Other Project	**1,327,866**
Other Project (DAC)	**304**
Other Project (Rural/HTR)	**56,736**
Core Value: Expand Access to EE Benefits	
Equity-targeted populations served by SoCalREN programs	
DAC, HTR, and underserved properties participate	
Participating properties (DAC)	**259**
Participating properties (Rural/HTR)	**644**
Tenant units served (DAC)	**51,730**
Tenant units served (Rural/HTR)	**16,094**
Regional partners engage DAC/HTR/Underserved multifamily properties and contractors	
Number of partnerships	**16**
Number of contractors engaged by partners	**6**
Number of participating properties engaged by partners	**210**

WE&T Cross-Cutting Sector Metrics and Four-Year Targets

The WE&T sector will assess its accomplishments in respect to the proposed outcomes through the metrics and indicators outlined in Table 8 below. Success will be verified through data collected over the course of program implementation that is then reported to the CPUC on an annual basis. All metrics and indicators will track participation by diversity category and Small or SWMDVBEstatus.

Table 8. WE&T Cross-Cutting Sector Key Metrics and Four-Year Targets

Building Energy Capacity and Economic Resilience	
Contractors better equipped to enable energy efficiency savings	
Contractors have foundational knowledge/skills to work in EE	
# of contractors trained (Level 1)	**400**
Contractors are equipped to participate in SoCalREN/IOU projects and have knowledge/skills to submit/contribute projects	
# of contractors trained (Level 2)	**Indicator**
Contractors gain customized knowledge, skills, and organizational capacity (e.g., certifications) to complete EE projects	
# of participants coached	**200**
Contractors support SoCalREN or IOU funded projects, gaining hands on experience	
# of contractors trained	**Indicator**
Expanding Access to EE Benefits	
Inclusion of diverse workers in EE workforce	
Small and SWMDVBE *contractors are trained through workshops, classes, or customized mentoring*	
# participants trained	**400**
Equity targeted populations served by SoCalREN programs	
Partnerships expand access for Small or SWMDVBE *(or contractors/future workers classified as disadvantaged)*	
# of employer partnerships	**50**

Budget Request

As California pursues aggressive climate and energy goals, public agencies and the residents and businesses which they serve are facing increasing financial barriers preventing them from keeping up with larger and for-profit customer sectors. The United States consumer price index climbed 7% in 2021, the largest 12-month gain in 40 years. At an astonishing 27%, energy expenditures led the pack, with electricity expenditures increasing 10.7% and natural gas expenditures increasing by 23.9% nationally in the last year. The advent of COVID-19 further exacerbated these trends. During the pandemic, residential electric usage increased 15-20% and it is unclear whether these trends will continue in the long term. Low-income and disadvantaged populations are most affected by these price increases. Public agencies can and will play a major role in trying to mitigate the impact of these economic factors.

SoCalREN has effectively supported underserved public and residential sector customers with energy efficiency programs and services since 2013. These programs have channeled considerable savings into partner IOU programs and have been supplemented with WE&T opportunities which both enable the delivery of energy efficiency projects, but also provide employment opportunities to disadvantaged populations. As these programs have grown and cost burdens on local government and their constituents have increased, there is an immediate need for increased funding to deliver incremental value to underserved ratepayers.

SoCalREN has proposed a comprehensive portfolio of energy efficiency programs which builds on past successes and fills gaps left by traditional energy efficiency programs. Overall, SoCalREN has expanded market support program access to underserved customers to ensure increased adoption of energy efficiency, designed equity programs that fill voids in disadvantaged communities, and proposed targeted resource acquisition programs where IOUs have been either unwilling or unable to. As the number of public agencies served by SoCalREN has grown to 201 enrolled agencies, of which 152 are considered underserved, SoCalREN has grown the public sector offerings to meet the needs of this important customer sector. SoCalREN will specifically target increased market support services to identify and enable “shovel-ready” energy efficiency projects in the public sector. This time-critical strategy will ensure federal and state infrastructure funding is used to advance energy efficiency goals in the coming years.

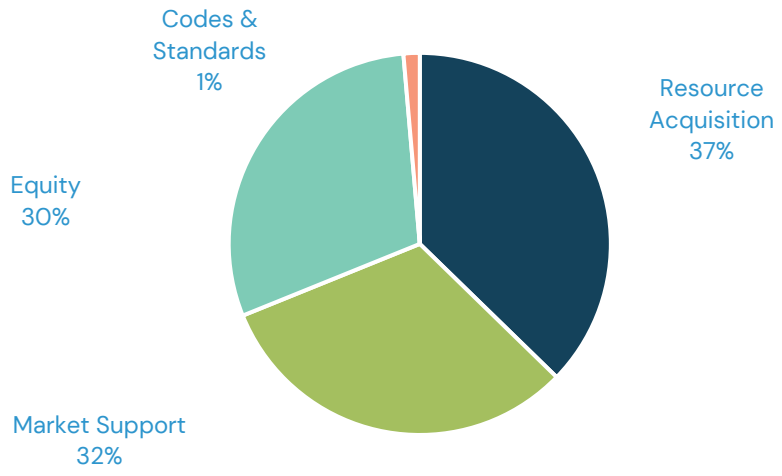
SoCalREN has further expanded the residential sector with targeted equity and market support programs. These were specifically designed to reduce the financial burden of COVID and inflation either where no IOU programs are being offered or in targeted hard-to-reach customer sub-sectors. SoCalREN is further proposing to leverage its large network of public agencies and its established position as a program administrator to fill gaps in underserved commercial and agricultural customer sectors. In response to a clear pattern of lack of services to agricultural and small business customers in the SoCalREN region, SoCalREN has designed a portfolio of programs which will address a multi-year gap left by current program portfolios.

For example, SCE's 2018-2025 Business Plan set targets for the Agricultural sector of just over 2 net GWh/yr[2] and merely allocated just over $3 million per year[3] to this rural and difficult to reach sector. This target was only 13% of the "achievable potential energy savings" which was estimated to be 15 net GWh/yr[4]. In practice, SCE targeted even less energy savings. The 2021 ABAL forecasted almost half the savings (1.3 net GWh) and less than a third of the budget ($942,323) for the entire Agricultural Sector in 2021. This sector has been neglected for years and SoCalREN can fill this gap by expanding its existing structure to offer targeted programs.

Overall, SoCalREN has carefully designed a balanced portfolio of resource acquisition, market support, equity, and codes and standards programs across public, residential, commercial, agricultural, codes and standards, workforce, education, and training, and finance sectors. These programs will build on a decade of growth, trust, and influence in the communities served by SoCalREN and fill gaps left by other program administrators.

As illustrated below in Figure 3 and in Table 9, SoCalREN's portfolio is principally balanced between Market Support, Equity, and Resource Acquisition programs, with a small non-resource Codes and Standards program being offered to accelerate code adoption. Although the Resource Acquisition program portfolio represents approximately 37% of the total budget, nearly half of that ($37 million) is allocated to customer incentives. Table 9 and Figure 4 further illustrates the distribution of budgets by sector. SoCalREN's established market sectors represent nearly three quarters of the budget, while new sectors will represent about a fourth of the budget. These conservative budgets will enable SoCalREN to fill clear gaps left in past program portfolios.

Figure 3. SoCalREN 2024-2027 Budget Percentage by Segment



[2] SCE 2018-2025 Business Plan, Table 37, Page 141

[3] SCE 2018-2025 Business Plan, Table 42, Page 155

[4] SCE 2018-2025 Business Plan, Page 144

Figure 4. SoCalREN 2024–2027 Budget Percentage by Sector

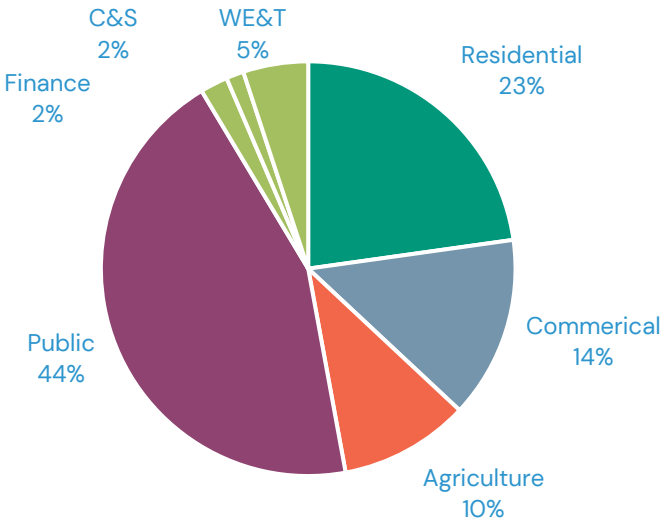


Table 9. Segment and Sector Summary Budget

2024–2027 Budget by Segment	
Resource Acquisition	$72,986,841
Market Support	$77,423,053
Equity	$63,631,578
Codes & Standards	$2,980,000
2024–2027 Budget by Sector	
Agriculture	$22,007,006
C&S	$2,980,000
Commercial	$30,795,401
Finance	$4,676,000
Public	$96,133,243
Residential	$49,429,827
WE&T	$11,000,000
Total Portfolio	**$217,021,477**

This budget does not consider Evaluation, Measurement, and Verification (EM&V) budget, which can be found within the EM&V section.

Table 10 shows the annual budget request over the four-year portfolio cycle. The budget increases annually with larger increases in 2025 and 2027 driven largely by Equity and Resource Acquisition program costs, as illustrated in Table 11.

Table 10. Annual Budget Request 2024–2027

2024	2025	2026	2027	Total
$41,641,336	$52,692,018	$56,739,432	$65,948,691	**$217,021,477**

Table 11. Annual Budget Distribution by Segment

Segment	2024	2025	2026	2027	Total
Resource Acquisition	$14,370,544	$17,467,365	$19,560,502	$21,588,430	$72,986,841
Market Support	$17,588,094	$18,647,362	$20,154,673	$21,032,925	$77,423,053
Equity	$9,032,700	$15,857,291	$16,214,250	$22,527,337	$63,631,578
Codes and Standards	$650,000	$720,000	$810,000	$800,000	**$2,980,000**

Table 12 shows the annual budgets proposed by sector. These budgets consider the need to ramp up new program sectors and expand service offerings to an increased number of customers of the four-year portfolio cycle.

Table 12. Annual Budget Distribution by Sector

Sector	2024	2025	2026	2027	Total
Agricultural	$2,679,779	$5,293,889	$6,551,046	$7,482,292	**$22,007,006**
C&S	$650,000	$720,000	$810,000	$800,000	**$2,980,000**
Commercial	$5,395,854	$8,303,254	$6,481,349	$10,614,944	**$30,795,401**
Finance	$1,000,000	$1,160,000	$1,216,000	$1,300,000	**$4,676,000**
Public	$18,367,384	$22,579,162	$25,995,268	$29,191,429	**$96,133,243**
Residential	$10,958,319	$11,925,713	$12,865,769	$13,680,026	**$49,429,827**
WE&T	$2,590,000	$2,710,000	$2,820,000	$2,880,000	**$11,000,000**

Total System Benefits Forecast

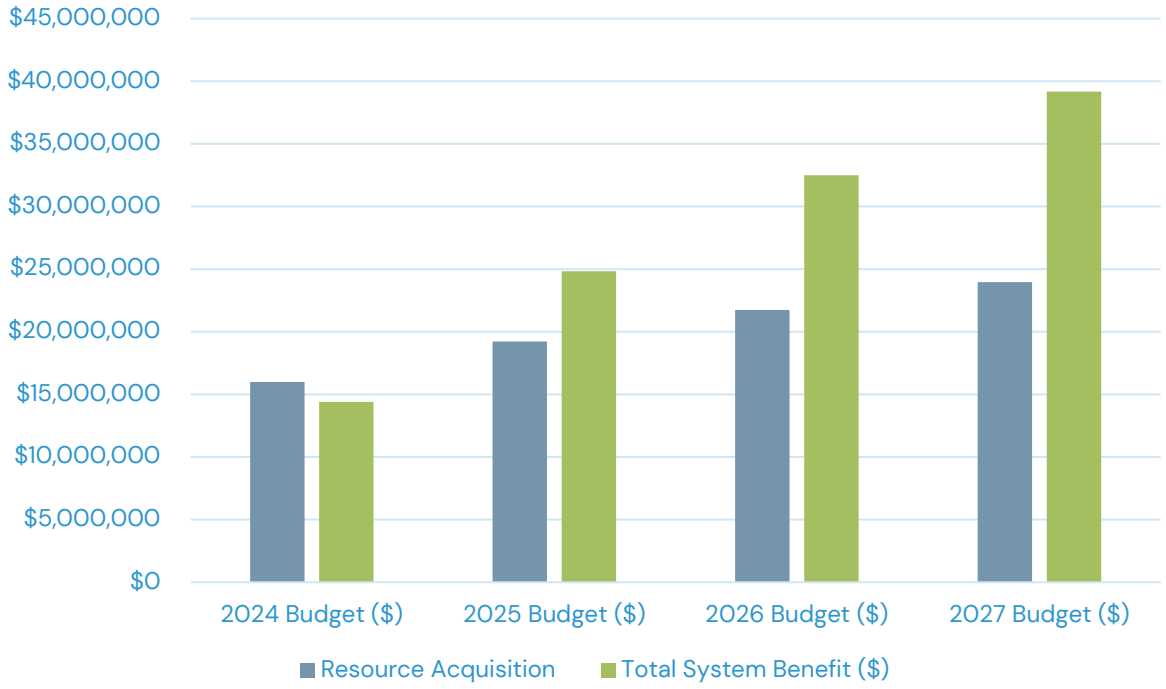
As presented above, SoCalREN will continue its proven approach to market support and equity program implementation but will complement its portfolio with resource acquisition programs designed to fill gaps in the portfolio and target hard to reach customers. These programs are designed to deliver total system benefits (TSB), which will increase over the four-year term of the proposed portfolio as shown in Table 13.

Table 13. Four-Year Portfolio TSB Forecast

Program Year	2024	2025	2026	2027	2024-2027 Total
TSB ($)	$14,397,271	$24,835,485	$30,288,042	$39,172,503	**$108,693,301**

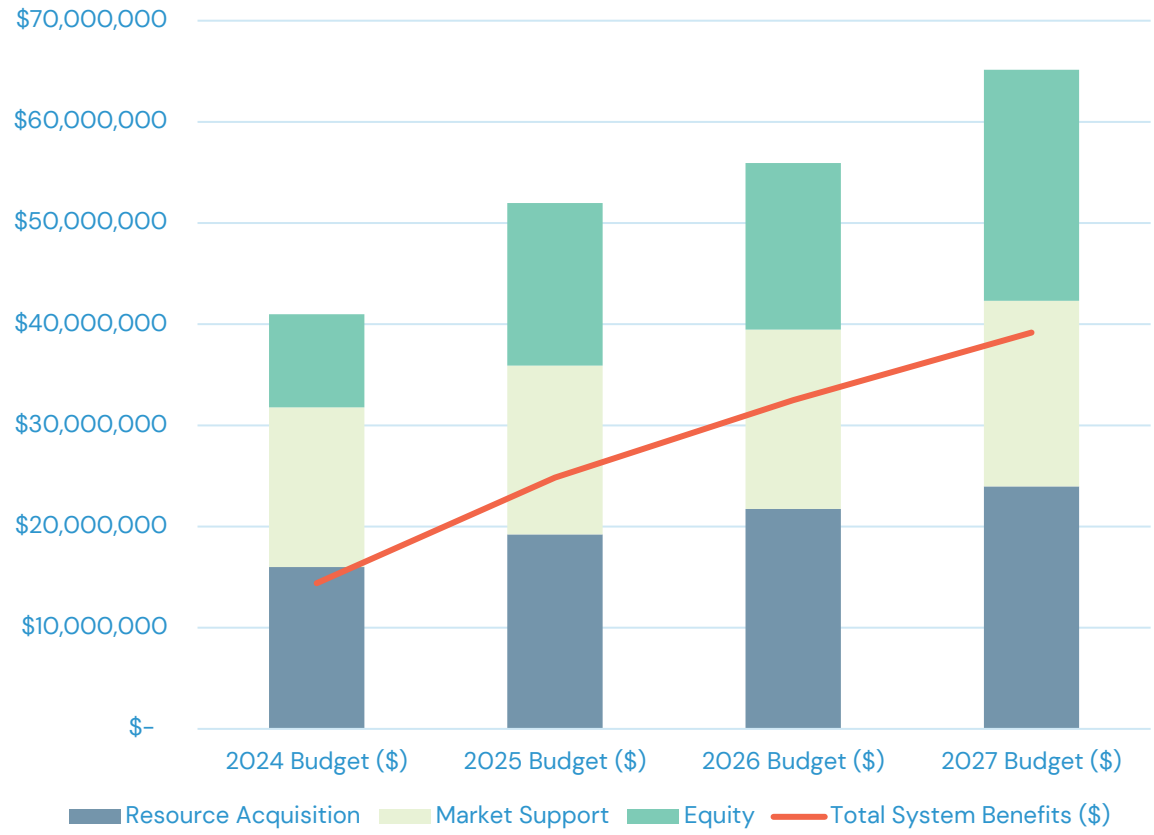
While resource acquisition program costs are expected to continue to grow, largely tied to incentive costs used to offset the growing costs and number of energy savings projects, SoCalREN is increasing TSB at a rate which is expected to exceed that of resource acquisition program costs. Figure 5 demonstrates that the portfolio will increase TSB over time while controlling costs allocated to resource acquisition programs. This trend is expected to continue beyond the initial four-year portfolio.

Figure 5. Forecasted TSB vs. Resource Acquisition Budgets



Once codes and standards non-resource activities, as well as equity and market support segments, are added, overall portfolio costs do exceed the TSB. This is due to an increase in spending in programs designed to meet the market support and equity functions as defined in D.21-05-031. Figure 6 shows increasing TSB over time from gap-filling resource acquisition programs while SoCalREN continues to offer a balanced portfolio of market support and equity program offerings.

Figure 6. Forecasted TSB vs. Segment-Level Budgets



Comparison of Projected TSB to Adopted TSB Goals

D.21-09-037 adopts 2022-2032 energy efficiency goals for Investor-Owned Utilities (IOUs) and instructs non-utility energy efficiency program administrators, including SoCalREN, to propose updated goals through the portfolio application process, which may be revised through true-up or mid-cycle advice letters. As such, SoCalREN proposes the updated goals listed above based on the proposed budgets included in this application.

Energy Savings Forecast

Sector and Portfolio-Level Energy Savings Forecast for all Segments

Overall, the SoCalREN portfolio will target 188.6 GWh, 86.1 MW, and 2,340,491 therms across the four primary sectors: Agricultural, Commercial, Public, and Residential. Sector and portfolio level savings forecasts for all segments are presented in Table 14, along with anticipated TSB and CO2-equivalent (CO2e) impacts. These values are taken as outputs from the CET files developed at the program level and rolled up at the sector and portfolio levels.

Table 14. SoCalREN Portfolio and Sector Forecasted Savings for All Segments

	2024	2025	2026	2027	TOTAL
Net GWh Savings	**23.7**	**43.2**	**56.9**	**64.6**	**188.4**
Agricultural	4.5	12.1	20.8	24.1	61.5
Commercial	0.5	1.2	1.3	1.5	4.5
Public	13.5	23.7	28.1	28.8	94.1
Residential	5.2	6.2	6.7	10.2	28.3
Net kW Savings	**9,043**	**18,257**	**27,776**	**30,995**	**86,071**
Agricultural	4,541	12,014	20,236	23,504	60,295
Commercial	59	99	69	78	305
Public	3,899	5,471	6,321	6,321	22,011
Residential	545	673	744	1,092	3,054
Net Therm Savings	**405,363**	**516,143**	**709,038**	**709,946**	**2,340,491**
Agricultural	36,954	73,908	110,861	118,252	339,975
Commercial	-130	42	52	62	25
Public	90,519	111,085	241,922	137,665	581,191
Residential	278,021	331,109	356,203	453,966	1,419,299
TSB ($)	**$14,397,271**	**$24,835,485**	**$30,288,042**	**$39,172,503**	**$108,693,300**
Agricultural	$2,433,217	$6,686,498	$9,117,756	$10,864,623	$29,102,094
Commercial	$173,244	$498,506	$527,028	$643,163	$1,841,941
Public	$4,919,503	$8,909,013	$10,968,906	$11,811,526	$36,608,948
Residential	$6,871,306	$8,741,469	$9,674,352	$15,853,191	$41,140,317
GHG (MT CO2e)	**6,088**	**11,068**	**13,673**	**15,992**	**46,821**
Agricultural	872	3,266	4,050	4,891	13,079
Commercial	59	174	187	248	668
Public	2,506	4,311	5,791	5,672	18,280
Residential	2,651	3,318	3,644	5,180	14,794

Program-Level Energy Savings Forecast for all Segments

Table 15 includes the annual forecasted energy savings (kWh, kW, and therms), as well as TSB and CO2e, for each program for all segments. SoCalREN programs that perform Market Support and Equity functions and do not claim energy savings are listed in Table 16.

Table 15. SoCalREN Forecasted Savings for Resource Acquisition Programs

	2024	2025	2026	2027	TOTAL
Resource Acquisition					
Agriculture Retrofit					
Net kWh	4,121,863	10,923,761	19,568,025	22,187,531	56,801,179
Net kW	4,510	11,953	20,145	22,841	59,450
Net therms	N/A	N/A	N/A	N/A	N/A
TSB ($)	2,056,750	5,656,186	7,819,903	9,306,266	24,839,105
CO2e	601	1,751	3,207	3,872	9,431
Water Infrastructure					
Net kWh	N/A	5,396,855	6,577,479	6,699,759	18,674,093
Net kW	N/A	515	666	636	1,818
Net therms	N/A	N/A	3,703	3,835	7,539
TSB ($)	N/A	2,087,537	2,880,790	3,276,532	8,244,859
CO2e	N/A	840	1,082	1,166	3,088
Metered Savings Program					
Net kWh	4,360,054	6,028,331	5,493,127	5,803,237	21,684,749
Net kW	652	904	826	873	3,254
Net therms	N/A	N/A	N/A	N/A	N/A
TSB ($)	1,936,984	2,775,111	2,656,929	2,944,141	10,313,165
CO2e	591	899	839	947	3,276
Streamlined Savings Pathway					
Net kWh	2,904,694	4,221,377	5,874,650	5,253,953	18,254,674
Net kW	404	546	1,228	675	2,853
Net therms	87,429	104,975	230,901	127,016	550,321
TSB ($)	1,729,723	2,334,593	3,271,210	3,166,021	10,501,547
CO2e	986	1,321	2,266	1,710	6,281
WB Comprehensive EE MF					
Net kWh	3,258,009	3,885,949	3,911,124	7,047,390	18,102,472
Net kW	238	283	285	567	1,373
Net therms	183,394	218,740	220,158	302,202	924,494
TSB ($)	5,705,256	7,238,427	7,721,614	13,548,513	34,213,809
CO2e	1,706	2,150	2,205	3,550	9,612

	2024	2025	2026	2027	TOTAL
Kits4Kids					
Net kWh	1,208,822	1,344,628	1,673,099	1,821,755	6,048,305
Net kW	16	18	22	24	79
Net therms	51,645	57,447	71,481	77,832	258,405
TSB ($)	638,639	773,322	1,035,219	1,191,942	3,639,121
CO2e	534	621	788	870	2,813
Small HTR Multifamily Direct Install					
Net kWh	804,767	1,028,314	1,199,632	1,393,508	4,426,221
Net kW	291	372	437	502	1,602
Net therms	42,982	54,921	64,565	73,933	236,401
TSB ($)	527,411	729,720	917,519	1,112,736	3,287,387
CO2e	410	547	651	761	2,369
Market Support					
WWSEM					
Net kWh	4,937,538	5,914,993	5,892,785	5,875,828	22,621,144
Net kW	2,589	3,134	3,121	3,113	11,957
Net therms	N/A	N/A	N/A	N/A	N/A
TSB ($)	999,572	1,281,806	1,338,244	1,388,591	5,008,212
CO2e	742	902	923	976	3,543
Equity					
Rural-HTR Ag DI					
Net kWh	377,505	1,123,972	1,184,324	1,879,573	4,565,375
Net kW	30	61	91	663	845
Net therms	36,954	73,908	110,861	118,252	339,975
TSB ($)	376,467	1,030,312	1,297,853	1,558,358	4,262,990
CO2e	271	1,515	843	1,020	3,648
Small Commercial DI					
Net kWh	229,500	382,500	255,000	286,875	1,153,875
Net kW	56	93	62	70	281
Net therms	N/A	N/A	N/A	N/A	N/A
TSB ($)	114,723	198,465	139,002	164,187	616,377
CO2e	29	53	36	44	162
FDEEE					
Net kWh	255,596	833,852	1,043,576	1,250,778	3,383,801
Net kW	3	5	7	8	23
Net therms	-130	42	52	62	25
TSB ($)	58,521	300,041	388,026	478,976	1,225,564

	2024	2025	2026	2027	TOTAL
CO2e	30	121	151	205	506
Rural-HTR Public Agency DI					
Net kWh	541,169	1,082,337	1,400,246	2,300,073	5,323,825
Net kW	47	94	124	263	528
Net therms	3,089	6,110	7,318	6,814	23,331
TSB ($)	136,963	272,106	357,834	550,759	1,317,662
CO2e	83	194	246	408	931
USSEM					
Net kWh	777,551	1,036,735	2,851,019	2,851,018	7,516,322
Net kW	208	277	762	761	2,008
Net therms	N/A	N/A	N/A	N/A	N/A
TSB ($)	116,261	157,860	463,900	485,482	1,223,502
CO2e	105	155	435	465	1,161

Table 16. SoCalREN Programs with no Savings

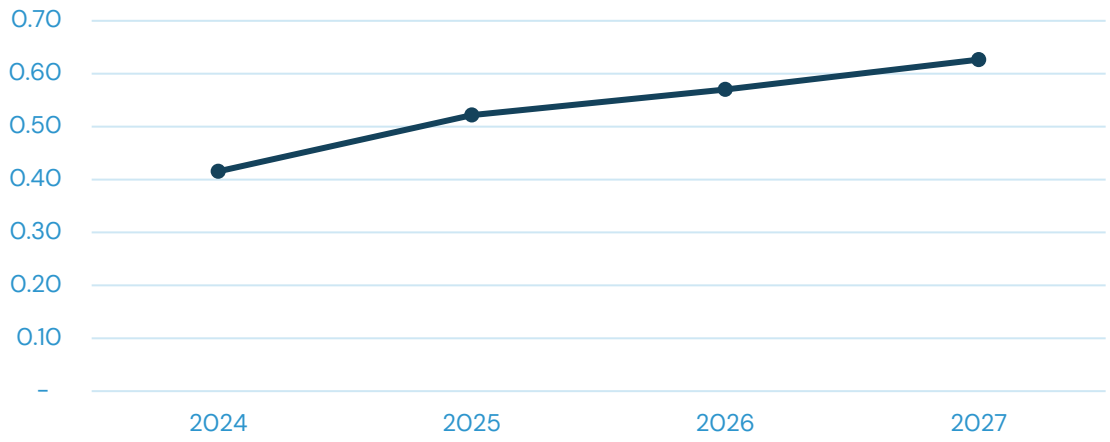
Market Support	Equity	Codes and Standards
• Agriculture PDP	• Public Agency RLF	• C&S Program
• CAGBN	• DER DAC	
• SMBEA	• ACES Pathway	
• Ag-Finance	• Green Path Careers	
• EE PDP		
• ERAP		
• Regional Partner Initiatives		
• WE&T Opportunity HUB		
• E-Contractor Academy		
• Agriculture WE&T		

Cost-Effectiveness Forecast

Despite a large decrease in the value of avoided energy costs which caused a significant reduction in program and portfolio TRCs starting in 2024, the SoCalREN portfolio can increase TRC over the course of the four-year cycle. This is largely tied to ramping up the new resource acquisition programs and launching the agricultural sector. The four-year portfolio annual TRC

forecast for resource acquisition programs illustrated in Figure 7 shows this increasing trend over the portfolio cycle.

Figure 7. SoCalREN Resource Acquisition TRC Forecast



TRC is largely driven by the resource acquisition programs, given the limited resource savings resulting from the market support, equity, and non-resource codes and standards programs which serve different policy objectives. As directed by the CPUC, SoCalREN resource acquisition programs target gaps in existing portfolios and activities IOUs cannot or do not undertake. TRC for the resource acquisition programs averages at 0.55 increasing to 0.63 by 2027.

Table 17 below also shows both TRC and PAC at the segment and portfolio level. Given that the SoCalREN Codes and Standards program does not claim energy savings, but rather increases the rate of code adoption, the portfolio TRC with and without Codes and Standards is the same.

Table 17. Projected Segment Cost-Effectiveness

Segment	2024-2027 TRC	2024-2027 PAC
Resource Acquisition	0.55	1.20
Market Support	0.06	0.07
Equity	0.12	0.13
Codes and Standards	N/A	N/A
Portfolio	**0.34**	**0.51**
Portfolio Without Codes and Standards	**0.34**	**0.51**

For resource acquisition programs, both TRC and PAC are anticipated to grow over the four-year program portfolio. Table 18 below shows the forecasted cost effectiveness of SoCalREN's gap-filling resource acquisition programs.

Table 18. Detailed Resource Acquisition Cost-Effectiveness

Resource Acquisition Sector	TRC				PAC			
	2024	2025	2026	2027	2024	2025	2026	2027
Agricultural	**0.77**	**0.83**	**0.82**	**0.84**	**2.36**	**2.88**	**3.36**	**3.21**
Agriculture Retrofit	0.77	0.83	0.82	0.84	2.36	2.88	3.36	3.21
Public	**0.29**	**0.41**	**0.44**	**0.46**	**0.88**	**1.35**	**1.34**	**1.27**
Metered Energy Savings	0.25	0.26	0.27	0.29	1.40	1.77	1.76	2.15
Water Infrastructure	N/A	0.86	0.86	0.90	N/A	1.00	1.03	1.07
Streamlined Savings Pathway	0.56	0.49	0.46	0.47	1.77	1.35	1.42	1.04
Residential	**0.46**	**0.52**	**0.54**	**0.67**	**0.63**	**0.73**	**0.75**	**1.16**
Multifamily Whole Building	0.49	0.56	0.59	0.74	0.76	0.91	0.96	1.61
Small HTR Multifamily	0.30	0.33	0.35	0.38	0.29	0.33	0.35	0.38
Kits4Kids	0.40	0.44	0.47	0.49	0.39	0.44	0.47	0.50
Portfolio Level	**0.42**	**0.52**	**0.55**	**0.63**	**0.79**	**1.12**	**1.21**	**1.44**

SoCalREN has also projected cost-effectiveness at the sector level for all segments combined. Both TRC and PAC are presented in Table 19 below. This is forecasted to include all segments including those which do not result in any energy savings (indicated as N/A).

Table 19. Projected Sector Cost-Effectiveness for all Segments

Sector	2024-2027 TRC	2024-2027 PAC
Agricultural	0.66	1.32
Codes & Standards	N/A	N/A
Commercial	0.05	0.06
Finance	N/A	N/A
Residential	0.56	0.83
Public	0.23	0.38
WE&T	N/A	N/A
Portfolio	0.33	0.50

2 FORECAST METHODOLOGY

While primarily focused on addressing market gaps and offering interventions that utility or CCA programs cannot undertake, SoCalREN will deliver significant TSB benefits to the market.

This section provides a detailed look at SoCalREN's bottom-up budget approach where zero-based budgets were developed at a program level, and then summarized at a sector level.

Zero-Based Budgeting

Table 20. SoCalREN 2024-2027 Budget Breakdown

Sector	Admin	Marketing	DINI	Incentives	2024-2027 Budget	2024-2027 TSB
Ag	$2,200,700	$1,320,420	$6,202,817	$12,283,068	$22,007,004	$29,102,094
Comm.	$2,402,458	$1,594,344	$10,530,490	$16,268,107	$30,795,399	$1,841,941
C&S	$298,000	$178,800	$2,503,200	N/A	$2,980,000	N/A
Finance	$375,700	$280,560	$4,019,740	N/A	$4,676,000	N/A
Public	$6,219,732	$5,704,995	$65,524,311	$18,684,205	$96,133,243	$36,608,948
Res	$816,285	$1,024,405	$12,526,917	$35,062,218	$49,429,826	$41,140,317
WE&T	$660,000	$660,000	$9,680,000	N/A	$11,000,000	N/A
Total	$12,972,875	$10,763,524	$110,987,475	$82,297,598	$217,021,477	$108,693,301

Figure 8 below shows that only 11 percent of the total budget will be for Admin and Marketing purposes. 38 percent of SoCalREN's budget will be allocated for incentives to customers and the remaining 51 percent will be purposed for direct implementation.

Figure 8. Overall Budget Percentage by Expenditure

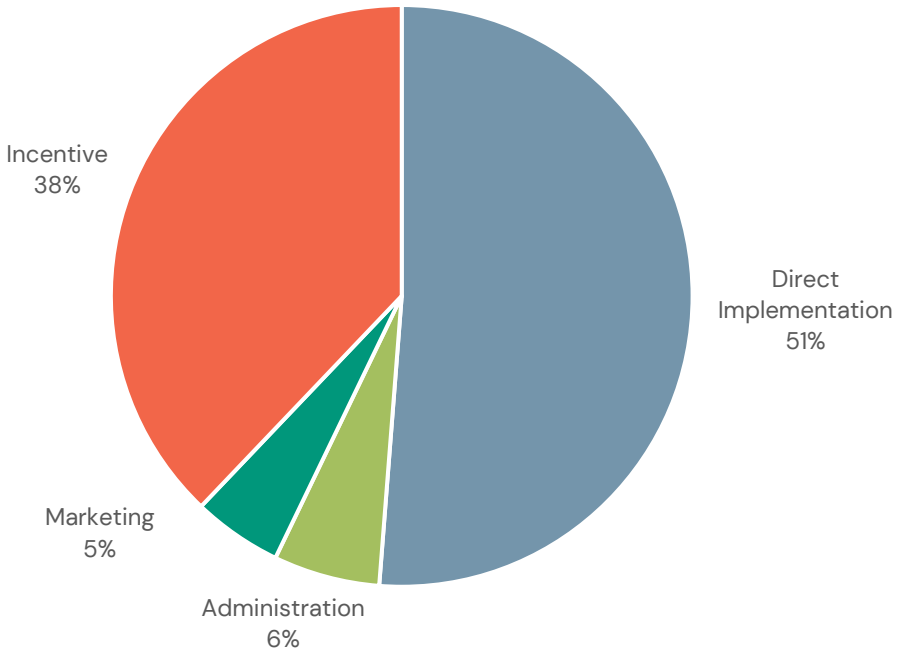


Table 21. Agricultural Sector Zero-Based Budgeting

	Task Description	2024 Cost	2025 Cost	2026 Cost	2027 Cost
Admin	Startup, Mgmt., & Admin	$53,596	$105,878	$131,021	$149,646
	Internal Policies/Procedures	$53,596	$105,878	$131,021	$149,646
	Reporting and Invoicing	$160,787	$317,633	$393,063	$448,938
	Admin (other)	N/A	N/A	N/A	N/A
	Subtotal	**$267,977**	**$529,389**	**$655,104**	**$748,229**
Marketing	Collateral, Website, etc.	$104,751	$213,643	$265,544	$304,656
	Outreach Events/Advertising	$56,036	$103,990	$127,519	$144,281
	Marketing (other)	N/A	N/A	N/A	N/A
	Subtotal	**$160,787**	**$317,633**	**$393,063**	**$448,938**
Direct Implementation	Customer Outreach	$114,029	$194,794	$233,105	$263,545
	Assessment	$379,539	$513,475	$590,806	$631,394
	Enrollment & Pre-Approval	$200,758	$359,137	$432,610	$493,490
	Procurement Support	$94,219	$150,162	$177,803	$198,097
	Implementation Support	$47,110	$75,081	$88,902	$99,048
	Post-Installation Support	$47,110	$75,081	$88,902	$99,048
	EM&V Support	$19,810	$44,631	$55,302	$65,448
	WE&T Support	N/A	N/A	N/A	N/A
	Contractor Support	$39,619	$89,262	$110,603	$130,897
	DINI Other	N/A	N/A	N/A	N/A
	Subtotal	**$942,193**	**$1,501,624**	**$1,778,032**	**$1,980,968**
Incentive	Customer Incentives	$1,308,822	$2,945,243	$3,724,845	$4,304,157
	Other Customer Incentives	N/A	N/A	N/A	N/A
	Other Incentive Costs	N/A	N/A	N/A	N/A
	Subtotal	**$1,308,822**	**$2,945,243**	**$3,724,845**	**$4,304,157**

Table 22. Codes and Standards Cross-Cutting Sector Zero-Based Budgeting

	Task Description	2024 Cost	2025 Cost	2026 Cost	2027 Cost
Admin	Startup, Mgmt., & Admin	$29,250	$21,600	$24,300	$24,000
	Internal Policies/Procedures	$26,000	$14,400	$16,200	$16,000
	Reporting and Invoicing	$9,750	$36,000	$40,500	$40,000
	Admin (other)	N/A	N/A	N/A	N/A
	Subtotal	**$65,000**	**$72,000**	**$81,000**	**$80,000**
Marketing	Collateral, Website, etc.	$19,500	$21,600	$24,300	$24,000
	Outreach Events/Advertising	$19,500	$21,600	$24,300	$24,000
	Marketing (other)	N/A	N/A	N/A	N/A
	Subtotal	**$39,000**	**$43,200**	**$48,600**	**$48,000**
Direct Implementation	Customer Outreach	N/A	N/A	N/A	N/A
	Assessment	N/A	N/A	N/A	N/A
	Enrollment & Pre-Approval	N/A	N/A	N/A	N/A
	Procurement Support	N/A	N/A	N/A	N/A
	Implementation Support	N/A	N/A	N/A	N/A
	Post-Installation Support	N/A	N/A	N/A	N/A
	EM&V Support	N/A	N/A	N/A	N/A
	WE&T Support	N/A	N/A	N/A	N/A
	Contractor Support	N/A	N/A	N/A	N/A
	DINI Other	$546,000	$604,800	$680,400	$672,000
	Subtotal	**$546,000**	**$604,800**	**$680,400**	**$672,000**
Incentive	Customer Incentives	N/A	N/A	N/A	N/A
	Other Customer Incentives	N/A	N/A	N/A	N/A
	Other Incentive Costs	N/A	N/A	N/A	N/A
	Subtotal	**N/A**	**N/A**	**N/A**	**N/A**

Table 23. Commercial Sector Zero-Based Budgeting

	Task Description	2024 Cost	2025 Cost	2026 Cost	2027 Cost
Admin	Startup, Mgmt., & Admin	$177,293	$221,479	$148,269	$295,848
	Internal Policies/Procedures	$138,876	$221,481	$147,064	$294,863
	Reporting and Invoicing	$210,917	$179,364	$143,207	$223,799
	Admin (other)	N/A	N/A	N/A	N/A
	Subtotal	**$527,085**	**$622,323**	**$438,540**	**$814,509**
Marketing	Collateral, Website, etc.	$166,575	$162,228	$129,266	$206,669
	Outreach Events/Advertising	$108,300	$115,868	$95,574	$144,279
	Marketing (other)	$53,876	$139,299	$82,960	$189,448
	Subtotal	**$328,751**	**$417,395**	**$307,801**	**$540,397**
Direct Implementation	Customer Outreach	$405,476	$405,707	$365,401	$496,348
	Assessment	$918,800	$678,558	$707,157	$798,700
	Enrollment & Pre-Approval	N/A	N/A	N/A	N/A
	Procurement Support	N/A	N/A	N/A	N/A
	Implementation Support	$53,876	$139,299	$82,960	$189,448
	Post-Installation Support	$180,917	$281,199	$258,640	$353,799
	EM&V Support	N/A	N/A	N/A	N/A
	WE&T Support	N/A	N/A	N/A	N/A
	Contractor Support	N/A	N/A	N/A	N/A
	DINI Other	$958,811	$1,132,664	$875,845	$1,402,078
	Subtotal	**$2,499,921**	**$2,590,994**	**$2,262,352**	**$3,177,224**
Incentive	Customer Incentives	$12,500	$14,000	$15,500	$17,000
	Other Customer Incentives	$875,000	$1,683,333	$1,683,333	$2,020,000
	Other Incentive Costs	$3,250	$3,500	$4,000	$4,250
	Subtotal	**$2,040,097**	**$4,672,541**	**$3,472,656**	**$6,082,814**

Table 24. Finance Cross-Cutting Sector Zero-Based Budgeting

	Task Description	2024 Cost	2025 Cost	2026 Cost	2027 Cost
Admin	Startup, Mgmt., & Admin	$22,500	$18,850	$19,760	$21,125
	Internal Policies/Procedures	$22,500	$18,850	$19,760	$21,125
	Reporting and Invoicing	$55,000	$49,300	$51,680	$55,250
	Admin (other)	N/A	N/A	N/A	N/A
	Subtotal	**$100,000**	**$87,000**	**$91,200**	**$97,500**
Marketing	Collateral, Website, etc.	$37,500	$43,500	$45,600	$48,750
	Outreach Events/Advertising	$22,500	$26,100	$27,360	$29,250
	Marketing (other)	N/A	N/A	N/A	N/A
	Subtotal	**$60,000**	**$69,600**	**$72,960**	**$78,000**
Direct Implementation	Customer Outreach	$210,000	$250,850	$262,960	$281,125
	Assessment	N/A	N/A	N/A	N/A
	Enrollment & Pre-Approval	$105,000	$121,800	$127,680	$136,500
	Procurement Support	$63,000	$73,080	$76,608	$81,900
	Implementation Support	$21,000	$24,360	$25,536	$27,300
	Post-Installation Support	$21,000	$24,360	$25,536	$27,300
	EM&V Support	N/A	N/A	N/A	N/A
	WE&T Support	N/A	N/A	N/A	N/A
	Contractor Support	$105,000	$121,800	$127,680	$136,500
	DINI Other	$10,315,000	$387,150	$405,840	$433,875
	Subtotal	**$840,000**	**$1,003,400**	**$1,051,840**	**$1,124,500**
Incentive	Customer Incentives	N/A	N/A	N/A	N/A
	Other Customer Incentives	N/A	N/A	N/A	N/A
	Other Incentive Costs	N/A	N/A	N/A	N/A
	Subtotal	**N/A**	**N/A**	**N/A**	**N/A**

Table 25. Public Sector Zero-Based Budgeting

	Task Description	2024 Cost	2025 Cost	2026 Cost	2027 Cost
Admin	Startup, Mgmt., & Admin	$402,658	$462,961	$521,155	$554,520
	Internal Policies/Procedures	$307,658	$360,761	$414,305	$447,841
	Reporting and Invoicing	$533,315	$643,520	$749,859	$821,183
	Admin (other)	N/A	N/A	N/A	N/A
	Subtotal	**$1,243,629**	**$1,467,241**	**$1,685,318**	**$1,823,545**
Marketing	Collateral, Website, etc.	$753,032	$929,563	$1,076,638	$1,211,025
	Outreach Events/Advertising	$307,010	$368,387	$422,879	$471,461
	Marketing (other)	$30,000	$40,800	$43,200	$51,000
	Subtotal	**$1,090,042**	**$1,338,750**	**$1,542,717**	**$1,733,486**
Direct Implementation	Customer Outreach	$1,378,138	$1,537,751	$1,678,164	$1,766,022
	Assessment	$3,530,000	$3,817,503	$4,346,500	$4,655,111
	Enrollment & Pre-Approval	$1,340,466	$1,269,005	$1,507,466	$1,715,112
	Procurement Support	$450,000	$479,000	$522,500	$553,393
	Implementation Support	$2,130,750	$2,502,180	$2,785,620	$2,935,700
	Post-Installation Support	$2,142,614	$1,975,186	$2,460,370	$2,859,325
	EM&V Support	N/A	N/A	N/A	N/A
	WE&T Support	$180,000	$191,600	$209,000	$221,357
	Contractor Support	N/A	N/A	N/A	N/A
	DINI Other	$2,847,033	$3,395,033	$3,807,212	$4,353,398
	Subtotal	**$13,999,000**	**$15,149,060**	**$17,316,832**	**$19,059,419**
Incentive	Customer Incentives	$1,561,912	$3,678,509	$4,315,680	$3,886,018
	Other Customer Incentives	$472,801	$945,601	$1,134,721	$1,889,977
	Other Incentive Costs	N/A	N/A	N/A	N/A
	Subtotal	**$2,034,713**	**$4,624,110**	**$5,450,401**	**$6,574,981**

Table 26. Residential Sector Zero-Based Budgeting

	Task Description	2024 Cost	2025 Cost	2026 Cost	2027 Cost
Admin	Startup, Mgmt., & Admin	$31,482	$28,824	$29,688	$19,112
	Internal Policies/Procedures	$60,088	$61,890	$63,747	$14,197
	Reporting and Invoicing	$123,251	$127,329	$131,113	$125,565
	Admin (other)	N/A	N/A	N/A	N/A
	Subtotal	**$214,820**	**$218,043**	**$224,548**	**$158,874**
Marketing	Collateral, Website, etc.	$114,259	$116,154	$225,565	$141,363
	Outreach Events/Advertising	$76,990	$77,965	$148,681	$123,427
	Marketing (other)	N/A	N/A	N/A	N/A
	Subtotal	**$191,250**	**$194,119**	**$374,246**	**$264,790**
Direct Implementation	Customer Outreach	$362,107	$381,374	$377,370	$259,333
	Assessment	$415,003	$444,701	$441,204	$298,988
	Enrollment & Pre-Approval	$519,220	$558,419	$558,490	$335,949
	Procurement Support	$200,244	$220,742	$208,221	$143,898
	Implementation Support	$597,846	$618,376	$615,861	$479,002
	Post-Installation Support	$416,495	$449,832	$444,326	$294,838
	EM&V Support	$312,067	$344,119	$318,106	$224,148
	WE&T Support	$160,921	$173,936	$165,335	$121,032
	Contractor Support	$268,241	$278,715	$270,479	$247,979
	DINI Other	N/A	N/A	N/A	N/A
	Subtotal	**$3,252,144**	**$3,470,213**	**$3,399,394**	**$2,405,166**
Incentive	Customer Incentives	$7,300,104	$8,043,338	$8,867,579	$10,851,197
	Other Customer Incentives	N/A	N/A	N/A	N/A
	Other Incentive Costs	N/A	N/A	N/A	N/A
	Subtotal	**$7,300,104**	**$8,043,338**	**$8,867,579**	**$10,851,197**

Table 27. WE&T Cross-Cutting Sector Zero-Based Budgeting

	Task Description	2024 Cost	2025 Cost	2026 Cost	2027 Cost
Admin	Startup, Mgmt., & Admin	$85,470	$81,300	$84,600	$86,400
	Internal Policies/Procedures	$60,606	$71,544	$74,448	$76,032
	Reporting and Invoicing	$9,324	$9,756	$10,152	$10,368
	Admin (other)	N/A	N/A	N/A	N/A
	Subtotal	**$155,400**	**$162,600**	**$169,200**	**$172,800**
Marketing	Collateral, Website, etc.	$85,470	$73,170	$71,064	$72,576
	Outreach Events/Advertising	$69,930	$89,430	$98,136	$100,224
	Marketing (other)	N/A	N/A	N/A	N/A
	Subtotal	**$155,400**	**$162,600**	**$169,200**	**$172,800**
Direct Implementation	Customer Outreach	$273,504	$286,176	$297,792	$304,128
	Assessment	$273,504	$286,176	$297,792	$304,128
	Enrollment & Pre-Approval	$273,504	$286,176	$297,792	$304,128
	Procurement Support	$227,920	$238,480	$248,160	$253,440
	Implementation Support	$250,712	$262,328	$272,976	$278,784
	Post-Installation Support	$205,128	$214,632	$223,344	$228,096
	EM&V Support	$227,920	$238,480	$248,160	$253,440
	WE&T Support	$273,504	$286,176	$297,792	$304,128
	Contractor Support	$273,504	$286,176	$297,792	$304,128
	DINI Other	N/A	N/A	N/A	N/A
	Subtotal	**$2,279,200**	**$2,384,800**	**$2,481,600**	**$2,534,400**
Incentive	Customer Incentives	N/A	N/A	N/A	N/A
	Other Customer Incentives	N/A	N/A	N/A	N/A
	Other Incentive Costs	N/A	N/A	N/A	N/A
	Subtotal	**N/A**	**N/A**	**N/A**	**N/A**

Program Modifications from 2023 Portfolio

Since its inception in 2013, SoCalREN has sought to fill critical gaps and overcome barriers through activities that align with the state's EE and climate goals. This experience has provided context in which lessons learned now inform the design of the 2024–2027 portfolio. SoCalREN's portfolio focuses on a comprehensive set of offerings that will help to aggressively drive energy savings and GHG reductions through energy efficiency. To obtain SoCalREN's goals it utilized lessons learned and research, to identify activities that should be continued due to their successes in the marketplace and eliminating strategies that were found to be overlaps and not cost effective. Specifically, SoCalREN will seek the following:

Agricultural Sector

New Strategies. SoCalREN aims to enter the Agricultural sector to serve the region's small and medium, rural, underserved Ag communities by providing technical support and resource interventions to address their energy needs. The DI and Retrofit programs will deliver persistent energy savings while the Project Delivery Program will provide project support to implement resource program recommendations.

Codes and Standards Cross-Cutting Sector

New Strategies. SoCalREN plans to enter the Codes and Standards sector in 2024 by engaging and supporting local governments on pathway to ZNE communities. The single Codes and Standards program will use a multi-pronged approach to assist in Advanced Energy Codes development to support local implementation.

Commercial Sector

New Strategies. SoCalREN will support small and medium businesses by providing a one-stop-shop for these customers through a suite of four commercial programs. The Food Desert Energy Equity program will support corner stores and small businesses within food deserts by providing more healthy food options and funding new energy-efficient refrigerators.

The California Green Business Network will assist small to medium sized businesses achieve green business certification while the DI Program will identify and install EE measures at small commercial facilities at no cost. The Energy Advisor Program will educate business owners about the value of energy efficiency and connect owners to programs.

Finance Cross-Cutting Sector

Continued Strategies. The existing Revolving Savings Fund program will provide upfront construction financing to support public agency energy upgrades.

New Strategies. In coordination with the new Agricultural sector, SoCalREN will leverage successes from the Public RSF program by offering a similar financing

product specifically designed to support underserved agricultural communities and customers participating within SoCalREN's Agricultural programs.

Public Sector

Continued Strategies. The portfolio will continue to build on its successful community engagement activities to inspire local energy action. SoCalREN's Public Sector Project Delivery Program fills market gaps, providing agencies with an integrated, objective, and comprehensive EE solution. Services include but are not limited to energy use analysis, audits, design performance specifications, scope of work support, incentive and financing application support, financial analysis, procurement assistance, and construction management support. Participants receive project management services through a single point of contact to guide them through the entire project implementation process.

New Strategies. This Business Plan also expands the target audience under the public sector to include federal agency customers and community college districts. These programs will also fill gaps with the transition to third-party programs by SCE and SoCalGas. The public sector budget has been increased to enable new programs and strategies to further drive the market to clean and resilient energy communities. In addition, SoCalREN will continue to pursue additional funding to supplement and enhance the intervention strategies in this Business Plan.

Residential Sector

Continued Strategies. SoCalREN is continuing its successful comprehensive multifamily resource program as it remains a significant underserved market. The program will incorporate new program design features including new incentive mechanism and will target 60% of sites to be qualified as DAC or HTR. Over the mid- and long-term, SoCalREN hopes to identify additional interventions that can help drive more cost-effective approaches, increased decarbonization, and increase customer participation particularly in disadvantaged communities. For a select subset of participating owners, whole building energy assessments will include targeted evaluations of Distributed Energy Resources (DERs) opportunities for the buildings to further reduce their carbon footprint and GHG emissions, such as solar PV and battery storage. The assessment will address resilience preparation and look at feasibility of a Microgrid for the property. The program will also direct opportunities that move forward to available state and local funding for DER and Microgrid projects. SoCalREN will also continue its Kits for Kids program which was successfully launched in 2021. The program provides energy-saving measures to families, along with a basic energy efficiency curriculum delivered in the classroom, while providing relief to families and educating future household decision-makers to continue practicing good energy management behaviors in their homes.

New Strategies. SoCalREN will launch a Small Hard-to-Reach Multifamily Program to focus on the unserved market of smaller, independently owned "mom and pop" buildings. Despite continued efforts to enroll such properties into SoCalREN's existing multifamily program, enrollment remains almost null as these customers are not as well capitalized as corporate property owners, lack the same financial and tax advantages, and do not have the same level of expertise to manage complex energy efficiency retrofits. These owners require a more turnkey approach with little to no cash outlay making direct install the best option for market success. SoCalREN's Small Hard-to-Reach Multifamily program provides energy efficiency measures to tenants and owners of very small, hard-to-reach multifamily buildings at no cost to the owner or tenants. The program uses the direct install delivery method to provide energy and cost saving measures to customers that are not typically served by current multifamily resource programs due to the relatively high cost of serving these very small properties, and the low energy savings per transaction. The program will result in simple energy efficiency upgrades that will save underserved owners and tenants money on their electric, gas and water bills. Additionally, through information and training provided by the program, small multifamily properties will become more aware of energy saving behaviors and practices to help ensure continued persistence of savings.

WE&T Cross-Cutting Sector

Continued Strategies. SoCalREN will continue to create a labor pipeline to strengthen the number and diversity of skilled local workers and contractors at all levels of the DSM and EE industry. We will do so by continuing to offer existing WE&T interventions E-Contractor Academy, Green Path Careers, and Architecture Construction Engineering Students (ACES) Pathway but as stand-alone programs starting in 2024.

New Strategies. The WE&T Business Plan strategies will focus on both systems and program development, as well as individual-level interventions to EE education, training, and career development. The intent is to address demand and supply-side interventions to train and place workers and contractors in the energy efficiency sector. Since training alone will not create EE job opportunities for disadvantaged populations, the SoCalREN strategies involve a multi-level approach including the WE&T opportunity HUB. In addition to offering existing interventions through multiple stand-alone programs, SoCalREN will offer a new Agricultural WE&T program that will build a local regional trade ally network of qualified Ag service providers to expand the implementation of cost-effective energy efficiency projects. SoCalREN envisions developing a reliable, diverse, and highly skilled workforce that can deliver high-quality Agricultural EE services to all segments of the Southern California through comprehensive and regional workforce education and training infrastructure.

Portfolio Administration vs. Program Implementation Costs

D.21-05-031[5] defines two types of costs: "program implementation" and "portfolio administration" costs. SoCalREN has designed its portfolio so that all program implementation activities, as defined in the Commission's decision, are carried out by third parties which are vetted through the County of Los Angeles' rigorous public solicitation process. As the program administrator of the SoCalREN portfolio, LA County activities are limited to portfolio administration costs only. SoCalREN has reviewed and accounted for all expenses for each year of the new four-year period at the portfolio level, after analyzing each function within the budget for its needs and costs. These costs have been embedded in the sector-level zero-based budgets listed above. These portfolio administration costs are capped at 10% of total budgets.

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[5] D.21-05-031, pages 32-35

3. PORTFOLIO SEGMENTATION STRATEGY

SoCalREN's portfolio delivers energy and climate impacts, builds energy capacity and economic resilience, and expands access to EE benefits. These core values are directly aligned with the Commission's segmentation of the EE portfolio. As such, SoCalREN's portfolio provides a balance of Market Support, Equity, and Resource Acquisition programs, as well as a small Codes and Standards program.

The ongoing pandemic has exacerbated racial and economic disparities[6] nationwide, necessitating an examination of whether programs aimed at helping utility customers cut energy costs are really reaching everyone[7]. SoCalREN believes PAs can ensure[8] EE program planning prioritizes people with the greatest energy insecurity[9], cutting their energy costs and improving their health and comfort while cleaning the air and staving off harmful climate impacts.

Strategies Driving Segmentation and Alignment with Portfolio

As recognized in D.21-05-031, Program Administrators face multiple challenges and pressures when balancing the various policy objectives of the energy efficiency proceeding. Past portfolios were designed to deliver the highest cost-effectiveness measures (low-hanging fruit), making

[6] https://www.npr.org/sections/money/2020/05/26/860913793/how-the-crisis-is-making-racial-inequality-worse

[7] https://poverty.umich.edu/research-publications/policy-briefs/a-multi-state-analysis-of-equity-in-utility-sponsored-energy-efficiency-investments-for-residential-electric-customers/

[8] https://www.nrdc.org/experts/lara-ettenson/energy-efficiency-reform-needed-reach-all-communities

comprehensive projects (high-hanging fruit) much more difficult to deliver upon, particularly in HTR and underserved communities where program delivery costs are higher. These portfolios often left out entire communities and customer sub-sectors as the costs of delivery, or of enabling participation by local businesses in the EE market, were too high.

Acknowledging the need to deliver upon market support and equity objectives in addition to, and separately from, cost-effective EE program portfolios was a critical step taken by the Commission to ensure those objectives are not deprioritized. The Commission specifically acknowledges the RENs' role in activities that support other programs and underserved segments. As public agencies, RENs are ideally positioned to administer programs that directly take on the large disparity in environmental justice for the most vulnerable communities to climate change and to support the availability of EE resources in those communities. SoCalREN's 2024-2027 portfolio directly pursues these objectives, but also focuses on delivering savings where IOU programs have not.

In recognition of these challenges and in accordance with D.21-05-031, SoCalREN created a balanced portfolio which aligns with its core values and with the Commission's objectives for RENs to serve HTR customers and to fill gaps within the EE portfolios. In determining its segmentation strategies, SoCalREN recognized that all three segments work together in coordination to deliver not only deep impactful savings but also long-term benefits that aim to drive the industry and its communities to a clean energy future. One or two segments alone could not achieve the state's objectives. Thus, SoCalREN considered the appropriateness of where those strategies fit in its portfolio segmentation and ensured that they were in direct alignment with our core values, defined in Figure 9.

Equity programs are designed in line with SoCalREN's objective to deliver EE to all. SoCalREN Equity programs align with D.21-05-031 and the final report of the CAEECC Equity Metrics Working Group. Equity programs were designed to serve HTR, rural, low-income, and DAC customers, and to advance the Commission's ESJ Action Plan.

Market Support programs are designed to bolster the long-term success of the EE market by working with customers; implementing a comprehensive WE&T offering; building partnerships to align parties toward EE in our communities, buildings, and facilities; and provide access to financing to enable more investments in EE.

Resource Acquisition programs deliver savings in targeted areas that utilities cannot or do not intend to undertake, and in HTR markets. SoCalREN's RA programs are designed to serve customers who have limited or no access to EE programs.

The **Codes and Standards** Compliance Enhancement program is designed to build local government capacity for the development, adoption and implementation of model energy codes, standards, and policies. SoCalREN will provide targeted resources and will help measure and analyze impacts.

Figure 9. Mapping of SoCalREN Core Values and CPUC Proposed Segments

Core Values/Goals	Portfolio Objectives and Outcomes	Segment
DELIVER ENERGY AND CLIMATE IMPACTS	Supporting activities with trackable energy savings and GHG reductions within the SoCalREN service area that contribute to local and state climate or sustainability goals. Increased energy & GHG reductions	RESOURCE ACQUISITION
EXPAND ACCESS TO EE BENEFITS	Expanding access to energy resources to enhance carbon reduction opportunities and other environmental outcomes for hard-to-reach markets including disadvantaged communities, rural areas, and underserved communities. Underserved communities gain increased access to EE benefits.	EQUITY
BUILD ENERGY CAPACITY & ECONOMIC RESILIENCE	Building long-term knowledge and skills for public agencies, contractors, and transition age youth through WE&T that leads to energy competency, policies or other infrastructure & helping local communities build long-lasting, strong, and self-sufficient economies.	MARKET SUPPORT
DRIVING ADVANCED CODES AND STANDARDS		

2024–2027 Budget Distribution by Segment

SoCalREN's proposed budget request for the first four-year portfolio cycle 2024-2027 is $217 million, It reflects a balanced portfolio that aligns with its core values and with the CPUC's objectives for RENs to serve hard-to-reach customers and fill gaps. The four-year budget allocates 30% of its resources to the equity segment, 32% to the market support segment, 37% to resource acquisition (RA), and 1% to codes and standards enhanced compliance. Within its resource acquisition budget, 45.7% account for incentives.

Resource Acquisition. This Resource Acquisition budget is the result of new programs to support current market gaps as well upward pressure from rising projects costs and incentives. Incentives are influenced by project costs, which are impacted by fluctuating market prices, making incentives difficult to predict based on historical data. Additionally, as SoCalREN prioritizes and implements strategies that directly target Hard-to-Reach customers high incentive caps will leveraged to ensure the barriers of EE projects is overcome.

Market Support. The market support budget reflects additional support activities necessary to drive realized savings in resource acquisition programs. Specifically new and existing programs that provide comprehensive one-stop energy efficiency services to increase adoption of energy efficiency by public agencies, agriculture, and commercial customers. In addition, the budget reflects tactics that build competency and energy efficiency leadership.

Equity. The equity program budgets reflect an emphasis that resources identified as equity remain inclusive in serving the disproportionately vulnerable communities facing the highest disparity in environmental justice. Budget allocations in the segment reflect high incentive caps as well as no cost project implementation serves for hard-to-reach and underserved segments (i.e., small commercial, rural, etc). Lastly, strategies aimed to help intensify diversity and support disadvantaged workers into the EE industry workforce.

Figure 10 and Table 28 summarize SoCalREN's estimated portfolio budget distribution by segment.

Figure 10. Distribution of Budget Among Segments for 2024-2027

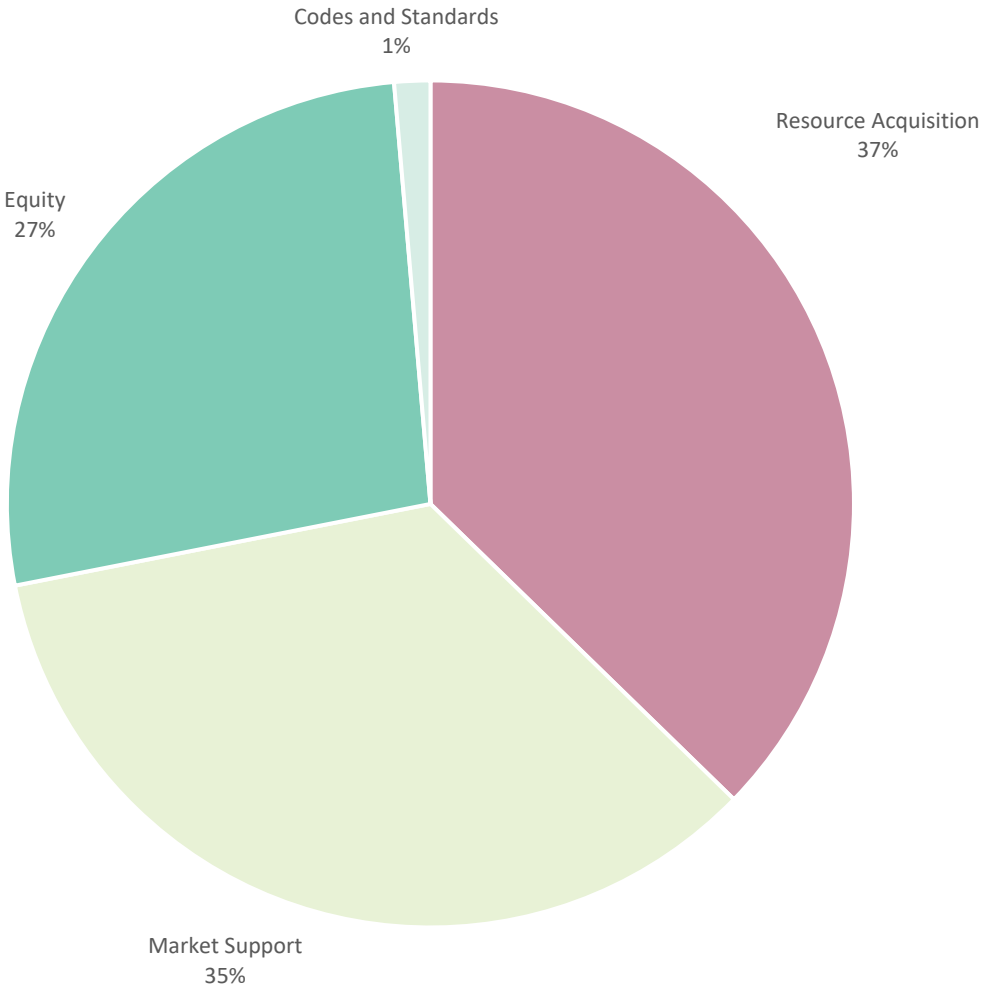

Table 28. Annual Budget Distribution by Segment

Segment	2024	2025	2026	2027	Total
Resource Acquisition	$15,990,543	$19,220,203	$21,741,532	$23,963,239	$80,915,517
Market Support	$17,318,094	$18,294,525	$19,423,646	$20,108,113	$75,144,378
Equity	$7,682,699	$14,457,290	$14,764,254	$21,077,339	$57,981,582
Codes and Standards	$650,000	$720,000	$810,000	$800,000	$2,980,000
Total	**$15,990,543**	**$19,220,203**	**$21,741,532**	**$23,963,239**	**$80,915,517**

Rationale for Program Placement

D.21-05-031 requires Program Administrators to include portfolio segmentation (Resource Acquisition, Equity, Market Support) based on the primary purpose of the program within their 2024-2027 application. The Commission has requested that all Program Administrators categorize all new and existing programs into either resource acquisition, market support, or equity programs, based on the primary objective of the program. The following section provides SoCalREN's four-year proposed portfolio segmentation for its existing and proposed new programs as well as the logic consideration for Commission approval.

SoCalREN makes note that although some programs may contain multiple aspects that fall within other segment categories; however, the primary purpose of the program is the determinant of the primary segment category in which its placed.

Resource Acquisition Programs and Rationale for Placement

Similar and in alignment with D.21-05-031, SoCalREN defines it resource acquisition segment and the programs identified as RA, as programs with a primary purpose of delivering avoided cost benefits to the electricity and natural gas systems and makes up the bulk of savings within SoCalREN's TSB goals. Each program is designed to achieve measurable energy savings during the portfolio period and thus categorized as resource acquisition.

Table 29. Resource Acquisition Segmentation by Sector and Logic

Sector	Program Name	Logic for Category Selection
RES	Whole Building Comprehensive Energy Efficiency Multifamily Program	• Primary resource program that serves large to medium multifamily properties (greater than 50 units). • Designed to achieve deep energy comprehensive retrofits thus savings claims are prioritized • Secondary label could be equity; however, the program is not limited to HTR/DACs but seeks to achieve the majority of savings in DACs through targeted marketing and outreach • Program provides outreach tools and resources to non-English speaking customers to aid understanding and increase participation among HTR customers throughout the territory
RES	Kits4Kids	• Primary objective is to educate school-age children and to drive action; direct self-installation of EE measures provided through energy savings Kits distributed through participating schools • Over the long term, deeper energy savings is achieved through behavioral changes rooted in the educational materials and in-home activities provided by the program • Program serves both multifamily and single-family customers; not limited to HTR customers
RES	Small Hard-To-Reach Multifamily Direct Install Program	• The primary objective of this program is to provide energy efficiency measures to tenants and owners of small, hard-to-reach (HTR) multifamily buildings at no cost to the owner or tenants. The program uses the direct install delivery method to provide energy and cost saving measures. • A secondary objective of the program is to deliver information and training to increase awareness of energy saving behaviors and practices within the property to help ensure continued persistence of savings. • This program targets DAC/HTR properties multifamily buildings and is limited to multifamily properties with less than 50 units that are owned by individuals rather than large real estate investment corporations. • Program provides outreach tools and resources to non-English speaking customers to aid understanding and increase participation among HTR customers throughout the territory • Secondary segment category labeled as equity
PUBL	Metered Savings Program	• The primary objective of this program is to drive deep energy retrofits and optimize facility usage in the public sector • Not limited to HTR but prioritized for DACs, low income, and rural serving facilities

Sector	Program Name	Logic for Category Selection
PUBL	Streamlined Savings Pathway Program	• The primary objective of this program is to generate persistent and long-term electric savings and greenhouse gas (GHG) emissions reductions through EE retrofit projects and increase program participation in underserved communities by offering enhanced monetary incentives to fund energy upgrades • Not limited to HTR but prioritized for DACs, low income, and rural serving facilities
PUBL	Water Infrastructure Program	• The primary objective of this program is to provide effective deemed and custom solutions that require multiple years to fully develop and implement. • Solutions from this program cannot be undertaken by utilities as they are more complex and time intensive projects. • Not limited to HTR but prioritized for DACs, low income, and rural serving facilities
AG	Agriculture Retrofit	• The primary objective of this program is to offer comprehensive and customized project management and technical engineering services to implement cost-effective and streamlined energy efficiency projects. • Prioritized for small and medium-sized underserved Agricultural customers • Not limited to HTR but prioritized for DACs, low income, and rural serving facilities • Secondary segment category labeled as equity

Market Support Programs and Rationale for Placement

SoCalREN defines its programs labeled as market support as programs with a primary objective of supporting the long-term success of the energy efficiency market by educating customers, training contractors, building partnerships, or moving beneficial technologies toward greater cost-efficiency. In addition, SoCalREN defines market support programs as programs with intervention strategies that help overcome barriers to EE and provide support services that move projects to completion that would otherwise not have been done without this support thus resulting in realized savings either for its own programs or in support of other PA programs. These efforts help support the entire industry.

Table 30. Market Support Segmentation by Sector and Logic

Sector	Program Name	Logic for Category Selection
PUBL	EE Project Delivery Program (PDP)	• Provides comprehensive, start-to-finish project management, technical, and financial services needed to drive a public agency EE projects from inception to completion. Not limited to HTR or DAC.
PUBL	Energy Resiliency Action Plan (ERAP)	• Provides agencies with a guiding document to protect their communities from climate and energy-related threats by identifying energy supply and usage patterns, GHG emissions, grid reliability concerns, and best opportunities for EE and DER actions. Not limited to HTR but prioritized for DACs, low income, and rural agencies.
PUBL	Regional Partner Initiatives	• Gives Reginal Partners a streamlined application process and an outlet for new and creative strategies, offering an opening to create more customized services, to address public sector market gaps, and fulfill unique regional needs. The program also intends to build trust and increase participation in energy efficiency programs. Not limited to but focused on underserved communities.
PUBL	Water & Wastewater Strategic Energy Management	• Intended to build agency capacity to identify and implement high opportunity short-term, low-cost measures as well as capital measures yielding significant energy efficiency (EE) and peak demand reduction to support program and state goals. Not limited to HTR but prioritized for DACs, low income, and rural agencies.
AG	Agriculture Project Delivery Program (PDP)	• Provides all the support services need to drive agricultural EE project to inception to completion. Not limited to but prioritized for HTR and DAC customers.
COM	California Green Business Network Program	• Educates customers to engage in long-term sustainable energy actions through the support and enhancement of the existing CAGBN and promote establishing partnerships to facilitate outreach and added value to all participants. Not limited to HTR but prioritized for DACs, low income, and rural customers.
COM	Small & Medium Business Energy Advisory	• Improve awareness and understanding among SMBs of the relationships between energy use, energy costs, and business operations and financial goals, as well as increase access to capital resources for funding energy projects. Limited to SMB.
AG	Agriculture Finance Program	• The primary objective of this program is to provide revolving loan funds to provide bridge funding to fill the gap between OBF payment and contractor payment. Not limited to but prioritized for HTR and DAC customers

Sector	Program Name	Logic for Category Selection
WE&T	E-Contractor Academy	• The primary objective of this program is to educate, train and support small businesses that are classified as SWMDVBEs, minorities and disadvantaged workers (which include youth, at-risk populations, homeless, returning citizens) within the EE industry or to enter the industry. The E-Contractor Training Program and Academy prepares small and diverse contractors to compete for and perform energy efficiency projects throughout Southern California. Not limited to small business or SWMDVBEs but prioritized.
WE&T	WE&T Opportunity Hub	• The WE&T HUB serves to organize the infrastructure needed to connect SoCalREN's small and minority contractors and disadvantaged workers to capacity-building resources and opportunities- a one-stop shop (virtual and physical) community resource providing high visibility and access to energy efficiency (EE) consumer information, training, and networking opportunities.

Equity Programs and Rationale for Placement

SoCalREN defines equity programs as programs with a primary purpose of providing energy efficiency strategies to hard-to-reach or underserved customers and disadvantaged communities. And similarly, should be in alignment with advancing the Commission's Environmental and Social Justice (ESJ) Action Plan. In addition, SoCalREN believes resources allocated to equity segmented programs should be limited to those labeled as hard-to-reach, underserved, disadvantaged or vulnerable community members. Ensuring that there is exclusivity in programs and that resources are targeted to these individuals and communities ensures that the disparity of environmental justice is addressed.

Table 31. Equity Segmentation by Sector and Logic

Sector	Program Name	Logic for Category Selection
PUB	DER DAC Program	• Supports HTR or underserved (DAC, rural, and low-income) public agencies on their path to ZNE by providing comprehensive, start-to-finish project management, technical, and financial services needed to drive public agency EE projects to completion while also providing educational information and high-level resources on DER and sustainability strategies • Limited to public facilities in DAC, rural, and low-income • This program through non-CPUC funds, supports the incorporation of technical services that go beyond EE and drive the uptake of DERs in DACs, rural, and low-income communities and advance the goals of the ESJAP • Secondary label could be market support
PUB	Rural-HTR Public Rural-HTR Public Agency DI	• Enables smaller, underserved public agencies to overcome barriers to achieve no-cost electric energy savings through a turnkey approach, including, equipment purchasing, installation, recycling, and disposal. • Limited to small and or rural, underserved public agencies.
PUB	Underserved Schools Strategic Energy Management	• Develop, implement, and maintain comprehensive SEM programs for one or more facilities classified as underserved within a school district through a multi-year engagement. • Limited to HTR, DAC, low Income, rural, and Title 1 K-12 school districts and community college districts.
AG	Local Agricultural Direct Install	• Lifts the burden of upfront cost and technical knowledge from Ag customers by providing technical assistance and direct install services, working with technology providers, distributors, and contractors to advance cost effective EE measures.

Sector	Program Name	Logic for Category Selection
		• Limited to underserved DAC and Rural Hard-to-Reach customers- who struggle to compete with consolidation and efficient grow process that larger companies have already implemented.
COMM	Small Commercial Direct install	• Deliver energy savings through prequalified energy efficiency deemed measures in small HTR commercial facilities • Contractors will be prequalified through SoCalREN's Commercial WE&T training. • Limited to HTR/ small commercial facilities.
COMM	Food Desert Energy Efficiency Equity	• Offer turn-key efficiency support and healthy food education to eligible HTR small businesses, by helping them replace existing inefficient refrigerators with new efficient models, to be filled with healthy food. • Limited to small and medium HTR commercial customers that sell or distribute food.
FIN	Public Agency Revolving Loan Fund	• The primary objective of this program is to support the expedited implementation of projects in the public sector when capital is not readily available • Limited to HTR/DACs, low income, and rural serving facilities • Secondary label could be market support
WE&T	WE&T Agriculture	• The primary objective of this program is to build a trade ally network of qualified Ag service providers to expand the implementation of agricultural energy efficiency projects. • The program will aim to increase entry-level skills training and job opportunities for disadvantaged workers by 50 percent.
	Architecture Construction Engineering Students (ACES)	• The primary objective of this program is to engage, expose, and challenge students to explore architecture, engineering, and construction careers with a focus on Energy Efficiency by capitalizing on public works investment, community college STEAM course offerings and strong industry participation. • Schools are identified by Title I determination where most students are classified as disadvantaged.
	Green Path Careers	• This program's overarching objective is to help at-risk youth and disadvantaged workers (adults) ingress emerging, thriving, and rewarding careers of the sustainable economy, by teaching them skills required in the high-growth energy efficiency industry. • Limited to at-risk youth and disadvantaged worker adults

Codes and Standards Program and Rationale for Placement

SoCalREN's codes and standards program fills a gap in IOU portfolios by working through public agencies to enable the adoption of codes and standards in areas that are not currently being reached. The SoCalREN codes and standards segment approach leverages local government regulatory authority over construction and land use to drive energy efficiency in and the implementation of model codes, standards, and policies that will improve the energy performance of existing buildings and new construction. The program is placed under codes and standards segment as directed in D.21-05-031.

Table 32. C&S Segmentation by Sector and Logic

Program Name	Logic for Category Selection
Codes and Standards (C&S)	• Provides targeted resources & tools to local governments and contractors and property owners, using data analysis to identify gaps. It would also provide agencies with access to a shared "Ombudsman" for technical advice and assistance. • To develop and adopt model energy codes, standards, and policies through end-to-end support to develop and adopt advanced energy codes, building performance standards, and benchmarking ordinances. • Measuring compliance, enforcement, and code-development by organizing and standardizing C&S data for policy makers and practitioners.

Resource Acquisition

Strategies, Goals, and Outcomes

SoCalREN's Resource Acquisition strategies focus on delivering impactful energy savings that are measured through its TSB. These strategies include leveraging innovative below code methodologies such as NMEC as well custom and direct install. In addition, these strategies reflect models that will be developed into best practices and if successful could be replicated by other PAs and or sectors. Last each strategy overcomes identified barriers and/or fills gaps within the designated sector that fulfill the purpose of this segment category. Table 33 provides an overview of these strategies and their attributable outcomes, further details on each program can be found in the Portfolio sector section(s).

Table 33. SoCalREN Four-Year Portfolio Resource Acquisition Strategies and Outcomes

Agricultural Sector

Ag Retrofit Program

Strategies

- Collaborate & enroll through a comprehensive a trade ally network
- Establish key relationships with key influencers to agricultural EE adoption (e.g., Farm Bureau energy champions)
- Provide comprehensive EE engineering services (audit, assessment, PFS) that remove barriers to EE project implementation
- Provide key RFP development, procurement support, construction, and commissioning support)
- Provide turnkey technical assistance and financial options support
- Utilize a customer centric approach that addresses the diversity in the agriculture sector so that all types of ag customers can leverage program services
- Provide marketing , education, and outreach regarding the benefits of EE on AG systems

Outcomes

- Remove cost and technical barriers to implement EE measures within the agriculture sector
- Increased energy savings within rural and hard-to reach agriculture customers
- Increased market adoption of uncommon EE technologies for this segment due to marketing , education, and outreach regarding the benefits of EE on AG systems
- Comprehensive installed for EE projects on AG systems
- Customers understand energy and GHG impact of their equipment
- Increase trade ally enrollment by 5% per year
- Customer staff considers EE prior to their procurement process for new equipment

Public Sector

Public Agency Metered Energy Savings Program

Strategies

- Provide overview of eligible SoCalREN commercial programs
- Serve as primary method of market entry and single point of contact for coordination of SoCalREN Commercial Sector program services
- Provide Project Management services for any and all projects developed through SoCalREN Commercial Sector programs
- Provide financial planning services focused on the participant's energy costs and financing options for energy efficiency projects
- Perform financial analysis for specific energy savings opportunity & external microloan applications (external funding source)
- Support preparation of loan application

Outcomes

- Deep energy savings achieved capturing stranded savings that sit below code
- Performance based savings achieved
- Identify and develop pipeline of viable projects with deep, persistent EE and GHG savings
- Streamlined protocols and best practices in implementation with in NMEC standards that can be replicated and scaled in other sectors
- A persistence in savings realized in public agency facilities
- Overcome barriers of public agencies deploying uncommon EE measures due to NMEC applicability and incentives

Streamlined Savings Pathway

Strategies`

- Regional Partner led business education about benefits of sustainability/EE improvements and available resources to local communities
- Multi-language customized outreach and marketing to individual businesses regarding EE
- Green Business Coordinators deliver walk-through facility audits to eligible SMB
- Coordination with SoCalREN Commercial DI program and other partner programs
- Offer direct incentives to implement larger EE upgrades
- Guide eligible SMB through CAGBN certification/re-certification process
- Support promotion of achievements of businesses offered through CABGN

Outcomes

- Increased number of completed EE projects with claimable savings
- Reduced project lifecycle
- Development of best practices for an incentive-based resource program that can be replicated by other PAs and or scaled
- Eliminates the time value of money loss per project

Water Infrastructure Program

Strategies

- Implement high opportunity capital measures yielding significant energy efficiency
- Target facilities that have significant stranded savings due to aging equipment
- Reduce water/wastewater plant operating costs relative to a pre-enrollment baseline
- Leverage SoCalREN's EE PDP comprehensive project support services
- Ensure energy goals are integrated systematically into standard operating procedures and agency decision making processes

Outcomes

- By deploying high opportunity capital measures yielding significant energy efficiency
- Remove project implementation barriers for water/wastewater facilities resulting in an exponentially number of projects completed
- Long-term persistence of savings achieved due to integration of EE into SOP for water/wastewater facilities

Residential Sector
Whole Building Comprehensive Energy Efficiency Multifamily
Strategies

- Single Point of Contact to manage property and contractor relationships
- Provide custom solutions tailored to property and each project
- Comprehensive measure set that includes electric, gas and water efficiency measures
- Provide Energy savings assessments based on energy modeling
- Build long term relationships with decision makers and their service providers; understand their drivers and track rehab cycles, provide project management support
- Provide comprehensive property assessment reports that identify in-unit and common area measures
- Provide Technical assistance and Incentives to multifamily owners for EE for both common arear and in unit installs
- Leverage non-CPUC funds such as grants to provide incentives for MF DER implementation
- Provide training materials, informative content, videos, and in person training to both tenants and property staff

Outcomes

- Increased program awareness of Multifamily Program offering reduced hesitancy and concerns about participation
- Deeper level of understanding of energy savings opportunities for MF property owners
- Increased participation by multifamily properties
- Program energy savings goals achieved
- Increased comfort level and understanding of technical and economic feasibility of energy efficiency (including DER investments)
- Increased operational efficiency of multifamily buildings and common unit systems
- Increased energy and utility cost savings for residents and property owners

Small HTR Multifamily Direct Install

Strategies

- Target small “mom & pop” multifamily property owners with total units of less than 50
- Provide a multi-language Single Point of Contact to manage relationships with property owners
- Provide wrap-around project support services from identification to development to completion
- Direct installation of approved deemed measures for common area and in-unit applications
- Provide project close out documentation and information materials for property owner and or maintenance manager
- Provide marketing, education and outreach materials not only for property owners but for their residents on EE cost and energy savings benefits.

Outcomes

- Increased Hard-to-reach small multifamily properties EE projects
- Increased energy and cost savings for Hard-to-reach small multifamily residents
- Increased number of small business contractors able to participate in EE MF sector due to the DI nature of program and small property type
- Increased number of non-English primary speaking property owners deploying EE projects
- Long-term persistence of savings achieved by participating properties
- More MF residents aware of EE benefits and programs and see out even more savings opportunities

Kits4Kids

Strategies

- Targeted outreach to school districts in DACs
- Provide user-friendly energy efficiency information and family activities
- Leverage a web-based tool and game that engages a young audience
- No cost electric, gas and water efficiency measures distributed through participating schools/classrooms
- Classroom grants provided if class participation goals achieved
- Ensure outreach and participation in areas that serve diverse, disadvantaged and low-income communities'
- Measure delivery directly to residential customers and collect data on EE measures installed as well as household info

Outcomes

- Increased awareness of the cost savings benefits from energy efficiency equipment for both school age children and their families
- Immediate energy and utility cost benefits to residential customers through lower utility bills after measures are installed
- Developing energy champions at a school age so future EE opportunities are sought after
- Building awareness on EE benefits through schools thus driving them to also be energy champions within their communities through their facilities

Metrics

To properly measure and ensure accountability of segment progress toward meeting portfolio objectives, SoCalREN's 2024-2027 portfolio proposes a set of key metrics for the resource acquisition segment portfolio. To properly monitor progress toward the desired outcome over time, the metrics will rely on qualitative and quantitative data collected, tracked, and verified as part of SoCalREN's data requirements and CPUC CEDARs reporting.

Table 34 summarizes SoCalREN's metrics for the RA segment and the attributed metric source as well as the expected implementation horizon.

Table 34. SoCalREN Resource Acquisition Metrics

Metric	2024 Target	2025 Target	2026 Target	2027 Target
kWh Claimed	16,658,209	32,829,215	44,297,135	50,207,133
kW Claimed	6,110	14,592	23,608	26,118
Therms Claimed	365,450	436,084	590,807	584,818
GHG (MT CO2e)	11,805	23,265	31,393	35,581

Market Support

Strategies, Goals, and Outcomes

SoCalREN's Market Support strategies focused on delivering project support services that result in the realization of impactful energy savings. In addition, SoCalREN's market support segment strategies have been designed to build capacity within the industry through key WE&T strategies as well as focused engagement and advisement practices that build capacity & competency within the segment. In addition, these strategies reflect models that will be developed into best practices and if successful could be replicated by other PAs and or sectors. Last each strategy overcomes identified barriers and/or fills gaps within the designated sector that fulfill the purpose of this segment category. Table 35 provides an overview of these strategies and their attributable outcomes; further details on each program can be found in the Portfolio sector section(s).

Table 35. SoCalREN Four-Year Portfolio Market Support Strategies and Outcomes

Agricultural Sector
Agriculture Project Delivery Program
Strategies
• Establish key relationships (e.g., Farm Bureau, UC Davis, etc.) • Leverage and coordinate with SoCalREN Public Sector to enroll agriculture customers • Collaboration & enrollment through a comprehensive trade ally network • Provide comprehensive EE engineering services (audit, assessment, PFS) • Provide full scale comprehensive project support services that include but not limited to: • Provide RFP development, procurement support, construction, and commissioning support) • Utility incentive application support and reporting • Turnkey technical assistance & financial support • Benchmarking services
Outcomes
• Increased number of realized savings in RA programs

- Customer overcomes project implementation barriers resulting in an increasing number project completion as opposed to project lifecycle drop-off
- Larger scale of attributable savings achieved that are funneled to RA programs
- Increased number of shovel ready projects that can either leverage OBF programs or non-CPUC funding (i.e., federal funding)
- Agriculture program implementation best practices developed which can be scaled or replicated by other PA programs

Agricultural Finance Program

Strategies

- Provide education and outreach regarding the available financing sources including CPUC and non-CPUC funding
- Provide short bridge funding financing that then results in leveraging LT OBF
- Assist in identifying external Funding (e.g., Federal & State grants/loans, EPIC, DOE, etc.) where applicable to a project
- Collect data by track funding distributed by program & measure
- Utilize a customer centric approach so that small and rural customers are provided all the necessary support to overcome barriers of EE implementation

Outcomes

- Financing program serves as a catalyst thus driving an increased number of EE projects and savings within the AG sector
- Assists small and rural customers overcome the lack of capital barriers thus driving more EE projects within this HTR category of customers

Commercial Sector

CA Green Business Network Program

Strategies

- Regional Partner led business education about benefits of sustainability/EE improvements and available resources to local communities
- Multi-language customized outreach and marketing to individual businesses regarding EE
- Green Business Coordinators deliver walk-through facility audits to eligible SMB
- Coordination with SoCalREN Commercial DI program and other partner programs
- Offer direct incentives to implement larger EE upgrades
- Guide eligible SMB through CAGBN certification/re-certification process
- Support promotion of achievements of businesses offered through CABGN

Outcomes

- Increased of small/medium businesses certified through CAGBN
- Operational costs achieved for local businesses
- Businesses become community energy champions and adopt more sustainable practices in their operations

- Local governments are supported by local businesses to meet local climate action targets/state GHG targets
- Increased number of businesses participate in SoCalREN and IOU partner RA commercial programs thus resulting in an increase in realized savings

Small & Medium Business Energy Advisor (SMBEA)

Strategies

- Provide overview of eligible SoCalREN commercial programs
- Serve as primary method of market entry and single point of contact for coordination of SoCalREN Commercial Sector program services
- Provide Project Management services for any and all projects developed through SoCalREN Commercial Sector programs
- Provide financial planning services focused on the participant's energy costs and financing options for energy efficiency projects
- Perform financial analysis for specific energy savings opportunity & external microloan applications (external funding source)
- Support preparation of loan application

Outcomes

- SMBEA Program Launch, program design and adjustments per market need
- SMBEA manages inter-program coordination and project management support for SoCalREN commercial sector programs
- SMBEA responsible for >50% of all participants enrolling in Commercial Sector programs
- Financial planning services leveraged by customers to reduce energy costs
- SMBEA Program increases participation from businesses in EJ communities with customized services and targeting marketing & outreach
- SMBEA responsible for 60% of all participants enrolling in Commercial Sector programs
- SMBEA/Commercial Sector participants achieve an average energy cost reduction of 10%
- SMBEA Program incorporates financing application support for other financing products into program services
- Small and medium underserved commercial market leverages energy savings from equipment purchased through SMBEA to replace other inefficient appliances

Public Sector

Energy Resiliency Action Plans (ERAP)

Strategies

- Research & leverage existing tools, templates, and data related to grid resilience/reliability, hazards, carbon reduction goals, disadvantaged community status, etc.
- Engage agencies across departments and key community partners on priorities & opportunities for community-wide energy and resiliency planning
- Establish agency's energy, resiliency, and carbon reduction related goals
- Conduct agency resiliency and energy baseline assessment using valuation criteria and available agency data

- Identify resiliency targets and measures for critical operations and infrastructure
- Identify energy efficiency targets and measures to complement resiliency strategy
- Draft governing board ready ERAP incorporating resilience and energy efficiency implementation scope with baseline assessment and goals.
- Develop regional building information database
- Develop energy usage tracking and benchmarking platform

Outcomes

- Expanded public agency and community capacity & expertise on energy and resiliency planning resulting in greater engagement within SoCalREN communities
- Readily identifiable, shovel-ready projects for public agencies based on reliable data
- Plug-and-play deliverable (i.e., ERA plans) to be used by agencies for resilience grant applications thus reducing the burden on EE resources
- Prioritize system investments to improve reliability and resiliency
- Increased public agency access to granular, relevant and timely energy data for tracking performance toward climate goals & identifying opportunities
- Adoption of roadmaps for energy resiliency action by public agencies
- Greater regional reach and delivery of services across SoCalREN territory
- Establish agencies as energy resiliency leaders in community and territory
- Increased sharing of best-practices and lessons learned throughout territory

EE Project Delivery Program

Strategies

- Provide agency-wide in-depth energy analysis and benchmarking services
- Perform energy audits coordinate with Third Party IOU incentive Programs when applicable
- Provide project recommendations and shovel ready scopes
- Provide full scale comprehensive project support services from inception to completion
- Provide project financial analysis and financing application support
- Provide support and submit applications for project incentives for IOU programs and where applicable SoCalREN programs
- Provide procurement support
- Provide project management construction phase support
- Support project closeout by providing training post install as well as post SOP manual
- Share project best practices and success
- Frequent engagement to develop stakeholder buy-in and build Internal Capacity

Outcomes

- Increase public agency enrollments, focusing on DACs
- Increased implementation of deeper and more comprehensive energy efficiency projects
- leveraging parallel services
- Improved program tools and integrate technologies to further streamline and enhance project delivery process

- Drive enrollment and energy savings realize within IOU and SoCalREN RA programs
- Best practices solidified and implemented by other PAs

Regional Partners Initiative

Strategies

- Develop streamlined initiative application to submit ideas and proposals
- Regular discussions with Regional Partners to develop initiative ideas
- Evaluation and feasibility discussions related to submitted initiative applications
- Debriefs with Regional Partners to discuss applications and proposed initiative feasibility
- Collaborations between implementers as necessary depending on sector served
- Coordination among all relevant partners to prepare for deployment of new initiative
- Tracking and evaluation to gauge success and scalability of completed initiatives

Outcomes

- New initiatives launched with customized offerings serving under-resourced communities
- An increased regional reach that meets very localized and nuanced needs specific to communities served
- Better meeting needs of vast and diverse regions of SoCalREN
- Increased trust built in underserved agencies and communities
- Achieve successful EE savings and projects
- Improve uptake of energy programs among underserved communities and populations
- New innovative small-scale initiatives that result in best practice models that can be scaled

Public Sector

Water & Wastewater Strategic Energy Management

Strategies

- Engage in targeted program marketing and outreach and Enroll participants in program
- Develop Strategic Energy Management (SEM) Roadmap
- Complete in-depth energy audit that drives deep shovel-ready system retrofits
- Facilitate Energy Champion training workshops regarding SEM applicability and benefits
- Identify and complete "quick wins" (phase 1) and capital project installations (phase 2)
- Conduct post-installation inspections to verify peak demand savings
- Share project successes and best practices

Outcomes

- Launch of WWSEM program with enrolled SoCalREN water/wastewater agencies
- Increased project pipeline of viable projects with peak demand savings with no-to-low capital intensity
- Reporting of savings and increase pipeline of projects with potential peak demand savings
- Ensure energy goals are integrated systematically into standard operating procedures and agency decision-making process

Workforce Education and Training (WE&T) Sector
E-Contractor Academy
Strategies
• Host quarterly "Doing Business with REN" workshops to increase MWDBEs basic information about CPUC & SoCalREN & IOU EE programs • Host bi-annual 7–8-week training series for multifamily & public sector programs • Provide 10 hours of coaching assistance to acquire public and private sector EE projects • Develop partnership agreements with business assistance partners • Host bi-annual partnership meetings and contractor network events • Bi-annual public sector workshops and technical assistance to enhance supplier diversity/procurement systems
Outcomes
• Increased public and private EE projects awarded to small, women owned, MWDBE & DAC businesses • Increased penetration of EE programs & services within DAC and HTR communities • Regional networks of small business assistance agencies supporting businesses in EE sectors • Reduced energy consumption and GHG emission, especially in DAC/HTR communities

Metrics

To properly measure and ensure accountability of the market support segment progress toward meeting the segment objectives, SoCalREN's 2024-2027 application proposes a set of key metrics for the market support segment category. These metrics were determined through SoCalREN's UVM and are representative of SoCalREN's unique value proposition progress regarding the market support segment.

To properly monitor progress toward the desired outcome over time, the metrics will rely on qualitative and quantitative data collected, tracked, and verified as part of SoCalREN's data requirements (e.g., number of agencies, customer participation). This data collection will assist in improving the accuracy and timeliness of metric tracking for both the program administrator and the CPUC, while keeping the monitoring costs at reasonable levels.

Table 36 summarizes SoCalREN's metrics for the Market Support segment and the attributed metric source as well as the expected implementation horizon.

Table 36. SoCalREN Market Support Metrics

Metric	2024 Target	2025 Target	2026 Target	2027 Target
Total Covered Participants	455	513	594	690
Total Covered Projects	590	660	780	900
Count of projects where a loan was used	3	3	3	4
Total $ leveraged	$126,696	$140,370	$141,332	$210,924
Source of external (non-IOU) financing (Private)	3	3	3	4
# projects where external (non-IOU) financing was leveraged by SoCalREN	10	16	25	38
Total $ leveraged	$100,000	$160,000	$250,000	$380,000
Source of external (non-IOU) financing (State)	10	16	25	38

CPUC Market Support Metrics

Additionally, D.21-05-031 directed PAs to develop metrics for both market support and equity programs in the absence of cost-effectiveness criteria. The Decision also directed CAEECC to develop new reporting metrics for both these segments through the formation of working groups. The resulting CAEECC Equity Metrics group prepared a final report as guidance for PAs when developing metrics and outlined two potential options for developing targets.[10] SoCalREN is supporting "option 1" where targets will be set by the PAs for segment metrics following the collection of the first two program years of data, starting in 2022 (or a baseline has been set using reasonable proxy data). SoCalREN will take this approach for both market support and equity metrics proposed by the CAEECC working groups in order to coordinate and develop an agreed-upon methodology for these particular metrics. Proposed methodology developed by SoCalREN has been listed in the appropriate tables with 0s for targets in this filing.

Interaction with Market Transformation Activities

California is in the process of launching a statewide market transformation administrator (MTA) to oversee the launch of targeted market transformation initiatives (MTIs). Although the MTA was anticipated to launch in Q1 of 2022, no update has been provided since the MTA request for proposal (RFP) was issued nearly a year ago in March of 2021. If the MTA were to launch in Q1 of 2022, this would align well with the requirement that all California EE PAs file new energy efficiency portfolio applications by March 4, 2022. PAs are required to submit comprehensive portfolio proposals and implementation plans for resource acquisition, market support, equity, and codes and standards programs. These applications cover all proposed EE programs, including resource acquisition, codes and standards (C&S), and emerging technology (ET) programs, therefore setting the landscape for anticipated efforts and upcoming programs of EE

[10] [CAEECC WG Market Support and Equity Metrics Report]

PAs. The new MTA should leverage these filings to support the coordination and overlap efforts between the MTA and the EE Portfolio.

D.19-12-021 includes an Adopted Market Transformation Framework21 which defines a stage-gate process to be followed once the MTA is launched. The first two phases of this stage gate process include the identification, review, and selection of possible MTIs, followed by the development, validation, and planning of programs. The MTA will be informed by the portfolios of energy efficiency programs proposed by the PAs and should align its MTI identification and selection efforts with EE PA applications.

Since EE portfolios are set to launch in Q1 of 2024, and Phase III launch of the MTA portfolio is expected to take at least that long, portfolio alignment questions and issues can be considered during planning and addressed to the extent possible ahead of the Phase III application filing of the MTA portfolio. In this way the Commission's review of the MTA application can be completed in parallel with the proposed PA applications or upon their approvals.

Given the complexities in coordinating the segmentation of the EE portfolio, and the possible overlap with future MTIs, there is an opportunity to ensure the MTA is part in upcoming portfolio discussions so that overlap with the upcoming MTA portfolio can be addressed simultaneously with the overall EE portfolio considerations. This coordination will allow the MTA to address coordination requirements during solicitation and selection of MTIs, to address potential overlaps during plan development and piloting, and to propose clear overlap mitigation plans as part of the MTI plans included in the Phase III applications.

The alignment required during the Concept Development and Program Development phases of the MTA should be continued during the implementation and deployment phase of the EE portfolio and the MTA portfolio. CAEECC could include a standing agenda item to discuss coordination and overlap of EE and MTA portfolios starting in Q1 2022. This stakeholder group is ideally positioned to address the ongoing coordination and eventual overlap of portfolio activities. Both EE PAs and the MTA should work collectively to ensure continued maximization of benefits across both portfolios. This could also be used as an opportunity for the MTA to provide updates as to progress in all stages of the development and deployment of the MTA portfolio.

Finally, SoCalREN proposes that both the EE portfolio PAs and the MTA should include a coordination plan in their annual reports. This could follow a similar structure to the Joint Cooperation Memos between the IOUs, CCAs, and RENs in the administration of the EE portfolio.

Equity

Strategies, Goals, and Outcomes

SoCalREN's Market Support strategies focused on delivering project support services that result in impactful energy savings. In addition, SoCalREN's market support segment strategies have

been designed to build capacity within the industry through WE&T and engagement strategies. These strategies reflect models that will be developed into best practices. Each strategy overcomes identified barriers and/or fills gaps within the designated sector. Table 37 provides an overview of these strategies and their attributable outcomes,

Table 37. SoCalREN Four-Year Portfolio Equity Strategies and Outcomes

Agricultural Sector
Local Agricultural DI Program
Strategies
• Provide targeted ME&O to local, rural, and small agricultural customers • Leverage a trade ally network that assists identifying new applicable measures • Support in implementing enhanced building codes and advanced energy codes • Provide no-cost comprehensive EE engineering services (audit, assessment, PFS) • Direct installation of approved deemed measures
Outcomes
• More rural ag customers aware of EE benefits and programs • Increased Hard-to-reach small and or rural agriculture EE projects • Deeper comprehensive projects installed • Increased energy and cost savings for hard-to-reach agriculture communities • Increase trade ally enrollment by 5% per year • Long-term persistence of savings achieved by participating customers
Commercial Sector
Small Commercial DI Program
Strategies
• Provide targeted ME&O and project management services to local, rural, DAC small business customers in multiple languages • Provide project support services from identification to development to completion • Leverage a trade ally network that assists identifying new applicable measures • Coordinate with SoCalREN and IOU WE&T small contractor programs to enable SMBs to perform project installs • Direct installation of approved deemed measures • Conduct site visit that also collect equipment inventory and provide benchmarking service
Outcomes
• Simplified EE process for small business HTR customers resulting in more projects • Increased number of non-English primary speaking business owners deploying EE projects • Increased energy savings and reduction in small business operating costs • Streamlined turnaround time for energy savings realization • Increased EE program participation by smaller commercial customers

- Increased energy and cost savings as well as GHG reductions for Hard-to-reach small business communities
- Increased number of small business contractors able to participate in EE COMM sector due to the DI nature of program and small property type

Food Deserts Energy Efficiency Equity Program

Strategies

- Provide targeted ME&O and project management services to local, rural, DAC small business customers in multiple languages
- Provide wrap-around project support services from identification to development to completion
- Leverage a trade ally network that assists identifying new applicable measures
- Coordinate with SoCalREN and IOU WE&T small contractor programs to enable SMBE's to perform project installs

Outcomes

- Tackling multiple in equities within low-income, rural, DAC communities, specifically reduced GHGs and great access to healthy food options.
- Reach target number of HTR stores and refrigerators installed
- Deeper energy savings program impacts due to additional measures installed through coordination of other IOU Programs including third-party.
- Significant reduced utility operating costs for small corner business owners

Finance Cross-Cutting Sector

Public Agency Revolving Loan Fund (RLF)

Strategies

- Regional Partner-led education in communities
- In-language customized outreach to individual businesses
- Green Business Coordinators deliver walk-through facility audits to eligible SMB
- Coordination with SoCalREN Commercial DI program and other partner programs
- Offer direct incentives to implement larger EE upgrades
- Guide eligible SMB through CAGBN certification/re-certification process
- Support promotion of achievements of businesses offered through CABGN

Outcomes

- Increase of small/medium businesses certified through CAGBN
- Businesses save on operation costs

Public Sector
DER DAC Project Delivery Program
Strategies
• Engage in program marketing and outreach • Provide agency-wide energy analysis and benchmarking services • Perform energy audits and Provide Project Recommendations • Provide Financial Analysis and Support (for DER only if EE is included) • Submit Utility Applications for Rebates and On-Bill Financing (for DER only if EE is included) • Provide Procurement Support (for DER only if EE is included) • Provide Construction Phase Support (for DER only if EE is included) • Support Project Closeout (for DER only if EE is included) • Share Project Best Practices and Success • Frequent Engagement to Develop Stakeholder Buy-In and Build Internal Capacity
Outcomes
• Launch of DER program with enrolled SoCalREN agencies • Engagement and education of HTR and underserved agencies on DER strategies • Integration of DER services into SoCalREN
Rural-HTR Public Agency Direct Install
Strategies
• Vet and approve contractors • Engage in program marketing and outreach. • Collect equipment inventory • Sign Customer Agreement • Process application • Assignment of work to contractor and installation • Verification by implementer Integration of DER services into SoCalREN
Outcomes
• Simplified EE process for HTR customers • Streamlined turnaround time for energy savings realization • Increased SoCalREN participation by smaller public agency facilities.

Public Sector

Underserved Schools Strategic Energy Management

Strategies

- Engage in targeted program marketing and outreach
- Facilitate workshops for program participants
- Develop Strategic Energy Management (SEM) Roadmaps
- Conduct energy treasure hunt and site audit
- Deliver support on capital project implementation
- Integrate sustainable energy concepts and strategies into academic curricula
- Leverage energy and process data collected to target capital measures
- Develop pipeline of viable projects with peak demand savings with no-to-low capital

Outcomes

- Engage and educate school communities on SEM strategies and savings opportunities

Workforce Education and Training (WE&T) Sector

Ag-WE&T

Strategies

- Set up enrollment through SCR Ag WE&T
- Provide distributor and contractor outreach training
- Establish key relationships with key influencers (e.g., Farm Bureau)
- Collaboration & enrollment through the development of a comprehensive trade ally network
- Digital and traditional marketing to key market actors

Outcomes

- Participating Trade Allies stock & promote EE equipment to other Stakeholders
- Increased market adoption of uncommon EE technologies for this segment
- Install EE projects on Ag systems leading to increased energy savings
- Customers understand the significant and costly energy in their Ag systems
- Remove cost and technical barriers to implement EE measures
- Customers understand energy and GHG impact of their equipment
- Increase trade ally enrollment by 5% per year

ACES Pathway Program

Strategies

- Institutionalize EE curricula for certification and training resources
- Develop with Community College industry recognized certifications and curriculum
- Develop partnerships for resources and access to supportive services
- Implement the Paid Internship Program paid from Non-CPUC external funding
- Provide direct On the job training experience for youths within ACE/EE fields

Outcomes
• Increased participation of HTR/DAC students in post-secondary ACE/EE education • DAC/HTR populations pursuing college and career pathways in EE • Increased jobs for DAC/L\ow-income/HTR students • Reduced burden on ratepayer funds due to leveraging external non-CPUC funding
Green Path Careers
Strategies
• Target and provide ME&O for at-risk youth • Provide enrichment training so there is a persistence of employment • Provide no-cost certified training that allows for entry-level pathway with a high-quality job • Work with industry employers to identify opportunities for hire • Provide wrap around services to participants throughout the life of the program • Provide job application support, job research support, interview support, etc • Provide on the job training leveraging non-CPUC funds
Outcomes
• Changed participants perspective on achievable outcome of pursuing EE career pathways • Increased number of disadvantaged workers directly connected to entry-level EE positions • Increased high-quality employment with entry level salary providing inter-generational growth • Increased diversity and inclusion in the EE industry

Metrics

To properly measure and ensure accountability of the equity segment progress toward meeting the segment objectives, SoCalREN's 2024-2027 application proposes a set of key metrics for the equity segment category. These metrics were formulated through SoCalREN's UVM's and are representative of SoCalREN's unique value proposition progress regarding the equity segment.

To properly monitor progress toward the desired outcome over time, the metrics will rely on qualitative and quantitative data collected, tracked, and verified as part of SoCalREN's data requirements (e.g., number of agencies, customer participation). This data collection will assist in improving the accuracy and timeliness of metric tracking for both the program administrator and the CPUC, while keeping the monitoring costs at reasonable levels.

Table 38 summarizes SoCalREN's metrics for the Market Support segment and the attributed metric source as well as the expected implementation horizon.

Table 38. SoCalREN Equity Metrics

Metric	2024 Target	2025 Target	2026 Target	2027 Target
Count of Ag Customers that enroll in a SoCalREN Agricultural program that are categorized as HTR	50	60	80	100
# of participating properties - DAC	41	52	61	105
# of participating properties - Rural/HTR	117	150	174	203
# of tenant units served - DAC	8,122	10,461	12,184	20,963
# of tenant units served - Rural/HTR	2,926	3,739	4,362	5,067
Count of SMBs that enroll in a SoCalREN Commercial program that are categorized as HTR	16	21	24	42
# partners and type of partner; description of benefits	12	12	12	14
Small and SWMDVBE contractors are trained	100	100	100	100
Small and SWMDVBE contractors receiving certifications	25	25	25	25
# of partnerships	4	4	4	4
# of participating contractors in HTR (rural) or underserved areas made aware of the program due to the partner's marketing	1	1	2	2
# of participating buildings in HTR (rural) or underserved areas made aware of the program due to the partner's marketing	21	42	63	84
Total incentive payments - DAC	$1,772,506	$2,285,375	$2,653,481	$4,335,861
Total incentive payments - Rural/HTR	$948,750	$1,212,292	$1,423,125	$1,633,958
Total project costs - DAC	$2,954,177	$3,808,959	$4,422,468	$7,226,435

Metric	2024 Target	2025 Target	2026 Target	2027 Target
Total project costs - Rural/HTR	$948,750	$1,212,292	$1,423,125	$1,633,958
GHG reduced from equity targeted areas	35	45	53	61
kWh (net) reduced from equity targeted areas	35,641	45,542	53,129	61,716
kW (net) reduced from equity targeted areas	13	16	19	22
Therms (net) reduced from equity targeted areas	1,904	2,432	2,859	3,274
Underserved Public agency channeled GWh savings	8.8	9.6	10	10.4
Underserved Public agency channeled kW savings	1,012	1,120	1,223	1,203
Underserved Public agency channeled therm savings	42,972	51,990	105,842	66,340
Underserved Public agency channeled GHGs emissions avoided	2,037	2,249	2,617	2,490
Estimated annual bill savings by MF DAC/HTR owner	$3,400	$3,400	$3,400	$3,700
Estimated annual bill savings by the average MF DAC/HTR tenant	200	200	200	180

CPUC Equity Metrics

D.21-05-031 directed PAs to develop metrics for both market support and equity programs in the absence of cost-effectiveness criteria The Decision also directed CAEECC to develop new reporting metrics for both these segments through the formation of working groups. The resulting CAEECC Equity Metrics group prepared a final report as guidance for PAs when developing metrics and outlined two potential options for developing targets. SoCalREN is supporting "option 1" where targets will be set by the PAs for segment metrics following the collection of the first two program years of data (or a baseline has been set using reasonable proxy data). SoCalREN will take this approach for both market support and equity metrics proposed by the CAEECC working groups in order to coordinate and develop an agreed-upon methodology for these particular metrics. Proposed methodology developed by SoCalREN has been listed in the appropriate tables with zeros for targets in this filing.

Codes and Standards

Strategies, Goals, and Outcomes

Table 39 summarizes SoCalREN's C&S strategies and the resultant outcomes.

Table 39. SoCalREN Four-Year Portfolio C&S Strategies and Outcomes

Codes and Standards
Codes & Standards Compliance Enhancement Program
Strategies
• Leverage existing data sources and existing and analysis tools to provide a shareable platform for baseline energy data and for measuring and analyzing impacts from code compliance and development Interventions • Provide targeted resources, tools, and training to LGs, including an Energy Code Coach • Provide targeted resources and tools to C&S stakeholders (contractors, developers, building owners, etc.) • Support in implementing enhanced building codes and advanced energy codes • Needs assessment research to identify permitting trends, gaps, and barriers
Outcomes
• Growing number of local governments who are playing a leadership role and have adopted advanced energy codes, standards, practices, and/or requirements to create higher performing buildings and support local ERAP initiatives • Raised energy awareness, improved adherence to energy C&S, reduced energy use in new and existing buildings, • Better compliance with codes, reduced energy use in new and existing buildings, and greater number of high-performance buildings • Establish a solid understanding of the age, characteristics, and energy profiles of the building stock to enable more significant, impactful, and verifiable interventions • Compilation and evaluation of transparent and more accurate permitting and compliance data will drive better energy performance in new and existing buildings

Metrics

To properly measure and ensure accountability of segment progress toward meeting portfolio objectives, SoCalREN's 2024-2027 plan proposes a set of key metrics for the C&S segment To properly monitor progress toward the desired outcome over time, the metrics will rely on qualitative and quantitative data collected, tracked, and verified as part of SoCalREN's data requirements (e.g., number of agencies, customer participation). This data collection will assist in

improving the accuracy and timeliness of metric tracking for both the program administrator and the CPUC, while keeping the monitoring costs at reasonable levels.

Table 40 summarizes SoCalREN's C&S metrics and four-year targets.

Table 40. SoCalREN C&S Metrics

Metric	2024 Target	2025 Target	2026 Target	2027 Target
# of jurisdictions receiving C&S services and assistance	7	15	20	30
% of increased code compliance and permit closeout in participating jurisdictions	15%	15%	15%	15%
# of local governments using SoCalREN data evaluation tools & assistance to enhance C&S activities and policies	3	15	25	35
# of local governments adopting advanced energy codes, standard, or policies	2	4	6	8

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4. PORTFOLIO MARKET SECTOR STRATEGIES

SoCalREN has built sector level portfolios of programs to comprehensively address identified market gaps. These programs work across all CPUC segments to directly support customers and market participants in driving energy efficiency projects, to ensure underserved customers and workers are included, to channel projects into existing partner PA programs, and to process and claim energy savings through resource acquisition programs when a gap remains. Each sector is unique and requires a specific portfolio of programs to fill gaps, but all sectors are aligned to meet the overall objectives of SoCalREN: Delivering Energy & Climate Impacts; Expanding Access to EE Benefits; and Building Energy Competency & Economic Resilience.

In addition to the program details provided in each of the sections below, SoCalREN has provided a comprehensive set of Implementation Plans for all programs proposed in this portfolio application, including both new programs and existing programs, in Exhibit 4.

SoCalREN's Approach to Market Sectors

Since its launch in 2013, SoCalREN has successfully met the criteria set forth by the CPUC for RENs. In D.12-11-015 and reasserted in D.19-21-021, the CPUC directed the RENs to deliver programs and activities that met a threshold of criteria:[11]

1. *Activities that utilities or community choice aggregator (CCA) program administrators cannot or do not intend to undertake.*
2. *Pilot activities where there is no current utility or CCA program offering program offering, and where there is potential for scalability to a broader geographic reach, if successful.*

[11] D.12-11-015, p. 17.

3. *Pilot activities in hard-to-reach markets, whether or not there is a current utility or CCA program that may overlap.*

SoCalREN successfully complements and supplements the activities of existing public, residential, commercial, agricultural, and cross-cutting sector energy efficiency programs administered by other program administrators (PAs), including its partner utilities, SCE and SoCalGas. Specifically, SoCalREN's portfolio strategies and services address gaps not filled by other PAs, particularly in disadvantaged communities and for HTR customers. As a peer-driven organization where public agencies learn from one another, SoCalREN's portfolio has brought special expertise and relationships with customers that other administrators or local government partnerships do not possess.

Over the course of the last 10 years SoCalREN has established deep roots with public agencies throughout its service territory and built considerable pipelines of energy efficiency projects which have channeled savings into resource acquisition programs serving the public sector. Out of over 200 public agencies currently enrolled in the program, 76% are within disadvantaged, low-income, or rural communities. To date these agencies have delivered nearly 100 GWh of savings into a combination of either partner IOU programs or SoCalREN resource acquisition programs. The residential program offered to their constituents have delivered an incremental 25 GWh and both sectors together have completed 1.5 million therms of energy savings.

Collectively these programs have reduced customer energy costs by over $35 million annually, while paying out incentives and providing invaluable technical and project assistance critical to advancing energy efficiency projects in these customer sectors. SoCalREN has supported and enabled an energy efficiency market that create regional jobs, has built, enabled, and maintained contractor networks and public agency partnerships that result in increased delivery and ability to deliver energy savings in the region, and trained over 400 contractors and over 1,000 students with a particular emphasis on disadvantaged and underserved populations to increase the qualified contractor and job applicant pool capable of installing high quality EE projects.

SoCalREN regularly utilizes program assessment and optimization strategies to streamline and enhance its offerings which has resulted in an increase in programs efficiencies, an increase in conversion, improved satisfaction, and, perhaps most importantly, better targeting and participation by hard-to-reach customers. For example, the public agency programs collect participant feedback on an annual basis through a survey to receive feedback and identify opportunities for improvement. Annual survey feedback has resulted in programmatic changes that improve both cost-effectiveness and the customer experience. Additionally, the SoCalREN has planned strategies which leverage other programs and anticipate cost-efficient program elements that reduce incentive-intensity per project to demonstrate further higher conversion rates. These strategies will continue to reach hard-to-reach markets and underserved communities within the residential and public sectors.

SoCalREN builds upon these foundational programs where service and equity gaps continue to persist. In additional to a strong portfolio of public and residential sector programs, as well as an expansion of past successful workforce, education, and training (WE&T) activities, SoCalREN is proposing to launch a new subset of programs in the commercial and agricultural sectors, focused primarily on small hard to reach customers. The commercial and agricultural sectors are being proposed to fill clear market gaps that have emerged in recent years. Small businesses and

rural agricultural customers were left behind in both planning and practice. SoCalREN reviewed public documents such as past business plans, Annual Budget Advice Letters (ABALs), Annual Reports, as well as stakeholder meetings with local governments and regional partners to assess the energy efficiency needs of local communities. A clear pattern of lack of services to agricultural and small business customers in the SoCalREN region emerged.

SoCalREN has designed its Agricultural sector portfolio to serve all agricultural customers but will place special emphasis on small and medium operators, who collectively use 63% of the energy in the segment. This group of customers still desperately need the support of energy efficiency programs to help them learn how to better manage their resources, and to assist with the financial burden of implementing impactful upgrades.

The Commercial sector has also seen clear gaps, particularly for small businesses. SCE's 2018-2025 Business Plan found that although small business customers represented 92% of commercial accounts, SCE only installed EE measures in 9% of those accounts between 2013 and 2015[12]. Since then, SCE has closed its Commercial Direct Install Program, which was the primary source of savings for this sector and launched a very large Commercial Energy Efficiency Program (CEEP) which specifically excludes commercial accounts under 20kW.

In 2020, the Small Business Utility Advocates (SBUA) found that RENs as local entities can leverage local partnerships to serve HTR customers that the IOUs have struggled to serve.[13] As a public agency, and as a partner to local governments which greatly value their local small business constituents, SoCalREN is committed to the success of this hard-to-reach sector.

Although SoCalREN has not previously provided Commercial and Agricultural Sector portfolios within previous business plan cycles, SoCalREN will leverage its previous experience within the Public and Residential Sectors to provide robust, comprehensive, and cost-effective opportunities to these sectors.

The Commercial and Agricultural sector programs are designed with coordination in mind to provide a seamless experience for customer participants. All implementers will regularly coordinate resources to ensure that all available resources available to these customer segments are understood. This includes programs outside of the SoCalREN portfolio, such as IOU 3P EE programs and other DER offerings. This creates efficiencies among programs and develops partnerships among organizations to share resources and increases reach to deliver on California's aggressive climate goals more effectively.

The following Subsections offer an overview of each sector, a description of existing programs, and detailed plans for new programs proposed by SoCalREN.

[12] SCE 2018-2025 Business Plan, Page 90

[13] SBUA Protest to PAs ABALs, page 3

AGRICULTURAL SECTOR

SoCalREN is dedicated to building resilient communities by ensuring that agricultural customers have the tools necessary to better understand and manage their energy use operations.

SoCalREN's new Agricultural (Ag) Sector programs will fill gaps in services for underserved small and medium agricultural customers and rural communities by providing technical support and resource interventions to address their energy needs. Our Ag Direct Install and Retrofit Program will focus on delivering persistent energy savings. Customers will receive project support from our Ag-Project Delivery Program to assist in recommended energy efficiency (EE) strategy implementation and equipment replacements. Our Agricultural programs offer practical, effective solutions to energy, water, and climate change challenges while promoting reduced utility costs, water conservation, and improved overall operational efficiency.

Summary of Sector

The SoCalREN Ag Sector aims to fill gaps and increase adoption of EE in small and medium sized, rural, and disadvantaged customer/communities (DAC), customers through a suite of different program offerings. The program strategies are designed to be flexible, overcome barriers, target DAC Ag customers, and adjust to complement other offerings supporting this customer segment as they become available. All programs will coordinate to streamline offerings and maximize customer benefits. Local trusted partners such as CBOs and Regional Partners will be engaged to support outreach, marketing, and implementation of programs, while no-cost advisory services, targeted measures, and incentives to participate in green business certification will be provided to drive participation.

The goal of the SoCalREN Agriculture Sector is to identify and implement cost-effective energy efficiency projects that yield electricity and gas savings for disadvantaged, rural and underserved small and medium agriculture communities/customers across the region.

It is estimated that 3% of Southern California Edison (SCE's) total load or 2,400 GWh is consumed by this sector. If Ag Customers were to undertake strategic energy efficiency (EE) investments, they could reduce their energy usage and utility costs by over 10% to 30% annually without sacrificing service or quality. By becoming more energy efficient, Ag customers can significantly contribute to the reduction in greenhouse gas emissions while also reducing their energy burden. Ag customers must be included in our decarbonized future and should be given meaningful access to the benefits of related programs. Yet, this customer segment is vastly underserved by EE programs that have emphasized short term energy savings and high-cost effectiveness in the large Ag sub-segment. Based on the makeup of current IOU portfolios, the segment will continue to be underserved relative to its market potential for savings and the need for longer term, more sustainable support.

Table 41. Summary of SCE Agricultural Electric Consumption[14]

SCE Segment	Demand	% of SA	# of Accounts	Total GWh Usage[15]	Avg kW per Account
Large	≥250 kW	2%	600	899	480
Medium	≥50 kW, < 250 kW	16%	4,800	1191	100
Small	< 50 kW	82%	24,600	340	8
Total		100%	30,000	2,430	Weighted Avg. 32 kW

Table 42. Agricultural Sector Barriers

Barriers	Problems and Challenges	Potential Solutions
Customers with varying levels of EE knowledge	Minimal customer knowledge and experience with EE leads to low EE participation	Increase EE adoption levels through tailored customer engagement and education
EE is not a Customer Priority	Customers not aware of resources available	Partner with local trusted partners to promote EE installations and practices
Financial Challenges	Commercial customers are focused on their own business and bottom line	Provide friction-free EE solutions through single contact
Lack of trust	Small and Medium sized Ag customers lack capital or resources to participate	Promote cost and non-EE benefits through outreach and education

[14] (source: SCE Business Plan): In 2015, these accounts used approximately 3% (2,400 GWh) of the total Electric consumption (81,000 GWh).

[15] Based on breakdown per customer segment from SCE's Business plan and sector usage of 3% of SCE total usage.

Budget Distribution and Rationale

Program Rationale

SoCalREN recognizes that these small and medium Ag Customers are vital to the economic health of Southern California, as well as to the well-being of the communities they serve. If Ag customers were to undertake strategic energy efficiency (EE) investments, they could reduce their energy usage and utility costs by over 10% to 30% annually without sacrificing service or quality. By becoming more energy efficient, Ag customers can significantly contribute to the reduction in greenhouse gas emissions while also reducing their energy burden. Ag customers must be included in our decarbonized future and should be given meaningful access to the benefits of related programs. Yet, this customer segment is vastly underserved by EE programs that have emphasized short term energy savings and high-cost effectiveness in the large Ag sub-segment. Based on the makeup of current IOU portfolios, the segment will continue to be underserved relative to its market potential for savings and the need for longer term, more sustainable support.

This is further proven by information obtained from CEDARs which we have compiled to demonstrate the last three (3) years (2019-21) claimed savings by the two largest IOUs in CA. Due to the trends in falling TRC, the programs have spent less and achieved less year after year. Furthermore, as compared to the 2022 incremental achievable potential the % achieved continue to drop. The table below demonstrates this fact and the percent to achievable incremental percentages will drop even further as the potential study indicates increases in achievable potential,

Table 43. Historical IOU Agriculture Data and Potential

Year	IOU	TRC	PAC	Total Expenditures	First Year Net kWh	% of 2022 Incremental Achievable Potential	First Year Net kW	% of 2022 Incremental Achievable Potential
2019	PGE	0.56	1.17	$10,705,082	18,135,463	55%	6,478	59%
	SCE	0.34	0.43	$2,330,112	1,951,946	18%	327	3%
2020	PGE	1.04	1.76	$11,605,850	12,611,015	39%	4,664	43%
	SCE	0.26	0.36	$1,876,806	1,468,257	13%	462	4%
2021	PGE	0.78	1.14	$4,322,100	5,636,238	17%	1,454	13%
	SCE	0.35	0.48	$747,238	599,172	5%	254	2%

Source: CEDARS and 2021 Potential & Goals Study Agriculture Results

Accordingly, SoCalREN is proposing a portfolio of programs to fill the gaps left by the IOUs' portfolio that include a balance of resource acquisition, market support, and equity programs.

SoCalREN seeks to learn from previous program interventions offered through the IOUs and leverage best practices from other SoCalREN offerings to offer targeted solutions to reduce energy costs, improve efficiencies with a focus on hard-to-reach customers and disadvantaged communities. SoCalREN's small and medium disadvantage Ag sector offerings will provide a one stop shop for Ag customers with readily available resources and standardized tools to facilitate the adoption of long-term EE practices and installation of cost-effective EE measures. Educating

and supporting Ag customers to strategically pursue deeper EE investments will not only reduce regional energy cost and carbon emissions but will further align communities with SoCalREN's Core Values of as: delivering energy and climate impacts, building energy capacity and economic resilience, and expanding access to EE benefits within the communities that they serve.

In addition, beginning in 2024, SoCalREN believes that the small and medium Ag customers in rural, disadvantaged communities will not be the primary focus of SCE and SoCalGas' third-party programs due to cost-effective (TRC) constraints of greater than 1.0 and cost to serve. Due to the reduced avoided costs in 2024, SCE's and SoCalGas' third-party programs will have difficulty achieving their required TRC of 1.0 which will make it even harder for them to serve small and medium, rural, disadvantaged communities.

Geography and Eligible Customers

Geographic

Agriculture customers are primarily located in the heavily concentrated agricultural regions of the San Joaquin Valley (climate zone 13) and the Central Coast (climate zone 5) and will be targeted with a combination of direct customer outreach with additional support from trade allies such as agricultural engineering firms and farm equipment suppliers. Although agricultural regions are concentrated in climate zones 13 and 5, customers outside of these climate zones are eligible to receive SoCalREN Ag Program services.

Eligible Customers

All Ag customers who have a valid SCE or SoCalGas service account are eligible to participate in SoCalREN Ag Programs. Ag customers are defined by two-digit North American Industry Classification System (NAICS) Code 11. Post-harvest production (e.g., wine production, nut drying, etc.) is eligible when performed directly on-farm as defined by NAICS Code 11. Agriculture sub-segments further defined by four- digit NAICS Codes 1111, 1112, 1113, 1114 (including cannabis production which does not have a specific NAICS Code), 1119, 1121, 1122, 1123, 1124, 1125, 1129, 1151 and 1152.

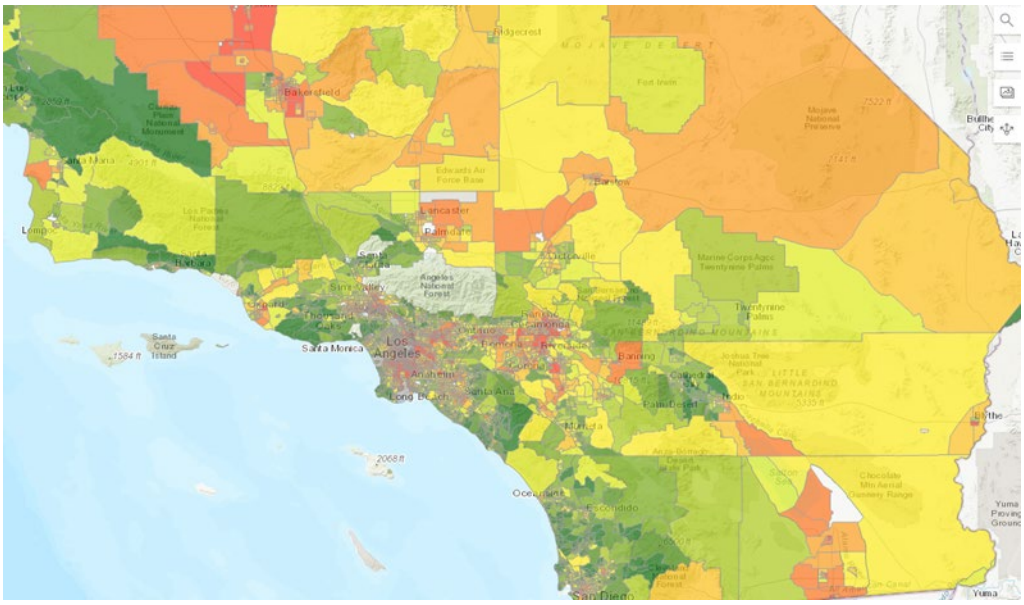
SoCalREN can offer energy efficiency services to ~30,000[16] eligible Agriculture customers in the SCE and SoCalGas service territories – including field and seed crops, fruit and nut crops, vegetables and melons, livestock and poultry, wineries, floriculture, and dairies - to help these customers reduce energy and maintenance costs. The AG-PDP Program will focus on rural and underserved communities.

Disadvantaged Communities

It is SoCalREN's goal to target small and medium Ag customers in disadvantaged communities (DAC) as defined Per CalEnviroScreen 4.0a and as shown in Figure 11.

[16] Total AG customers = 30,000, Mid-Size AG customers (>=50kW, <250kW) make up of 16% of all AG SAs (or 4,800 SA) and Small AG customers (<50kW) make up of 82% of all AG SAs (or 24,600 SA)

Figure 11. Disadvantaged Communities Map



Budget Distribution

Table 44. Agricultural Sector Budget

	Segment	2024	2025	2026	2027	Totals
Ag-PDP	Market Support	$650,000	$725,000	$800,000	$800,000	$2,975,000
Ag-DI	Equity	$1,159,750	$2,603,624	$3,424,547	$3,779,030	$10,966,951
Ag-Retrofit	Resource Acquisition	$870,030	$1,965,265	$2,326,497	$2,903,261	$8,065,053
Totals		**$2,679,780**	**$5,293,889**	**$6,551,044**	**$7,482,291**	**$22,007,005**

Goals, Objectives, Strategies and Outcomes

Agricultural Sector Goals

- SoCalREN aims to achieve the following goals through its Ag Sector Portfolio:
- Increased engagement with partners to reach DAC small and medium Ag customers;
- Ag customers are aware of their energy usage, energy costs, and the holistic benefits of EE;
- Ag customers have taken action to address clean energy and GHG reductions, and;
- Ag customers incorporate sustained integration of energy-conscience business practices.

Table 45. Agricultural Sector Energy Savings Goals

	2024	2025	2026	2027	Total
Retrofit Program					
Net kWh	4,121,863	10,923,760	19,568,025	22,187,531	56,801,180
Net kW	4,510	11,953	20,145	22,841	59,449
Net Therms	0	0	0	0	0
TRC	0.77	0.83	0.82	0.84	0.82
TRC w/ Avoided Water Benefits	0.77	0.83	0.82	0.84	0.82
Direct Install Program					
Net kWh	377,505	1,123,972	1,184,324	1,879,573	4,565,374
Net kW	30	61	30	61	30
Net Therms	36,954	73,908	110,861	118,252	339,975
TRC	0.34	0.39	0.37	0.40	0.38
TRC w/ Avoided Water Benefits	0.34	0.39	0.37	0.40	0.38
Totals					
Net kWh	4,499,368	12,047,733	20,752,349	24,067,104	61,366,554
Net kW	4,540	12,014	20,236	23,504	60,294
Net Therms	36,954	73,908	110,861	118,252	339,975
TRC	0.64	0.70	0.70	0.73	0.70
TRC w/ Avoided Water Benefits	0.64	0.70	0.70	0.73	0.70

Agricultural Sector Objectives

Table 46. Agricultural Sector Objectives

2024-2027 Agriculture Objectives	SoCalREN Core Value(s)	ESJAP
Promote energy-conscious business practices and awareness of the relationship between EE, business operations, and sustainable long-term growth for small and medium customers, with a focus on DAC Ag customers.	Building energy capacity and economic resilience Expanding access to EE benefits	#7
Build and enable increased participation in the energy and climate workforce by encouraging local sourcing of labor for projects completed in EJ communities.	Building energy capacity and economic resilience Expanding access to EE benefits	#7
Improve access to educational, technical, and capital resources for EE projects and strategies for small and medium businesses, with a focus on HTR businesses.	Building energy capacity and economic resilience Expanding access to EE benefits	#2 and #8
Improve the value proposition and drive EE projects in small and medium businesses through promotion and delivery of significant non-energy benefits.	Expanding access to EE benefits	#2 and #4
Expand the implementation of high value EE projects and reduce GHGs by helping small and medium businesses overcome barriers and pursue clean energy actions that support state, regional, and local climate, and policy goals.	Climate Action Leadership	#2
Build awareness of the value of EE and the connection between energy and climate resiliency within the agriculture sector.	Building energy capacity and economic resilience	#4
Stimulate local leadership in EE and climate action for small and medium businesses with a focus on HTR businesses.	Building energy capacity and economic resilience Expanding access to EE benefits	#4 and #7
Offer EE services and programs that result in innovative, low-cost/no-cost and deep retrofit energy and water savings.	Economic Resiliency	
Provide financing solutions that help facilitate retrofit installation.	Equity	#2
Provide WE&T services to AG customers such that they better understand the energy, water, and non-energy benefits of the programs.	Capacity and Competence	
Increase number of resources for benchmarking, energy audits and technology upgrades.	Equity	
Deliver energy and water savings.	Economic Resiliency	#4
Create Jobs through equipment installations.	Economic Resiliency	#7
Educate agricultural customers about this programs and grants that support energy conservation.	Capacity and Competence	

Agricultural Sector Strategies

Table 47. Agricultural Sector Strategies

Agriculture Strategies	SoCalREN Program(s)
Prioritize program resources for delivery of services to DAC small and medium local Ag customers with the goal to improve business sustainability through reduced energy costs, increasing EE workforce opportunities for local communities, and establishing local Ag business leaders in energy and climate action.	All Ag Programs
Build a stronger extended agricultural energy community through energy and water management training in coordination with SoCalREN's Workforce Education and Training sector.	Ag WE&T
Provide information and technical support to agricultural customers in their efforts to implement Distributed Energy Resources (DER) and other iDSM strategies including Demand Response.	Ag WE&T
Deliver comprehensive, objective, and no-cost project management services from energy benchmarking and project identification through procurement and construction completion.	Ag PDP
Streamline all EE program participation and delivery of savings benefits through a single, trusted channel - the SoCalREN Project Delivery Team.	Ag PDP
Provide AG Customers with access to benchmarking tools, reports, and training to improve staff's ability to better manage their energy consumption, plan projects, and ensure energy savings achieved persist over time.	Ag PDP
Coordinate with SoCalREN Public Sector to enroll their AG Customers into the AG Program.	Ag PDP
Increase uptake of low global warming potential (low-GWP) refrigerants within Ag sector by replacing and properly recycling refrigerators with hydrofluorocarbon refrigerants (HFCs) with energy efficient low-GWP refrigerators.	Ag PDP
Provide significant non-energy benefits to Ag customers such as reduced operating costs, improved safety, GHG-reductions through simplified access to equipment upgrades.	Ag PDP, Ag DI and Retrofit
Reduce the energy cost burden for small and medium Ag Customers operating in disadvantaged and low-income communities by providing no-cost, direct install EE measures.	Ag DI
Partner with irrigation districts, rural water agencies and local governments to co-deliver turn-key energy, DI and Retrofit efficiency projects that save both energy and water.	Ag DI and Retrofit Programs
Offer simple deemed and direct install measures customers through a network of local agricultural service providers at no cost to the customer.	Ag DI and Retrofit Programs
Expedite delivery of energy savings projects and address AG customer's procurement and funding barriers by providing turnkey, direct installation of no cost energy efficiency measures.	Ag DI and Ag Finance
Encourage the adoption and proliferation of EE measures and practices in the Ag sector by recognizing local business leaders for excellence in facility energy management.	All Ag Programs

Agricultural Sector Outcomes

In alignment with SoCalREN's core values, the Ag sector programs are designed to achieve the following outcomes:

- **Increased energy and GHG reductions for Ag Customers.** SoCalREN's Ag sector resource and equity programs support activities with trackable energy savings and GHG reductions that contribute to local and state or climate goals. Targeted direct install offerings offered by SoCalREN overcome common barriers to participation, so participants receive the benefits of reduced energy consumption and carbon emissions.
- **Increased energy capacity, competency, and economic resilience within Ag Customers.** SoCalREN's Ag sector programs will build long-term knowledge and skills that lead to energy competency, and energy management practices that will help Ag customers establish sustainable energy practices. Program offerings help to build trust with DAC/Ag customers and increase knowledge about their business' energy consumption, and access funding sources and other programs to facilitate energy actions.
- **DAC customers gain increased access to EE benefits.** All SoCalREN's Ag sector programs will focus on providing access to unique EE programs and services that enhance carbon reduction opportunities and other environmental outcomes in underserved communities supporting the advancement of the CPUC's Environmental and Social Justice Action Plan[17].

Categorization of Programs by Segment

Table 48. Categorization of Agricultural Programs by Segment

Program Name	Segment
Agriculture Project Delivery Program	Market Support
Rural-HTR Agricultural DI	Equity
Agriculture Retrofit	Resource Acquisition

[17] California Public Utilities Commission Environmental and Social Justice Action Plan. Draft Version 2.0. Accessed 12 January, 2022.

Figure 12. Agricultural Sector Budget by Segment

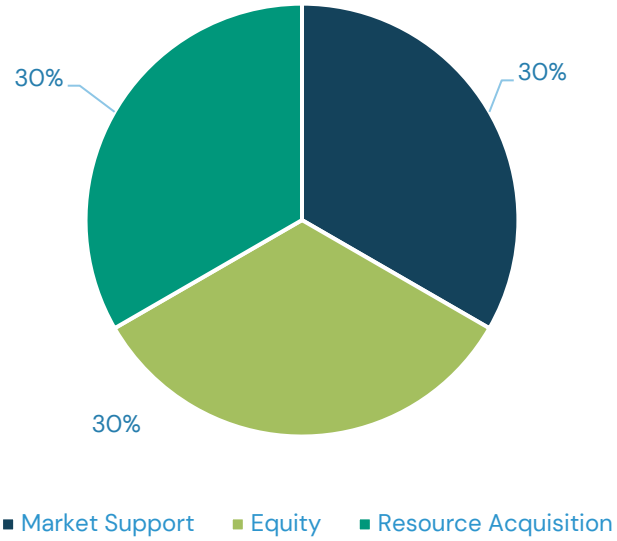


Table 49. Annual Agricultural Budget by Segment

	2024	2025	2026	2027	Total
Resource Acquisition	$870,030	$1,965,265	$2,326,497	$2,903,261	$8,065,053
Market Support	$650,000	$725,000	$800,000	$800,000	$2,975,000
Equity	$1,159,750	$2,603,624	$3,424,547	$3,779,030	$10,966,951

Table 50. Percent of Ag Budget by Segment

	2024	2025	2026	2027	Total
Resource Acquisition	32%	37%	36%	39%	37%
Market Support	24%	14%	12%	11%	14%
Equity	43%	49%	52%	51%	50%

Changes Proposed Compared to Previous Portfolio

The 2018–2025 SoCalREN Business Plan portfolio did not contain the Agricultural Sector.

Sector-Specific Coordination

The Ag Sector programs are designed with coordination in mind to provide a seamless experience for participants. All implementers will regularly coordinate resources to ensure that all available resources available to Ag customers are understood. This includes programs outside of the SoCalREN Ag Sector portfolio, such as IOU 3P EE programs and other DER offerings. This creates efficiencies among programs and develops partnerships among organizations to share resources and increases reach **to** deliver on California's aggressive climate goals more effectively.

New: Agricultural Project Delivery Program

Market Segment: *Market Support*

Program Description

Ag-PDP Objectives

- Expand the implementation of cost-effective energy efficiency projects.
- Make energy efficiency expertise accessible and available.
- Integrate energy efficiency as a standard business practice for Agriculture customers.

The goal of the Southern California Regional Energy Network's (SoCalREN) Agriculture Sector is to identify andimplement cost-effective energy efficiency projects that yield electricity and gas savings for disadvantaged, small and medium rural and underserved agriculture communities/customers across the region. To achieve this goal, the SoCalREN Agriculture Energy Efficiency Project Delivery Program (Ag-PDP) aims to achieve the following objectives:

- Expand the implementation of cost-effective energy efficiency projects;
- Make energy efficiency expertise accessible and available; and
- Integrate energy efficiency as a standard business practice for Agriculture customers.

The Ag-PDP offers energy efficiency services to small and medium eligible Agriculture customers in the Southern California Edison (SCE) and SoCalGas service territories – including field and seed crops, fruit and nut crops, vegetables and melons, livestock and poultry, wineries, floriculture, and dairies - to help these customers reduce energy and maintenance costs at their facilities. According to SCE's business plan, these customers electric consumption was 2,400 GWh or 3% of the SCE's load in 2015. According to SCG's business plan the Ag sector consumed 70 million therms in 2015.

At no cost to the Ag customers, the Ag-PDP identifies energy saving measures and works side-by-side with these customers throughout the project lifecycle, from performance specification to construction completion,to implement energy efficiency strategies. The Program will work closely with SCE, SCG, and SoCalREN's public sector to engage and funneling cost-effective savings and solutions to the Ag- Retrofit and Ag-Direct Install (Ag-DI) resource programs. Through the coordination with SoCalREN's public sector water agencies and water special districts will be encouraged to promote the various other SoCalREN Ag Programs (e.g., Ag-WET, Ag-PDP, Ag-DI, Ag-Retrofit, and Ag-Finance programs) to their end use water customers.

Program Objectives

At no cost to the Ag customers, the Ag-PDP identifies energy saving measures and works side-by-side with these customers throughout the project lifecycle, from performance specification to construction completion, to implement energy efficiency strategies.

The Ag-PDP delivers savings by offering Ag customers comprehensive and customized project management and technical engineering services through a third-party implementer to implement cost-effective and streamlined energy efficiency projects. The Ag-PDP aligns with resource program downstream intervention strategies, and actively works to ensure other Program Administrator offerings, such as upstream, midstream, direct install, and third-party

programs, are leveraged when feasible. After enrollment into the program, each agency is assigned a dedicated project delivery team composed of project management staff and an assigned engineering firm. Throughout project identification and implementation, the project delivery team works with the agency to address project challenges and proactively identify solutions.

The Ag-PDP utilizes a multi-phase project delivery process to move agency projects from planning and identification to execution and completion. Each phase is made up of sub-tasks to ensure industry best practices, agency alignment, utility coordination, and cost-effective solutions are implemented throughout the project life cycle. The following is a high-level overview of the program delivery process and customer services deployed by the PDP.

- **Enrollment and Project Identification:** A customer is considered enrolled in the Ag-PDP once it signs a non-binding enrollment form that acknowledges Ag-PDP participation, responsibilities, and services. The enrollment process begins with an initial engagement presentation to introduce SoCalREN Ag Programs in coordination with the IOUs, Local Government Partnerships, Regional Partners, and other applicable program partners. The enrollment form is presented to the Customer during this meeting; program services are not offered until the form is signed and returned. Enrollment in the Ag Programs (e.g., Ag-Wet, AG-Finance, Ag-DI and AG-Retrofit). Once enrolled, an Ag-PDP project manager is assigned to the agency to begin the project development process.
- **Assessment:** Once a project is identified, the Customer is asked to sign a project commitment form that communicates program services and records the agency's commitment to pursue a viable project prior to the investment of limited program resources. The Ag-PDP project manager then works with the designated engineer to complete a detailed facility or site visit and identify a preliminary list of recommended energy efficiency measures to present to the agency.

  After the Customer selects which energy efficiency measures to implement, the engineer and Ag-PDP staff work together to prepare audit calculations and a project proposal that recommends operational and maintenance improvements and/or upgrades to equipment and controls. The proposal details the business case for the implementation of recommended energy measures by providing estimated project costs, energy bill savings, available incentives, and financing solutions for the package of measures. The Ag-PDP team then prepares and submits an IOU incentive application package to reserve incentives and on-bill financing (OBF) available to the agency if applicable. Other financing options may also be applied for and pursued at this time.

  When possible, the audit phase is completed in coordination with applicable program partners, such as IOU Local Government Partnerships, Regional Partners, and third-party programs. Coordination among partners ensures that a robust array of service offerings is provided to the Customer, while also improving cost-effectiveness across programs and avoiding duplication of efforts. Other SoCalREN Ag Program offerings are also integrated during this phase if applicable.
- **Design and Procurement:** The assigned engineer completes technical performance specifications for the selected measures. If the agency releases a bid for project construction services, the PDP can provide procurement support in the form of supplementary bid package materials and sample language as required.

- **Customer Approval:** The Ag-PDP project manager prepares a detailed project proposal package to assist agency staff with obtaining the necessary approvals for the project, which may include a staff report and draft resolution, scope of work, cost proposal, and any identified utility incentives and/or financing documents. The Customer submits the necessary signed documentation and issues a purchase order to the contractor for construction services.
- **Construction:** During the construction phase, the agency is the "project owner of record" responsible for all construction contracts and costs, as well as designating a construction manager. The agency may choose to manage the construction on its own, or access simplified construction management services through the Program Partners. The Ag-PDP project management team provides construction management support throughout the process, including review of contractor submittals and verification that the work is performed in accordance with the design specifications to ensure the expected energy savings are achieved and incentives are captured.
- **Completion:** Once the project is installed and verified, the PDP team will work with the Customer and contractor to collect the information required to submit the appropriate project close-out information to the applicable resource program so the agency can receive incentives and the savings can be accrued for the project. The contractor is responsible for the transfer of all appropriate documentation, knowledge, and training to the agency and the facility management personnel for new installed equipment and/or operational changes. After project completion, the Customer receives a survey to provide feedback on the impact of program services utilized to complete the energy efficiency project and how the program can improve.

Program Rationale

SoCalREN believes that the small and medium Ag customers in rural, disadvantaged communities will not be the primary focus of SCE and SoCalGas' third-party programs due to TRC constraints of greater than 1.0 and cost to serve. Due to the reduced avoided costs in 2024, SCE's and SoCalGas' third-party program will have difficulty achieving their required TRC of 1.0 which will make it even harder for them to serv small and medium, rural, disadvantaged communities.

Market Barriers Addressed

The fragmented way in which the energy industry currently delivers services and incentives makes it challenging to achieve deep energy retrofits. This results in multiple barriers to whole building retrofits and a "project delivery gap" for the customer. A key barrier for customers is understanding the benefits of implementing energy projects on a comprehensive scale. Further, Ag customers often lack sufficient in-house expertise and necessary financial resources. These are important challenges to solve because Ag customers are significant players in the energy field, both as consumers and as leaders of their communities. The PDP addresses these barriers by providing services to streamline energy efficiency project implementation with sustained technical assistance, and support in accessing project funding.

Target Market

The primary target market for the SoCalREN Ag-PDP program is small and medium DAC, rural and underserved Ag customers operating in SoCalREN territory. Small and medium businesses are

defined as having annual non-coincident peak demand of less than 50 kW and less than 250 kW respectively.

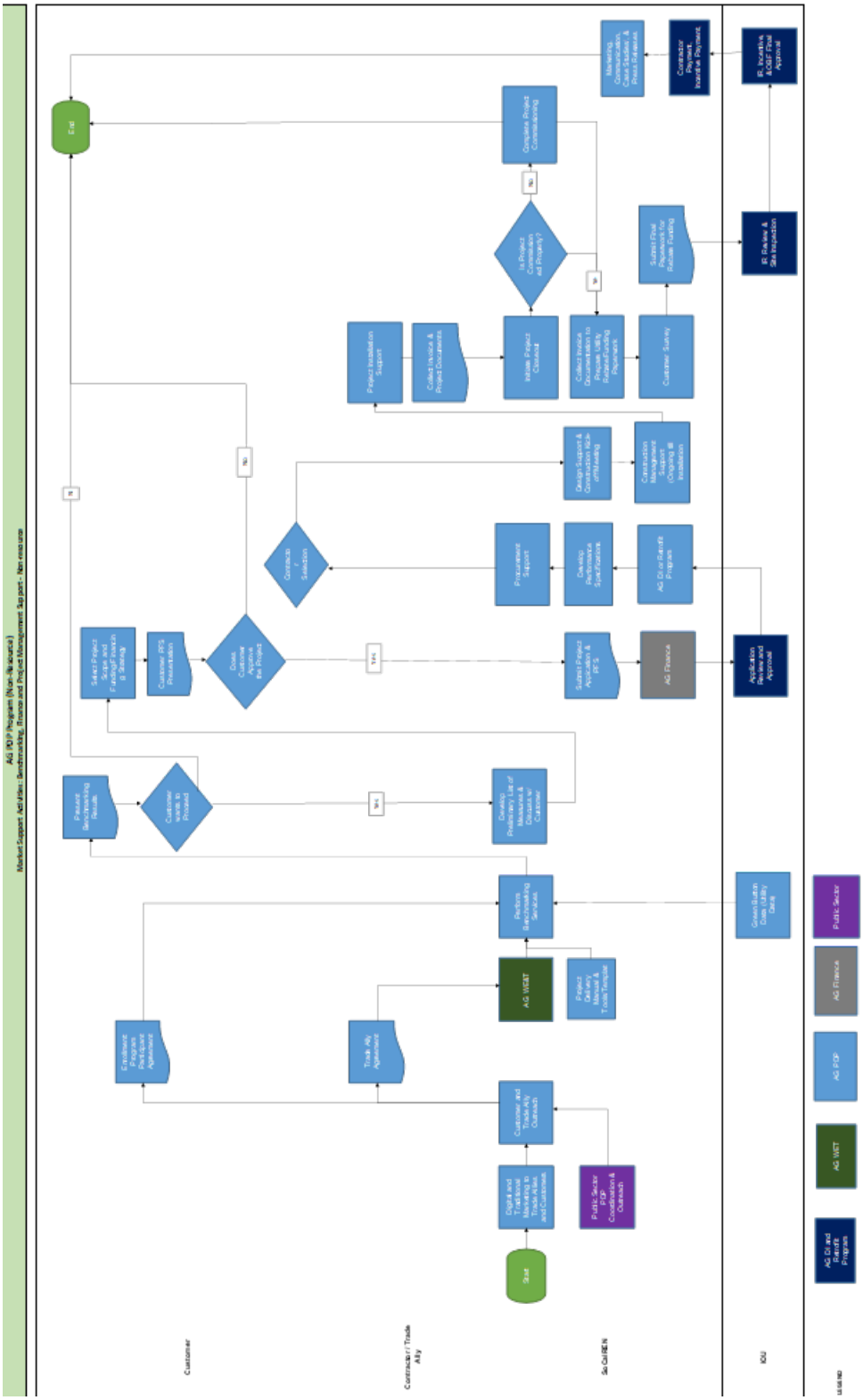
Table 51. Ag Target Market Usage

SCE Segment	Demand	% of SA	# of Accounts	Total GWh Usage[18]	Avg kW per Account
Large	≥250 kW	2%	600	899	480
Medium	≥50 kW, < 250 kW	16%	4,800	1191	100
Small	< 50 kW	82%	24,600	340	8
Total		100%	30,000	2,430	Weighted Avg – 32 kW

[18]Based on breakdown per customer segment from SCE's Business Plan and sector usage of 3% of SCE total usage.

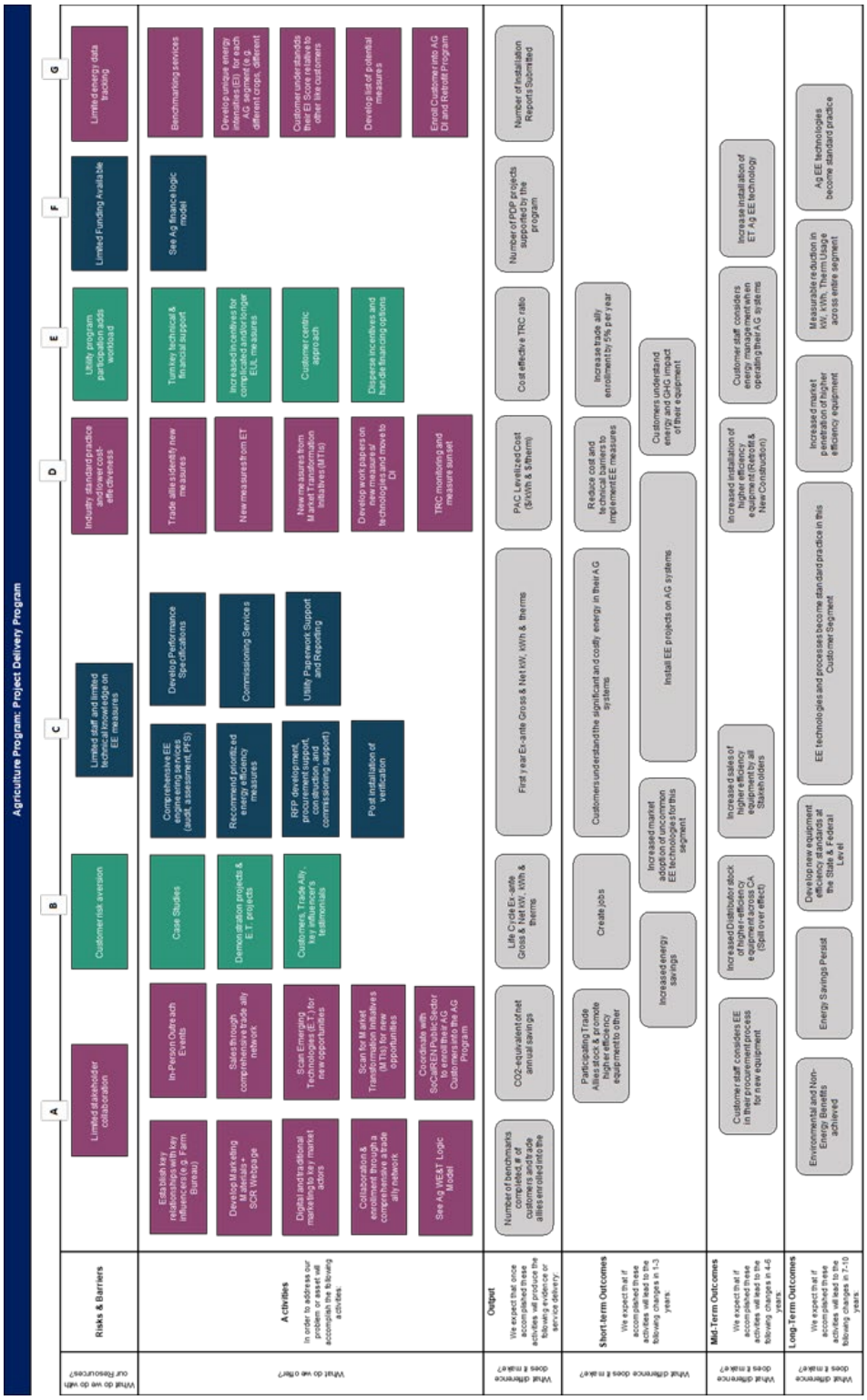
Program Process

Figure 13. Ag PDP Program Process



Logic Model

Figure 14. Ag PDP Logic Model



Program Budget

Table 52. Ag-PDP Program Budget

Program Name	2024	2025	2026	2027
Ag-PDP	$650,000	$725,000	$800,000	$800,000

Program Metrics and Targets

Quantitative Program Targets

Table 53. Ag-PDP Annual Metrics and Reporting Methods

Metric	Method	Targets
First-Year Net GWh Savings Claimed	Savings channeled through SoCalREN resource (Ag-DI and AG-Retrofit) programs	61.4 GWh
First-Year Net kW Savings Claimed		60,295 kW
First-Year Net Therm Savings Claimed		339,975 Therms
Agency Enrollment	Number of customers enrolled in SoCalREN PDP	400 customers
Increased Pipeline	Energy savings identified through completed audits to be installed in future years	Indicator
Program Savings Contribution to Market Share	Overall contributions of energy savings to IOU programs as measured by percentage of overall Ag Sector savings	Indicator
Job Creation	Number of new construction jobs as measured by construction costs	Indicator
Capacity and Expertise	Number of informational outreach activities conducted by SoCalREN	Indicator
Customized Services	Reporting of services leveraged as a percentage of completed projects	Indicator
Educational Material	Number of fact sheets, newsletters, and case studies generated by the SoCalREN program	Indicator
Customer Satisfaction	Enrolled agency satisfaction rating as reported in annual program survey	Indicator
Completed Projects in Disadvantaged Communities	Percent of projects completed in disadvantaged communities	40%
Regional Environmental Benefits	Metric tons of greenhouse gas (GHG) emissions reduced regionally as measured by lifetime gross energy savings of completed EE projects	Indicator

The necessary project information will be gathered through a series of discussions and verification checks with each public agency customer. The PDP CRM database system will be used to track information about the customer, project, energy savings claimed and other details that will help show the impact of this program. This will be done on a quarterly basis and more frequently as needed. Once the information is gathered, it will be entered in the database and then used to generate reports. Savings will support overall SoCalREN public sector goals.

REN Program Compliance

Neither utilities nor CCA program administrators will intend to have a non-resource Agricultural program that will expand the adoption of energy efficient measures to disadvantaged, small and medium rural and underserved DAC agriculture communities.

Program Partners

Trade allies, SoCalREN Public Sector, SoCalREN WE&T and Finance, equipment manufacturers, distributors, wholesalers, and contractors

Program Coordination

Coordination will occur with SoCalREN's Rural-HTR DI Agricultural Program, SoCalREN's Ag-Retrofit Program, in addition to SoCalREN's Public, WE&T, and Finance Sectors.

New: Rural-HTR Agricultural Direct Install Program

Market Segment: *Equity*

Program Description

The Rural-HTR Ag DI Program will provide technical assistance, incentives, and direct install services to qualified agricultural customers to achieve energy savings through optimization of any end users in the sector that can cost effectively be upgraded resulting in a TRC of 1.25 or higher. The program works with technology providers, distributors, and contractors to advance cost effective energy efficiency measures to underserved customers. The program is designed to develop deemed workpapers to accelerate the adoption of EE measures and direct install services for high TRC measures. Measure will then be marketed to customers through WE&T and WEB-DATA interventions described earlier. Collaborations with contractors and customer leads developed through other interventions can also feed into application of this program. The program will provide the above-described streamlined approach to getting cost effective energy efficiency measures installed by Ag Customers.

SoCalREN envisions the Ag deemed direct install program to enable small to medium sized ag customers access to new and efficiency technology. The program will provide Ag customers the necessary technical and financial lift to align with state energy efficiency goals. The objective of this program is to remove the barrier of upfront costs, provide technical and full installation support to completing energy efficiency projects. As stated in section E by a survey of Ag Customers in Evergreens study, existing rebates are too low and upfront cost are too high for many Ag customers to consider purchasing new or more efficient equipment. Additionally, Ag customers don't have the resources, labor workforce, or the knowledge of new emerging technology to keep up with changing policies and state goals. The program will completely lift this burden from Ag customers, which will be even more important for DAC and Rural Hard-to-Reach customers who are having trouble competing with consolidation and efficient grow process that larger companies have already implemented. Through SoCalREN, even the smallest customers can have now had the ability to complete an energy efficiency project.

As a resource intervention, direct energy savings will be the primary goal for this program. Savings have been estimated from analysis of most common and cost-effective measures. The goal is to achieve a substantial market potential by year 4 that would be provided with the availability of this program and increased marketing efforts and barrier lifts provided by non-resource interventions.

Program Rationale

SoCalREN believes that the small and medium Ag customers in rural, disadvantaged communities will not be the primary focus of SCE and SoCalGas' third-party programs due to TRC constraints of greater than 1.0 and cost to serve. Due to the reduced avoided costs in 2024, SCE's and SoCalGas' 3rd party program will have difficulty achieving their required TRC of 1.0 which will make it even harder for them to serv small and medium, rural, disadvantaged communities.

Market Barriers Addressed

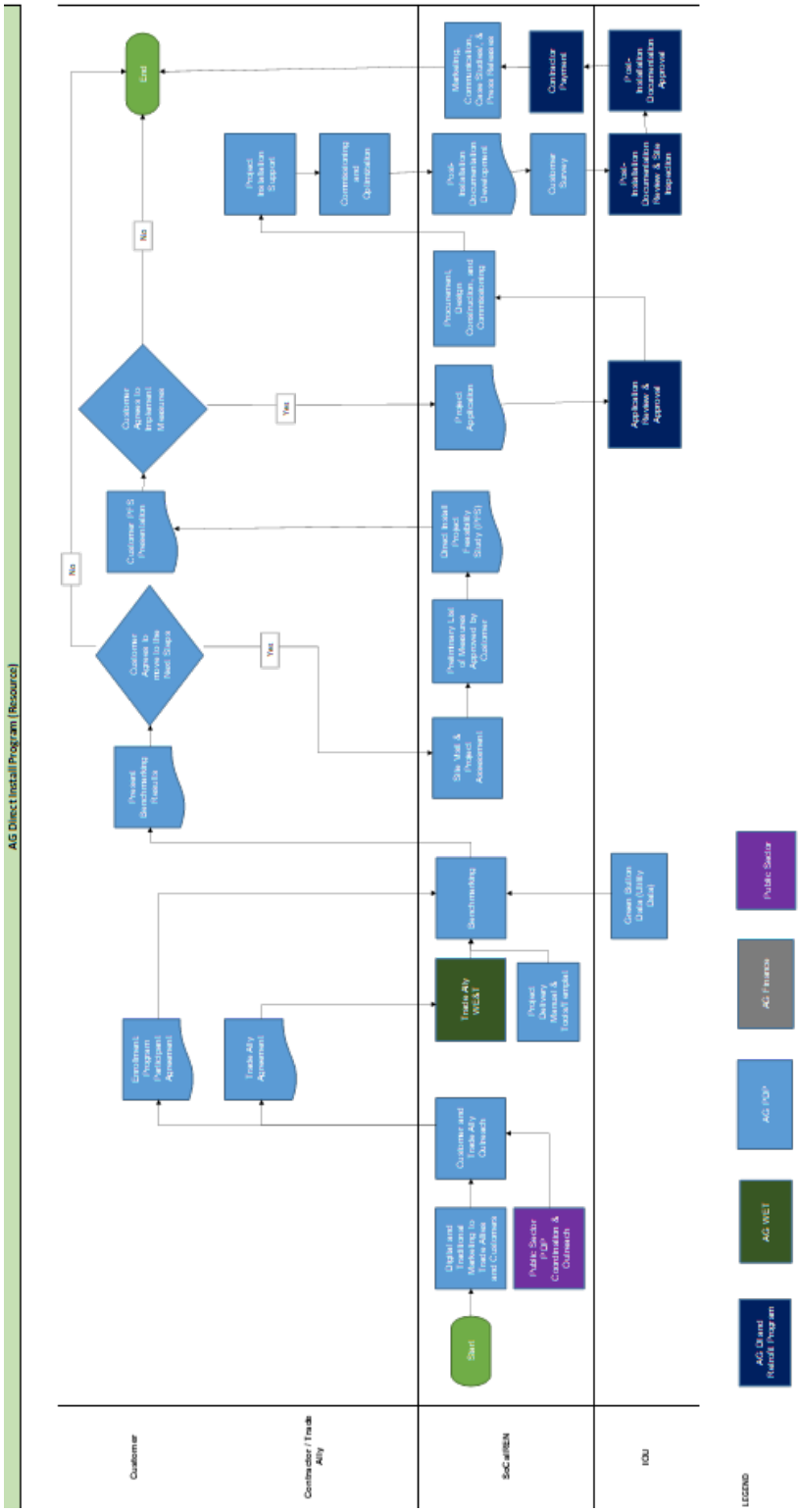
The fragmented way in which the energy industry currently delivers services and incentives makes it challenging to achieve deep energy retrofits. This results in multiple barriers to whole building retrofits and a "project delivery gap" for the customer. A key barrier for customers is understanding the benefits of implementing energy projects on a comprehensive scale. Further, agencies often lack sufficient in-house expertise and necessary financial resources. These are important challenges to solve because Ag customers are significant players in the energy field, both as consumers and as leaders of their communities. The PDP addresses these barriers by providing services to streamline energy efficiency project implementation with sustained technical assistance, and support in accessing project funding.

Target Market

Priority marketing will be for Small to Medium Ag Customers (<250 kW) including Disadvantaged Communities (DAC) and Hard to Reach (HTR) Ag customers. This includes Small Business Customers, Severely Disadvantaged Communities (SDACs), and Socially Disadvantaged Farmers and Ranchers. However, measures developed and influenced through custom approaches described in Intervention 2, 3, and 4 can also be applied through this program if the measure can more cost effectively be installed through the Deemed Direct Install approach.

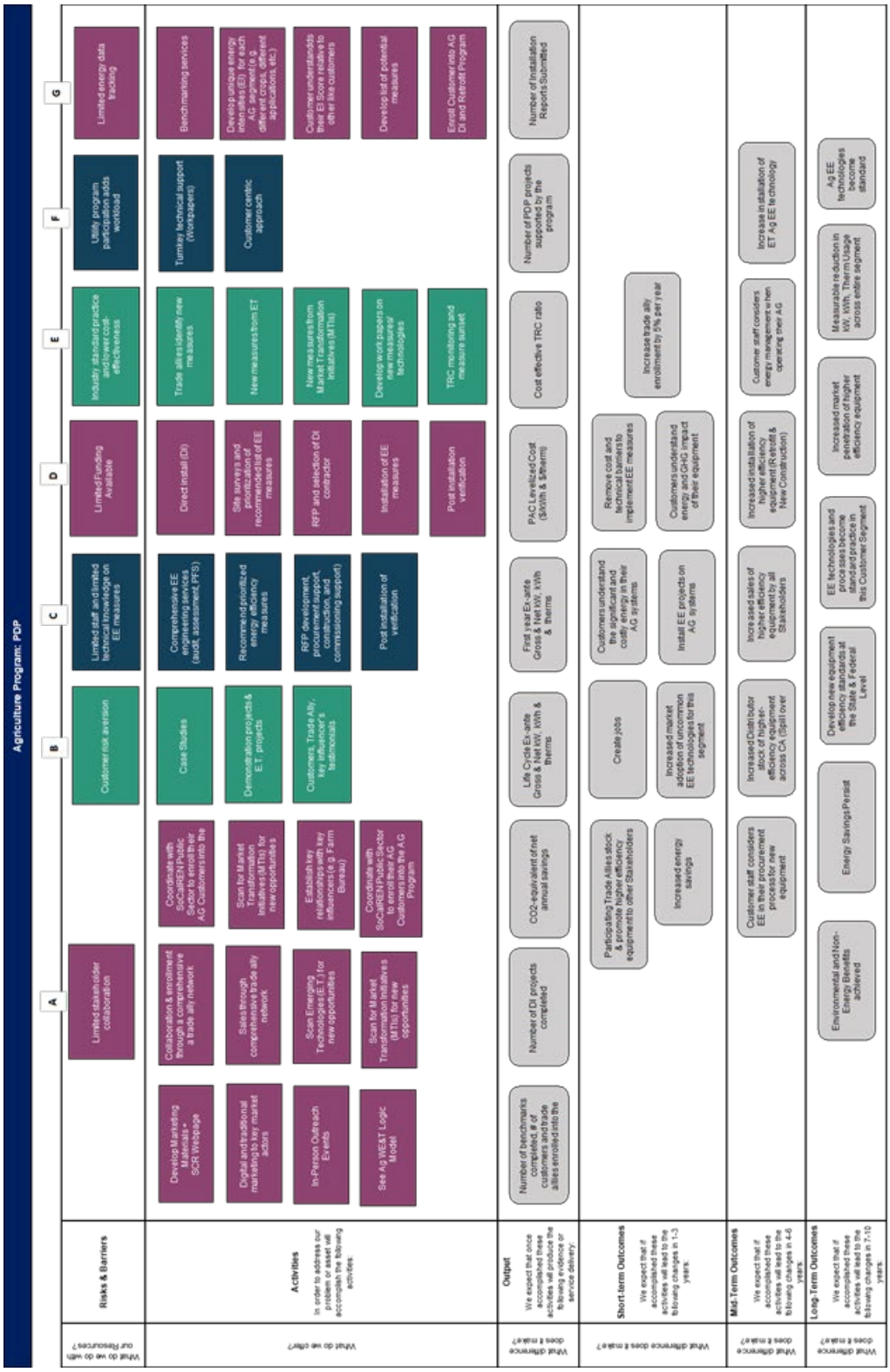
Program Process

Figure 15. Rural-HTR Ag DI Program Process



Logic Model

Figure 16. Rural-HTR Ag DI Logic Model



Incentive Structure

Table 54 provides the applicable workpaper values for the DI measures.

Table 54. Rural-HTR Ag DI Target Measures and Relevant Workpapers

Target Measure	Relevant Workpaper
Booster Pump Overhaul	SWWP002-02
Outdoor Area Lighting	SCE17LG097
Indoor Lighting	SCE17LG097
Greenhouses and Indoor Agricultural Heating	SWBE001-01

Measures and Treatment

Target Measures

The program will utilize workpaper measures available as well as influence on emerging technology to develop new workpapers through collaboration with IOUs and CPUC. Below is a preliminary list of measures that could be considered:

- Booster Pump Overhaul
- Booster Pump VSD
- Evapotranspiration Monitoring and Optimization
- Greenhouses and Indoor Ag heating
- Indoor Ag–Lighting
- Outdoor Area Lighting
- Well Pump Overhaul
- Well Pump VSD

The program will target all measures that can achieve energy savings through efficiency upgrades, including process optimization and behavioral retrofits with significant opportunities for water savings. Please see forecasted measures table below the Goals and Budget section for more details on measures forecasted for savings and budget.

Target End Uses

Agricultural end-use equipment that will be targeted include irrigation systems and water distribution systems such as going beyond well pumps and booster to look at connected canals, piping, heating/cooling, or treatment systems and more. Furthermore, the program will target and prioritize water end-users with potential for embedded energy savings.

Goals

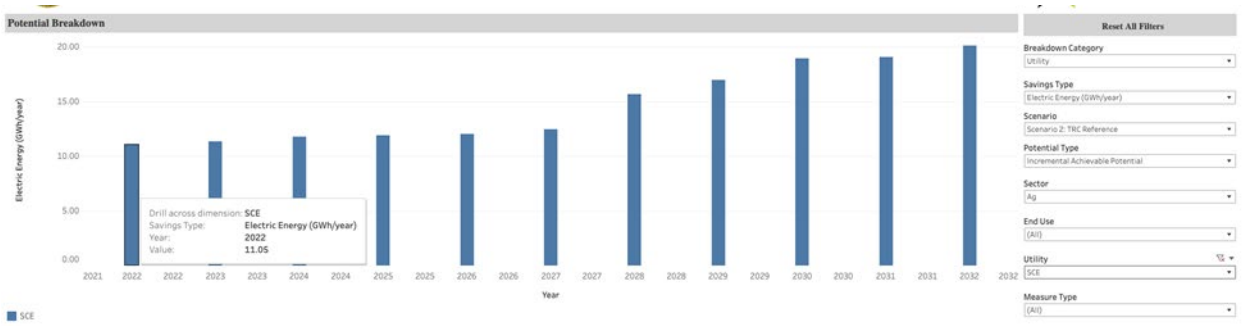
Table 55. Rural-HTR Ag DI Program Goals

	2024	2025	2026	2027	Total
Net kWh	377,505	1,123,972	1,184,324	1,879,573	4,565,374
Net kW	30	61	91	663	845
Net Therms	36,954	73,908	110,861	118,252	339,975
TRC	0.34	0.39	0.37	0.40	0.38
TRC w/ Avoided Water Benefits	0.34	0.39	0.37	0.40	0.38

Market Potential

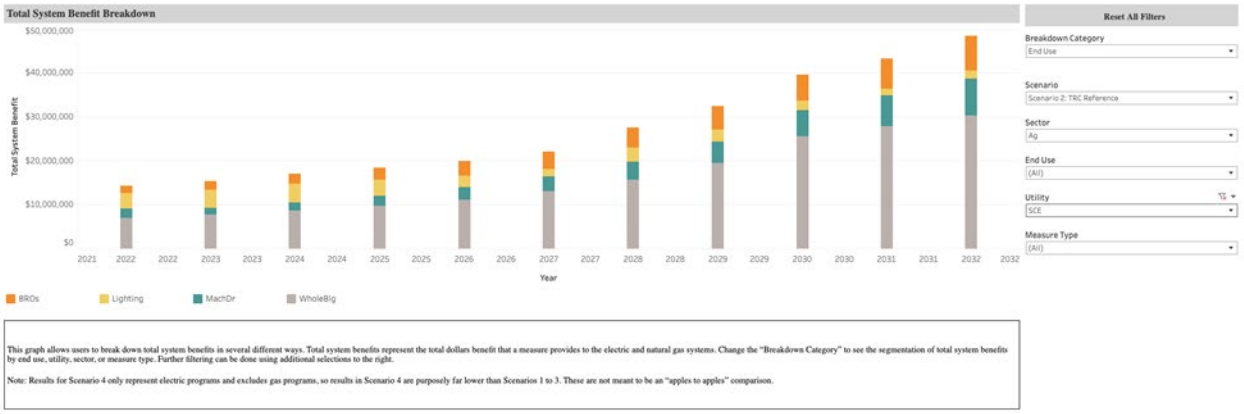
The figure below shows SCE's 2022-2032 incremental achievable potential by GWh/year.

Figure 17. SCE Market Potential



The figure below shows SCE's expected Ag 2022-2032 TSB breakdown by end-use.

Figure 18. SCE 10-Year Ag TSB



Program Budget

Table 56. Rural-HTR Ag DI Program Budget

Program Name	2024	2025	2026	2027
Rural-HTR Agricultural DI: Ag-DI	$1,159,750	$2,603,624	$3,424,547	$3,779,030

Program Metrics and Targets

Quantitative Program Targets

Table 57. Rural-HTR Ag DI Program Metrics

Common Problem	Final Common Metric
Capturing energy savings	First year and lifecycle ex ante (pre-evaluation) annualized gas, electric, and demand savings in agriculture sector, gross and net
Greenhouse Gas Emissions	GHG (MT CO2eq) Net kWh savings, reported annually
Penetration of energy efficiency programs and diversity of participants	Percent of participation relative to eligible population for small and medium Ag customers broken out by DAC and non-DAC customers
Cost per unit saved	Levelized cost of energy efficiency per kWh, therm, and kW (use both TRC and PAC)

REN Program Compliance

Neither utilities nor CCA program administrators will intend to have a direct install Agricultural program that will expand the adoption of energy efficient measures to disadvantaged, small and medium rural and underserved agriculture communities.

Program Partners

Trade allies, SoCalREN Public Sector, SoCalREN WE&T and Finance, equipment manufacturers, distributors, wholesalers, and contractors.

Program Coordination

Coordination will occur with SoCalREN's Agricultural Project Delivery Program, SoCalREN's Ag-Retrofit Program, in addition to SoCalREN's Public, WE&T, and Finance Sectors.

New: Agriculture Retrofit Program

Market Segment: Resource Acquisition

Program Description

SoCalREN envisions the Custom Comprehensive Incentive program to enable deep whole building/whole Ag savings at small to medium sized, rural, and disadvantaged ag customers. The program will provide Ag customers the necessary technical assistance to identify resource savings and process improvements through energy advisor audits. Additionally, incentives in the form of engineering support and paid for performance rebates will be provided to offset the initial cost of installations. The objective of this program is to provide technical and financial support to completing whole building energy efficiency projects. As stated in section E by a survey of Ag Customers in Evergreens study, existing rebates are too low and Ag customers do not prioritize energy efficiency over greater concern for water and environment. The program will take a holistic approach to combine the benefits of energy savings with the priorities of the customer while providing incentives that promote deeper energy savings.

The Ag-Retrofit Program drives installation of cost-effective solutions primarily through a combination of strategic measure focus and providing relevant technical assistance (AG-Ag-Retrofit) to drive customer awareness of both energy efficiency (EE) and non-EE measure benefits. In some cases, measures with high cost-effectiveness are relatively unknown to the target customers and face significant adoption barriers. For these measures, additional emphasis will be placed on creating compelling marketing collateral, case studies, and training curriculum (AG-WE&T) for AG customers and equipment vendors. This effort will be supplemented by current and anticipated non-EE funding (e.g., USDA grants). These grants (AG-Finance) will provide significant additional resources to promote measures and overcome trust barriers, and specific funding will be pursued to achieve savings cost-effectively for underserved communities. Additionally, the AG-Retrofit Program recognizes the importance of water savings within California's agricultural sector and will identify new partnership and funding opportunities targeting the water-energy nexus. The program will work collaboratively with SCE and SoCalGas to evaluate and qualify opportunities to pursue grants to drive customer awareness and adoption of new and underutilized technologies that simultaneously achieve energy and water savings.

The AG-Retrofit Program identifies and works with SCE and SoCalGas Ag industry customers to help them understand the benefits of implementing energy saving projects and measures; provides technical and project development assistance as needed; offers financial incentives and financing options; and for small/medium Disadvantaged Communities ("DAC") and Hard-to-Reach ("HTR") customers, installation of certain energy saving measures. The following activities will be conducted in support of achieving Program goals:

- Offer the Ag-Retrofit program focuses mainly on small and medium Ag customers that are engaged in growing, producing, and processing various on-farm crops and animal products with a special emphasis on rural and underserved communities.
- Employ a multi-level outreach strategy that leverages the Program's account management team, local contractors, equipment vendors, key industry associations including universities, and other types of trade allies and service providers that engage the agricultural community.

- Utilize analytics-based customer targeting to identify and engage HTR customers and DAC regions to assist them in saving energy.
- Provide in-language sales and promotion materials (including Spanish and Hmong) and establish strategy partnerships aligned with unique Ag customer segments.
- Provide Ag customers with energy engineering support to identifying Deemed, Custom and NMEC measures.
- Provide Ag customers with access to an Ag-Retrofit Program information via a Program website.
- Offer a variety of incentive payments suitable for the customer size, project size, HTR or DAC classification, and project complexity/scale and measure type (e.g., deemed, custom, or NMEC).
- Identify and evaluate partnership and funding opportunities to increase adoption of new and underutilized technologies that achieve both water and energy savings and develop full funding applications for any such opportunities that SoCalGas approves pursuing.

Program Rationale

SoCalREN believes that the small and medium Ag customers in rural, disadvantaged communities will not be the primary focus of SCE and SoCalGas' third-party programs due to TRC constraints of greater than 1.0 and cost to serve. Due to the reduced avoided costs in 2024, SCE's and SoCalGas' third-party program will have difficulty achieving their required TRC of 1.0 which will make it even harder for them to serv small and medium, rural, disadvantaged communities.

Market Barriers Addressed

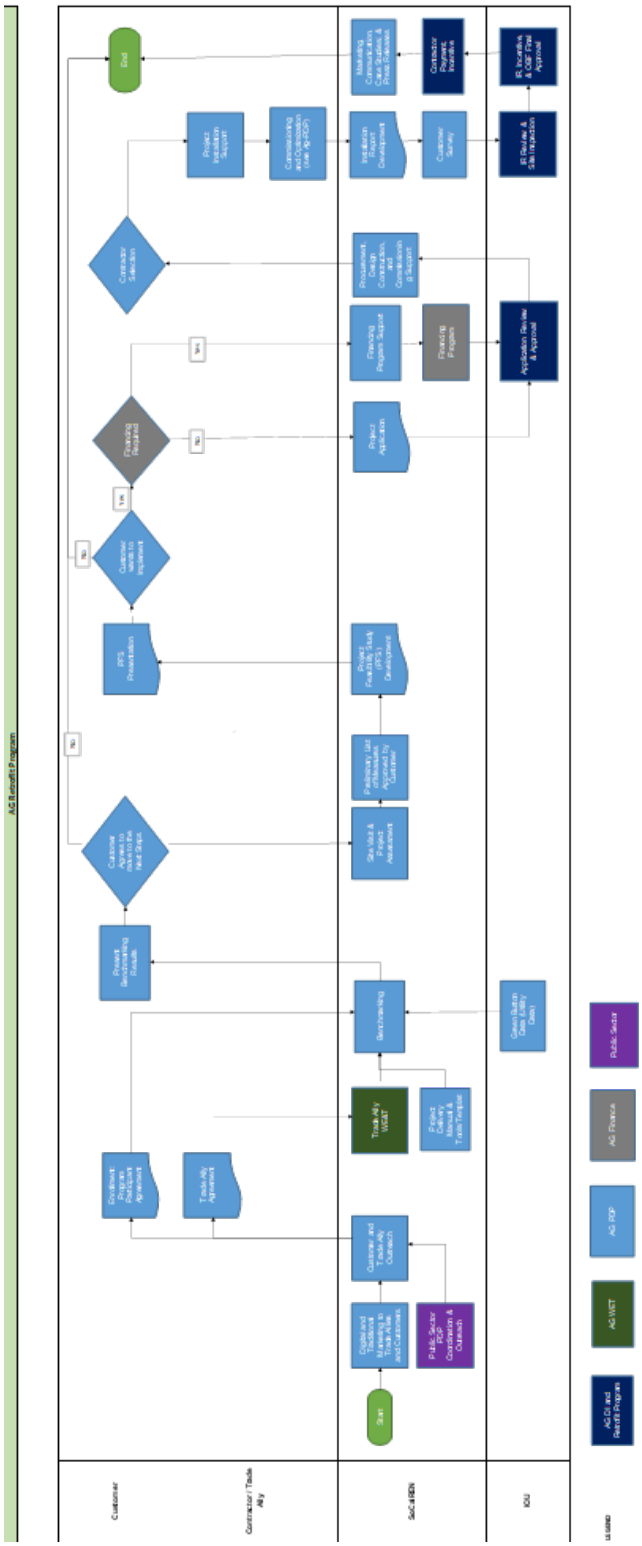
The fragmented way in which the energy industry currently delivers services and incentives makes it challenging to achieve deep energy retrofits. This results in multiple barriers to whole building retrofits and a "project delivery gap" for the customer. A key barrier for customers is understanding the benefits of implementing energy projects on a comprehensive scale. Further, agencies often lack sufficient in-house expertise and necessary financial resources. These are important challenges to solve because Ag customers are significant players in the energy field, both as consumers and as leaders of their communities. The SoCalREN Ag Program addresses these barriers by providing services to streamline energy efficiency project implementation with sustained technical assistance, and support in accessing project funding.

Target Market

Priority marketing will be for small and medium Ag Customers (>250 kW) including water agencies and irrigation districts to achieve greater savings through whole building custom approach and process optimization.

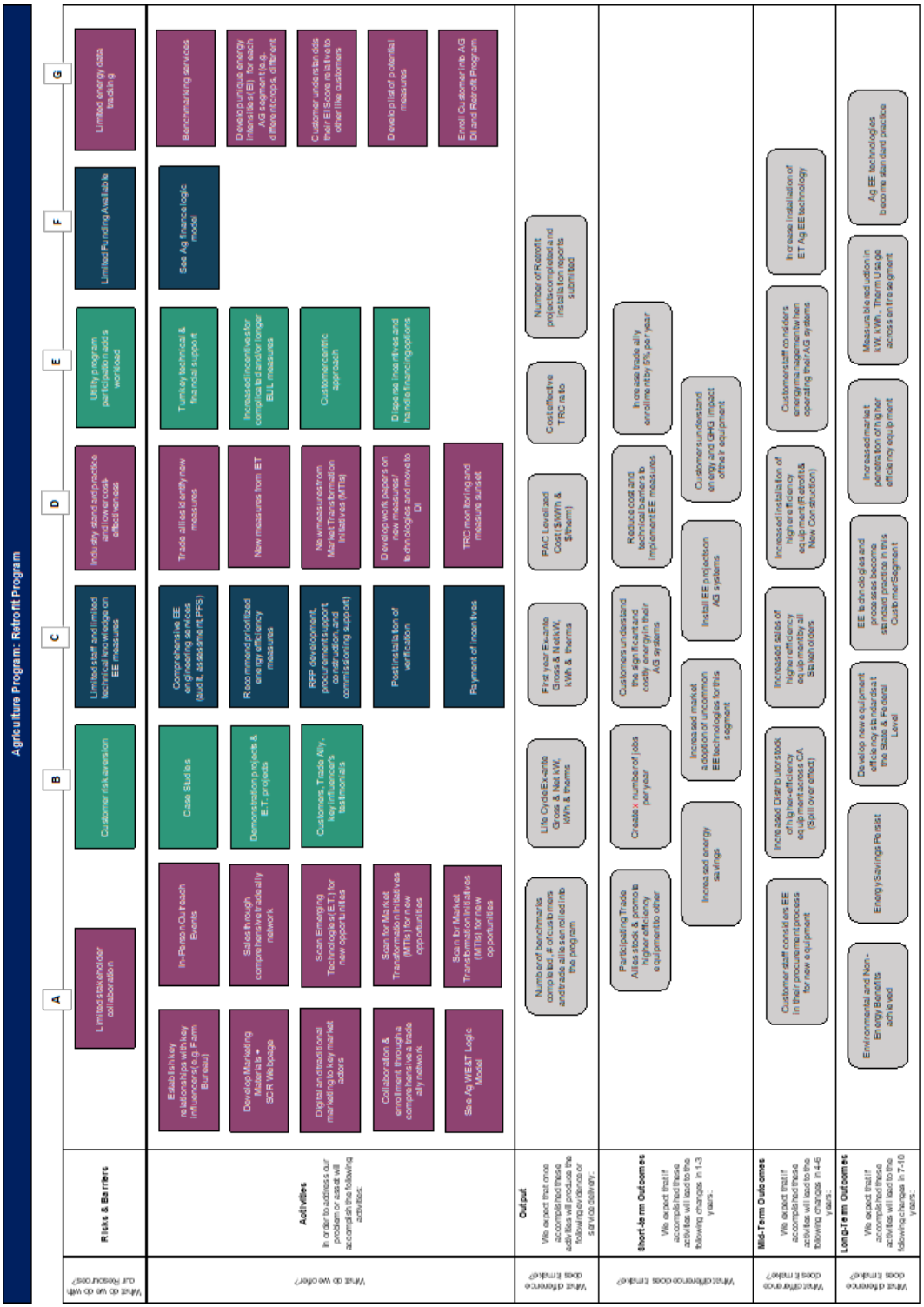
Program Process

Figure 19. Ag-Retrofit Program Process



Logic Model

Figure 20. Ag-Retrofit Logic Model



Incentive Structure

- Maximum customer incentives will be calculated based on net, lifecycle savings. Lifecycle savings will be based on project-level EULs (see the M&V Plan Subsection "Project Level EULs").
- EULs for electric energy and gas energy (kWh and therms) will be discounted for the purposes of incentive calculations.
- Net, discounted lifecycle savings will be multiplied by site-level NMEC incentive rates to calculate the maximum incentive. These calculations will be based on ex-ante savings estimates, which will then be trued-up to NMEC measured savings once obtained.
- Maximum incentive calculations may receive a DAC, HTR, or Grid Constrained Load Shape Benefit multiplier where justified.
- Depending on customer barriers and needs, the calculated maximum incentive may be provided as equivalent technical or financing services, or as direct cash incentives.

Measures and Treatment

Target Measures

The program will target all measures that can achieve energy savings through efficiency upgrades, including process optimization and behavioral retrofits with significant opportunities for water savings. Measures include, but are not limited to:

- Barn ventilation
- Booster Pump Overhaul
- Booster Pump VSD
- Evapotranspiration monitoring and optimization
- Greenhouse air distribution, condensing boilers, and heating envelope measures
- Process Optimization
- Well Pump Overhaul
- Well Pump VSD

The program will target all measures that can achieve energy savings through efficiency upgrades, including process optimization and behavioral retrofits with significant opportunities for water savings. Please see forecasted measures table below the Goals and Budget section for more details on measures forecasted for savings and budget.

Target End Uses

Agricultural end-use equipment that will be targeted include irrigation systems and water distribution systems such as going beyond well pumps and booster to look at connected canals, piping, heating/cooling, or treatment systems and more. Furthermore, the program will target and prioritize water end-users with potential for embedded energy savings.

Goals

Table 58. Ag-Retrofit Program Goals

	2024	2025	2026	2027	Total
Net kWh	4,121,863	10,923,760	19,568,025	22,187,531	56,801,180
Net kW	4,510	11,953	20,145	22,841	59,449
Net Therms	0	0	0	0	0
TRC	0.77	0.83	0.82	0.84	0.82
TRC w/ Avoided Water Benefits	0.77	0.83	0.82	0.84	0.82

Market Potential

Please see Figure 17. SCE Market Potential and Figure 18. SCE 10-Year Ag TSB.

Program Budget

Table 59. Ag Retrofit Program Budget

Program Name	2024	2025	2026	2027
Agriculture Retrofit: Ag-Retrofit	Resource Acquisition	$870,030	$1,965,265	$2,326,497

Program Metrics and Targets

Quantitative Program Targets

Table 60. Ag Retrofit Program Metrics

Common Problem	Final Common Metric
Capturing energy savings	First year and lifecycle ex ante (pre-evaluation) annualized gas, electric, and demand savings in agriculture sector, gross and net
Greenhouse Gas Emissions	Greenhouse gasses (MT CO2eq) Net kWh savings, reported on an annual basis
Penetration of energy efficiency programs and diversity of participants	Percent of participation relative to eligible population for small and medium Ag customers broken out by DAC and non-DAC customers
Cost per unit saved	Levelized cost of energy efficiency per kWh, therm, and kW (use both TRC and PAC)

REN Program Compliance

Regional Energy Network programs are designed to fulfill the following CPUC REN criteria:

- Activities that utilities or Community Choice Aggregator (CCA) program administrators cannot or do not intend to undertake.
- Pilot activities where there is no current utility or CCA program offering, and where there is potential for scalability to a broader geographic reach, if successful.
- Activities serving hard-to-reach markets, whether there is another utility or CCA program that may overlap.

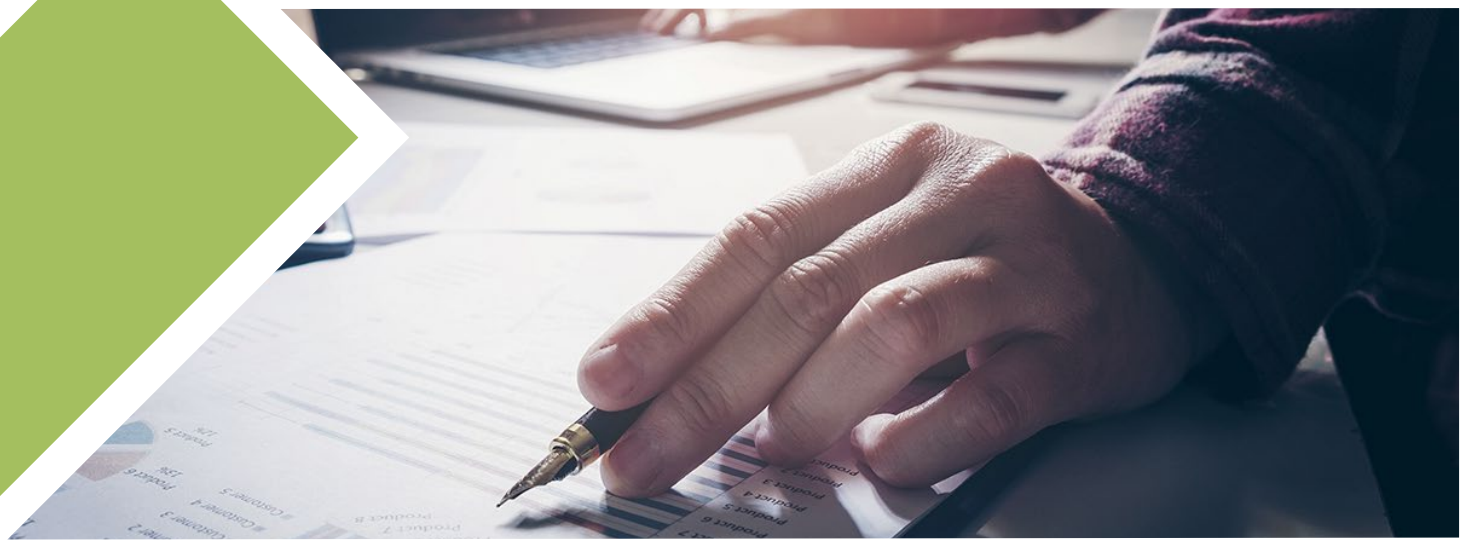
Neither utilities nor CCA program administrators will intend to have an Agricultural retrofit program that will expand the adoption of energy efficient measures to disadvantaged, small and medium rural and underserved agriculture communities.

Program Partners

Trade allies, SoCalREN Public Sector, SoCalREN WE&T and Finance, equipment manufacturers, distributors, wholesalers, and contractors

Program Coordination

Coordination will occur with SoCalREN's Agricultural Project Delivery Program, SoCalREN's Rural-HTR DI Program, in addition to SoCalREN's Public, WE&T, and Finance Sectors.



CODES AND STANDARDS CROSS-CUTTING SECTOR

SoCalREN's Codes and Standards (C&S) Cross-Cutting Sector offers services to build local government capacity and accelerate local leadership to decarbonize existing and new construction within communities.

SoCalREN's C&S program will engage and support local governments in improving energy code compliance and adopting model/reach energy codes, standards, and policies to help build the pathway to zero net energy (ZNE) communities. Our program seeks to accelerate local government leadership in energy efficiency (EE) through their regulatory authority over construction and land use and the implementation of model codes, standards, and policies that will improve the energy performance of existing buildings and new construction.

Summary of Sector

SoCalREN's C&S interventions will complement and not duplicate the efforts of the statewide joint investor-owned utility (IOU) C&S program. While the statewide IOU C&S program provides tools and resources to a subset of C&S stakeholders, the C&S landscape is large and important enough to warrant local activities, particularly considering current gaps, barriers and challenges. For example, statewide IOU C&S building department training courses cannot be widely attended (even virtually) by staff simply because of limited staff resources and their pressing day-to-day duties. Furthermore, one jurisdiction's building stock and emissions inventory often differs greatly from adjacent communities and requires a tailored strategy.

SoCalREN's proposed Energy Code Coach services, for example, speaks directly to these gaps and seeks to address barriers that previous programs have not sufficiently addressed. A special emphasis will be placed on support and assistance to smaller permitting agencies with more capacity and resource constraints compared to larger agencies.

In addition, the SoCalREN approach will develop a comprehensive Compliance Enhancement Program template that addresses the entire compliance cycle, from building design to operation. This is something that is not covered by any existing IOU C&S programs and can thoroughly prepare the C&S community for quickly approaching EE, ZNE and electrification mandates. The focus will be on implementing systematic improvements along the entire permitting process spectrum.

Budget Distribution and Rationale

Table 61 below outlines the four-year budget for the C&S sector.

Table 61. C&S Sector Budget

2024	2025	2026	2027
$650,000	$720,000	$ 810,000	$800,000

Goals, Objectives, Strategies and Outcomes

Goals

- Provide C&S community members with actionable resources to enhance energy code compliance, reduce energy use in buildings, and advance the state's energy efficiency and GHG reduction goals.
- Support public agencies and external C&S stakeholders to adopt, implement, and enforce advanced energy codes, standards, and policies that pave the way for improved building energy performance and promote decarbonized and ZNE construction practices.
- Facilitate and assist public agencies in collecting and using C&S-related data to inform better energy code compliance as well as the adoption and implementation of advanced energy codes and policies.

Strategies

- Assist and advocate in developing and promulgating Advanced Energy Codes and support local implementation and compliance strategies.
- Coordinate with C&S community to streamline permitting processes and demonstrate the value of better energy code compliance.
- Use innovative information dissemination and training strategies to build permitting agency staff capacity and competency.
- Develop tools and templates to support trade allies and their supply chains to promote/accelerate building electrification and adoption of innovative energy technologies.
- Collaborate with the administrators of residential and commercial energy benchmarking and energy performance rating tools & software to help drive higher energy performance in new and existing buildings.

Outcomes

SoCalREN compliance enhancement activities will produce outcomes that establish a baseline for compliance capacity among the C&S community members in the region via survey and direct measurement of current compliance activities and performance, followed by the establishment of specific, actionable goals and deliverables that will help move the region toward enhanced compliance results. SoCalREN will conduct ongoing EM&V to assess progress toward goals and adjust tactics as necessary to ensure continued and verifiable success.

SoCalREN's C&S team will work collaboratively with other C&S PAs to inform statewide C&S roadmaps and plans to ensure they are informed by "on-the-ground" C&S stakeholders. Similarly, SoCalREN's C&S team will work with C&S PAs, the CPUC Energy Division, and the California Energy Commission to determine the best ways to measure, evaluate, and learn from SoCalREN C&S activities as the state continues on the path to high performance, decarbonized, and ZNE buildings. SoCalREN will collaborate with fellow C&S program implementers to develop appropriate expectations and processes for scaling successful C&S interventions to better achieve state energy and climate goals.

Categorization of Programs by Segment

The SoCalREN Codes and Standards Compliance Enhancement program is categorized as Codes and Standards.

Changes Proposed Compared to Previous Portfolio

Codes and Standards is a new sector for SoCalREN and was not included in the previous portfolio.

New: Codes & Standards Compliance Enhancement Program

Market Segment: *Codes & Standards*

Program Description

SoCalREN will design all Codes and Standards (C&S) interventions within a framework for creating decarbonized zero net energy (ZNE) communities. SoCalREN seeks to accelerate local government leadership in energy efficiency (EE), ZNE, and greenhouse gas (GHG) goals through their regulatory authority over construction and land use. SoCalREN will also build local government capacity for the development, adoption and implementation of model energy codes, standards, and policies that will improve the energy performance of existing buildings and new construction on both a mandatory and voluntary basis. SoCalREN's advanced energy codes, standards, and policy support includes promoting the adoption of codes, standards and policies that address:

- Better compliance with and enforcement of state and local energy codes;
- Building benchmarking and energy data disclosure;
- Building emissions performance standards (BEPS);
- Cool roof and cool parking lot requirements;
- Electric vehicle-ready policies and standards;
- Rooftop solar requirements for new construction;
- Point of sale home energy performance rating/indexing;
- All-electric new construction mandates and incentives;
- ZNE building mandates and incentives;
- Accelerated/streamlined permitting processes for EE and DER, and;
- Energy policies and initiatives that benefit underserved, vulnerable and disadvantaged communities to improve energy equity and affordability.

Program Objectives

SoCalREN C&S program objectives are summarized below along with their nexus to SoCalREN core values and goals of the CPUC's ESJ Action Plan.

Table 62. Codes & Standards Program Objectives

		SoCalREN Core Values	ESJAP Goals
2024–2027 Objectives	• Assist in building a future in which the C&S community collectively delivers high energy performance buildings through permitting, inspection, and enforcement compliance outcomes to achieve the State's goals.	*Building Energy Capacity & Economic Resilience*	2, 6, 8
	• Provide C&S community members with actionable resources to address their role in advancing the state's ZNE and decarbonization goals.		1, 2, 5
	• Coordinate the adoption, implementation, and enforcement advanced energy codes, standards, and policies that pave the way for improved building performance and increased numbers of decarbonized and ZNE buildings.		1, 3, 9
	• Enable public agencies to use data collected from the application of advanced energy codes to inform their energy resiliency action plans and energy/GHG targets and strategies.		1, 6
	• Leverage trade allies to improve outcomes related to the adoption of new and innovative clean energy approaches for new construction and retrofits.		2, 5, 7, 8
	• Streamline permit review/approval processes to facilitate inclusion of energy resiliency and climate adaptation design elements in new and existing buildings, including DER enablement policies.		1, 2, 3, 4, 8
	• Help C&S stakeholders to reduce costs from building electrification projects through assistance with EE and load reduction, and adoption of strategies to mitigate the impacts from time and location dependent electricity pricing.		2, 4
	• Coordinate with C&S stakeholders to help enhance consumer protections, increase the affordability of high-performance buildings, and prevent the unjust or inequitable implementation of energy codes and policies.		2, 4, 7, 9

Target Intervention Strategies

Intervention 1a & 1b: Provide Targeted Resources and Tools to LGs and C&S Stakeholders

Strategy	Barriers	Tactics
Provide targeted resources and tools to local governments and C&S stakeholders	Complicated codes, burdensome compliance processes, and competing priorities among C&S stakeholders	Needs assessment to identify C&S compliance gaps and barriers
		Compliance enhancement activities
		Energy Code Coach for building department staff and stakeholders
		Online clearinghouse for information, tools and case studies, training, and peer-to-peer learning

Partners: Local governments, IOUs, CEC, and local stakeholders who participate in building permitting and compliance activities

Intervention 2: Develop/Adopt Advanced Energy Codes, Standards & Policies

Strategy	Barriers	Tactics
Develop and adopt advanced energy codes, standards, and policies	Local governments lack capacity to lead by example with advanced energy codes and standards	Advanced energy code opportunities identification and planning
		Code development assistance
		Data-driven technical assistance
		Online tools, templates, and resources

Partners: Local governments, IOUs, CEC, community members, and local stakeholders who will be affected by advanced codes and policies

Intervention 3: Measure & Analyze Impacts from C&S Interventions

Strategy	Barriers	Tactics
Measure and analyze impacts from code-related interventions	Better and more actionable data is the foundation for the tools and initiatives that can save energy and reduce GHGs in the building sector.	Compile building stock data
		Compile community energy baseline data
		Develop tools and technical assistance to provide access to accurate C&S data

Partners: Local governments, IOUs, CEC, universities, DOE, National Renewable Energy Laboratory (NREL), Lawrence Berkeley National Laboratory (LBNL), etc.

Program Rationale

Local governments are accountable for ensuring the overall safety and security of their communities, and are responsible for review, issuance, and enforcement of permits required for any construction projects within their jurisdictions. Local permitting agencies are the entities that are charged with application of and compliance with statewide energy codes, standards and policies. It is increasingly evident from available data, however, that a significant amount of construction activity and equipment installations are performed without permits, and that many of the projects that do receive permits are not fully complying with required energy codes. A significant need therefore exists for C&S programs, such as the one proposed by the SoCalREN, which aim to improve energy code compliance and overall energy performance in new and existing buildings. Local governments can also be provided technical resources and assistance that allow them to become leaders in the adoption of new codes, standards, and policies that go beyond statewide requirements and promote deeper EE, decarbonization and ZNE efforts.

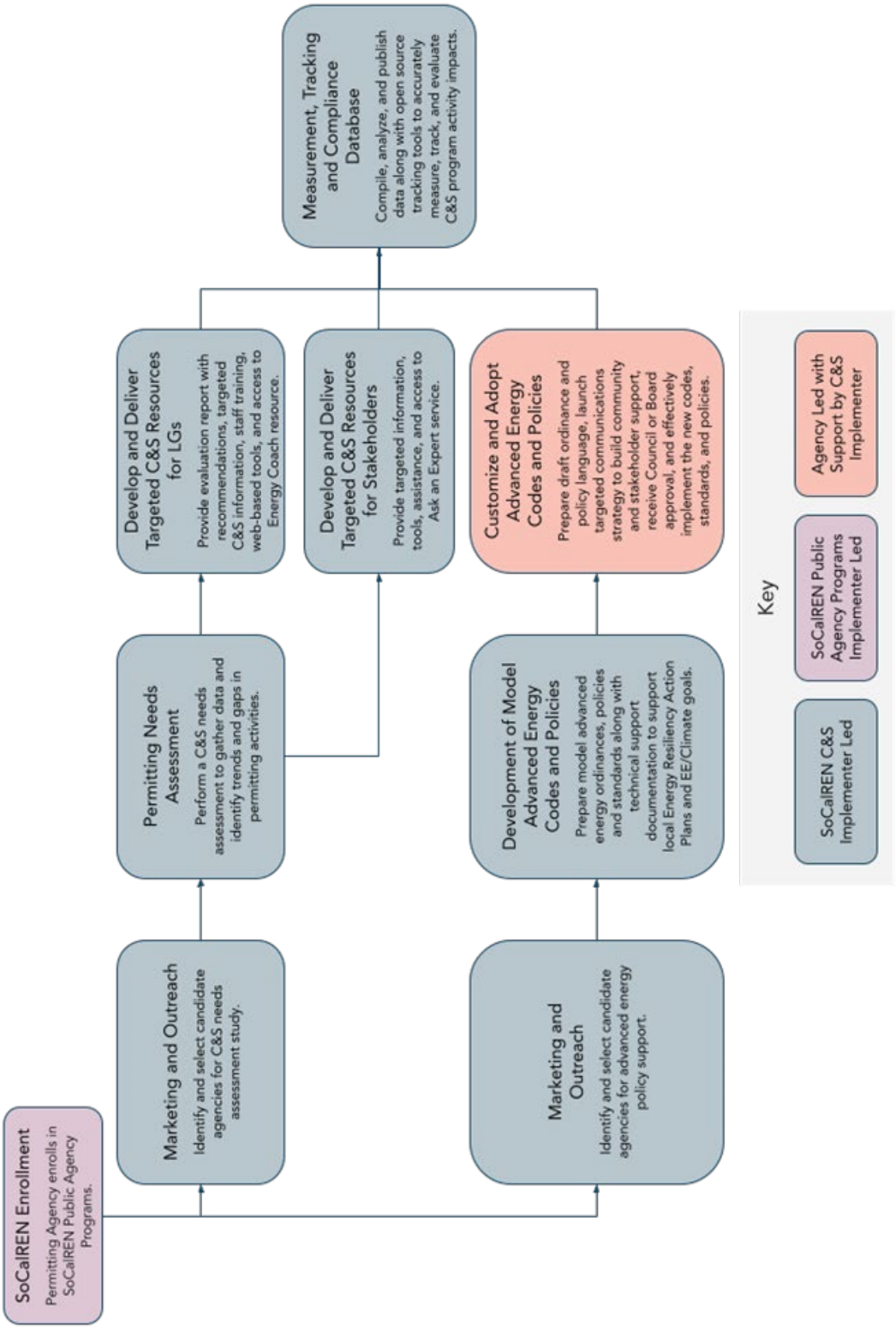
Market Barriers Addressed

Target Market

Targeted participants for the SoCalREN C&S Compliance Enhancement program include local government departments that are considered "authorities having jurisdiction" (AHJs). Within most agencies this would include building and safety, community development, planning and other relevant departments that would be responsible for developing, overseeing, and enforcing statewide as well as local building standards and ordinances. Other targeted participants would be practitioners (developers, contractors, architects, etc.) applying for permits that trigger Title 24 or Title 20.

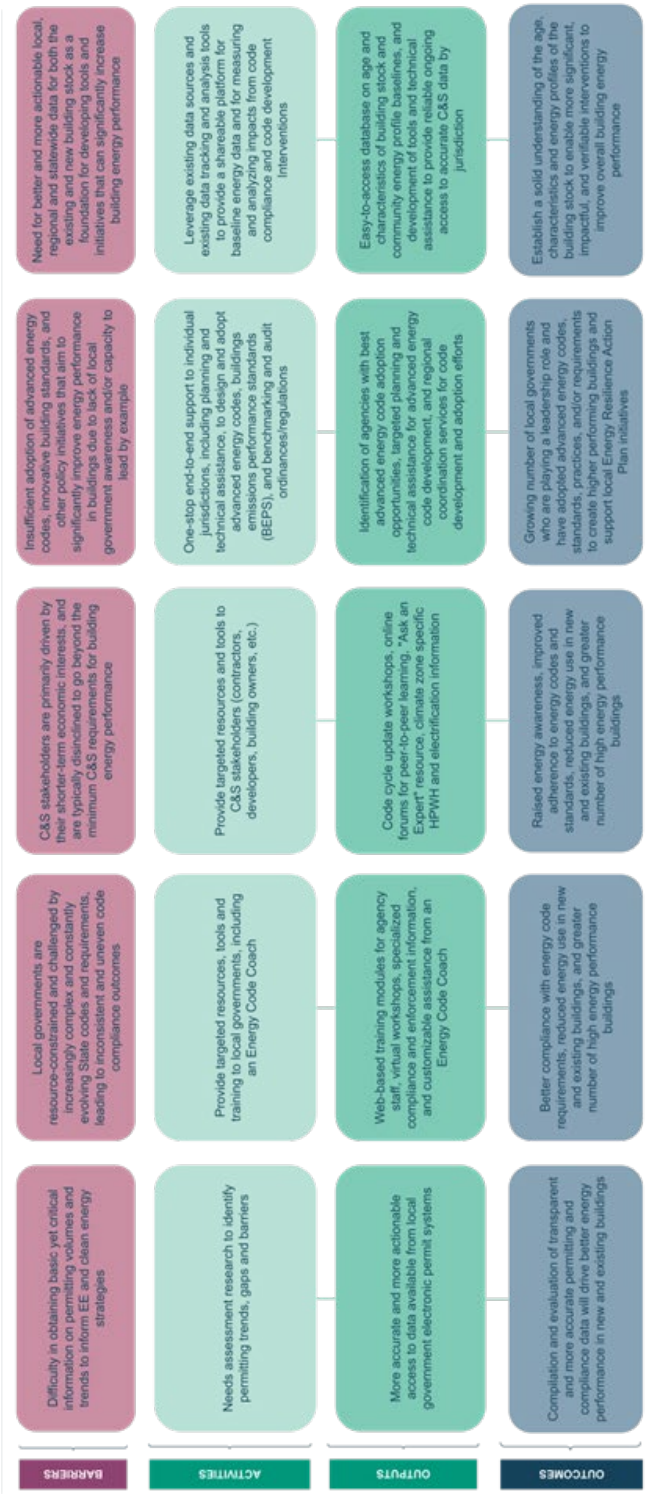
Program Process

Figure 21. Codes & Standards Program Process



Logic Model

Figure 22. Codes & Standards Program Logic Model



Program Budget

Table 63. Codes & Standards Program Budget

Program Name	2024	2025	2026	2027	Total 4-yr Budget
Codes & Standards Compliance Enhancement Program	$650,000	$720,000	$810,000	$800,000	$2,980,000

Program Metrics and Targets

Quantitative Four-Year Program Targets

Metric	4-Year Target
# of jurisdictions receiving C&S services and assistance	72
% of increased code compliance and permit closeout in participating jurisdictions	15%
# of local governments adopting advanced energy codes, standard, or policies	20
# of local governments using SoCalREN data evaluation tools & assistance to enhance C&S activities and policies	78

Overarching Theory

The program theory consists of using the resources of SoCalREN, which is a local government-led network, to support participating local government agencies in better addressing energy code compliance, collection and evaluation of building stock characteristics, energy usage, and building permit data, and promoting advanced energy code development and implementation. Typically, local governments have limited input into the design and implementation of ratepayer-funded codes and standards programs. As a consequence, many of the C&S support needs of local governments are not adequately being met at present. Furthermore, the proposed local government compliance resources that will be provided by the SoCalREN will focus on emerging changes and additions to Title 24 including Flexible Demand Appliance Standards, as well as beyond code enforcement of distributed energy resources. Lastly, this program will support an emerging topic in local ordinances, namely building emissions performance standards (BEPS), which is critical to reaching state and local climate goals.

REN Program Compliance

The SoCalREN Codes and Standards Compliance Enhancement program is in compliance with the requirements of Regional Energy Networks as stipulated by the California Public Utilities Commission in D.12-11-015: *Fill gaps by conducting activities that the IOUs cannot or do not intend to undertake*.

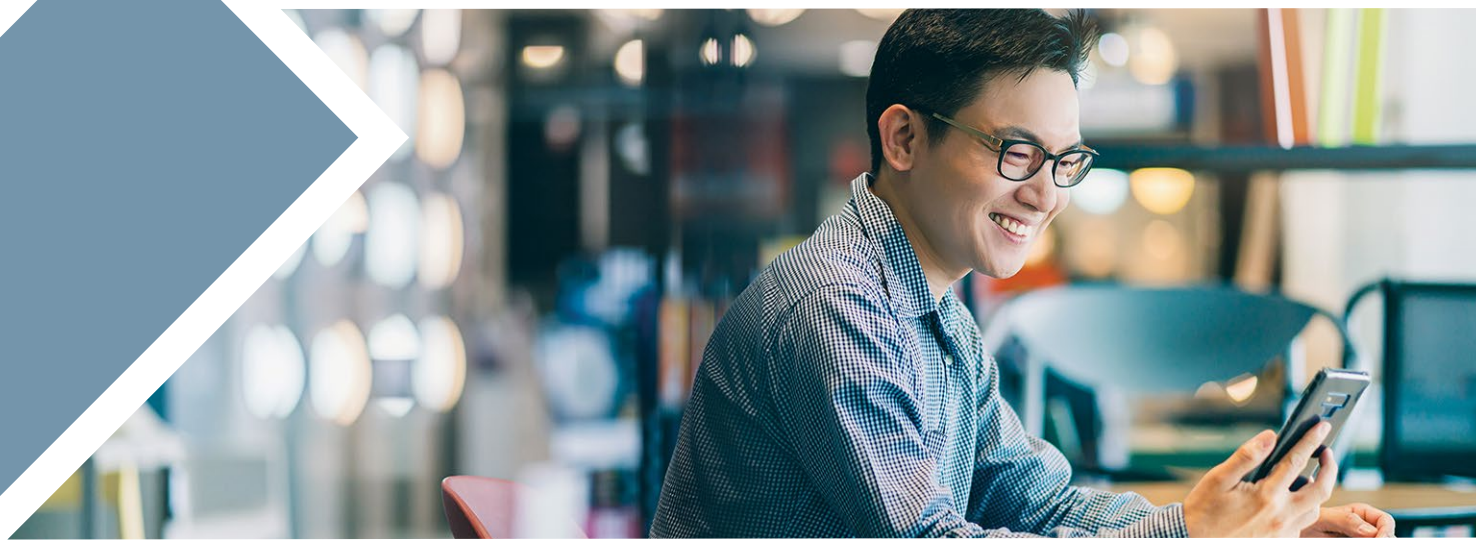
- Building benchmarking and energy data disclosure; Building emissions performance standards (BEPS) support.
- Better compliance with and enforcement of state and local energy codes.
- Accelerated/streamlined permitting processes for EE and distributed energy resource (DER) projects.

Program Partners

No program partners are required.

Program Coordination

Collaborate with the administrators of residential and commercial energy benchmarking and energy performance rating tools and software to help drive higher energy performance in new and existing buildings.



COMMERCIAL SECTOR

The Southern California Regional Energy Network (SoCalREN) recognizes small and medium business (SMB) customers as an important and often overlooked commercial segment in need of targeted support.

SoCalREN's Small Commercial Direct Install program will provide SMBs with no-cost energy efficiency (EE) retrofits at commercial facilities, while our Food Desert Energy Efficiency Equity (FDEEE) program will fund new EE refrigerators and promote healthy food options. Our California Green Business Network program will help SMBs become green business certified, and our Small and Medium Business Energy Advisory program will connect business owners with applicable EE programs.

The Commercial Sector will address SMBs' long-standing and pandemic-related challenges while promoting market-based solutions, deep energy and GHG emission reductions, and long-term energy and maintenance goals, focusing on hard-to-reach businesses, businesses in disadvantaged communities (DACs), and underserved populations.

Summary of Sector

The SoCalREN Commercial Sector aims to fill gaps and increase adoption of EE in small and medium sized businesses through a suite of diverse program offerings. The program strategies are designed to be flexible, overcome barriers, target HTR businesses, and adjust to complement other offerings supporting this customer segment as they become available. All programs will coordinate to streamline offerings and maximize customer benefits.

Local trusted partners such as CBOs and Regional Partners will be engaged to support outreach, marketing, and implementation of programs, while no-cost advisory services, targeted measures, and incentives to participate in green business certification will be provided to drive participation. The table below describes how the commercial sector programs will help the market overcome barriers to more widespread EE adoption.

Table 64. Commercial Sector Barriers and Solutions for SMBs

Barriers	Problems & Challenges	Potential Solutions
Customers lack EE knowledge	Minimal customer knowledge and experience with EE leads to low EE participation Customers are not aware of the resources available to them	Increase EE adoption levels through tailored customer engagement and education Work with local trusted partners to promote EE
EE is not a Customer Priority	Commercial customers are focused on the bottom line	Provide friction-free EE solutions through single contact Promote cost and non-EE benefits through outreach and education
Financial Challenges	Small and Medium sized customers lack capital or resources to participate Commercial sector trending toward more leased properties, which creates a larger split-incentive barrier between owners and tenants. With split incentives, both owners and tenant have minimal incentive to adopt EE improvements	Provide direct install EE measures and incentives to install EE measures Provide financing solutions and guided support to participate in programs, tailored to business needs
Lack of trust	History of marginalization, environmental racism, and/or other negative interactions make it difficult to engage businesses Complicated EE program eligibility requirements create frustration with programs	-Partner with local trusted partners to promote programs and support delivery of services -Develop messaging and outreach tailored to hard-to-reach businesses - Coordinate messaging between programs

Budget Distribution and Rationale

The following table provides a summary of SoCalREN's commercial sector 4-year budget. As SoCalREN implements the strategies described, the budget and programs offered will be

evaluated over time to respond to market changes, needs of the portfolio, and regulatory directives.

Table 65. Commercial Sector Budget

2024	2025	2026	2027
$5,395,854	**$8,303,254**	**$6,481,348**	**$10,614,943**

Goals, Objectives, Strategies and Outcomes

Goals

SoCalREN aims to achieve the following goals through its Commercial Sector portfolio:

- Increased engagement with partners to reach HTR SMBs across the SoCalREN territory;
- SMB is aware of their energy usage, energy costs, and the holistic benefits of EE;
- SMB has taken action to address clean energy and GHG reductions, and;
- SMB incorporates sustained integration of energy-conscience business practices.

Objectives

The following table outlines the objectives of SoCalREN's Commercial Sector and how they tie to SoCalREN Core Values and the CPUC ESJ Action Plan.

Table 66. Commercial Sector Objectives

Four-Year Objectives	SoCalREN Core Value(s)	ESJAP
Promote energy-conscious business practices and awareness of the relationship between EE, business operations, and sustainable long-term growth for small and medium businesses, with a focus on HTR businesses.	Building energy capacity & economic resilience Expanding access to EE benefits	#7
Build and enable increased participation in the energy and climate workforce by encouraging local sourcing of labor for projects completed in EJ communities.	Building energy capacity & economic resilience Expanding access to EE benefits	#7
Improve access to educational, technical, and capital resources for EE projects and strategies for small and medium businesses, with a focus on HTR businesses.	Building energy capacity & economic resilience Expanding access to EE benefits	#2 & #8

Four-Year Objectives	SoCalREN Core Value(s)	ESJAP
Improve the value proposition and drive EE projects in small and medium businesses through promotion and delivery of significant non-energy benefits.	Expanding access to EE benefits	#2 & #4
Expand the implementation of high value EE projects and reduce GHGs by helping small and medium businesses overcome barriers and pursue clean energy actions that support state, regional, and local climate and policy goals.	Delivering energy & climate impacts	
Build awareness of the value of EE and the connection between energy and climate resiliency within the commercial sector.	Building energy capacity & economic resilience	#4
Stimulate local leadership in EE and climate action for small and medium businesses with a focus on HTR businesses.	Building energy capacity & economic resilience Expanding access to EE benefits	#4 & #7

Strategies

These objectives will be accomplished through the below key Commercial Sector program strategies.

Table 67. Commercial Sector Strategies

Program	Strategy
ALL	Prioritize program resources for delivery of services to HTR small and medium local businesses with the goal to improve business sustainability through reduced energy costs, increasing EE workforce opportunities for local communities, and establishing local business leaders in energy and climate action.
Small Commercial DI	Mitigate out-of-pocket cost barriers for small and medium hard-to-reach businesses by delivering seamless no-cost EE measures and strategies.

Program	Strategy
Food Deserts Energy Efficiency Equity Program	Reduce the energy cost burden for small and medium businesses operating in EJ communities by providing low or no-cost high efficiency refrigeration appliances.
Food Deserts Energy Efficiency Equity Program	Improve access to healthy food options in food desert regions by incorporating the availability of fresh food items as a condition of program participation.
ALL	Provide significant non-energy benefits to small/medium businesses such as reduced operating costs, improved safety, GHG-reductions through simplified access to equipment upgrades, and refrigeration recycling.
ALL	Encourage the adoption and proliferation of EE measures and practices in the commercial sector by recognizing local business leaders for excellence in facility energy management.
CAGBN	Improve visibility of energy leaders in the commercial sector by providing direct assistance and incentives to participate in the California Green Business Certification Program.
Food Deserts Energy Efficiency Equity Program	Increase uptake of low global warming potential (low-GWP) refrigerants within SMBs by replacing and properly recycling refrigerators with hydrofluorocarbon refrigerants (HFCs) with energy efficient low-GWP refrigerators.

Outcomes

In alignment with SoCalREN's core values, the commercial sector programs are designed to achieve the following outcomes:

Increased energy and GHG reductions for SMBs. SoCalREN's commercial sector resource and equity programs support activities with trackable energy savings and GHG reductions that contribute to local and state or climate goals. Targeted direct install offerings offered by SoCalREN overcome common barriers to participation, so participants receive the benefits of reduced energy consumption and carbon emissions.

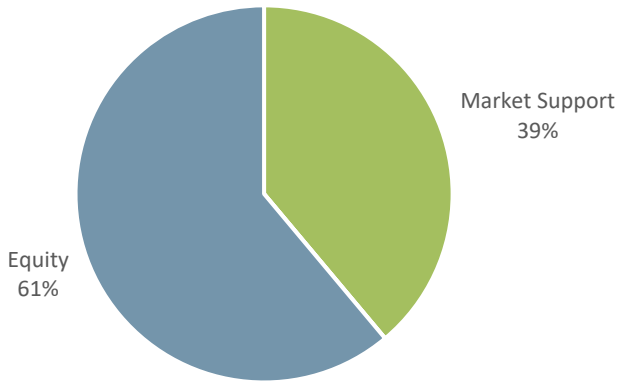
Increased energy capacity, competency, and economic resilience within SMBs. SoCalREN's commercial sector programs will build long-term knowledge and skills that lead to energy competency, and energy management practices that will help SMBs establish sustainable energy practices. Program offerings help to build trust with SMBs and increase knowledge about their business' energy consumption, and access funding sources and other programs to facilitate energy actions.

HTR businesses gain increased access to EE benefits. All SoCalREN's commercial sector programs will focus on providing access to unique EE programs and services that enhance carbon reduction opportunities and other environmental outcomes in underserved communities supporting the advancement of the CPUC's Environmental and Social Justice Action Plan[19].

Categorization of Programs by Segment

The SoCalREN California Green Business Network Program and SMB Energy Advisor are categorized as Market Support programs, while FDEEE and the Small Commercial DI program are categorized as Equity programs.

Figure 23. Commercial Sector Budget by Segment



Changes Proposed Compared to Previous Portfolio

The Commercial Sector is new to the SoCalREN portfolio and is being proposed to fill clear market gaps that have emerged in recent years.

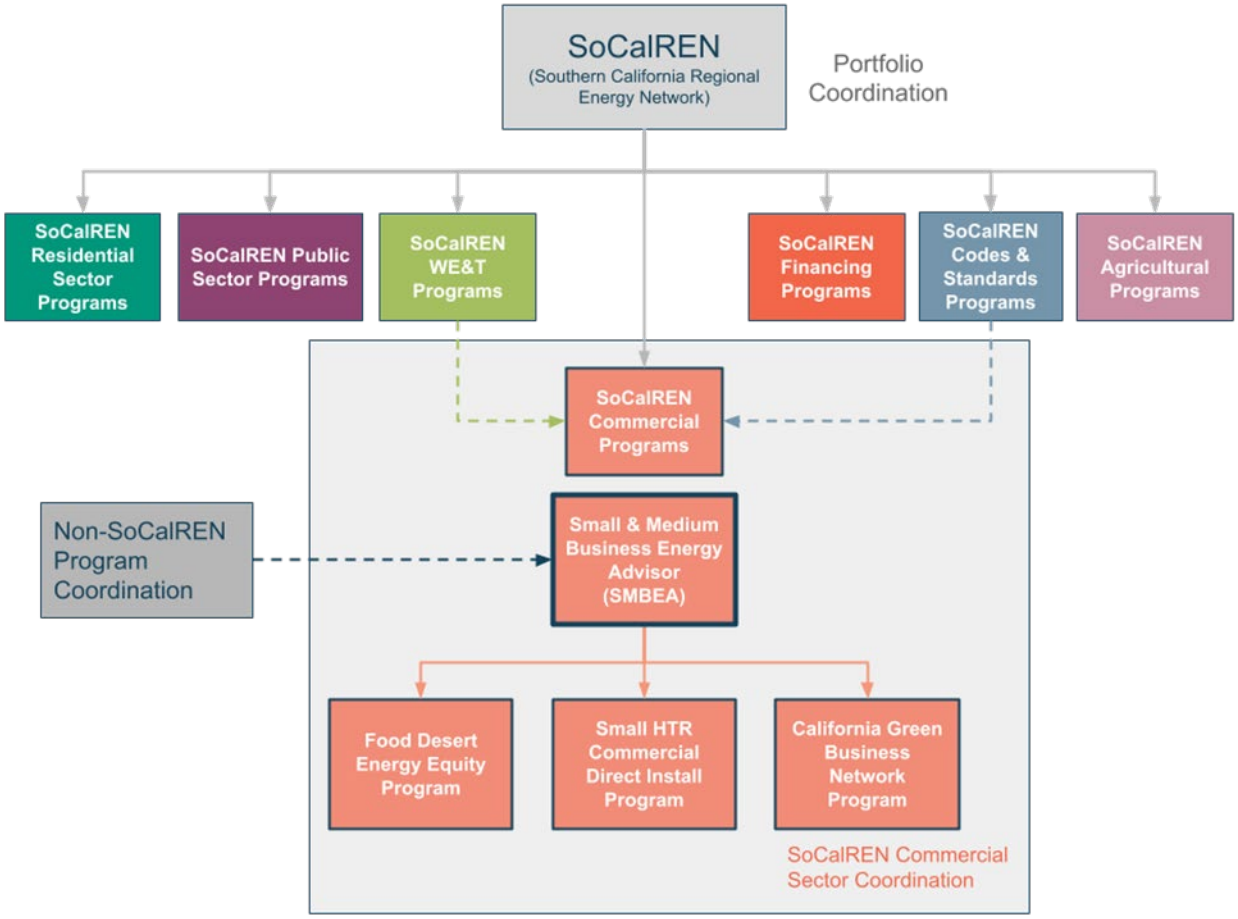
Since its inception in 2014, SoCalREN has sought to fill critical gaps and overcome barriers by providing opportunities to areas that the IOUs have underserved to meet California's EE goals., SoCalREN will leverage its previous experience within the Public and Residential Sectors to provide robust, comprehensive, and cost-effective opportunities to the Commercial Sector.

Sector-Specific Coordination

The Commercial Sector programs are designed with coordination in mind to provide a seamless experience for commercial customer participants. All implementers will regularly coordinate resources to ensure that all available resources available to SMBs are understood. This includes programs outside of the SoCalREN Commercial Sector portfolio, such as IOU 3P EE programs and other DER offerings. This creates efficiencies among programs and develops partnerships among organizations to share resources and increases reach to more effectively deliver on California's aggressive climate goals.

[19] California Public Utilities Commission Environmental and Social Justice Action Plan. Draft Version 2.0. Accessed 12 January 2022.

Figure 24. Commercial Coordination Pathways



New: Small and Medium Business Energy Advisor Program

Market Segment: Market Support

Program Description

The SoCalREN Small and Medium Business Energy Advisor (SMBEA) program is a Commercial sector program that will reduce barriers to EE actions and program participation for SMB in the SoCalREN territory. Program services are focused on educating business owners about the cost of energy and the value of efficiency, connecting owners to commercial sector EE programs, and supporting applications for low or no-cost financing for EE measures. For SoCalREN Commercial Programs' participants, SMBEA will provide a dedicated Project Manager as a single point of contact to coordinate delivery of services across programs and minimize complexity for business owners.

Connecting business owners to non-ratepayer funded low and no-cost financing programs, such as Mission Asset Fund's Business Microloan Program, will help SMB owners purchase and install high-efficiency equipment without substantial capital outlay . Business owners may not be aware that low or no-interest financing products are available to fund energy projects; furthermore, they may not fully consider the time-value benefit of low-interest financing when evaluating funding options. Financing support services will help promote and strengthen small market financing by offering turnkey support for SMB applications throughout the financing product lifecycle, increasing the number of loans issued and reducing default rates.

The SMBEA program will serve as the single point of contact for business owners eligible to participate in one or more of the SoCalREN Commercial Sector programs. The assigned Project Manager for each business will be responsible for assessing program eligibility, outreach to program implementers, coordination of site visits, and facilitation of all program communication with the business owner. The anticipated benefit of this service is increased participation in SoCalREN's Commercial Sector Programs.

Key program outcomes include supporting long term EE market success, improving energy knowledge and awareness among small and medium business owners, expanding access to capital to fund EE projects, and increasing participation in commercial sector EE programs serving this market segment.

Objectives

The SoCalREN SMBEA Program aims to meet the following objectives in alignment with the California Energy Commission's Environmental and Social Justice Action Plan 2.0 and SoCalREN Core Values:

Table 68. SoCalREN SMBEA Program Objectives

Objectives	ESJ Action Plan Goal	SoCalREN Core Value
Improve awareness and understanding among small and medium business owners of the relationships between energy use, energy costs, and business operations and financial goals.	4	Build Energy Capacity and Economic Resilience
Increase access to capital resources for funding energy projects for SMB	2	Build Energy Capacity and Economic Resilience
Reduce barriers to EE program participation by providing a single point of contact to manage and coordinate delivery of SoCalREN Commercial Program services.	N/A	Delivering Energy and Climate Impacts

Program Rationale

Many SMBs are independently owned and operated or have very small staff sizes (less than 10 full-time equivalents). Commercial sector EE programs that require multiple touchpoints can present a barrier to utilizing those programs and navigating differing eligibility requirements across programs can further inhibit participation.

Market Barriers Addressed

SMBEA is designed to address three key barriers to EE for business owners: 1) lack of awareness of the value of EE, 2) difficulty accessing capital to fund EE, and 3) limited staff resources to support participation in EE programs.

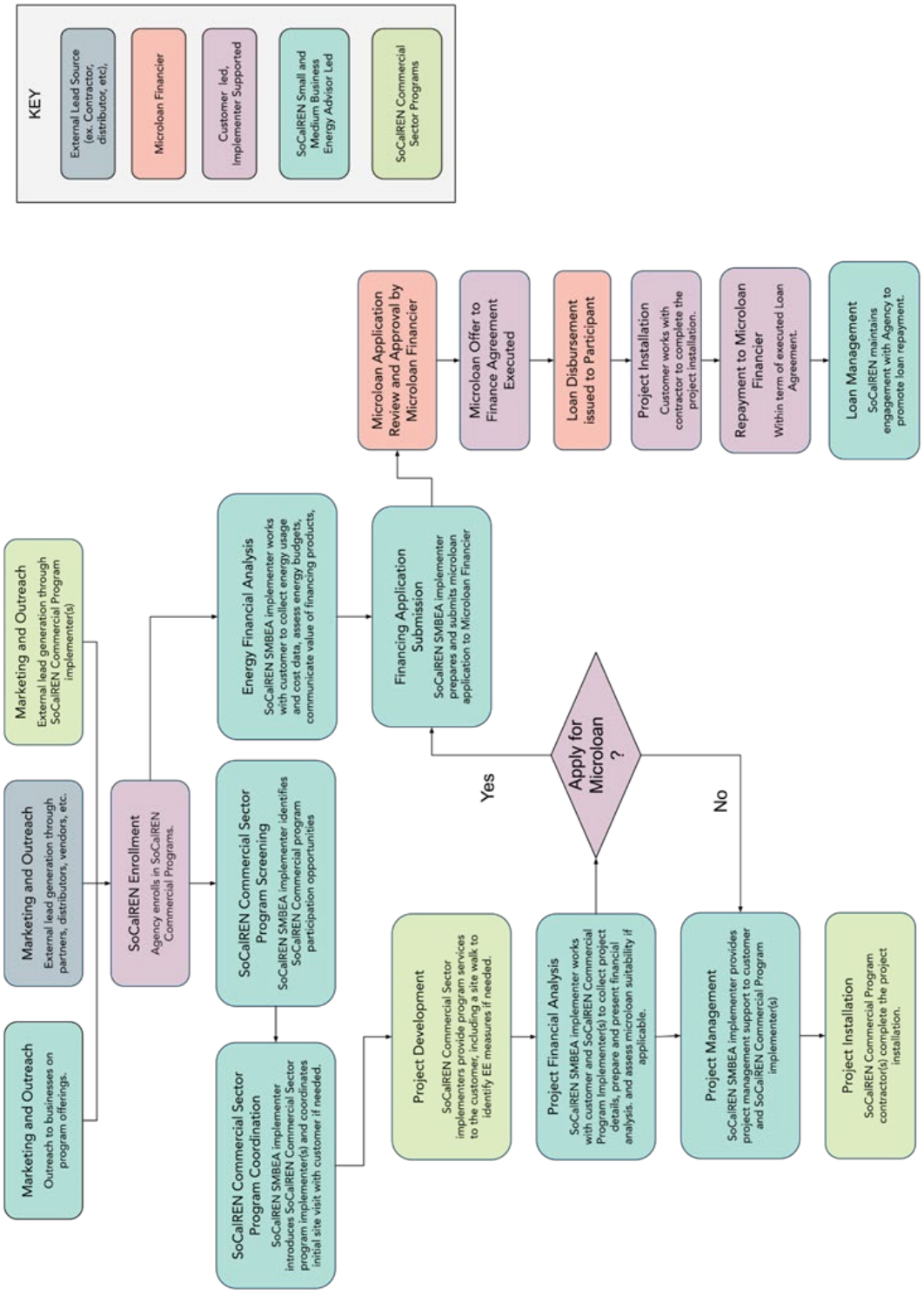
By providing energy education in a business context, SMBEA will help owners understand the relationships between reduced energy costs, balance sheet benefits, and mitigating rate escalation risk. Translating energy cost savings into improved business facilities and operations, better quality products or services, increased staffing, financial resiliency, or even future business expansions will drive buy-in for efficiency action and investments. Awareness of the value of EE and the financial implications of reducing consumption will drive increased participation in EE projects and programs, resulting in a stronger long-term EE marketplace.

Target Market

The target market for the SoCalREN SMBEA program is small and medium businesses operating in SoCalREN territory. Small and medium businesses are defined as having annual non-coincident peak demand of less than 20kW and less than 200kW respectively. This market segment is inclusive of any and all eligible participants in the SoCalREN Commercial Sector Programs, but participation in those programs is not required.

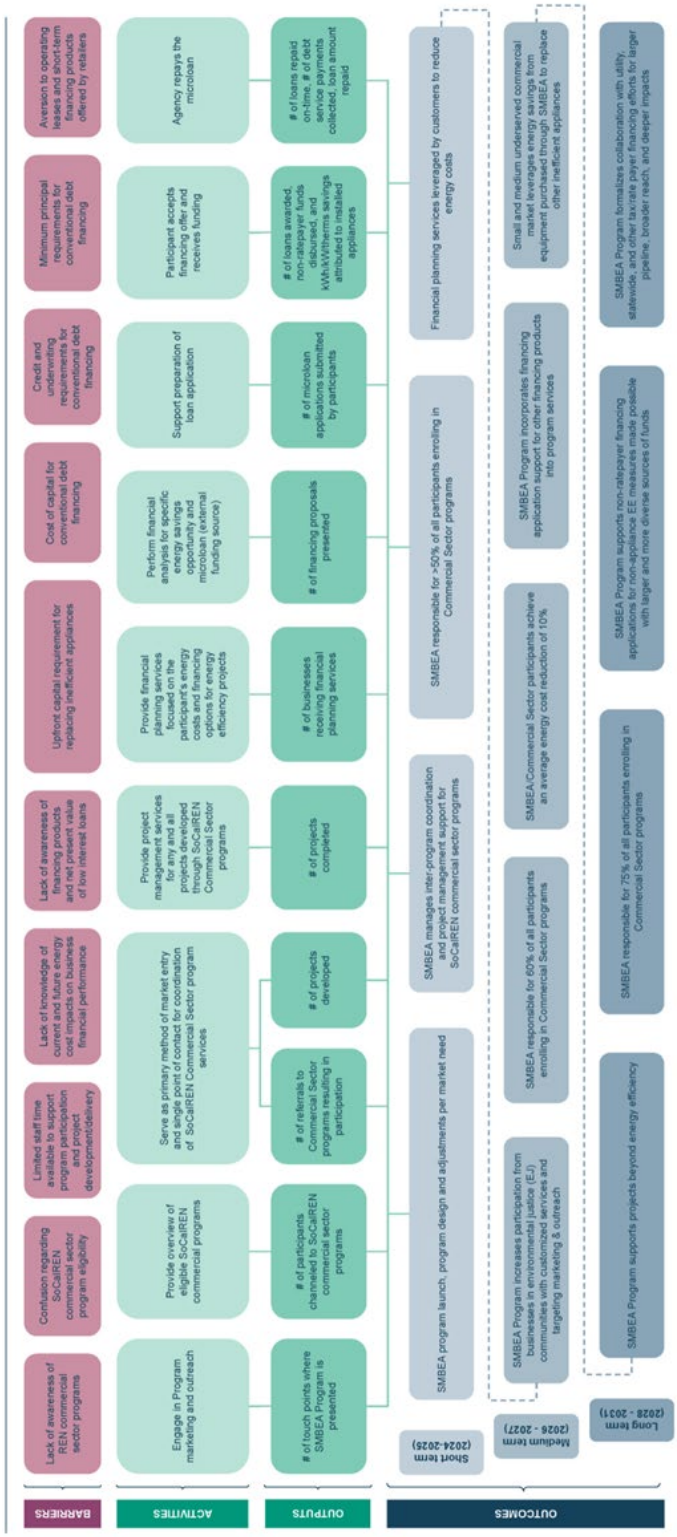
Program Process

Figure 25. SMBEA Program Process



Logic Model

Figure 26. SMBEA Logic Model



Program Budget

Table 69. SMBEA Program Budget

Budget Category	2024	2025	2026	2027
Administration	$160,000	$57,996	$60,800	$65,000
Marketing	$96,000	$34,798	$36,480	$39,000
DINI	$1,344,000	$487,166	$510,720	$546,000
Incentive	N/A	N/A	N/A	N/A
Total	$1,440,000	$521,964	$547,200	$585,000

REN Program Compliance

There are currently no existing programs in the market offering hands-on services to educate business owners about energy costs, the value of efficiency, and support applications for financing products in the marketplace.

Program Partners

Program design will follow established best practices for reaching small and medium commercial businesses, including partnering with local government agencies, SoCalREN regional partners, and community-based organizations. SMBEA will leverage state agencies such as the California Chamber of Commerce and federal agencies such as the Small Business Administration to provide targeting data and information on additional outreach channels.

Program Coordination

The SMBEA implementer coordinates with SoCalREN Commercial Sector program implementers and associated market actors, such as contractors, equipment distributors, and non-REN program partners.

New: Small Commercial Direct Install Program

Market Segment: Equity

Program Description

The DI Program addresses existing commercial sector market gaps that leave energy savings opportunities out of reach for small, hard-to-reach customers. Larger commercial facilities have the capital and resources to take advantage of rebates, and energy programs are typically designed with larger businesses in mind. Smaller facilities have historically been excluded from energy programs due to low energy savings opportunities and strict cost-effectiveness criteria for program administrators. Smaller facilities may have different equipment needs than larger ones, further limiting their ability to participate in EE programs. SoCalREN's DI program unlocks stranded energy savings for small business customers whose projects might otherwise be left behind in the transition to a clean, safe, secure, and affordable energy future.

The DI Program is designed to help underserved businesses overcome barriers to energy projects. EE is sometimes deprioritized at these facilities due to the low energy usage (though energy may still be a high percentage of operating costs) and limited EE awareness. Small commercial businesses are short-staffed and often do not have the resources or time to develop energy projects, particularly for small facilities with limited savings opportunities. Business financial plans do not conform well to typical custom incentive program processes due to their complex applications and long approval timelines. The DI Program is designed to address these barriers by providing streamlined, no-cost EE measures to participating customers. The program will also provide facility staff and owners with education about EE.

SoCalREN's DI Program offers hassle-free implementation of EE projects that will save energy and peak demand for small, hard-to-reach businesses. Small, underserved business facilities will be eligible to participate in the program and receive no-cost measure installations at qualifying sites. Participants will also receive hands-on project management support from project identification through installation and realization of energy savings.

Eligible measure types include:

- Lighting
- HVAC
- HVAC controls
- Refrigeration
- Miscellaneous including water heater, window film, and faucet aerator

Program Objectives

Consistent with the ESJ Action Plan, and the overall goals of the Equity Segment, the DI Program's planned objectives directly supports the following ESJ Action Plan 2.0 goals:

Table 70. SoCalREN Small DI Program Objectives

Objectives	ESJ Action Plan Goal	SoCalREN Core Value
Increase SoCalREN participation by small, hard-to-reach businesses	2	Expand Access to EE Benefits
Deliver streamlined, turnkey EE projects for small, hard-to-reach businesses	2	Build Energy Capacity and Economic Resilience, Expand Access to EE Benefits
Increase regional reach and delivery of services across SoCalREN territory, including in disadvantaged, rural, and hard-to-reach communities	4	Build Energy Capacity and Economic Resilience, Expand Access to EE Benefits
Ensure businesses receive education about EE so they can better understand the benefits and pursue future energy savings opportunities.	5	Build Energy Capacity and Economic Resilience

Market Barriers Addressed

Table 71. Small DI Program Barriers and Interventions

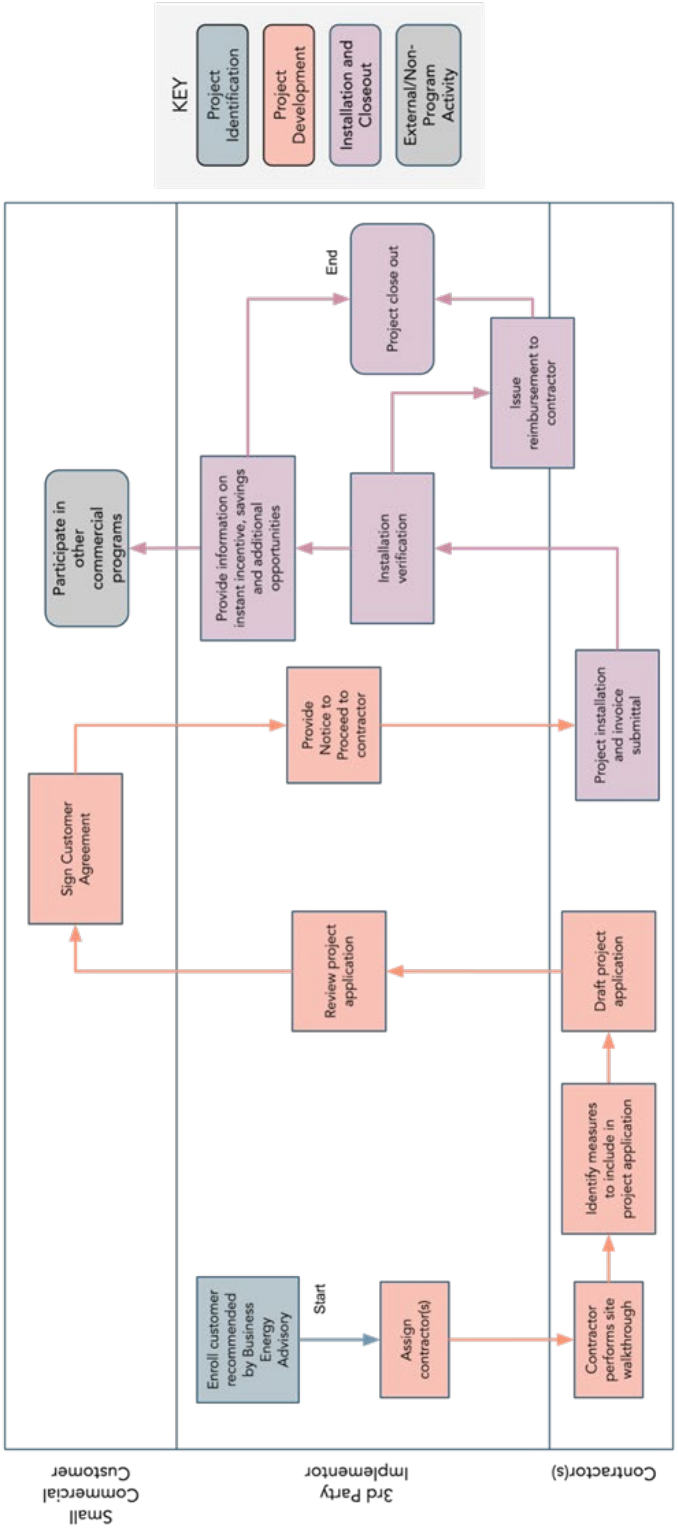
Barriers	Interventions
Limited EE program applicability for small facilities and small projects	The longer timelines for custom measure-based programs result in screening out smaller facilities and smaller projects to meet cost-effectiveness requirements. A DI program with a quick turnaround time reduces the cost of implementing these measures and therefore is a better fit for smaller facilities and/or smaller projects.
Limited staff to implement EE and EE is deprioritized	DI will provide a dedicated project manager to work with the commercial facility throughout the project. The project manager facilitates program services to reduce staff time investment.
Limited energy usage and EE awareness	Energy usage may be a small percentage of the operating costs to run a business and hence may be a low priority to the business. A DI program takes the least amount of time to deliver EE projects for such facilities and brings awareness of EE and its impact to the community.
Funding and financing constraints	The direct measure installations delivered to small commercial facilities at no-cost help businesses overcome funding and financing constraints.

Target Market

The target market for this program will be small commercial stores in hard-to-reach areas. Stores will be identified after coordinating with the SoCalREN Business Energy Advisor Program and conducting market studies to identify the customer segments that will benefit most from this program.

Program Process

Figure 27. Small DI Program Process



Marketing & Outreach: Marketing and outreach efforts will be coordinated with the SoCalREN Business Energy Advisor Program after market studies are completed to identify the target customer segments. The program will target eligible stores through grassroots and onsite outreach to store owners. It will also utilize online marketing such as websites, social media, and email outreach to engage potential stores. Working with outreach partners, including local governments, chambers of commerce, and nonprofits, the program will collaborate with trusted community-based organizations and actors to reach stores.

Enrollment: The implementer will screen and enroll customers based on interest and eligibility.

Project Identification: The implementer will identify potential candidates for DI participation by completing a project identification checklist to confirm site eligibility and EE measure applicability.

Equipment Inventory: Once the site is deemed eligible for DI participation, the contractor will go on site to collect an equipment inventory and draft a project application. The implementer will review and approve the application and draft a customer agreement for the customer.

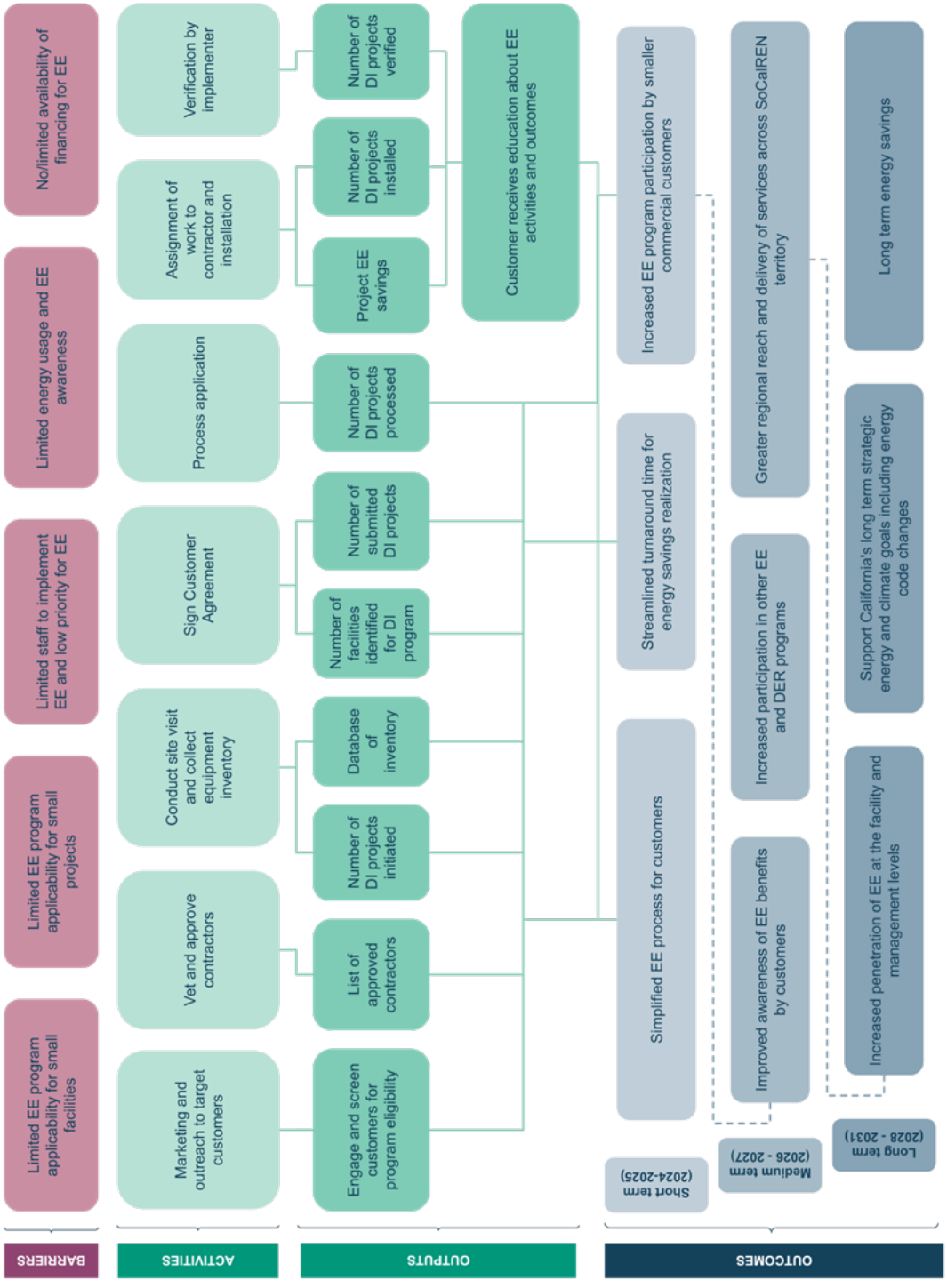
Customer Project Approval: The implementer will answer customer questions and offer support if needed. Then, the customer will execute the customer agreement form to approve the timeline and measure installation.

Measure Installation: The contractor will install the EE measures at the site based on the agreed upon timeline. After installation, the implementer will complete a post-installation verification to confirm claimable energy savings and adherence to program guidelines. Upon verification, the contractor will be reimbursed for the costs of the project.

Handoff and Customer Education: After the project is installed, customers will receive educational information on the energy savings, cost savings, and non-energy benefits delivered by the program. The program will provide the public agency with additional information about other savings and program opportunities they may benefit from.

Logic Model

Figure 28. Small DI Program Logic Model



Program Savings Potential

Table 72. Small DI Program Savings Potential

Year	Net First-Year kWh Savings Claimed	Gross First Year kW Savings Claimed	Gross First-Year Therm Savings Claimed
2024	229,500	56	N/A
2025	382,500	93	N/A
2026	255,000	62	N/A
2027	286,875	70	N/A

Program Budget

Table 73. Small DI Program Budget

Budget Category	2024	2025	2026	2027
Administration	$150,000	$75,000	$75,000	$90,000
Marketing	$75,000	$75,000	$75,000	$90,000
DINI	$400,000	$666,667	$666,667	$800,000
Incentives	$875,000	$1,683,333	$1,683,333	$2,020,000
Total	$1,500,000	$2,500,000	$2,500,000	$3,000,000

Program Metrics and Targets

Quantitative Program Targets

Table 74. Small DI Program Metrics

Metric	Method
First-Year Net kWh Savings Channeled	DEER Deemed Savings
First-Year Net kW Savings Channeled	DEER Deemed Savings
First-Year Net Therm Savings Channeled	DEER Deemed Savings

Table 75. Small DI Program Non-Savings Targets

Metric	2024–2027 Target
Number of commercial facilities engaged	500
Number of projects installed	425
Number of equipment installed	800

Table 76. Small DI Program Indicators

Indicator	Method
Commercial Business Engagements	Number business introductions to Program
Applications submitted & reviewed	Number submitted and reviewed
Applications approved	Number approved
Customer agreements signed	Number customer agreements approved
GHG Reductions	GHG emissions avoided through energy savings
Projects Installed	Number of projects installed

REN Program Compliance

The IOUs are not serving this target customer group (HTR business customers) with targeted measure solutions.

Program Partners

Will work with outreach partners, including local governments, chambers of commerce, and nonprofits, the program will collaborate with trusted community-based organizations and actors to reach stores.

Program Coordination

The Small Commercial Direct Install Program implementer coordinates with SoCalREN Commercial Sector program implementers and associated market actors, such as contractors, equipment distributors, and non-REN program partners.

New: Food Desert Energy Efficiency Equity Program

Market Segment: Equity

Program Description

The Food Desert Energy Efficiency Equity (FDEEE) program is an initiative designed to support corner stores and small businesses within food deserts across the SoCalREN region by providing more healthy food options and funding new energy-efficient refrigerators. Through this initiative, store owners save on energy usage and utility bills while providing fresh and healthy food options for the communities they serve.

FDEEE addresses the current challenges within food deserts, reduces GHG emissions while promoting healthy food options in low-income communities, and provides education, outreach, and support to small businesses regarding EE upgrades and the benefits of offering healthy food options. FDEEE also provides store owners with educational materials and training to successfully source, market, and sell healthy, perishable products such as locally grown fresh fruits, nuts, vegetables, and minimally processed prepared foods. FDEEE offers a variety of ENERGY STAR®-rated, natural refrigerant, refrigerator models for the small business store owners to select. The program then installs the refrigerator(s), properly recycles old refrigerators, and identifies healthy food options, all at no cost to the store owner.

FDEEE aims to change consumer food behaviors by educating and incentivizing store owners and consumers to stock and select fresh, local, and healthy foods. Program participants are an engaged and captive audience and are primed to mobilize EE and conservation actions and behaviors. FDEEE is committed to the equitable distribution of services and understands the unique and complex challenges that communities of color, low-income families, those with disabilities, and those that experience immigration issues face when trying to access energy programs. FDEEE is designed to be inclusive, accessible, and uplift underserved populations so they can participate in the future of energy and experience the financial, community, and health benefits of EE.

Many existing EE programs do not meet the needs of small, local businesses that continue to struggle financially and serve as an important resource to underserved communities. There are many challenges to meet the needs of these small businesses, but the benefits of working with these communities extend well beyond the energy savings.

Program Objectives

Consistent with the ESJ Action Plan, and the overall goals of the Equity Segment, the FDEEE Program's planned objectives directly supports the following ESJ Action Plan 2.0 goals:

Table 77. FDEEE Program Objectives

Objectives	ESJ Action Plan Goal	SoCalREN Core Value
Addressing the current challenges that exist within food deserts.	2	Expand Access to EE Benefits
Installing EE measures that would reduce peak demand savings including the removal of old, inefficient refrigerators that are costly to operate and maintain and require higher demands from the electricity grid than necessary.	2	Build Energy Capacity and Economic Resilience, Expand Access to EE Benefits
Reducing GHG emissions, eliminating hydrofluorocarbons (HFCs) while simultaneously promoting options for healthy food options within low-income neighborhoods, DACs, and food deserts.	4	Deliver Energy and Climate Impacts, Expand Access to EE Benefits
Providing education, outreach, and support to hard-to-reach small commercial businesses and food distribution centers regarding energy-efficient upgrades and the benefits of offering healthy food options.	5	Build Energy Capacity and Economic Resilience, Expand Access to EE Benefits
Assisting small commercial businesses to overcome common barriers within their EE segment by offering no-cost EE upgrades and supporting connections to other energy programs.	1	Build Energy Capacity and Economic Resilience, Expand Access to EE Benefits
Assessing intervention strategies and promoting strategies to align financial, energy, and community benefits for small commercial owners.	7	Build Energy Capacity and Economic Resilience

Program Rationale

FDEEE aims to achieve the following outcomes:

- Reduce the energy cost burden by providing low or no-cost high-efficiency refrigeration appliances for small and medium, hard-to-reach businesses operating in Environmental and Social Justice (ESJ) communities, where predominantly communities of people of color and low-income residents have been subjected to disproportionate impacts from environmental hazards and socio-economic burdens.

- Improve access to healthy food options in food desert regions by incorporating the availability of fresh food items as a condition of program participation.
- Provide significant non-energy benefits to small/medium businesses such as reduced operating costs, improved safety, GHG reductions through simplified access to equipment upgrades, and refrigeration recycling.
- Encourage the adoption and proliferation of EE measures and practices in the commercial sector by recognizing local business leaders for excellence in facility energy management.
- Prioritize program resources for the delivery of services to small and medium local businesses operating in ESJ communities with the goal of improving business sustainability through reduced energy costs, increasing EE workforce opportunities for local communities, and establishing local business leaders in energy and climate action.

The program objectives for the FDEEE Program fall into two categories: performance and process. The performance objectives of the FDEEE Program are objectives that will be used to assess the performance of the program to ensure it is meeting expectations and is on a path to success. The performance objectives will be carefully tracked and will be reported to the Commission through the SoCalREN annual report so that SoCalREN can ensure the program progress is conveyed properly. The process objectives are aimed at ensuring a strong infrastructure for program implementation and evaluation to help support the scaling up of the FDEEE Program in the future. The program objectives include:

- Addressing the current challenges that exist within food deserts;
- Installing EE measures that would reduce peak demand savings including the removal of old, inefficient refrigerators that are costly to operate and maintain and require higher demands from the electricity grid than necessary;
- Reducing GHG emissions, eliminating hydrofluorocarbons (HFCs) while simultaneously promoting options for healthy food options within low-income neighborhoods, DACs, and food deserts;
- Providing education, outreach, and support to hard-to-reach small commercial businesses and food distribution centers regarding energy-efficient upgrades and the benefits of offering healthy food options;
- Assisting small commercial businesses to overcome common barriers within their EE segment by offering no-cost EE upgrades and supporting connections to other energy programs, and;
- Assessing intervention strategies and promoting strategies to align financial, energy, and community benefits for small commercial owners.

Market Barriers Addressed

Table 78. FDEEE Program Barriers and Interventions

Barriers	Interventions
High cost of time and effort to research, purchase and install EE equipment	Offering no-cost EE upgrades and supporting connections to other energy programs. Dedicated program staff to lead coordination of installation and recycling and support store owners from engagement to installation.
High cost of time and effort to ensure proper recycling and management of inefficient equipment	Offering no-cost recycling and decommissioning services for old, inefficient equipment. Dedicated program staff to lead coordination of installation and recycling and support store owners from engagement to installation.
Stores have limited staff bandwidth and training	Dedicated program staff to lead coordination of installation and recycling and support store owners from engagement to installation. Training and education for storeowners on EE, marketing, food storage and environmental impact.
Stores have limited funding available for EE upgrades	A suite of no-cost services, dedicated program staff and demonstrable energy and non-energy benefits for upgraded equipment.
Limited understanding and/or access to EE programs due to lack of coordination between EE programs and fragmented messaging for customers.	Energy Coaching services and coordination through the SoCalREN Small Medium Business Energy Advisor program and SoCalREN Commercial programs to drive additional EE upgrades and streamline messaging.
Challenging to engage under resourced small/medium businesses in sustainability improvements	Dedicated program staff, training for storeowners and on-site engagement will provide step-by-step support for businesses to maximize their time and efforts.
Limited or no EE refrigerator space dedicated to healthy food options in markets within food deserts	Offering no-cost EE refrigeration units dedicated to healthy food options along with training and education for storeowners on EE, marketing, food storage, sourcing healthy foods and environmental impacts.
History of marginalization, environmental racism, and/or other negative interactions with government or utility programs that leads to skepticism or distrust.	Working with community-based partners and stakeholders, program staff will build rapport with storeowners based on their needs and experiences.

Target Market

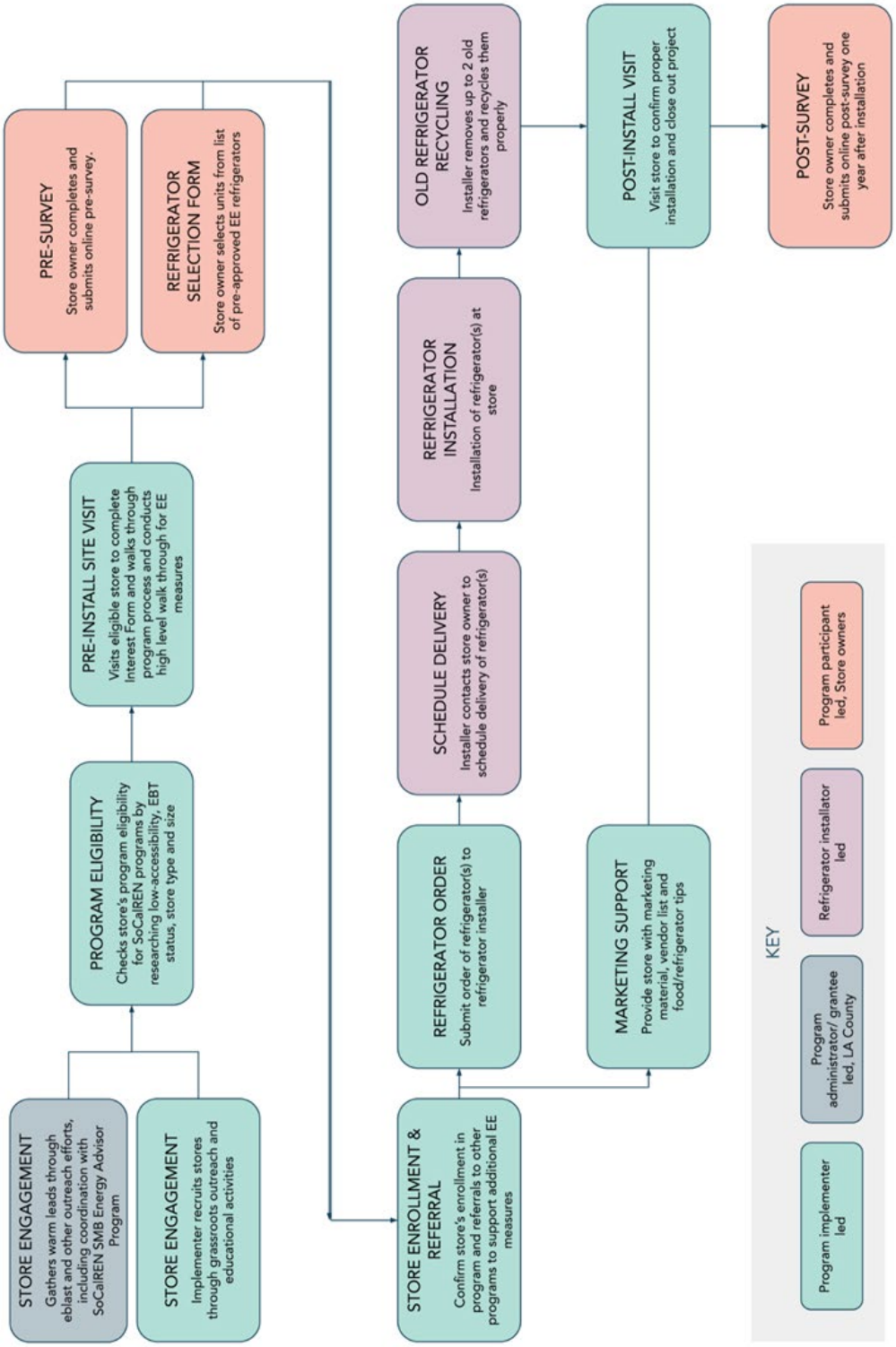
SoCalREN, through the FDEEE program, will address hard-to-reach businesses and DACs through the deployment of initiatives and actions specifically developed to respond to underserved constituents. The targeted market segment is as follows:

- Corner stores: a small-scale store, cafe, or grocery market, either independent or chain, that sells a limited selection of foods and other products and that is located in a food desert in a rural, urban, or suburban area. Corner stores do not need to be located on street corners.
- Small business grocers: independently owned, with 100 or fewer employees, average annual gross receipts of $15M or less and must be authorized to accept EBT/SNAP/CalFresh benefits.
- Food banks and food distribution centers that serve low-income residents or people experiencing homelessness.
- Cafes and small-scale independent restaurants.

Under this program, SoCalREN will target corner stores and/or small commercial businesses with applicable refrigerant units located throughout the region of SoCalREN and will only be eligible for properties in low-income neighborhoods and DACs based on the definitions described above.

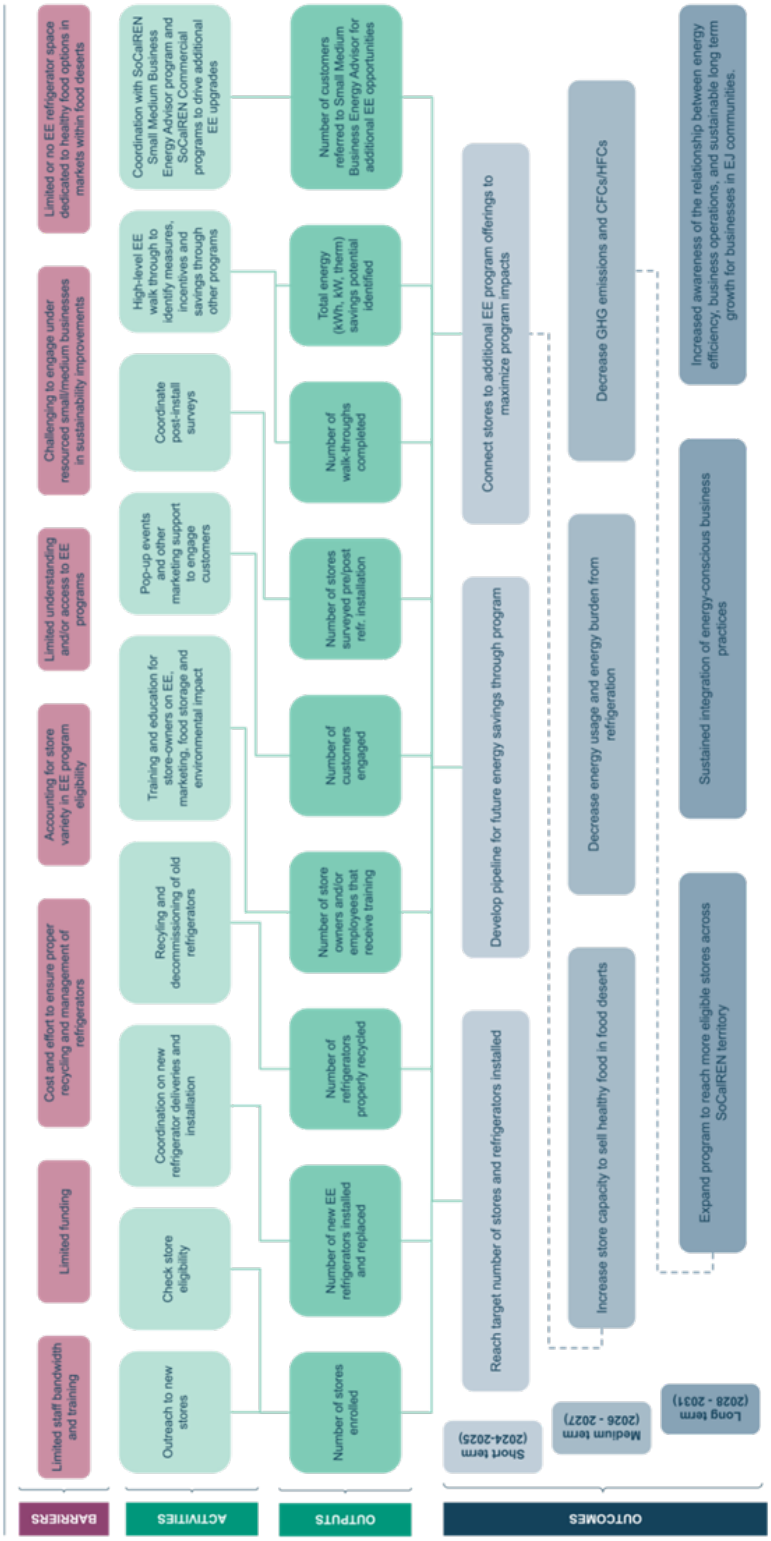
Program Process

Figure 29. FDEEE Program Process



Logic Model

Figure 30. FDEEE Program Logic Model



Incentive Structure

This direct install program covers all costs associated with selected measure purchase and installation.

Program Savings Potential

Table 79. FDEEE Program Savings Potential

Year	Net First-Year kWh Savings Claimed	Net First Year kW Savings Claimed
2024	255,596	3
2025	833,852	5
2026	1,043,576	7
2027	1,250,778	8

Measures and Treatment

Eligible products must be ENERGY STAR® certified and within California Energy Commission's (CEC) Title 24 EE compliance standards. Products that are ENERGY STAR certified and within EE Title 24 compliance with the lowest global warming potential (GWP) will be prioritized for refrigerator unit upgrades. Savings claimed will be based upon deemed measures in the adopted Database for Energy Efficient Resources (DEER) and through approved work papers.

Table 80. FDEEE Program Measures

Savings Category and End Use	Measure	Intervention Strategy	Source Savings
Small commercial refrigeration	Qualified glass door refrigeration units	Deemed	Work paper
Small commercial refrigeration	Qualified solid door refrigeration units	Deemed	Work paper

Program Budget

Table 81. Small DI Program Budget

Budget Category	2024	2025	2026	2027
Administration	$150,000	$75,000	$75,000	$90,000
Marketing	$75,000	$75,000	$75,000	$90,000
DINI	$400,000	$666,667	$666,667	$800,000
Incentives	$875,000	$1,683,333	$1,683,333	$2,020,000
Total	$1,500,000	$2,500,000	$2,500,000	$3,000,000

Program Metrics and Targets

Quantitative Program Targets

Table 82. Small DI Program Metrics

Metric	Method
First-Year Gross kWh Savings Channeled	DEER Deemed Savings
First-Year Gross kW Savings Channeled	DEER Deemed Savings
First-Year Gross Therm Savings Channeled	DEER Deemed Savings

Table 83. Small DI Program Non-Savings Targets

Metric	2024–2027 Target
Number of commercial facilities engaged	500
Number of projects installed	425
Number of equipment installed	800

Table 84. Small DI Program Indicators

Indicator	Method
Commercial Business Engagements	Number business introductions to Program
Applications submitted & reviewed	Number submitted and reviewed
Applications approved	Number approved
Customer agreements signed	Number customer agreements approved
GHG Reductions	GHG emissions avoided through energy savings
Projects Installed	Number of projects installed

REN Program Compliance

The IOUs are not serving this target customer group (HTR business customers) with targeted measure solutions, so this program will fill a gap in the market.

Program Partners

Will work with outreach partners, including local governments, chambers of commerce, and nonprofits, the program will collaborate with trusted community-based organizations and actors to reach stores.

Program Coordination

The Small Commercial Direct Install Program implementer coordinates with SoCalREN Commercial Sector program implementers and associated market actors, such as contractors, equipment distributors, and non-REN program partners

New: California Green Business Network Program

Market Segment: Market Support

Program Description

This program expands the implementation of the California Green Business Network within regional partner geographic regions and throughout the SoCalREN territory. The implementing regional partners would leverage the services and resources of the CAGBN to assist small to medium sized businesses to achieve green business certification. The program would target hard-to-reach (HTR) businesses through tactics such as in-language marketing, offering walk-through audits with measure recommendations, program referrals, and incentives for equipment upgrades.

By taking a holistic approach to sustainability, this program attracts businesses looking to demonstrate to the community and their customers that they are a green business. Certification requires businesses to take action to improve EE, conserve water, reduce waste, and use alternative forms of transportation. The program also helps reduce businesses operating costs.

Program Objectives

The CAGBN Program aims to meet the following objectives to support ESJ Action Plan 2.0 goals:

Table 85. CAGBN Program Objectives

Objectives	ESJ Action Plan Goal	SoCalREN Core Value
Increase number of small and medium businesses that certify as a California Green Business.	4	Expand Access to EE Benefits
Increase number of small and medium businesses that recertify as California Green Business.	4	Build Energy Capacity and Economic Resilience, Expand Access to EE Benefits
Decrease operating expenses for small and medium businesses.	2	Deliver Energy and Climate Impacts, Expand Access to EE Benefits
Businesses adopt more sustainable practices in their operations and contribute to local climate action targets and greenhouse gas goals.	2	Build Energy Capacity and Economic Resilience, Expand Access to EE Benefits
Expand the CAGBN network across the SoCalREN territory.	5	Build Energy Capacity and Economic Resilience, Expand Access to EE Benefits

Program Rationale

This program leverages CAGBN's established resources and tools that were funded in part through the Environmental Protection Agency (EPA) and California Air Resources Board (CARB).

CAGBN maintains the certification program pathway, the associated database, and tools that track program metrics/indicators and identify the tasks a business needs to accomplish to become certified. CAGBN also provides networking opportunities and best practices for businesses to improve marketing tactics and engagement strategies. All of these resources provided by CAGBN have been built over years and individual programs benefit from the regular sharing of best practices and lessons learned through an online Q&A database, committees and semi-annual meetings.

Market Barriers Addressed

While IOUs have account representatives, they have limited time and often focus on businesses that are the largest energy users. Due to volume alone, medium and small businesses do not receive the individual attention needed to help them identify reductions and access resources to make improvements. This program offers direct support through Green Business Coordinators trained to guide small and medium businesses through the identification of EE opportunities, application for incentives, and green business certification, as well as referrals to additional programs.

Not only do these businesses face a cost barrier to implement energy equipment replacements, they also often lack the staff expertise to identify and evaluate EE opportunities. This is even more significant for HTR businesses. Rebate programs reduce costs but can be limiting or not sufficient to cover the high costs associated with equipment replacement. This program offers direct incentives to small and medium businesses, with higher incentives offered to qualifying HTR businesses.

Target Market

Small to medium sized businesses within SoCalREN territory, with a focus on HTR businesses.

Program Process

This program leverages an established and recognized green business certification pathway and offers no-cost support along with financial support for EE measures. Program offerings are delivered through the delivery process detailed below and in the process flow chart in the Supporting Materials section. Program implementation is led by SoCalREN regional partners with support from CAGBN and CAGBN affiliated partners.

Partner Outreach and Business Engagement: regional partners engage with CAGBN and local partners to collect local sustainable practice resources. This includes cities, counties, utilities, water districts, sanitation districts, and transportation. These resources are incorporated into the local education and outreach materials developed for communities and businesses that are shared through local outreach channels, oftentimes including community-based organizations. The regional partners also conduct marketing campaigns directed to the business community with an equity-focus by reaching HTR businesses, and BIPOC, and LGBTQ+ owned businesses. HTR businesses will be targeted through in-language marketing materials along with easy-to-understand language that speaks to the value of the program to the business owner.

Registration: For businesses that are interested in green business certification, a Green Business Coordinator trained by the regional partner with support from CAGBN will be introduced to the business to support the entire certification process. The process begins with the business

registering on the CAGBN website. Once a business is registered, CAGBN will notify the regional partner and the SoCalREN and provide the appropriate certification checklist based on the business sector. The Green Business Coordinator will leverage this checklist throughout the process.

Audit, Recommendations and Referral: The Green Business Coordinator will meet with the business owner to review the certification checklist and perform a walkthrough audit with a focus on EE opportunities. A high-level list of energy operational changes, energy measure upgrade recommendations, program opportunities and other supporting resources and information will be provided to the business owner. Once the business owner determines what programs they are interested in pursuing, the Green Business Coordinator will facilitate introductions or provide applications to the appropriate programs.

Installation and Application: The business owner is responsible for taking the additional necessary steps to meet the certification requirements. The Green Business Coordinator will remain available to answer questions along the way.

Evaluation and Certification: Once the checklist is completed, and the Green Business Coordinator has audited, or otherwise verified completion of the required measures, the certification application is completed in CAGBN's GreenBizTracker database, and the Regional Partner awards the Green Business Certification to the business owner.

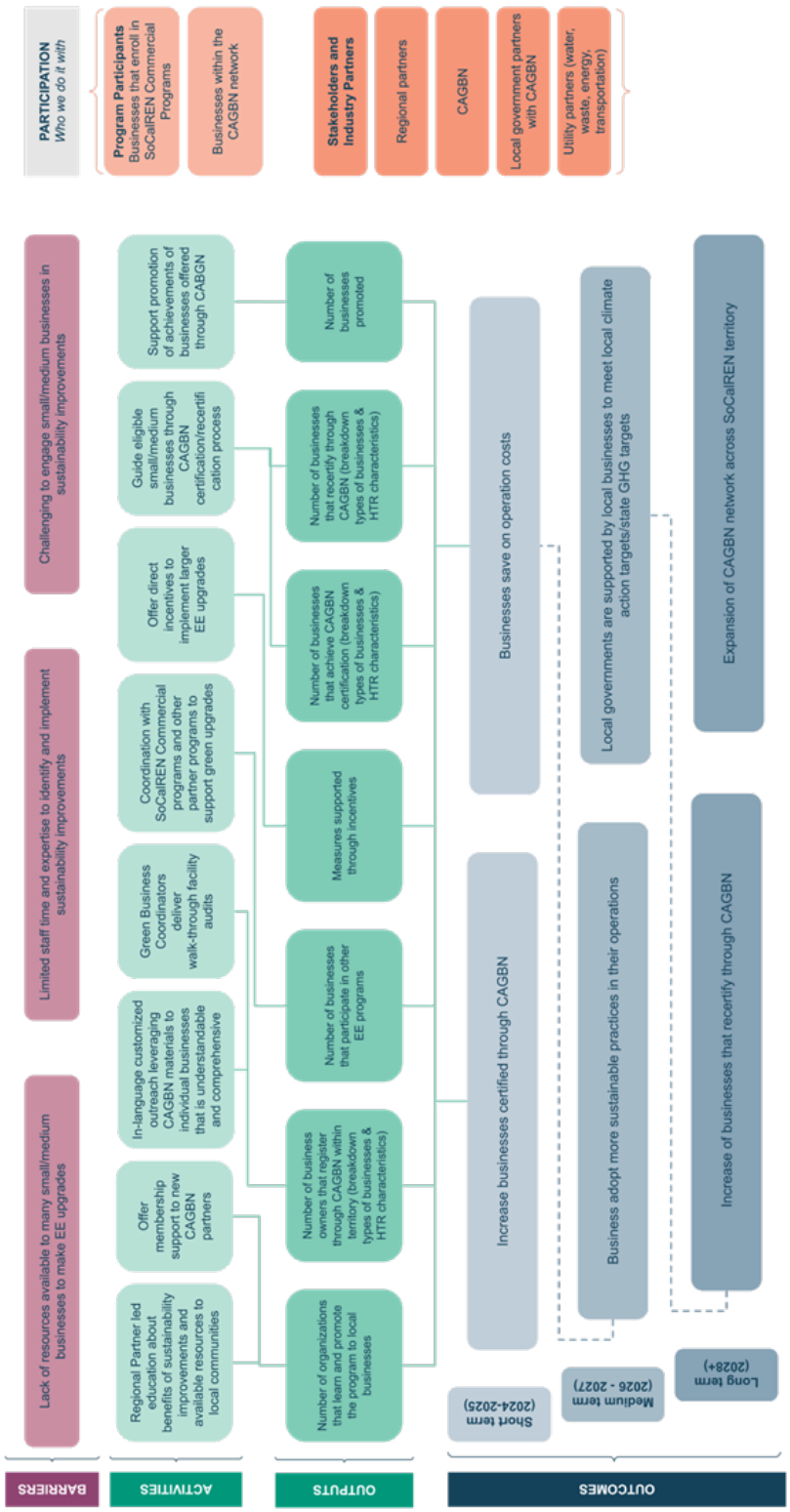
Profile Updates, Payment and Reporting: Following certification, the business's profile will be added to the CAGBN website. If the business upgraded energy equipment as part of the process and there were direct costs incurred by the business, the Green Business Coordinator will collect the necessary information for a program incentive. The one-time incentive will be paid out by the SoCalREN, with HTR businesses receiving a higher incentive amount. As a non-resource program, the program would not report the savings as resource acquisition, but the savings estimated through the CAGBN software would be reported as a program indicator, along with several other quantifiable program benefits.

Promotion: Businesses certified by CAGBN are promoted as green businesses through local outreach channels. This is facilitated by CAGBN, regional partners and other CAGBN affiliated partners.

Re-engagement: Green-certified businesses are re-engaged every three years following certification. Businesses are given the opportunity to recertify with program support and surveyed to collect data on sustained impacts of the program and certification over time.

Logic Model

Figure 31. CAGBN Program Logic Model



Incentive Structure

This is a non-resource program, but incentives are paid out to participating businesses that commit to an EE upgrade as part of the certification process. Enhanced incentives are provided to qualifying HTR businesses. Incentives are fixed, up to 100% of the measure(s) cost.

Program Budget

Table 86. CAGBN Program Budget

Category	2024	2025	2026	2027
Administration	$37,500	$24,998	$26,205	$28,015
Marketing	$50,000	$29,000	$30,400	$32,500
DINI	$412,500	$526,002	$551,395	$589,485
Incentives	$500,000	$580,000	$608,000	$650,000
Total	$37,500	$24,998	$26,205	$28,015

Program Metrics and Targets

Quantitative Program Targets

Table 87. CAGBN Program Metrics and Targets

Metric	2024 Target	2025 Target	2026 Target	2027 Target	Four-Year Total
# of businesses that receive incentives to achieve CABGN certification	75	84	94	105	358
# of HTR businesses that receive incentives to achieve CABGN Certification	39	44	49	55	187
# of businesses that recertify through CAGBN	8	10	14	22	54
# of HTR businesses that recertify through CAGBN	5	6	8	12	31

REN Program Compliance

The IOUs are not offering any similar activities currently and do not have any outstanding 3P solicitations to meet this target market group (HTR businesses).

Program Partners

This program will seek to partner with the following stakeholders and industry partners:

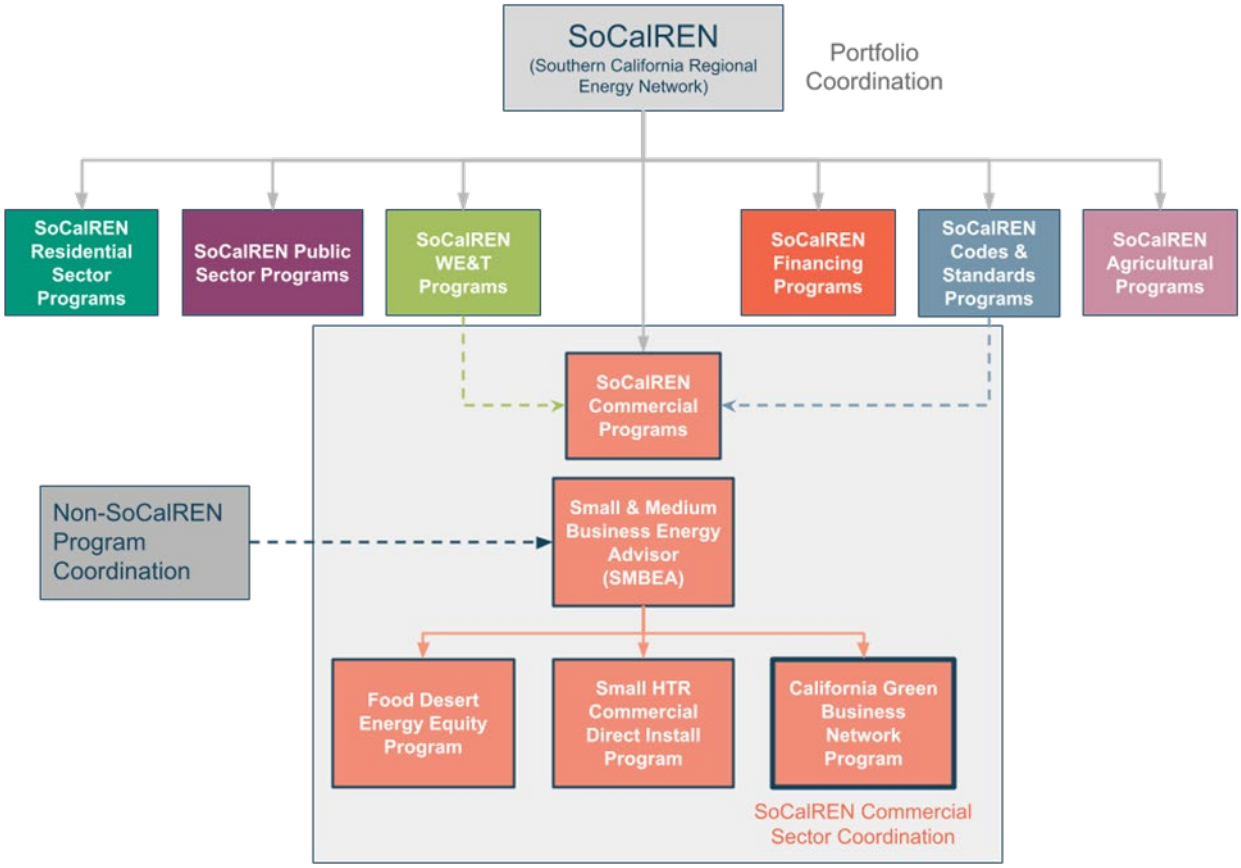
- SoCalREN Regional Partners as subcontractors for delivery of services
- CAGBN as a subcontractor for delivery of services and program model

- Local government partners with CAGBN
- Any Program Administrator or 3P implementer offering services to target market to coordinate and promote offerings
- Utility partners such as energy, water, waste that can supplement services for target market sustainability practices

Program Coordination

The CAGBN program coordinates with SoCalREN Commercial Sector program implementers and associated market actors, such as contractors, equipment distributors, and non-REN program partners.

Figure 32. CAGBN Program Coordination



FINANCE CROSS-CUTTING SECTOR

SoCalREN's Finance Sector offers cross-cutting services and support that complements other programs within the SoCalREN portfolio.

SoCalREN will continue to offer our existing Revolving Savings Fund (RSF) program that provides upfront construction financing to support public agency energy upgrades. In addition, SoCalREN will leverage successes from our RSF public agency program by offering a similar financing product specifically designed to support underserved agricultural communities and customers participating within SoCalREN's Agricultural Sector programs. Our Financing Sector programs are designed to provide opportunities to finance projects in parallel with participating ratepayer programs and drive an uptake of projects that would otherwise not be implemented.

Summary of Sector

The need for EE financing for underserved customers has never been greater. For the public and agricultural sectors, financing is a key agent of cross-cutting coordination. Support from financing cross-cutting resources will fill gaps and bolster SoCalREN's public sector and agricultural sector strategies. SoCalREN sees great potential for these financing programs which allow program participants to finance energy improvements while simultaneously participating in ratepayer-funded downstream programs.

Public Agency Market Gaps and Barriers

Resource constraints, usually in the form of budget and staff, are common in the public agency sector. Public sector EE projects are typically funded with taxpayer dollars, which introduces a higher degree of scrutiny over budgets, expenditures, and procurement practices than other sectors. In addition, local governments and public-school budgets are anticipated to be negatively impacted significantly for the next several years as a result of COVID-19. Given these circumstances and challenges, finance offerings are critical to overcoming barriers and enabling public agencies, particularly those serving underserved communities, to complete EE projects.

The Public Agency Revolving Savings Fund program specifically addresses this financing barrier. When coupled with public sector programs that support project identification, incentives, procurement, and construction, other barriers faced by public agencies can be overcome.

Agricultural Customer Market Gaps and Barriers

The Rural-HTR Agriculture Finance Assistance Program (Ag-Finance) Program is designed to overcome a barrier in the existing framework of utility incentives plus On-Bill Financing (OBF) for energy efficiency projects. The barrier for many Ag customers is the fact that both the incentives and OBF funds are only paid several months after project completion which can easily be more than a year from the initial project development and approval stages. The delays in being paid incentive and OBF funds by the utilities requires a customer to separately secure 100% of the funds needed for an energy efficiency project before construction can commence. Given the difficulty of securing capital improvement funds for normal Ag customers deferred maintenance projects, let alone the installation of new energy efficiency measures, it is not surprising that a 100% upfront capitalization requirement can be a significant hindrance to project implementation. The Ag-Finance Program overcomes this barrier by providing access to upfront funds that cover 100% of the project construction costs.

Budget Distribution and Rationale

The following table provides a summary of SoCalREN's public sector **four**-year budget. As SoCalREN implements the strategies described, the budget and programs offered will be evaluated over time to respond to market changes, needs of the portfolio, and regulatory directives.

Table 88. Finance Sector Budget

	2024	2025	2026	2027
Finance	$1,000,000	$1,160,000	$1,216,000	$1,300,000

Goals, Objectives, Strategies and Outcomes

Goals

- Provide access to low-cost of capital and low risk financing solutions for energy efficiency projects for SoCalREN participants.
- Stimulate and increase overall participation in SoCalREN programs and accelerate project development and implementation.
- Assist SoCalREN program participants, with a focus on EJ communities, in overcoming the barriers to accessing capital due to funding and budget challenges.
- Build awareness of the lifecycle financial benefits of low-cost financing options as a funding source for energy efficiency projects and services.

Strategies

SoCalREN's approach to addressing this sector strategically is described below in Table 89, followed by a discussion of intervention strategies by program. .

Table 89. Finance Sector Strategies

Strategy	Program
• Provide customers with up-front capital needed to finance and install energy efficiency projects through a streamlined program participation experience.	• Public Agency Revolving Savings Fund • Ag Financing
• Provide customers with access to on-call financing expertise to support customer decision making and drive the implementation of energy efficiency projects • Overcome barriers to participation in financing programs by supporting financial decision-makers with the development, submission, and management of financing applications.	• Public Agency Revolving Savings Fund • Ag Financing • Cross-Sector Coordination with the Ag and Public Sector Programs

Intervention Strategies

Public Agency Revolving Savings Fund. The SoCalREN Revolving Savings Fund (RSF) program is delivered through and supports the SoCalREN's Public Agency Energy Efficiency Project Delivery Program (PDP) and the Distributed Energy Resources Disadvantaged Communities (DER DAC) Project Delivery Program, publicly known as Pathway to Zero. The RSF program is a financing cross-cutting program designed to support energy upgrades to buildings and facilities owned by participating public agencies via loans intended to accelerate the implementation of projects. These loans provide upfront construction financing for approved, but not-yet-budgeted projects that would otherwise be delayed pending budget allocation. The RSF can also be paired with other financing options such as on-bill financing (OBF), incentives, or rebates, and other external financing options such as CEC loans.

Rural-HTR Agriculture Finance Assistance Program. The SoCalREN Ag-Finance program is a financing program designed to support energy upgrades to Ag customers via loans intended to accelerate the implementation of projects. These loans will provide short-term construction period financing and serve either as bridge financing until other financing sources (OBF or 3P financing) are available at the end of construction or will be used for approved but not-yet-budgeted projects that would otherwise be delayed pending budget allocation. The SoCalREN Ag-Finance aims to achieve the following objectives:

- Provide on-bill financing (OBF) revolving loan fund (RLF) designed to provide bridge funding to fill the gap between the OBF payment and contractor payment ("OBF BF")
- Establish additional Third-Party (3P) financing relationships

- Work with the Agriculture Project Delivery Program (Ag-PDP) to assist customers with OBF and 3P financing applications
- Seek Federal and state agricultural grants to further expand the program's reach and goals

The Ag-Finance Program supports the SoCalREN's Agriculture Project Delivery Program (Ag-PDP) and the Agriculture Retrofit (Ag-Retrofit) Programs. Seed capital for the fund is used exclusively to issue loans to enrolled and participating Ag customers and is provided through the County of Los Angeles, the SoCalREN Program Administrator.

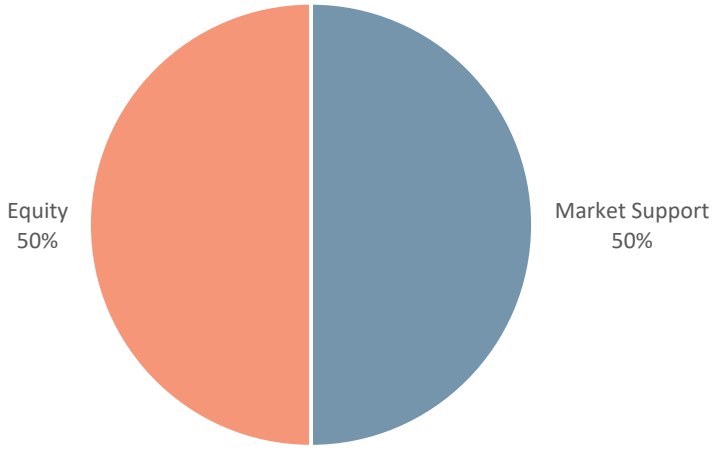
- Strategies will be accomplished through the following process:
- Engage in program marketing and outreach
- Perform project feasibility analysis for RSF loan
- Prepare and submit program loan applications
- Prepare utility on-bill repayment strategy
- Provide the offer to finance for loans
- Customer Completes project installation
- Customer repays the loan within 15 years

Categorization of Programs by Segment

Table 90. Categorization of Finance Sector Programs by Segment

Program	Segment	Justification
Public Agency Revolving Savings Fund	Equity	The program offers a simplified loan resource to help public agencies with disadvantaged and underserved communities overcome budgetary barriers through low cost and low risk financing.
Rural-HTR Agriculture Finance Assistance Program	Market Support	The program offers low risk loan financing to help rural HTR agricultural communities implement cost-effective EE technologies.

Figure 33. Finance Sector Budget by Segment



Changes Proposed Compared to Previous Portfolio

SoCalREN continuously optimizes its program portfolio based on the successes and lessons learned. The previous portfolio supported a residential PACE program, Residential Loan Loss Reserve (LLR), and the Public Agency Revolving Savings Fund. As a result of poor market demand, both residential programs closed. However, the RSF program has become increasingly successful as a tool to support public agency project implementation and thus became a model for the newly proposed Ag Finance program.

Sector-Specific Coordination

Given the similarities of the financing model and product offered through both the RSF and Ag Finance programs, the implementers will coordinate to share best practices and lessons learned.

Existing Program

The following Program Card offers a summary of the existing Revolving Loan Fund Program.

Program Card 1. Revolving Loan Fund

Program Name: Revolving Loan Fund Program		Program ID: **SCR-FIN-CI**	
Portfolio Segment:	Equity	**Implementation Party:**	Third-Party
Applicable Sector: Finance–Public	**Market Sub-Sectors:** Cities, Counties, Tribes, School Districts, Community Colleges, Public Universities, Water and Wastewater Districts, Special Districts, Federal and State Agencies		
Sector Challenge: Public agencies face challenges to financing EE projects including lack of access to capital, upfront capital, and to funding to cover full project costs.		**Sector Opportunity:** Increase participation in EE programs and accelerate the implementation of EE projects to support the State's long-term climate goals.	
Known Equity Concerns in the Selected Markets: Public agencies with disadvantaged and underserved communities face financing barriers to fund EE projects.		**Proposed Solutions to Equity Concerns:** The program offers a simplified loan resource to overcome budgetary barriers through low cost and low risk financing.	
Program Description: Cross-cutting finance program designed to support energy upgrades to facilities owned by underserved public agencies via upfront construction financing			
Intervention Strategy: Upfront financing at 0% interest		**Program Value Metrics:** Presentation touchpoints: 120; Loan applications: 24; Loans awarded $5M (50% of loan pool)	
High-level description of delivery workforce including necessary scale and risk: N/A			
Market Actors necessary for success:		Public Agencies	
Solicitation Strategy: Third-Party		**Transition Plan:** N/A	
Expected Program Life: 2024–Ongoing		**Short-Term Plan:** Build a pipeline of agencies and projects; commit and disburse funds to drive EE projects.	
Cost-Effectiveness: N/A		**Long-Term Outlook:** Increased penetration of EE program uptake and implementation of projects in underserved communities.	
Proposed 2024–2027 Budgets: **2024:** $500,000 **2025:** $580,000 **2026:** $608,000 **2027:** $650,000		**Anticipated directional and scale changes in budget for years 2028–2031:** Budget to gradually increase each year to accommodate delivery of program to increasing number of customers	
Implementation Plan: https://cedars.sound-data.com/documents/download/1975/main/			

New: Rural-HTR Agriculture Finance Assistance Program

Market Segment: Market Support

Program Description

The goal of the Southern California Regional Energy Network's (SoCalREN) Agriculture Sector is to identify and implement cost-effective energy efficiency projects that yield electricity and gas savings for disadvantaged, rural and underserved agriculture communities/customers across the region. To achieve this goal, the SoCalREN Rural-HTR Agriculture Finance Assistance Program (Ag-Finance) aims to achieve the following objectives:

- Provide an On-Bill Financing (OBF) revolving loan fund (RLF) designed to provide bridge funding to fill the gap between the OBF payment and contractor payment ("OBF BF")
- Establish additional Third-Party (3P) financing relationships
- Work with the Ag-PDP to assist customers with OBF and 3P financing applications
- Seek Federal and State Agricultural grants to further expand the program's reach and goals
- The goal of the Ag-Finance Program is to expand the implementation of cost-effective Agriculture energy efficiency projects.

The Ag-Finance Program supports the SoCalREN's Agriculture Project Delivery Program (Ag-PDP) and the Agriculture Retrofit (Ag-Retrofit) Programs. The Program is a financing program designed to support energy upgrades to Ag customers via loans intended to accelerate the implementation of projects. These loans will provide short term construction period financing and serve either as bridge financing until other financing sources (OBF or 3P financing) are available at the end of construction or will be used for approved but not-yet-budgeted projects that would otherwise be delayed pending budget allocation.

The program is designed to be delivered as part of the SoCalREN Ag-Retrofit Program. Seed capital will be used exclusively to issue loans to enrolled and participating Ag customers and is provided through the County of Los Angeles (LAC or County), the Program Administrator of the SoCalREN.

The Ag-Finance Program is designed to meet the following objectives: (1) stimulate SoCalREN Ag customer enrollment, accelerate project development and increase Ag customer participation in energy efficiency programs; (2) assist Ag customers in overcoming barriers related to lack of access to capital for energy projects; and (3) provide an innovative and low-cost solution for short-term energy project financing for Ag customers.

Program Rationale

SoCalREN believes that the small and medium Ag customers in rural, disadvantaged communities will not be the primary focus of SCE and SoCalGas' third-party programs due to TRC constraints of greater than 1.0 and cost to serve. Due to the reduced avoided costs in 2024, SCE's and SoCalGas' third-party program will have difficulty achieving their required TRC of 1.0 which will make it even harder for them to serv small and medium, rural, disadvantaged communities.

Market Barriers Addressed

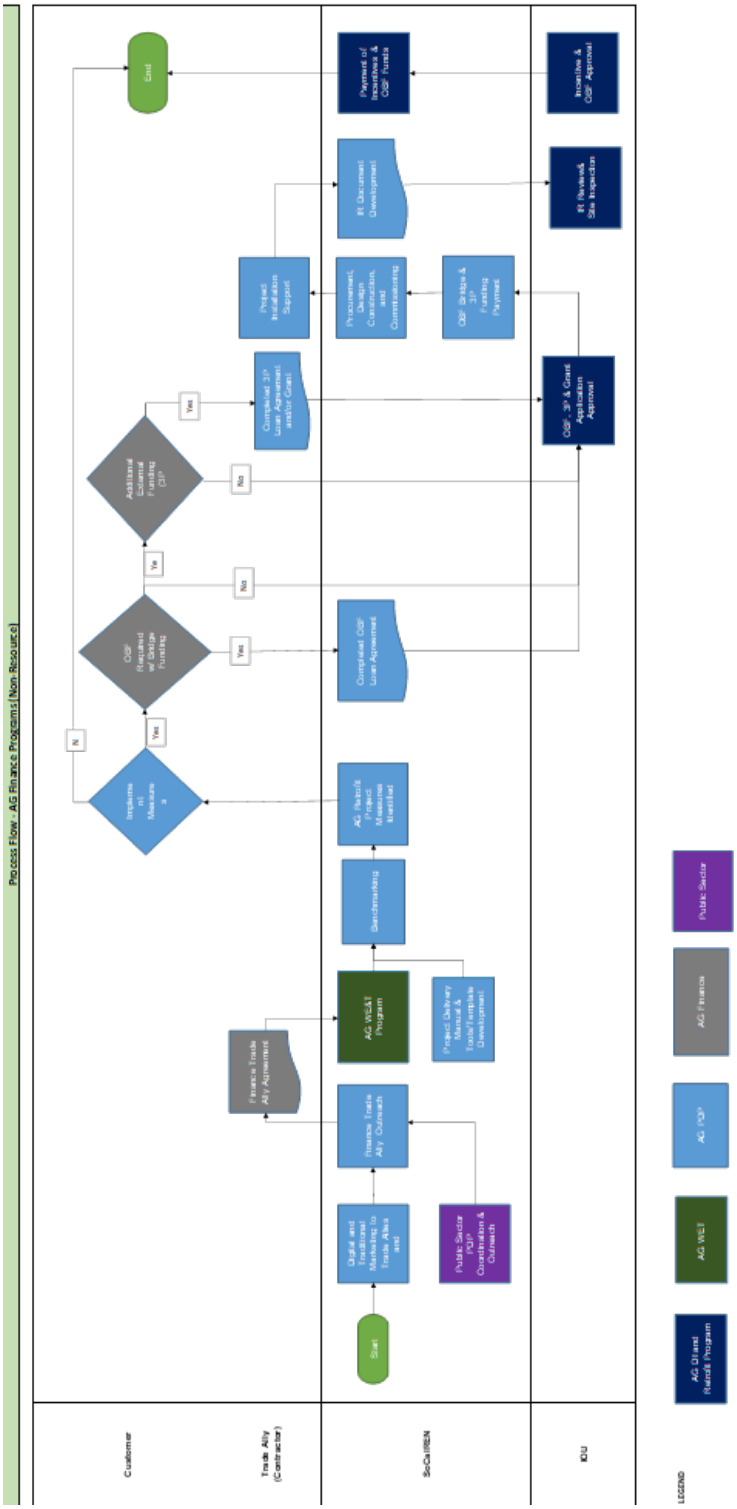
The Ag-Finance Program is designed to overcome a barrier in the existing framework of utility incentives plus On-Bill Financing (OBF) for energy efficiency projects. The barrier for many Ag customers is the fact that both the incentives and OBF funds are only paid several months after project completion which can easily be more than a year from the initial project development and approval stages. The delays in being paid incentive and OBF funds by the utilities requires a customer to separately secure 100% of the funds needed for an energy efficiency project before construction can commence. Given the difficulty of securing capital improvement funds for normal Ag customers deferred maintenance projects, let alone the installation of new energy efficiency measures, it is not surprising that a 100% upfront capitalization requirement can be a significant hindrance to project implementation. The Ag-Finance Program overcomes this barrier by providing access to upfront funds that cover 100% of the project construction costs.

Target Market

Priority marketing will be for Small to Medium Ag Customers (<250 kW) including Disadvantaged Communities (DAC) and Hard to Reach (HTR) Ag customers. This includes Small Business Customers, Severely Disadvantaged Communities (SDACs), and Socially Disadvantaged Farmers and Ranchers. However, measures developed and influenced through custom approaches described in Intervention 2, 3, and 4 can also be applied through this program if the measure can more cost effectively be installed through the Deemed Direct Install approach.

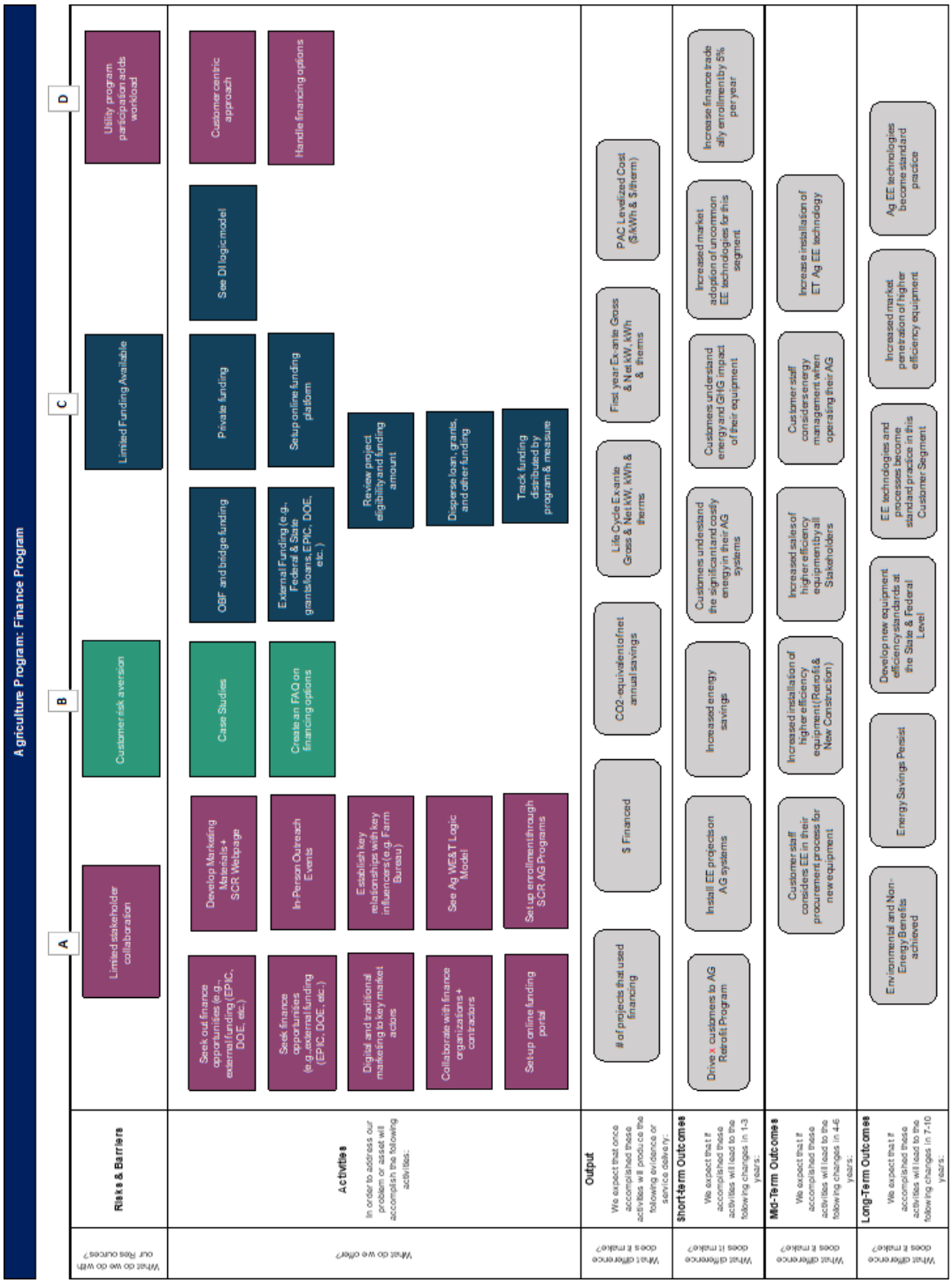
Program Process

Figure 34. Program Process



Logic Model

Figure 35. Logic Model



Program Budget

Table 91. Ag-Finance Program Budget

2024	2025	2026	2027
$500,000	$580,000	$608,000	$650,000

Program Metrics and Targets

Quantitative Program Targets

Table 92. Ag-Finance Program Metrics

Activity	Metric	2024-2027 Target
Engage in Program ME&O	Number of outreach activities	16
Perform Project Feasibility Analysis for Loan	Number of Project Proposals Delivered	120
Prepare and submit loan application	Number loan applications	100

REN Program Compliance

Neither utilities nor CCA program administrators will intend to have a finance Agricultural program that will accelerate the adoption of energy efficient measures to disadvantaged, small and medium rural and underserved agriculture communities.

Program Partners

Trade allies, SoCalREN Public Sector, SoCalREN WE&T and SoCalREN Finance, equipment manufacturers, distributors, wholesalers, and contractors

Program Coordination

Coordination will occur with others such as SCE's third-party program, SCE, SoCalGas, the SoCalREN's Public Sector, SoCalREN's WET and SoCalREN's Finance Programs, Trade Associations, Emerging Technology, Trade Allies, etc.

PUBLIC SECTOR

SoCalREN believes public agencies can lead communities toward safe, affordable, sustainable futures.

SoCalREN's Energy Efficiency Project Delivery Program provides public agencies with turnkey energy efficiency (EE) solutions. Our Distributed Energy Resources for Disadvantaged Communities (DER DAC) program integrates DERs with sustainability strategies, while our Normalized Metered Energy Consumption (NMEC) program and Streamlined Savings Pathway program fill gaps in current investor-owned utility (IOU) programs. New plans include a rural and hard-to-reach Public Agency Direct Install program, a Water Infrastructure program, Energy Resiliency Action Plan development, targeted Regional Partner Initiative funding, and Strategic Energy Management (SEM) services for water/wastewater facilities and underserved schools. Our Business Plan expands SoCalREN's public sector target eligibility to include community college districts and federal/state agencies, with a focus on Environmental and Social Justice (ESJ) communities.

Summary of Sector

The Public sector is unique and distinct from other non-residential customer segments. The customer base is composed of municipal, state, tribal, and federal governments; special districts; and K-12 and community college school districts. These customers are taxpayer-funded, have political mandates, and must go through a public budgeting and decision-making process. Several common public agency characteristics, including those listed below, separate these customers from other non-residential customers:

- Need for transparency
- Complex decision-making process
- Multiple constituencies and stakeholders
- Multiple and competing goals

- Aversion to risk
- Diversity in priorities and needs
- Political dynamics
- Unique funding constraints
- Hard-to-reach communities
- Long-term planning challenges

Although these characteristics create unique challenges and market gaps for serving these customers that are detailed in later sections, there are many reasons to design programs that meet the unique needs of the public sector.

Public sector agencies represent a significant group of energy end-users through the operation of facilities and public amenities ranging from police stations and schools to wastewater treatment plants and streetlights. The infrastructure operated by public sector customers is for the "public good" and many are visible and accessible to the local community. As a result, public agencies have a unique potential to "lead by example," and set the foundation of community resilience by creating cost savings through clean, reliable energy projects, and programs that benefit the local economy and inspire local action.

The CPUC recognizes this potential. As part of the Rolling Portfolio process in 2015, the CPUC established the public sector as a distinct market segment. This action provides the opportunity to design and tailor approaches that overcome the unique challenges faced by public agencies and enable them to fully participate in helping the State attain its aggressive climate action goals.

Budget Distribution and Rationale

Sector Rationale

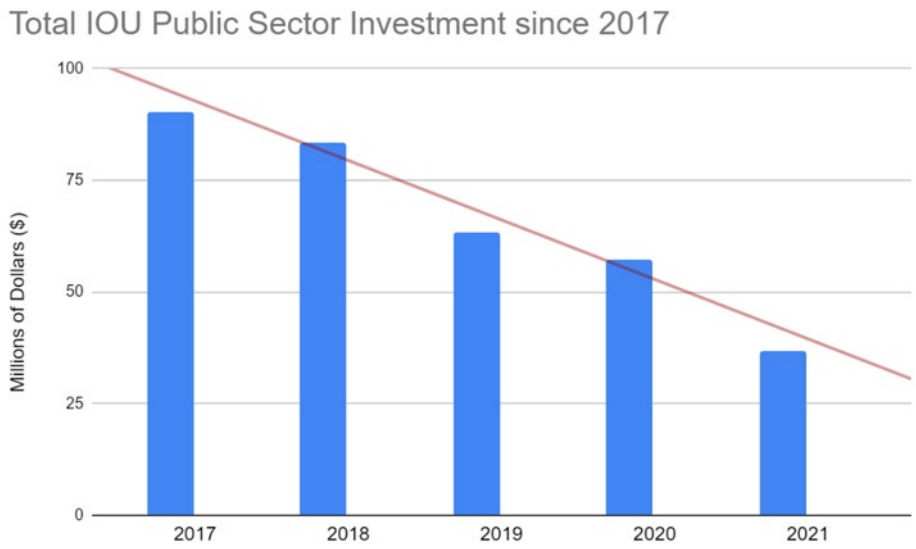
Because public agencies are accountable for ensuring the overall safety and security of their communities, they have a related interest in ensuring a safe, secure, reliable, and affordable energy supply. When energy reliability is compromised, such as when a Public Safety Power Shutoff (PSPS) event is called or grid service fails, the consequences to communities are significant, disruptive, and costly. Public agencies are the "first responders" to deal with the consequences of these power outages and brownouts. The costs of response for the agency can be significant and the effects on communities, particularly disadvantaged communities, can be catastrophic. As such, public agencies have an increasingly critical stake in improving resiliency and reliability of the energy systems that serve them, particularly as it pertains to their critical facilities.

Market Gaps

One of the directives for RENs is to fill market gaps. There are several market gaps that are unique to the public sector. The key market gaps within the public sector for the SoCalREN territory that currently hinder energy efficiency action are described below.

IOU Program Transitions. The IOUs are in the process of transitioning a majority of their EE portfolios to third-party programs. This transition has reduced their investment in public sector programming since 2017 through 2021 by over 40%.

Figure 36. Total IOU Public Sector Investment Since 2017



Within SCE territory, all Local Government Partnerships (LGP) resource and non-resource funding has been eliminated to increase portfolio cost-effectiveness, and thus funding set aside for enhanced incentives is no longer available. In addition, all SCE EE programs leveraged by public agencies have been discontinued in anticipation of other third-party programs in the future. SCE programs that have closed include Commercial and Industrial Customized Programs, Behavioral, Retrocommissioning, and Operational Program, Express, On-Bill Financing, Agricultural, Midstream Point of Purchase Pro, Water Infrastructure System Efficiency (WISE) program, and Schools Energy Efficiency Program (SEEP), and the Public Sector Performance-Based Retrofit Program. In addition, the uncertainty delays around the timing for launch and services to be offered by any new programs has exacerbated this market gap.

Resource Constraints. Resource constraints, usually in the form of budget and staff, are common in the public agency sector. Public sector EE projects are typically funded with taxpayer dollars, which introduces a higher degree of scrutiny over budgets, expenditures, and procurement practices than other sectors. In addition, local governments and public-school budgets are anticipated to be negatively impacted significantly for the next several years as a result of COVID-19. Public agency staff often fill many different roles within their organization and lack the expertise and time to dedicate to EE. Nonetheless, public agencies remain interested in implementing EE projects and programs. In fact, public agency representatives have had a growing appreciation for the complexity of project implementation and the necessity of additional support and guidance through the process. Objective EE expertise that facilitates long-term planning as well as the identification and completion of projects and funding through SoCalREN project management services continues to be a highly valued service year after year based on annual satisfaction surveys performed by the program.

Disproportionately Burdened Communities. Hard-to-reach and disadvantaged communities constrained for basic resources and access are disproportionately burdened when approaching climate and resiliency action. Public agencies face a multitude of unique barriers which can impede climate and resiliency action at the agency level and, in turn, lessen the influence on

community-scale action through local leadership. Being reflections of the communities they serve and being accountable to the long-term planning of those communities, public agencies may shoulder disproportionate burdens related to climate threats, economic access, and geographic constraints - making it even harder to connect them to support resources. This results in many these public agencies being underserved further increasing the inequality gap between California communities.

Deferred Maintenance. Public agencies are notorious for deferring upgrades to their infrastructure. This leaves a significant opportunity for energy upgrades but oftentimes creates a situation where the cost of the proposed project is higher than a standard commercial project upgrade. In addition, as Title 24 and Industry Standard Practice (ISP) advance, requiring higher efficiency baseline equipment and control systems, many EE measures' cost-effectiveness for PAs are reduced resulting in their elimination from non-residential EE programs. This creates a larger market gap as many public agencies fall further behind, especially for smaller public agency facilities that oftentimes do not qualify for meter-based savings programs.

Project Procurement. Procurement occurs once the decision to commit funding has occurred and includes all the steps leading up to the execution of a contract to implement a project. EE programs have traditionally overlooked procurement support as program resources focus more on technical resources, such as audits to identify projects and financial resources such as monetary incentives. In addition, public agencies are hesitant to adjust procurement processes for energy projects due to lack of awareness, lack of technical support and management, limited upfront funding, high-risk aversion, restrictive policies, and long and complicated institutional processes. By addressing this gap, it has been demonstrated that strategies to support public agency procurement increase the overall positive impacts of EE projects through higher completion rates, maximizing energy savings, and building knowledge and confidence of energy project managers to support future projects.

Trusted Resource. Public agencies are risk-averse and resource-constrained. They lack the technical expertise to help navigate through the complex energy landscape and are resistant to investment to test new technologies or approaches to project development. This gap can be addressed by providing an objective, trusted, third-party resource to advise public agencies and provide guidance through EE planning and project implementation, while simultaneously building a level of internal energy management capacity and competency that is commensurate with and tailored to the unique needs of the agency. SoCalGas and SCE provide advisory and administrative support for public agencies by assigning account representatives to each customer. Unfortunately, although these representatives are knowledgeable and useful, they are not offered consistently, can be difficult to access, and do not comprehensively address all agency barriers and needs. In addition, the IOUs all offer energy resource centers for online and in-person training, but they are not customized or marketed to meet the unique needs of a public agency facility manager.

Access to Energy Data. There is a significant market gap in access to actionable energy data for decision-making, preventing effective regional energy planning. Public agencies play a key role in local action through the development of community-wide energy and climate plans and policies. These plans are made actionable through comprehensive data sets available through stakeholders such as the IOUs. Data is also needed to properly plan and pursue projects within public buildings and infrastructure. To date, access to both comprehensive community-wide

datasets as well as access to detailed energy-use data for public agency accounts has been extremely challenging. Local governments are authorized to submit a third-party energy data request for community-wide energy use consumption, but the datasets are often limited by data privacy rules. Programs and systems such as Green Button and Energy Star Portfolio Manager® web services have been developed to access a customer's own data, but the unique characteristics of public agencies (i.e., multiple customer names and tariffs) oftentimes lead to incomplete data sets that require significant investment to fill gaps through outside assistance. To date, a streamlined solution to access this data for effective planning does not exist. As a result, many agencies are driven to make assumptions to create baselines and goals that will impact future community-wide energy and climate policy goals.

Disjointed Program Offerings. The current state of the market favors programs that specialize in single-intervention solutions, rather than systematic integrated solutions. These disjointed program offerings create the need for public agencies to potentially engage with several different providers to meet their sustainability objectives or complete a project. This further drives an inconsistent approach to EE within communities which may not align regional energy plans or local grid needs due to fragmentation between program offerings.

Public agencies desire a holistic approach to addressing energy needs within their community so that their resiliency and clean energy goals are met. When considering upgrades to a facility or local policies, they find offerings that focus on energy efficiency alone very limiting. Unfortunately, the current regulatory environment creates significant challenges for PAs and implementers to design holistic programs that support all Integrated Distributed Energy Resource (IDER) solutions leaving a market gap for public sector customers looking to rate-payer funded EE programs to support their ambitious goals.

Stranded Savings in Non-Buildings. AB 802 calls on EE programs to address "stranded savings" by offering meter-based savings programs but the use of the term "buildings" in place of "infrastructure" in this bill has resulted in many energy-consuming assets being ineligible for programs designed to address "stranded savings". Public agencies operate numerous "non-building" assets that are for the public good. Based on data collected from 118 public agencies engaged in SoCalREN, 30% of energy use and 35% of energy costs derive from non-building tariffs. Being unable to address these assets through NMEC programs perpetuates the issue of stranded savings within public agencies.

Market Barriers

While the public agency sector may encompass great opportunity, capturing these energy savings is not always straightforward. Public agencies face unique challenges and barriers to action, and these challenges are now exacerbated by the social and economic disruption caused by COVID-19. The designation of the public sector as a separate market segment was based, in part, on the recognition of these unique barriers and the need to tailor program offerings to overcome them. These barriers to action include limitations on technical, financial, data, and procurement resources as described in Table 93..

Table 93. Public Sector Barriers

Barriers	Problems & Challenges	Observed Impacts from Barriers
Lack of capacity and expertise	• Limited technical expertise and knowledge of energy projects and issues[20] • No clearly defined role for public agencies in energy leadership Energy management is usually not a core competency • Staff capacity is limited due to resource constraints and competing priorities	• "Cream skimming" project selection • EE is considered at the project level leading to a lack of systematic approaches to energy management at the agency level • Difficult to identify and evaluate relative merits of various energy project opportunities and delayed or non-action on those opportunities • Failure to fully understand the long-term public benefits of energy efficiency • Difficulties with energy project management and construction oversight • Risk aversion[21]
Siloed markets	• Siloed nature of available energy services and funding causes confusion and slows action • Fragmented policies and proceedings • Fragmented, competing, and confusing program offers • Silos within public agencies may cause different departments to have competing goals and priorities	• Customer confusion and reluctance to act • Disincentives for holistic & longer-term perspective for energy solutions • Weak or misaligned strategic goals Many promising project opportunities are not pursued i.e., significant "stranded savings"

[20] Local Government Partnerships Value and Effectiveness Study Final Report, Opinion Dynamics. p. 67

[21] Toward an Entrepreneurial Public Sector, Clark, Anna Fountain, Public Personnel Management, September 2016.

Barriers	Problems & Challenges	Observed Impacts from Barriers
Inadequate access to customer data	• Limited access to actionable energy data for informed decision-making • Lack of regional/statewide energy information system • Lack of resources for local and regional action-planning, goals development, and benchmarking	• Absence of comprehensive energy and resiliency action plan to guide decision-making • Reluctance to develop and adopt model energy codes, standards, and policies • Less effective locational & temporal EE and DER deployment • Non-productive investment of time and effort by public agency staff
Misc. unique challenges	• Project performance uncertainties contributing to risk aversion • Hesitation to try unproven services or products • Lengthy decision-making timelines • Competing and politically sensitive priorities	• Current programs do not fully appreciate or meet Public Sector needs • Lack of attention to risk reduction and public stakeholder buy-in
Financial challenges	• Multiple and competing demands for limited financial resources[22] • Short term budget planning horizons • Rigid funding and budget requirements/restrictions • Inability by some agencies to use multi-year financing for projects	• Program Administrators and • Program Implementers are frequently unfamiliar with Public • Sector project funding and approval requirements and timelines • EE program financial support through incentives, rebates, and • OBF generally favors projects with simple discrete measures and quicker turnarounds, often leaving more holistic and complex projects delayed or ignored
Strict procurement requirements	• Strict project procurement and bidding legal requirements for public agencies • Slow and complex procurement cycle[23]	• Projects may be delayed or dropped • Staff may not have the capacity and resources to initiate and manage a lengthy public procurement process

Budget

The following table provides a summary of SoCalREN's Public Sector four-year budget. As SoCalREN implements the strategies described, the budget and programs offered will be evaluated to respond to market changes, needs of the portfolio, and regulatory directives.

Table 94. Public Sector Four-Year Budget

Program	Segment	Category	2024	2025	2026	2027
PDP	*Market Support*	Total	$8,100,000	$8,480,000	$9,200,000	$9,467,124
		Admin	$405,000	$424,000	$460,000	$473,356
		Marketing	$486,000	$508,800	$552,000	$568,027
		DINI	$7,209,000	$7,547,200	$8,188,000	$8,425,740
		Incentives	N/A	N/A	N/A	N/A
P2Z	*Equity*	Total	$900,000	$1,100,000	$1,250,000	$1,600,743
		Admin	$45,000	$55,000	$62,500	$80,037
		Marketing	$54,000	$66,000	$75,000	$96,045
		DINI	$801,000	$979,000	$1,112,500	$1,424,661
		Incentives	N/A	N/A	N/A	N/A
SSP	*Resource Acquisition*	Total	$979,306	$1,768,162	$2,351,530	$3,082,157
		Admin	$48,965	$88,408	$117,577	$154,108
		Marketing	$58,758	$106,090	$141,092	$184,929
		DINI	$231,421	$805,470	$1,247,849	$1,813,606
		Incentives	$640,161	$768,194	$845,013	$929,514
NMEC	*Resource Acquisition*	Total	$1,382,889	$1,605,608	$1,548,573	$1,408,366
		Admin	$69,145.00	$80,281	$77,428	$70,418.30
		Marketing	$82,973	$96,336	$92,914.38	$84,501.96
		DINI	$649,600	$789,703	$675,012	$479,907
		Incentives	$581,171.00	$639,288	$703,217	$773,538
USSEM	*Equity*	Total	$791,504	$1,418,713	$1,967,706	$1,967,710
		Admin	$79,150	$141,871	$196,771	$196,771
		Marketing	$47,490	$85,123	$118,062	$118,063
		DINI	$519,284	$997,612	$1,410,240	$1,385,980
		Incentives	$145,580	$194,107	$242,633	$266,896

Program	Segment	Category	2024	2025	2026	2027
WWSEM	*Resource*	Total	$1,678,094	$2,427,991	$2,427,814	$2,428,962
		Admin	$167,810	$242,800	$242,781	$$242,896
		Marketing	$100,685	$145,680	$145,669	$145,738
		DINI	$1,214,599	$1,144,676	$1,099,787	$1,053,772
		Incentives	$195,000	$894,835	$939,577	$986,556
DI	*Equity*	Total	$1,035,592	$1,667,271	$2,337,309	$3,912,363
		Admin	$103,559	$83,364	$116,865	$195,618
		Marketing	$62,135	$100,036	$140,239	$234,742
		DINI	$397,097	$538,270	$945,484	$1,582,622
		Incentives	$472,801	$945,601	$1,134,721	$1,899,381
ERAP	*Market Support*	Total	$1,200,000	$1,600,000	$1,700,000	$1,800,000
		Admin	$120,000	$128,000	$119,000	$90,000
		Marketing	$60,000	$80,000	$85,000	$90,000
		DINI	$1,020,000	$1,392,000	$1,496,000	$1,620,000
		Incentives	N/A	N/A	N/A	N/A
RPAR	*Market Support*	Total	$500,000	$680,000	$720,000	$850,000
		Admin	$25,000	$34,000	$36,000	$42,500
		Marketing	$30,000	$40,800	$43,200	$51,000
		DINI	$445,000	$605,200	$640,800	$756,500
		Incentives	N/A	N/A	N/A	N/A
WIP	*Resource Acquisition*	Total	$1,063,736	$2,127,472	$2,872,088	$3,616,703
		Admin	$106,374	$212,747	$287,209	$361,670
		Marketing	$63,824	$127,648	$172,325	$217,002
		DINI	$893,538	$955,063	$1,119,620	$1,258,309
		Incentives	N/A	$832,013	$1,292,934	$1,779,722
Sector Total			**$17,631,121**	**$22,875,217**	**$26,375,020**	**$30,134,128**

Goals, Objectives, Strategies, and Outcomes

SoCalREN provides public agencies, with a focus on those who lack the experience or resources, with the expertise, resources, and support they need to create a safe, secure, equitable, and resilient energy future. Programs are designed to motivate and guide public agencies to engage in and prioritize energy resiliency actions in support of California's carbon reduction goals. The public sector programs strategically fill market gaps through innovative solutions and enhance EE program access to underserved agencies and aim to achieve the following goals:

- Increased uptake of high value EE and DER projects in public agency owned facilities, with a focus on project implementation in underserved communities and critical facilities;
- Public agencies are aware of their energy usage, energy costs, and GHG consumption across their owned assets;
- Agencies develop and adopt a local energy resilience action plan as a roadmap for addressing clean energy and GHG reductions;
- Increased number of agencies are knowledgeable and actively engaged in supporting EE and clean energy within their community or communities;
- Programs offered fill gaps in the market to ensure that underserved communities are not left behind in the clean energy transition;
- Public agency programs expand reach to deliver services into untouched and hard to reach areas of the service territory;
- Local trusted regional experts, SoCalREN regional partners, support the design and implementation of innovative, targeted programs and strategies that meet the unique needs of public agencies in their geographic spheres of influence, and;
- Continuously improve service offerings and programs based on input collected through authentic community engagement.

Intervention Strategies

The public sector needs the right assistance, resources, and support if it is to successfully lead communities to a low carbon, resilient, and equitable clean energy future. SoCalREN addresses this challenge, fills public sector market gaps and directly supports California's energy goals and policies through nine key intervention strategies organized around a mix of holistic, regional intervention strategies and smaller-scale, targeted project interventions with the goal of maximizing energy and GHG savings. The 9 key intervention strategies are described below and additional details for each program can be found in the Program Cards section.

Energy Efficiency Public Agency Project Delivery Program

The SoCalREN Energy Efficiency Project Delivery Program (PDP) fills market gaps and provides public agencies with an integrated, objective and comprehensive EE solution so that they can become proactive stewards and leaders in energy action. Program services include, but are not limited to, energy planning, energy use analysis, investment grade audits, design performance specifications, scope of work support, incentive and financing application support, financial analysis, procurement assistance, bid analysis, and construction management support. In addition, public agencies receive project management services through a dedicated Project Manager who acts as a single point of contact to guide them through the entire project implementation process.

The dedicated Project Manager also supports the public agencies to navigate and gain access to SoCalREN's applicable resource and non-resource programs alike as well as IOU and third-party programs, unlocking and streamlining project implementation to realize a resilient, reliable, and clean energy future.

DER DAC

To support the public sector and to expand on lessons learned from the SoCalREN's existing public sector strategies, in 2019 the SoCalREN expanded its EE project delivery with the Public Agency Distributed Energy Resources Disadvantaged Communities (DER DAC) Project Delivery Program, publicly known as Pathway to Zero. DER DAC includes DER and sustainability strategies during project identification and provides educational information and resources for integrating DERs in EE projects. This program is offered within DACs, rural, and low-income communities. Like SoCalREN's PDP, DER DAC provides EE project management and education, but it also provides information and subject matter expertise on DER and sustainability strategies for underserved public agencies. The goal of the program is to maximize EE opportunities while driving the integration of DERs to help public agencies achieve zero net energy (ZNE). SoCalREN has learned that for most public agencies in the program, EE retrofits are just the beginning. Many want to achieve deeper energy savings, water efficiency savings, and greater energy resiliency through renewable generation, energy storage, and sophisticated energy management systems. SoCalREN's DER DAC program supports underserved public agencies and addresses comprehensive resiliency strategies to achieve their climate and sustainability goals.

Streamlined Savings Pathway

The Streamlined Savings Pathway (SSP) fills public sector market gaps by providing public agencies with an expedited pathway to implement comprehensive EE projects. SSP offers monetary incentives for qualifying EE upgrades based on lifecycle GHG emission reductions. In advancement of the CPUC's Environmental and Social Justice (ESJ) Action Plan, enhanced incentives will be offered to encourage and facilitate energy savings in disadvantaged, rural, and low-income communities. Agencies participating in SSP will receive technical expertise and project management services throughout their projects and at no cost through SoCalREN's Project Delivery Program and DER DAC Program (both non-resource programs). Cumulatively, the joint offerings of the PDP, DER DAC, and SSP programs unlock a streamlined and expedited EE project delivery experience for the public sector, empowering and equipping public agencies to leap into the clean energy future.

Normalized Metered Energy Consumption Program

California has an ambitious goal of doubling EE savings by 2030. For public agencies to contribute to statewide EE goals and improve their aging infrastructure, they need resources. Existing EE programs require bringing facilities above Title 24 standards, which can deter public agencies from acting due to financial constraints—leaving below-code facilities with the largest EE opportunities "stranded." SoCalREN's Public Agency Normalized Metered Energy Consumption (NMEC) Program, publicly named Metered Savings Program offers a way to access "stranded" savings with comprehensive project delivery support. The SoCalREN NMEC program uses normalized metered energy consumption to measure energy savings at the meter, unlocking new project opportunities that go beyond the EE measures typically incentivized by utility custom or deemed incentive programs. SoCalREN will leverage a novel approach to delivering incentives to public agencies based on lifetime GHG reductions that encourages deep energy retrofits and

peak demand savings. In advancement of the CPUC's ESJ Action Plan, this program also focuses on underserved communities by offering enhanced incentives to disadvantaged, rural, and low-income communities.

Rural-HTR Public Rural-HTR Public Agency Direct Install

The SoCalREN Rural-HTR Public Rural-HTR Public Agency Direct Install (DI) Program fills market gaps by serving smaller public agency facilities that are unsupported by other EE programs. Small facilities have historically been excluded from energy programs due to low energy savings opportunities and strict cost-effectiveness criteria from program administrators. The DI Program enables smaller public agencies to achieve no-cost energy and peak demand savings through turnkey services including site inventories, equipment purchasing, installation, recycling, and disposal. The DI Program overcomes numerous market barriers by offering the installation of a range of prescribed energy efficiency measures. SoCalREN's DI Program unlocks stranded energy savings for public sector customers whose projects would otherwise be left behind in the transition to a clean, safe, secure, and affordable energy future.

Energy Resiliency Action Plan

The Energy Resiliency Action Plan (ERAP) Program will provide public agencies with a consistent and systematic framework to guide their communities to a clean and resilient energy future. The primary focus of the program is to develop an actionable roadmap, an Energy Resiliency Action Plan, to inform community-wide and regional activities that support energy, greenhouse gas, and resiliency goals at the local, regional, and state level. The program will provide public agencies with near-term to long-term energy resiliency strategies while leveraging data-driven analysis to develop actionable recommendations for capital projects to strengthen the energy resiliency of their community.

An ERAP goes above and beyond an Energy Action Plan by expanding the scope to include energy infrastructure and climate risks, taking a community-wide approach to inform strategies, and focusing on feasible projects to achieve established goals.

Regional Partner Initiatives

Regional Partner Initiatives are established to better address the diverse needs of public agencies in the SoCalREN service territory by leveraging regional partners to test new and innovative intervention strategies that can then be scaled as appropriate to other regions. SoCalREN offers a streamlined approach for regional partners to submit initiative ideas for consideration through a simplified application process alongside support to develop ideas and properly categorize them. Applications are evaluated as submitted and available on an ongoing basis for regional partners to develop and submit. Resource and non-resource strategies that align with the SoCalREN core values are both considered.

Underserved Schools Strategic Energy Management

School district faculty and facility/maintenance staff do not have the capacity, expertise, or funding to identify and implement energy savings measures nor build commitment and buy in to longer term energy management strategies. This program will help schools set goals and develop, implement, and maintain comprehensive energy load management programs to reduce peak period charges and energy consumption through a strategic energy management (SEM) approach. This will be accomplished by identifying opportunities to install more efficient equipment, implementing smart building control systems, and educating building occupants on

behavioral energy conservation practices. The program will also create and maintain a culture of sustainable energy awareness and habits that will persist far beyond the intervention of the program.

Through coordination with SoCalREN's PDP and DER DAC programs, schools will receive holistic project management and technical assistance to identify energy savings opportunities, capacity building and training with staff to develop a long-term vision and commitment to energy management, and academic curriculum integration to build future energy leaders across student populations.

Water & Wastewater Strategic Energy Management

Water and wastewater treatment plants and distribution systems use a significant amount of energy, but staff are often capacity constrained and/or risk averse to participating in EE programs because their core mission is to provide clean water and treated wastewater. Given the high energy consumption and types of equipment used at these facilities which often overlaps with peak demand periods, there is considerable opportunity to provide not only cost reductions, but grid services as well. The Water and Wastewater Strategic Energy Management (SEM) program will help agencies overcome the barriers to participate in energy programs by offering project management and technical services aimed at reducing peak demand and supporting grid reliability.

The program will also offer incentives for peak demand reductions within water and wastewater treatment facilities through a strategic energy management (SEM) approach. Enrolled agencies will be assigned a single point-of-contact to guide them through the program process which involves a DR energy audit to identify short term, no-to-low capital intensity and longer-term capital-intensive demand reduction measures. The program will also seamlessly integrate with other SoCalREN public agency programs to facilitate the approval and installation of measures. After installation, the program will complete post inspections to verify peak demand savings and provide concierge services to facilitate DR program enrollment.

Water Infrastructure Program

Since most utility programs are required to be cost-effective, they can typically only offer energy efficiency solutions that are simple and do not require long lead times. This creates a gap to provide support for more complex and time intensive projects that other program administrators cannot undertake. To address this gap, WIP will provide effective deemed and custom solutions that require multiple years to fully develop and implement. The first year of the program will be entirely focused on working with customers to plan intricate water projects such as wastewater mixing, ultraviolet controls, and pump sequencing projects. The second program year will then deliver initial program benefits through shorter-term opportunities such as behavioral and retro-commissioning measures. By the end of the third and fourth program years, the program will achieve significant benefits through the completion of multi-year custom projects that were first identified during program launch.

The program targets long term projects, where project identification to project installation and verification is within 3-10 years. Influencing this risk-averse customer segment to install energy efficient options takes between 3 and 10 years from initial customer introduction because trust needs to be established before water and wastewater customers seriously consider and are convinced of a recommendation to their water systems.

Outcomes

Public agencies have the unique potential to lead their communities by example and set the foundation of community resilience by creating cost savings through clean, reliable energy projects that benefit the local economy and inspire local action. SoCalREN's public sector strategies will unleash this potential to lead by example and drive carbon reductions by maximizing opportunities and motivating customers to adopt more comprehensive EE approaches that are characterized by deeper, longer-lasting savings.

To date, SoCalREN has supported the completion of 641 projects amounting to 95.2 million kWh, 3854 kW, and 334,359 therm first-year gross energy savings. These energy savings translate to removing 21,156 metric tons of GHGs. Through these projects, public agencies saved $14,413,093 first-year utility bill savings.

In alignment with SoCalREN's core values, the public sector programs are designed to achieve the following outcomes:

- **Increased energy & GHG reductions across the public sector.** SoCalREN's public sector resource programs support activities with trackable energy savings and GHG reductions that contribute to local and state or climate goals. Resource incentive programs offered by SoCalREN motivate agencies to tackle projects sooner and receive the benefits of reduced energy consumption and carbon emissions.
- **Underserved communities gain increased access to EE benefits.** SoCalREN's public sector equity programs are specifically focused on providing access to unique EE programs and services that enhance carbon reduction opportunities and other environmental outcomes in underserved communities supporting the advancement of the CPUC's Environmental and Social Justice Action Plan . Public agencies serving disadvantaged communities (DAC), low-income, and rural communities receive the support needed to overcome barriers to completing EE projects through SoCalREN's start-to-finish project management support services.
- **Increased energy capacity, competency, and economic resilience.** SoCalREN's public sector market support programs will build long-term knowledge and skills that lead to energy competency, policies, or other infrastructure that will help public agencies build long-lasting, strong, and self-sufficient economies by supporting projects and investment into their communities. Program offerings help agencies overcome staffing and resource constraints, increase knowledge about their facilities' energy consumption, and access funding sources to facilitate energy actions.

Categorization of Programs by Segment

The CPUC's Decision 21-05-031 recognized the importance of balanced portfolios that maintain critical equity and market support activities alongside resource acquisition programs. With that, the CPUC defined three market segments for program characterization: Resource Acquisition, Market Support, and Equity, each with unique objectives to address the state's energy and climate goals. Because RENs have unique requirements to fill gaps and support: (1) activities the utilities do not undertake, (2) activities in hard-to-reach markets, and (3) activities where there is

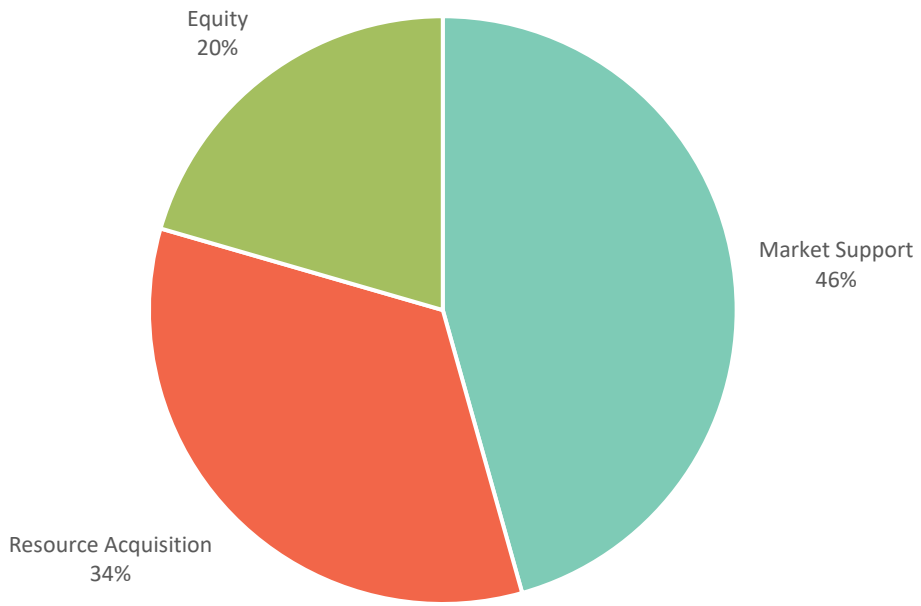
no current utility program offering, they are not required to allocate specific portions of their budgets to resource activities like the IOU PAs.

SoCalREN seeks to maintain a balanced portfolio of programs to deliver comprehensive services and unique value to participants. Table 95 below summarizes the categorization of each program and justification for the primary segmentation of each program.

Table 95. Categorization of Public Sector Programs by Segment

Program Name	Primary Segment
Project Delivery Program (PDP)	Market Support
DER DAC	Equity
Streamlined Savings Pathway	Resource Acquisition
Metered Savings Program	Resource Acquisition
Rural-HTR Public Agency Direct Install	Equity
Energy Resiliency Action Plan	Market Support
Regional Partner Initiative	Market Support
Underserved Schools Strategic Energy Management	Equity
Water & Wastewater Strategic Energy Management	Market Support
Water Infrastructure Program	Resource Acquisition

Figure 37. Public Sector Budget by Segment



Changes Proposed Compared to Previous Portfolio

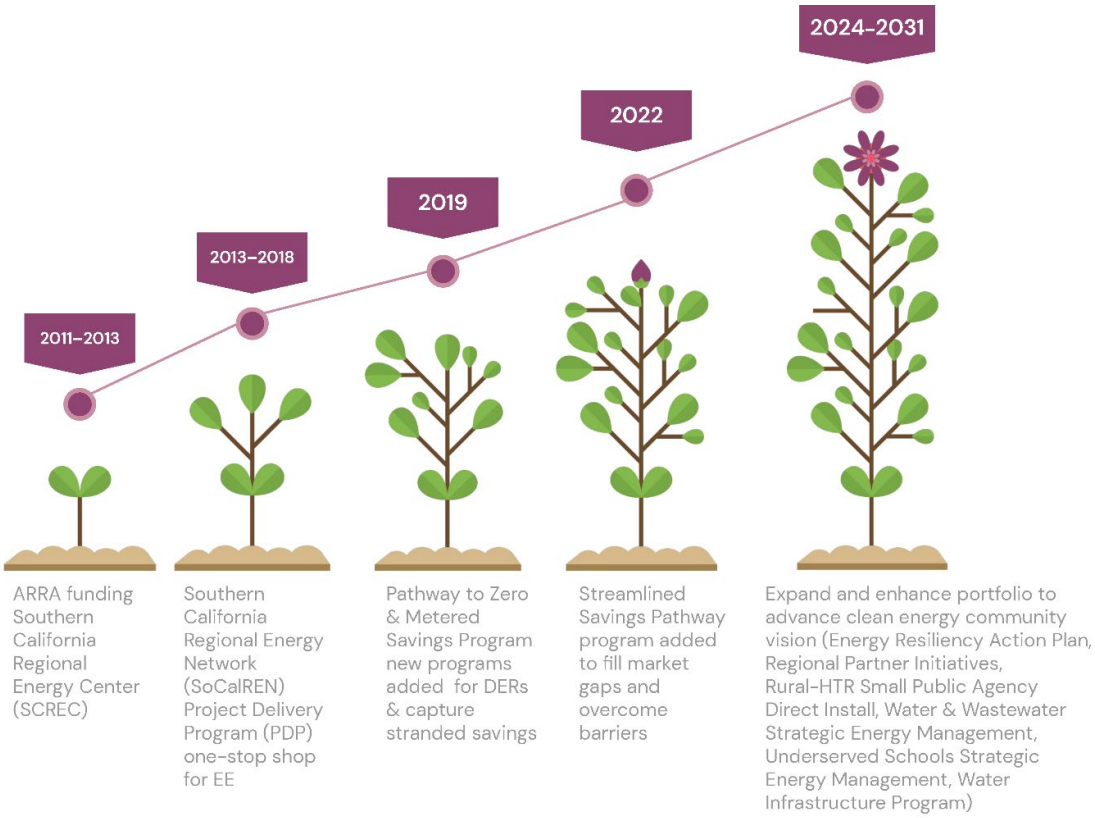
Since 2013, the SoCalREN has successfully provided comprehensive one-stop EE services to increase adoption of EE by public agencies. To date, SoCalREN has supported the completion of 641 projects amounting to 95.2 million kWh, 3854 kW, and 334,359 therm first-year gross energy savings. These energy savings translate to removing 21,156 metric tons of GHGs. Through these projects, public agencies saved $14,413,093 first-year utility bill savings.

In 2019, the SoCalREN public sector portfolio expanded to offer two new programs, the Public Agency Normalized Metered Energy Consumption (NMEC; publicly known as the Metered Savings Program) and the Public Agency Distributed Energy Resources Disadvantaged Communities Project Delivery Program (DER DAC; publicly known as DER DAC), to complement and support the SoCalREN public sector vision. Subsequently in 2022, the CPUC authorized the addition of the SoCalREN Streamlined Savings Pathway (SSP) Program to fill market gaps and help agencies complete projects on a more expedited timeline.

These programs were designed to overcome significant market barriers to capture stranded savings and offer integrated energy solutions that advance public agencies on a path to ZNE while ensuring that underserved communities are not left behind. All public programs work together seamlessly as companion programs and have expanded services available to agencies to drive deeper EE savings and launch clean energy projects.

The 2024-2031 SoCalREN public sector strategies build upon the success and lessons learned from previous cycles and take additional steps to guide public agencies in their pathway to clean energy communities. This is accomplished through the continuation of successful existing strategies while adding new and modified program offerings that further build public agency capacity and energy competency, provide them the tools to lead by example in climate leadership, build economic resilience, enhance access to underserved communities, and provide innovative services for their unique communities.

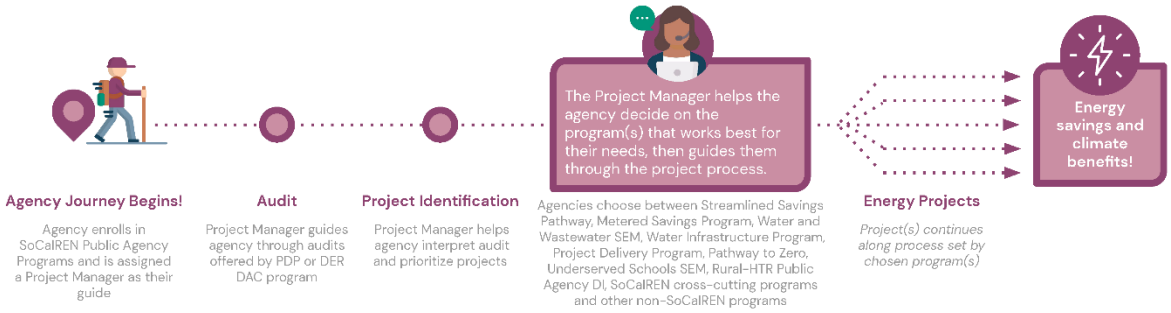
Figure 38. Growth to Meet Public Sector Needs



Sector-Specific Coordination

SoCalREN's public sector programs are highly integrated, comprehensive, and coordinated to provide a seamless experience for public agency participants. Each agency receives project management services through a single point-of-contact to guide them through and gain access to all applicable program offerings. The SoCalREN Project Delivery Program (PDP) and DER DAC Programs serve as entry points for enrollment into the suite of public sector programs. Through exploration of agency needs and opportunities, the dedicated SoCalREN Project Manager will identify and navigate them through the other various applicable program offerings. For example, an agency may receive an EE audit through the DER DAC program which will identify energy savings measures and applicable incentive programs and pathways, which can include incentives through the Streamlined Savings Program (SSP) and NMEC. Once an agency decides to pursue incentives through one of SoCalREN's incentive programs, the Project Manager will support them with incentive application development and submission for handoff to the applicable incentive program for technical reviews and approvals. The DER DAC program would continue to provide the agency with support to overcome additional barriers like procurement, financing, and construction. Similarly, an agency enrolled in PDP may express an interest in developing near term and long-term resiliency strategies; the Project Manager will facilitate access to the Energy Resiliency Action Plan program to provide them with a data-driven analysis that provides actionable recommendations for capital projects to strengthen the energy resiliency of their community.

Figure 39. Public Sector Program Coordination Pathways



Existing Programs

The following Program Cards offer summaries of the existing Public sector programs: Public Agency Project Delivery, DER DAC, NMEC, and Streamlined Savings Pathway.

Program Card 2. Public Agency Project Delivery Program

Program Name: Public Agency Project Delivery Program	Program ID: SCR-PUBL-B1
Portfolio Segment: Market Support	**Implementation Party:** Third-Party
Applicable Sector: Public	**Market Sub-Sectors:** Cities, Counties, Tribes, School Districts, Community Colleges, Public Universities, Water and Wastewater Districts, Special Districts, Federal and State Agencies
Sector Challenge: Limited or no staff, technical expertise, access to data for informed decision making, and funding, complex procurement procedures, staff approval requirements	**Sector Opportunity:** Facility energy consumption management; comprehensive retrofits; reinvest energy cost savings in communities; energy leadership; support the State's long-term climate and emission goals.
Known Equity Concerns in the Selected Markets: Public agencies manage diverse portfolios of facilities and lack the resources to identify and manage EE upgrades. Many public sector facilities are smaller in size and not targeted or eligible for other EE programs.	**Proposed Solutions to Equity Concerns:** The program offers comprehensive services to support all public sector customers, providing them with a suite of services to better manage their facilities and implement EE projects.
Program Description: PDP fills market gaps, providing agencies with an integrated, objective, and comprehensive EE solution. Services include energy use analysis, audits, design performance specifications, scope of work support, incentive and financing application support, financial analysis, procurement assistance, and construction management support.	
Intervention Strategy: Downstream technical assistance	**Program Value Metrics:** Energy savings, GHG reductions, DAC/underserved support
High-level description of delivery workforce including necessary scale and risk: Compliance with HVAC/Advanced Lighting Controls Program and CPUC Workforce Standards as stipulated in D.18-10-008. Sufficient contractors in the market to support EE installations.	
Market Actors necessary for success:	Public Agencies
Solicitation Strategy: Third-party	**Transition Plan:**
Expected Program Life: 2024–Ongoing	**Short-Term Plan:** Increase public agency enrollments, focusing on DACS; identify strategies to help agencies implement deeper and more comprehensive EE projects; enhance strategies with existing program partners to leverage parallel services.
Cost-Effectiveness: **N/A**	**Long-Term Outlook:** Program services and reach extends to all eligible agencies; program achieves success in making EE a standard practice in facilities management; program established as a nationally

recognized replicable public sector program for EE.

Proposed 2024–2027 Budgets:		Anticipated directional and scale changes in budget for years 2028–2031: Budget to gradually increase year-over-year to account for increased market penetration.
2024: $8,100,000	**2026:** $9,200,000	
2025: $8,480,000	**2027:** $9,467,123	

Implementation Plan: https://cedars.sound-data.com/documents/download/2046/main/

Program Card 3. Public Agency DER DAC Program

Program Name: DER DAC Project Delivery Program		Program ID: SCR-PUBL-B2	
Portfolio Segment:	Equity	**Implementation Party:**	Third-Party
Applicable Sector: Public	**Market Sub-Sectors:** Cities, Counties, Tribes, School Districts, Community Colleges, Public Universities, Water and Wastewater Districts, Special Districts, Federal and State Agencies		
Sector Challenge: Limited staff, lack of technical expertise, limited access to data for informed decision making, funding challenges, complex procurement, approval requirements		**Sector Opportunity:** Facility energy management; comprehensive retrofits; reinvest energy cost savings in communities; support the State's long-term goals.	
Known Equity Concerns in the Selected Markets: Economic, health, and environmental burdens within DACs		**Proposed Solutions to Equity Concerns:** Energy solutions for health, safety, and reduced GHG emissions	
Program Description: Services include energy use analysis, audits, design performance specifications, scope of work support, incentive and financing application support, financial analysis, procurement assistance, and construction management support.			
Intervention Strategy: Downstream integrated energy strategy support		**Program Value Metrics:** Energy savings, GHG reductions, DAC/underserved support	
High-level description of delivery workforce including necessary scale and risk: Compliance with HVAC/Advanced Lighting Controls Program and CPUC Workforce Standards as stipulated in D.18-10-008. Sufficient contractors in the market to support EE installations.			
Market Actors necessary for success:	Public Agencies		
Solicitation Strategy: Third-Party		**Transition Plan: N/A**	
Expected Program Life: 2024–Ongoing **Cost-Effectiveness: N/A**		**Short-Term Plan:** Increased underserved public agency enrollment; Engage and educate agencies about DER and sustainability strategies; Identify strategies to help agencies implement deeper and more comprehensive EE projects	

Long-Term Outlook: Expand service delivery to all underserved eligible public agencies; Leverage supplemental funding to provide DER technical services to public agencies; Make EE and DER implementation a standard practice for public agencies.

Proposed 2024–2027 Budgets:		**Anticipated directional and scale changes in budget for years 2028–2031:** Budget to gradually increase year-over-year to account for increased market penetration.
2024: $900,000	**2026: $1,250,000**	
2025: $1,100,000	**2027: $1,600,743**	

Implementation Plan: https://cedars.sound-data.com/documents/download/1977/main/

Program Card 4. NMEC Public Agency Program

Program Name: NMEC Public Agency Program			**Program ID: SCR-PUBL-B3**
Portfolio Segment:	Resource Acquisition	**Implementation Party:**	Third-Party
Applicable Sector: Public	**Market Sub-Sectors:** Cities, Counties, Tribes, School Districts, Community Colleges, Public Universities, Water and Wastewater Districts, Special Districts, Federal and State Agencies		
Sector Challenge: Limited below code programs; project processing times; lack of funding, resources, and technical expertise; undervalue energy savings and project value		**Sector Opportunity:** Increased program participation and adoption of holistic EE projects that realize deep, lasting energy and cost savings.	
Known Equity Concerns in the Selected Markets: Traditional EE programs do not offer incentives that encourage and facilitate energy savings in underserved communities.		**Proposed Solutions to Equity Concerns:** Enhanced incentives for underserved communities	
Program Description: Offers a way to access "stranded" savings below code with project delivery support. Uses NMEC to measure energy savings at the meter.			
Intervention Strategy: Downstream incentives to promote projects with high grid impacts			
Program Value Metrics: 4-year TSB: $10,313,165		**2024: 4,360,054 kWh, 652 kW** **2025: 6,028,331 kWh, 904 kW** **2026: 5,493,127 kWh, 826 kW** **2027: 2027: 5,803,237 kWh, 873 kW**	
High-level description of delivery workforce including necessary scale and risk: Compliance with HVAC/Advanced Lighting Controls Program and CPUC Workforce Standards as stipulated in D.18-10-008. Sufficient contractors in the market to support EE installations.			
Market Actors Necessary for Success:		Public Agencies	
Solicitation Strategy: Third-Party		**Transition Plan:** N/A	

Expected Program Life: 2024–Ongoing

Short-Term Plan: Outreach; develop pipeline of EE and GHG savings projects

Cost-Effectiveness:

2024: .25
2025: .26
2026: .27
2027: .29

Long-Term Outlook: Operate a reliable program that delivers increased penetration of EE measures at site and market level; be an industry leader for the adoption of meter-based programs; support State's long-term strategic goals

Proposed 2024–2027 Budgets:

2024: $1,382,889
2025: $1,563,666
2026: $1,510,355
2027: $1,367,991

Anticipated directional and scale changes in budget for years 2028–2031:

Budget to gradually increase year-over-year to account for increased market penetration.

Implementation Plan: https://cedars.sound-data.com/documents/history/879/

Program Card 5. Streamlined Savings Pathway Program

Program Name: Public Agency Project Delivery Program	**Program ID: SCR-PUBL-B1**
Portfolio Segment: Resource Acquisition	**Implementation Party:** Third-Party
Applicable Sector: Public	**Market Sub-Sectors:** Cities, Counties, Tribes, School Districts, Community Colleges, Public Universities, Water and Wastewater Districts, Special Districts, Federal and State Agencies
Sector Challenge: Limited existing program offerings available with a focus on underserved public agencies; Lack of available funding and resources	**Sector Opportunity:** Increased participation in EE programs, with a focus on underserved communities, and adoption of EE measures that benefit the grid
Known Equity Concerns in the Selected Markets: Traditional programs lack incentives for participation in underserved communities.	**Proposed Solutions to Equity Concerns:** Enhanced incentives for underserved communities.
Program Description: Incentives for qualifying EE upgrades based on lifecycle GHG emission reductions. Enhanced incentives for energy savings in underserved communities.	
Intervention Strategy: Downstream incentives delivered based on lifetime GHG reductions	
Program Value Metrics: **2024:** 2,904,694 kWh, 404 kW, 87,429 therms **2025:** 4,221,377 kWh, 546 kW, 104,975 therms **2026:** 9,552,968 kWh, 1,228 kW, 230,901 therms **2027:** 5,253,953 kWh, 675 kW, 127,016 therms	4-year TSB: $12,706,637
High-level description of delivery workforce including necessary scale and risk: Compliance with HVAC/Advanced Lighting Controls Program and CPUC Workforce Standards as stipulated in D.18-10-008. Sufficient contractors in the market to support EE installations.	
Market Actors necessary for success:	Public Agencies, Energy Engineers
Solicitation Strategy: Third-Party	**Transition Plan:** N/A
Expected Program Life: 2024–Ongoing	
Short-Term Plan: Launch with enrolled SoCalREN agencies	
Cost-Effectiveness: **2024:** .56 **2025:** .49 **2026:** .57 **2027:** .47	**Long-Term Outlook:** Operate a reliable program that delivers increased penetration of EE measures at site and market level, with a focus on underserved communities; reduction in kWh, kW, and GHGs,
Proposed 2024–2027 Budgets: **2024:** $979,306 **2025:** $1,727,480 **2026:** $2,305,738 **2027:** $3,031,789	**Anticipated directional and scale changes in budget for years 2028–2031:** Budget to gradually increase year-over-year to account for increased market penetration.

Implementation Plan: https://cedars.sound-data.com/programs/SCR-PUBL-B4/details/

New: Rural HTR Public Agency Direct Install Program

Market Segment: Equity

Program Description

The Rural-HTR Public Agency Direct Install (DI) Program addresses public sector market gaps that leave energy savings opportunities out of reach for small customers. Smaller facilities have historically been excluded from energy programs due to low energy savings opportunities and strict cost-effectiveness criteria from program administrators. SoCalREN's DI Program unlocks stranded energy savings for public sector customers whose projects would otherwise be left behind in the transition to a clean, safe, secure, and affordable energy future.

The DI Program is designed to help small agencies overcome barriers to energy projects. Public agencies are often short-staffed and do not have the resources or time to develop energy projects, particularly for small facilities with limited energy use and, therefore, limited energy savings opportunities. Agency budgeting and procurement cycles are often inflexible and do not align well with the complex applications and long approval timelines of traditional custom incentive programs. Additionally, agency council or board approval requires staff time and can delay projects. The DI program is designed to address these barriers by providing streamlined, no-cost implementation of EE measures.

SoCalREN's DI Program offers hassle-free support to drive the implementation of energy and peak demand-saving EE projects in small public agency facilities that will yield energy and peak demand savings through a hassle-free and turnkey solution. Public agency facilities with less than 20kW of peak demand usage will be eligible to participate in the program and will receive no-cost energy efficiency measure installations at qualifying sites. Participants will also receive hands-on project management support to facilitate the full project process from project identification through installation and realization of energy savings. Eligible measures include:

- Lighting
- HVAC
- HVAC controls
- Window film

Program Objectives

Consistent with the ESJ Action Plan, and the overall goals of the Equity Segment, the DI Program's planned objectives directly supports the following ESJ Action Plan 2.0 goals:

Table 96. Rural-HTR Public Agency DI Program Objectives

Objectives	ESJ Action Plan Goal	SoCalREN Core Value
Increase SoCalREN participation by smaller public agency facilities.	2	Expand Access to EE Benefits

Objectives	ESJ Action Plan Goal	SoCalREN Core Value
Deliver streamlined, turnkey EE projects for rural and HTR public facilities	2	Build Energy Capacity and Economic Resilience, Expand Access to EE Benefits
Increase regional reach and delivery of services across SoCalREN territory, including in disadvantaged, rural, and hard-to-reach communities	4	Build Energy Capacity and Economic Resilience, Expand Access to EE Benefits
Ensure public agencies receive education about EE so they can better understand the benefits and pursue future energy savings opportunities.	5	Build Energy Capacity and Economic Resilience

Program Rationale

Market Barriers Addressed

Table 97. Rural-HTR Public Agency DI Program Barriers and Interventions

Barriers	Interventions
Limited staff	DI will provide a dedicated project manager to work with the agency.
Lack of technical expertise	DI offers technical expertise and knowledge for public agencies through the project manager and vetted contractors. The contractors will complete site visits and collect equipment inventories and recommend EE measures.
Funding and financing constraints	Offering DI Program services and measure installations at no cost helps public agencies overcome funding and financing constraints. Agencies can avoid lengthy budget approval processes and procedures by taking advantage of the turnkey delivery process.
Confusing and disjointed program offerings	A single point of contact, the SoCalREN Project Manager brings all available energy efficiency program resources to public agencies
Procurement challenges	DI will overcome procurement challenges by helping agencies circumvent the typically arduous public procurement processes.
Limited access to data for informed decision making	The project manager and DI contractor coordinate to deliver comprehensive details on energy efficiency savings opportunities to facilitate agency decision making.
Risk aversion	Public agencies are often risk averse, so a “free” program might raise concerns about hidden costs. SoCalREN’s project manager.

Limited resources and knowledge of DER opportunities	The DI Program will provide resources and highlight opportunities for potential DER actions after project closeout to encourage the agency to go beyond energy efficiency.

Target Market

SoCalREN's DI Program will target enrolled and unenrolled public agencies within SoCalREN's service territory, though enrollment in SoCalREN is a prerequisite for participation in DI. There are over 700 agencies in the SoCalREN territory that are eligible to enroll and participate.

Public agencies eligible for program services include:

- Cities
- Counties
- Tribes
- School districts
- Water districts
- Sanitation districts
- Other special districts

Program Process

Marketing and Outreach: SoCalREN's non-resource Project Delivery and DER DAC Programs and the DI Program will support marketing and outreach efforts to enrolled and unenrolled agencies in the SoCalREN territory. Marketing and outreach activities will educate agencies on the value of SoCalREN services and help them understand the technical resources available to support project implementation.

Enrollment: The DI Program will leverage SoCalREN's Project Delivery and DER DAC Programs for outreach to eligible public agencies with small facilities. The DER DAC Program will also leverage its existing network to enroll agencies with facilities in hard-to-reach and disadvantaged communities.

Project Identification: The implementer will identify potential candidates for DI participation by completing a project identification checklist to confirm site eligibility and energy efficiency measure applicability.

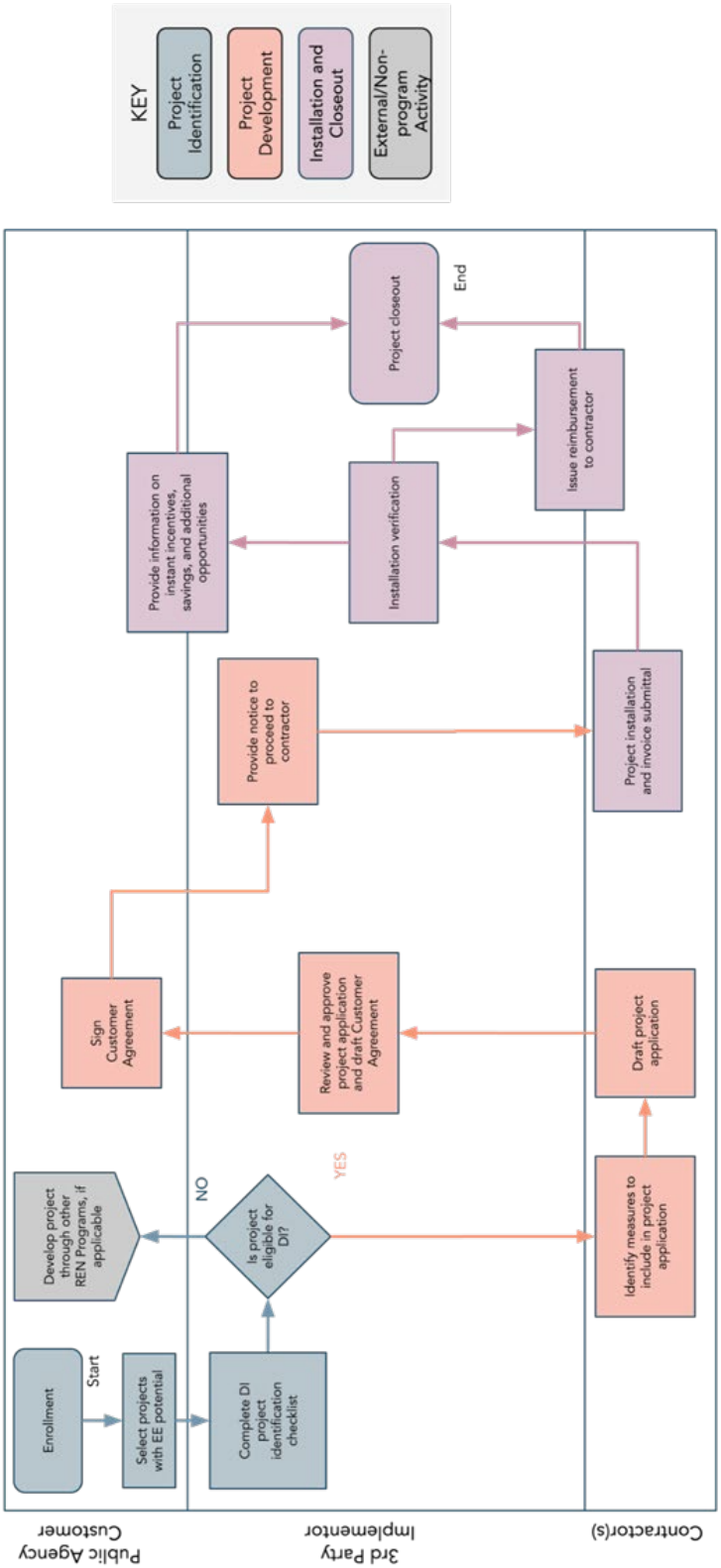
Equipment Inventory: Once the site is deemed eligible for DI participation, a contractor will go on-site to collect an equipment inventory and draft a project application. The implementer will review and approve the application and draft a customer agreement for the customer.

Customer Project Approval: The program will help the agency obtain internal buy-in on the project. The agency will sign the Customer Agreement form to approve the timeline and implementation of the measures identified for installation.

Measure Installation: The contractor will install the EE measures at the site, following the agreed-upon timeline. After installation, the implementer will complete a post-installation verification to confirm adherence to program guidelines and claimable energy savings. Upon verification, the contractor will be reimbursed for the costs of the project.

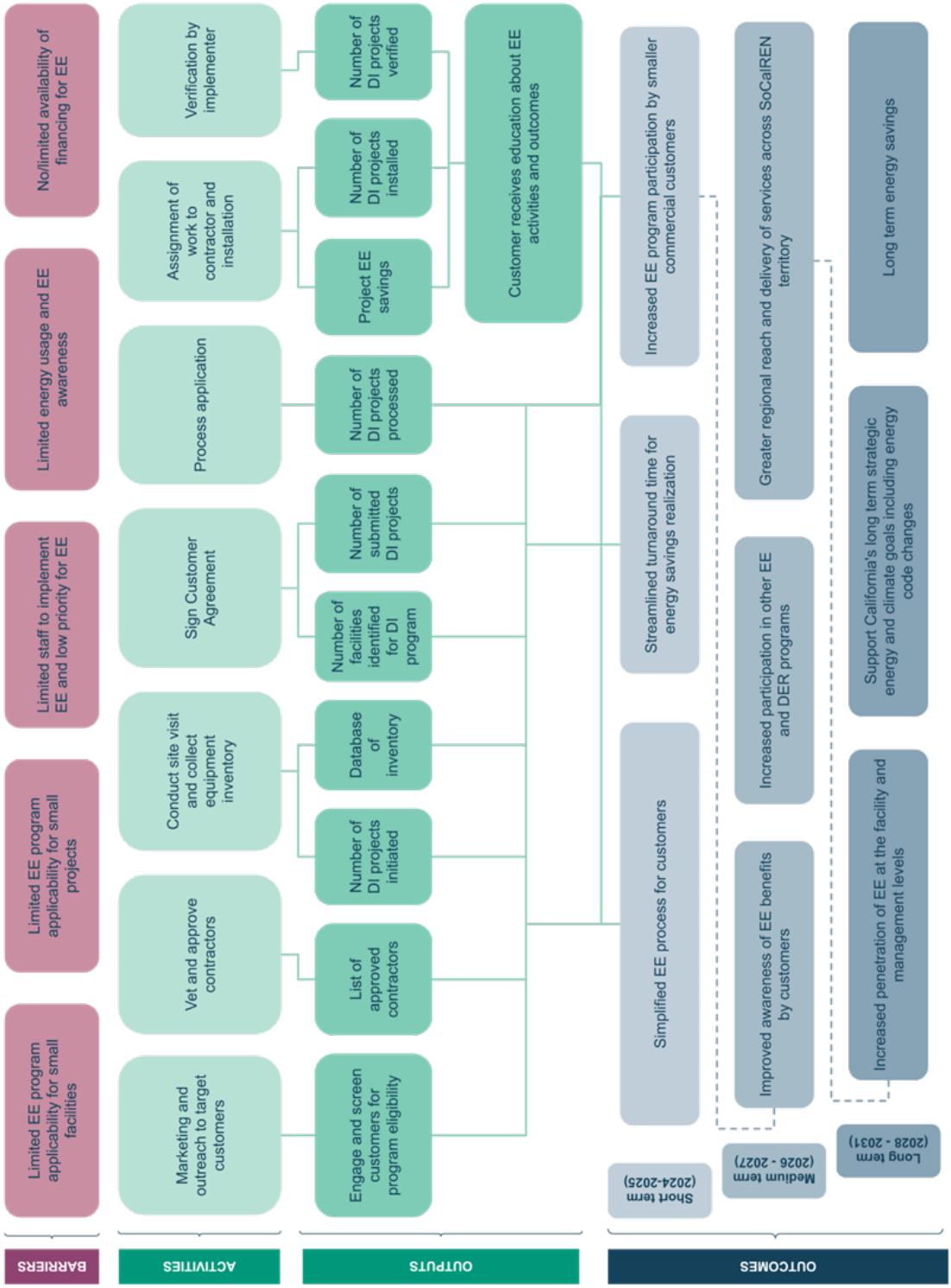
Handoff and Customer Education: After the project is installed, customers will receive educational information on the energy savings, cost savings, and non-energy benefits delivered by the program. The program will provide the public agency with additional information about other savings and program opportunities they may benefit from.

Figure 40. Rural-HTR Public Agency DI Program Process



Logic Model

Figure 41. Rural-HTR Public Agency DI Program Logic Model



Program Savings Potential

Table 98. Rural-HTR Public Agency DI Program Savings Potential

Year	Gross First-Year kWh Savings Claimed	Gross First Year kW Savings Claimed	Gross First-Year Therm Savings Claimed
2024	541,169	47	3,089
2025	1,082,337	94	6,110
2026	1,400,246	124	7,318
2027	2,300,073	263	6,814

Measures and Treatment

Table 99. Rural-HTR Public Agency DI Measures & Workpapers

End Use	Target Measure	Relevant Workpaper
HVAC	• Demand Control Ventilation for Single Zone HVAC • VSD for HVAC Fan Controls • HVAC equipment replacement • HVAC tune up	SWHC006-01 SWHC018-02 SWHC013-02 SWSV002-01,SWSV003-01, SWSV005-01,SWSV010-01, SWSV004-01
Lighting	• LED, High or Low Bay • LED Ambient Fixtures and Retrofit Kits • LED, Tube	SWLG011-03 SWLG012-01 SWLG009-02
Miscellaneous	• Window Film	SCE13HC002

Program Budget

Table 100. Rural-HTR Public Agency DI Program Budget

Budget Category	2024	2025	2026	2027
Administration	$103,559	$83,364	$116,865	$195,618
Marketing	$62,135	$100,036	$140,239	$234,742
DINI	$397,097	$538,270	$945,484	$1,582,622
Incentives	$472,801	$945,601	$1,134,721	$1,899,381
Total	$1,035,592	$1,667,271	$2,337,309	$3912,363

Program Metrics and Targets

Quantitative Program Targets

Table 101. Rural-HTR Public Agency DI Program Metrics

Metric	Method
First-Year Gross kWh Savings Channeled	DEER Deemed Savings
First-Year Gross kW Savings Channeled	DEER Deemed Savings
First-Year Gross Therm Savings Channeled	DEER Deemed Savings

Table 102. Rural-HTR Public Agency DI Program Non-Savings Targets

Metric	2024–2027 Target
Number of commercial facilities engaged	50
Number of projects installed	410

Table 103. Rural-HTR Public Agency DI Program Indicators

Indicator	Method
Agency Engagements	Number of agency introductions to Program services
Applications submitted and reviewed	Number of applications submitted and reviewed
Applications approved	Number of applications approved
Customer agreements signed	Number of customer agreements approved
GHG Reductions	Total GHG emissions avoided
Projects Installed	Number of projects installed

REN Program Compliance

Third party resource programs with high cost-effectiveness criteria do not target smaller customers with low energy savings potential. The DI program specifically targets these underserved customers.

While IOU program offerings are applicable to smaller public agency facilities, they are rarely leveraged due to some of the barriers listed earlier. The DI program will motivate smaller facilities to participate in energy efficiency.

Program Coordination

SoCalREN's PDP and DER DAC programs are the entry points for access to the DI program. The programs will coordinate closely to ensure agencies receive maximum benefits.

New: Energy Resiliency Action Plan Program

Market Segment: Market Support

Program Description

The Energy Resiliency Action Plan (ERAP) Program focuses on developing an EE and DER deployment roadmap to establish and/or strengthen the resilience of critical infrastructure. ERAP will generate regional maps highlighting climate and socioeconomic indicators to support agencies with regional planning and prioritization of project implementation. The program will rely on engagement from community stakeholders and will leverage energy and GHG inventories to inform goals and strategies developed for each customer.

Program Objectives

In a time of tightening budgets and rising energy costs, an ERAP will 1) supply public agencies with a pipeline of shovel-ready EE and DER project opportunities targeted at critical facilities and infrastructure; 2) position public agencies to efficiently and effectively capture future resiliency grant funding opportunities; 3) Provide education and outreach resources to position public agencies as resiliency leaders among peers and in their communities, and; 4) provide agencies with a guiding document to protect facilities and communities from climate-related threats.

Market Barriers Addressed

Public agencies are confronted with energy resilience concerns at an accelerating pace. However, many public agencies lack the resources, expertise, or knowledge to create meaningful and implementation-ready plans that will prepare them to support their communities in a state of emergency. The ERAP program will strive to integrate cost-effective energy implementation strategies into resiliency action planning to help public agencies take meaningful energy actions and improve community resilience.

ERAP removes the burden for participating agencies to create their own tools and enables agencies to share resources on a community-wide scale. It also helps ensure that scarce staff and financial resources are used effectively by using data to understand which opportunities are best to pursue and what regional efficiencies can be leveraged.

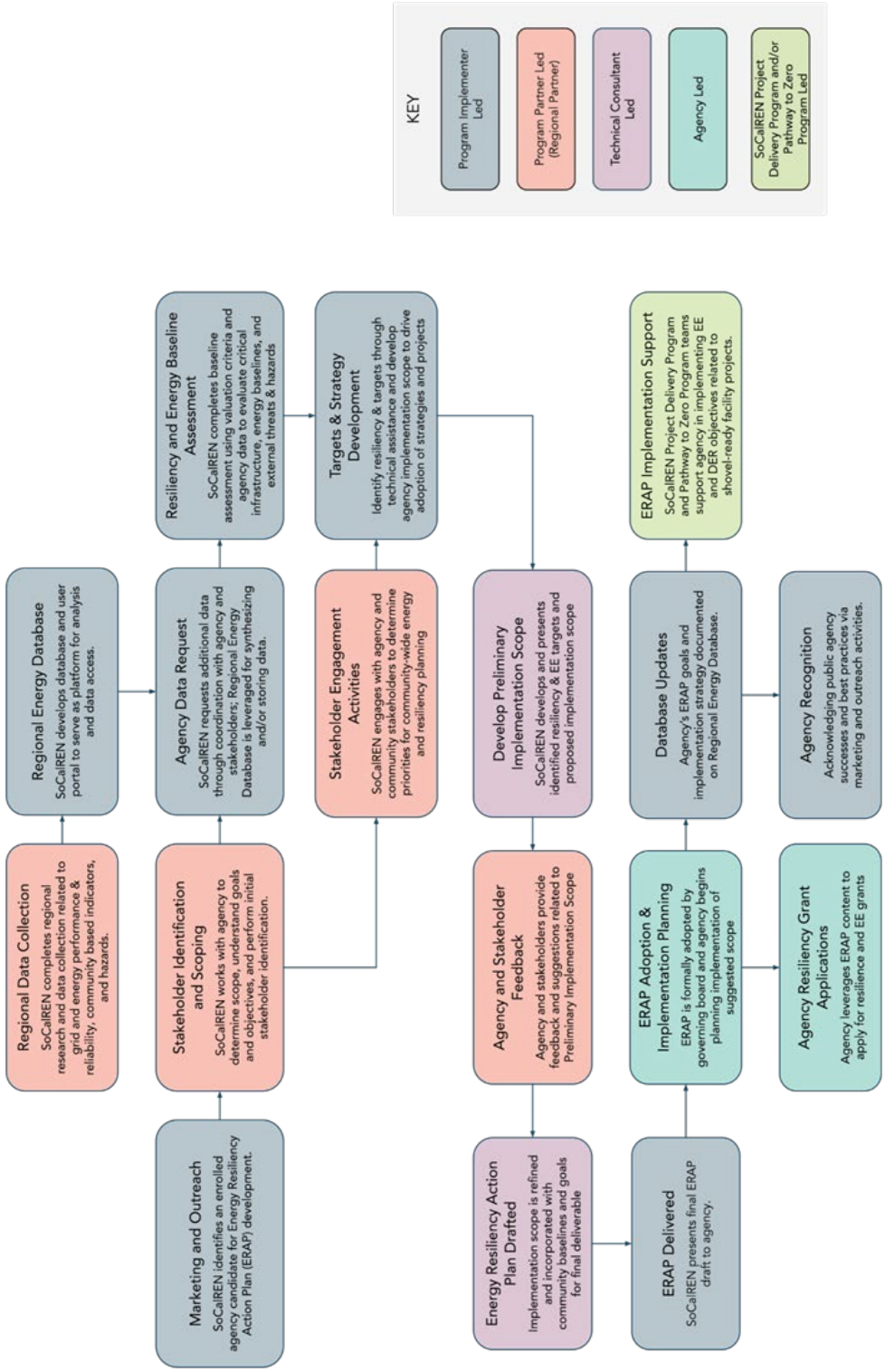
Public agencies currently lack a tool to assist with community-scale energy resilience planning. To overcome this, the program will provide an interactive regional mapping tool to participating agencies to assist with project prioritization based on economic feasibility, climate-related threats, and socioeconomic factors. This map feature will revolutionize how agencies approach regional resilience planning by eliminating silos where current planning might only occur at a single facility or agency level.

Target Market

The target market includes the following: cities, counties, tribes, k-12 school districts, community colleges, public universities, water and wastewater districts, special districts, federal, and state agencies. Prioritization of resources will be allocated to those in the market considered to be underserved.

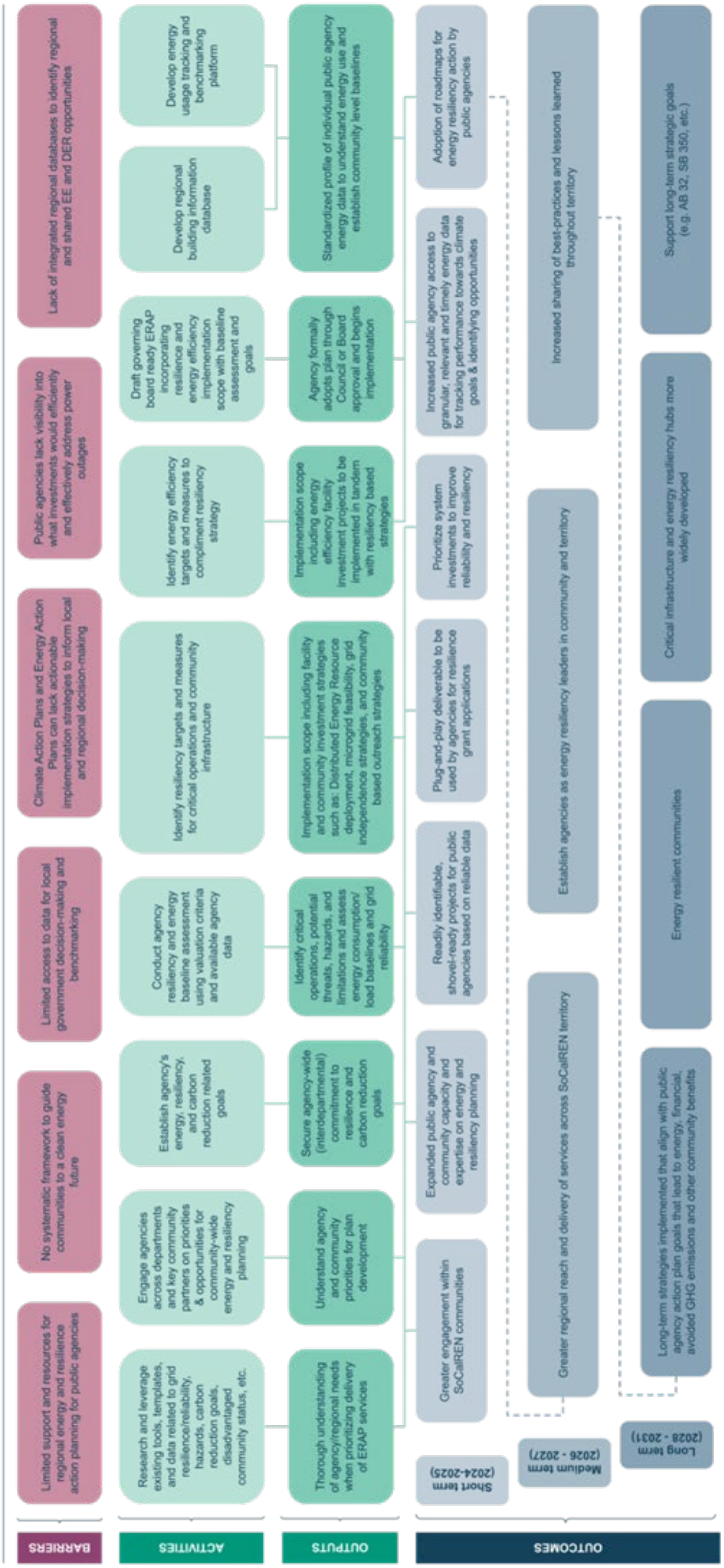
Program Process

Figure 42. ERAP Program Process



Logic Model

Figure 43. ERAP Program Logic Model



Program Budget

Table 104. ERAP Program Budget

Program Year	Budget
2024	$1,200,000
2025	$1,600,000
2026	$1,700,000
2027	$1,800,000
Total	**$6,300,000**

Program Metrics and Targets

Quantitative Program Targets

Table 105. ERAP Program Metrics and Targets

Metric	Target	Method	Frequency
Reports Adopted	30	Number of ERAPs adopted by public agency	Annually
Reports Developed	50	Number of ERAPs developed for public agency	Annually
Reports Initiated	65	Number of ERAPs initiated for public agency	Annually
Outreach Events	80	Number of events held	Annually
Stakeholders Engaged	1,450	Individuals engaged	Annually
Agencies Included in Energy Usage Database	50	Number of public agencies for which data is collected	Annually

REN Program Compliance

The ERAP program will fill gaps by leading public agency-focused energy resiliency planning and project deployment strategies which are activities the IOUs do not intend to undertake. The ERAP program takes an innovative approach to support public agencies with individualized and regional energy resilience planning, an effort where there is no current IOU program offering.

Program Partners

SoCalREN regional partner organizations will play a key role in the ERAP program process including identifying and prioritizing eligible agencies to receive services. Regional partner organizations will also support data coordination, inventory development, and stakeholder outreach activities either in-person or virtually. In addition to leveraging regional partners, the ERAP program will partner with engineering consulting firms for technical support as well and seek feedback from CBOs throughout the stakeholder engagement process.

Program Coordination

SoCalREN's PDP and DER DAC programs are the entry points for access to the ERAP program. The programs will coordinate closely to ensure agencies receive maximum benefits.

New: Regional Partner Initiatives

Market Segment: Market Support

Program Description

Regional Partner Initiatives are established to better address the diverse needs of public agencies in the SoCalREN service territory by leveraging regional partners to test new and innovative intervention strategies that can then be scaled as appropriate to other regions. SoCalREN offers a streamlined approach for regional partners to submit initiative ideas for consideration through a simplified application process alongside support to develop ideas and properly categorize them. Applications are evaluated as submitted and available on an ongoing basis for regional partners to develop and submit. Resource and non-resource strategies that align with the SoCalREN core values are both considered.

Program Objectives

The objective of the Regional Partner Initiatives effort is to provide a streamlined application process and an outlet for innovative strategies to serve agencies represented among the regions served by participating SoCalREN regional partner subcontractors. Successful initiatives will be evaluated following program launch to gauge feasibility and fit for delivery to agencies across all territories. The open initiative application concept is designed to offer an opportunity to test new ideas in a space where other avenues have closed due to program changes and closures.

Market Barriers Addressed

Regional Partner Initiatives are designed to address a variety of barriers that have traditionally hindered the uptake of EE programs in many under-resourced communities. The intent is to overcome the lack of program customization and better fulfill regional needs and address specific gaps. Since initiatives are proposed by regional partners and require their continued involvement through implementation, program uptake will be improved by the presence of a local, trusted representative who holds a rapport with the communities being served.

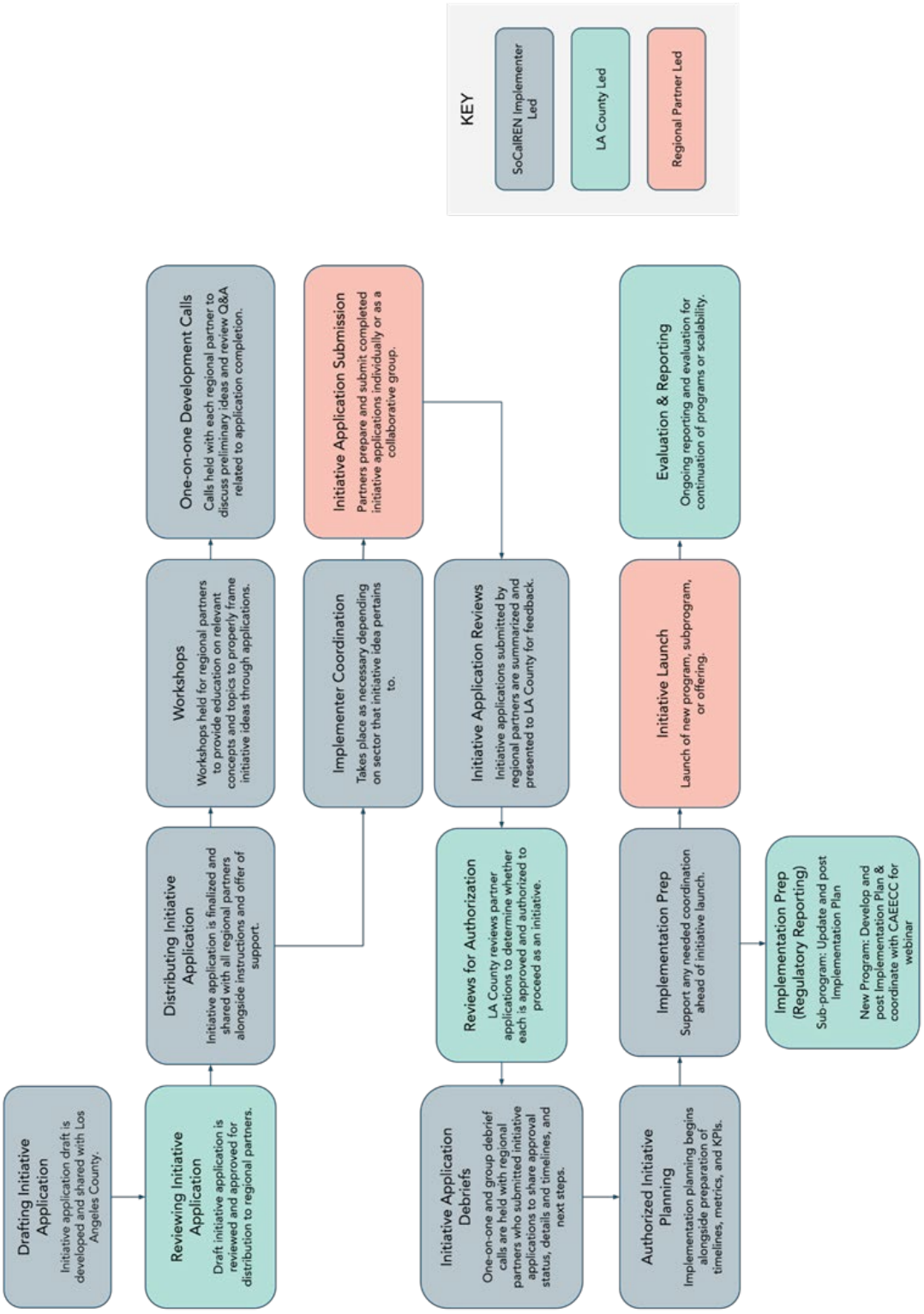
Many of the regional partners can draw best practices from their experience with Local Government Partnerships (LGPs), either directly through their implementation or by participating in forums such as peer-to-peer groups where implementers would share lessons learned in finding creative ways to maximize participation in various EE programs. Through their participation in LGPs, SoCalREN's regional partners have a better understanding of how programs need to be designed or modified to be the best fit in the communities they serve. Regional partners will apply this knowledge in submitting initiative proposals.

Target Market

The target market includes the following: cities, counties, tribes, k-12 school districts, community colleges, public universities, water and wastewater districts, special Districts, federal, and state agencies. Prioritization of resources will be allocated to those in the market considered to be underserved.

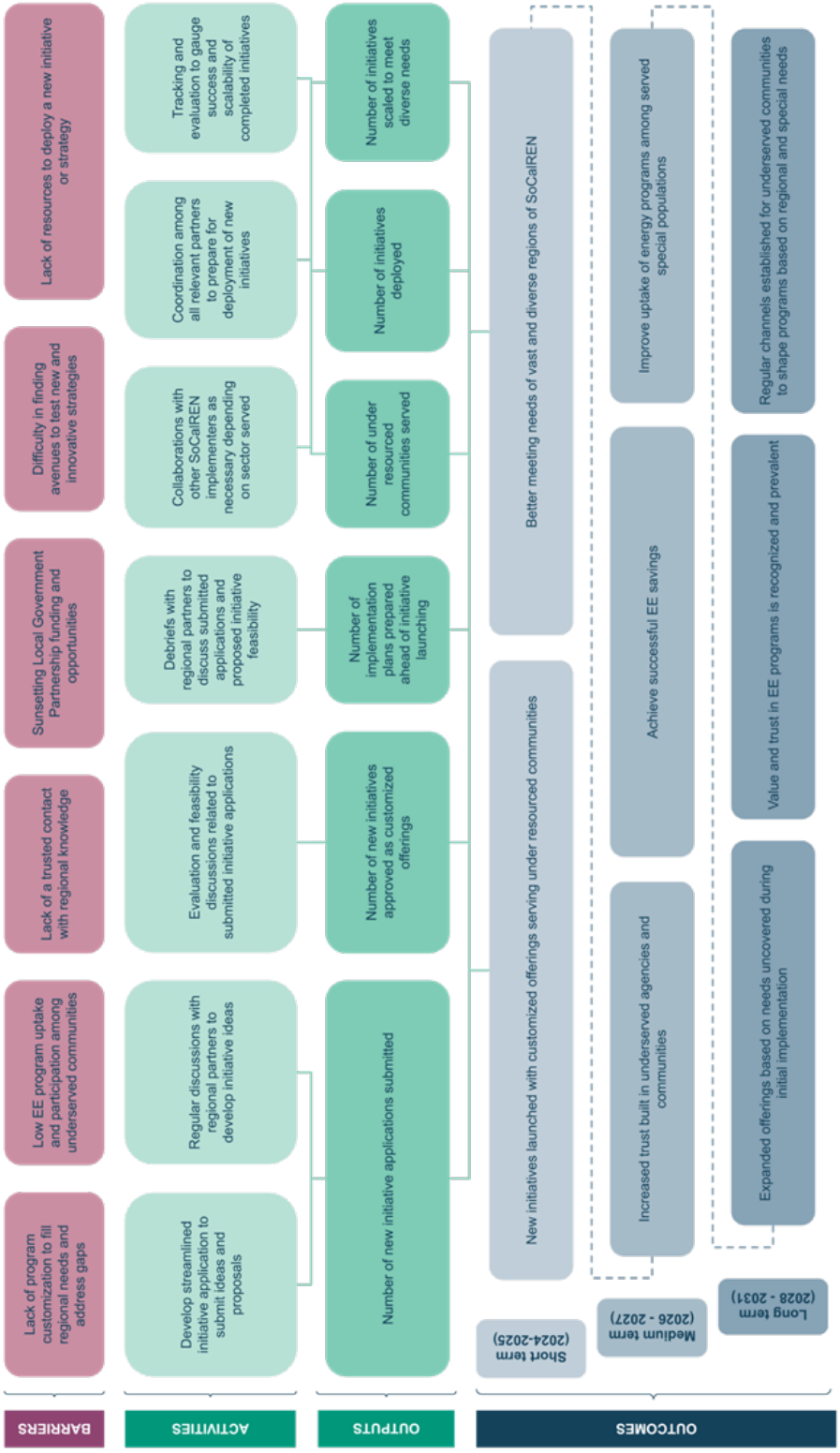
Program Process

Figure 44. Regional Partner Initiatives Program Process



Logic Model

Figure 45. Regional Partner Initiatives Program Logic Model



Program Budget

Table 106. Regional Partner Initiatives Budget

Program Year	Budget
2024	$500,000
2025	$680,000
2026	$720,000
2027	$850,000
Total	**$2,750,000**

Program Metrics and Targets

Quantitative Program Targets

Table 107. Annual Regional Partner Initiatives Metrics and Targets

Metric	Target	Method
Initiative Applications Submitted	20	Number of applications submitted by regional partners
Initiatives Approved as Customized Offerings	15	Communication to regional partners
Implementation Plans (IPs) Prepared	5	Number of IPs prepared for new programs stemming from initiatives
EJ Communities Served	100	Number of EJ communities served by approved initiatives
Initiatives Scaled to Meet Diverse Needs	3	Number of initiatives scaled and offered to new populations

REN Program Compliance

The Regional Partner Initiative program will fill gaps by having regional partners submit proposals for new and modified offerings where historical programs have closed. All regional partners serve some HTR markets and are prompted to identify whether and how their proposed initiatives would support those. The Regional Partner Initiative Program creates an outlet for innovative ideas and fulfills gaps. Successful initiatives will be evaluated for scalability.

Program Partners

SoCalREN regional partner organizations will submit applications for initiatives based on their unique knowledge of local needs. Based on the content of initiatives, additional partners may be needed to support implementation (if approved).

New: Underserved Schools SEM Program

Market Segment: Equity

Program Description

Following the success of the SoCalREN Public Sector Programs' model of comprehensive support, the Underserved Schools Strategic Energy Management (USSEM) program will engage building occupants and staff on systematic energy management best practices and develop climate and energy leadership across staff, administrators, and educators. The proposed program is designed to help local educational agencies develop, implement, and maintain comprehensive energy load management strategies. The program will target approximately 120 underserved schools and/or community colleges between 2024-2031 and will offer comprehensive services and technical support to help districts overcome limited staff resources. By utilizing an SEM approach, the program will support peak demand reduction strategies and deep energy efficiency retrofits through a minimum of 3-year engagements with schools. The program will help underserved schools and community colleges set goals and take actions to reduce peak period charges. Actions may include identifying opportunities to install more efficient equipment, implementing smart building control systems, educating building occupants (such as students and educators) on behavioral energy conservation practices, and shifting load using DER technologies and strategies. The program savings will be determined using the normalized metered energy consumption (NMEC) methodology.

Program Objectives

By utilizing a strategic energy management approach,[24] the program will support the development of long-term energy goals and integration into staff decision-making processes, completion of campus-wide deep energy efficiency retrofits, energy conservation behavioral campaigns, and peak demand reduction strategies through a multi-year engagement with eligible school districts. The USSEM Program complements and expands the reach of the existing SoCalREN Public Agency programs to meet the following primary objectives of this program to:
Set long term goals for reducing greenhouse gas (GHG) emissions, energy usage, and operating costs relative to a pre-enrollment baseline, and achieve measurable progress toward those goals during program performance period(s);

- Ensure energy goals are integrated systematically into business practices and agency decision making processes
- Integrate sustainable energy concepts and strategies into academic curricula and extracurricular activities
- Minimize peak demand charges for afterschool programs and activities
- Develop energy leaders among administrators, facility staff, faculty members, and students
- Ensure that schools operating in underserved communities are given an equal opportunity to participate in the pursuit of California's energy efficiency and GHG reduction goals

[24] "Data-Driven, Strategic Energy Management - Energy.gov." https://www.energy.gov/eere/slsc/data-driven-strategic-energy-management. Accessed 5 Jan. 2021.

Program Rationale and Market Barriers Addressed

This program helps K-12 schools and community colleges serving underserved communities overcome key barriers to energy projects. It goes beyond capital measures to instill a culture of conservation in schools across Southern California, ensuring that energy savings will continue to persist. Measures and technologies may come and go over time, but teaching staff, faculty, and students to value and conserve energy creates benefits that will last.

Table 108. USSEM Program Barriers and Interventions

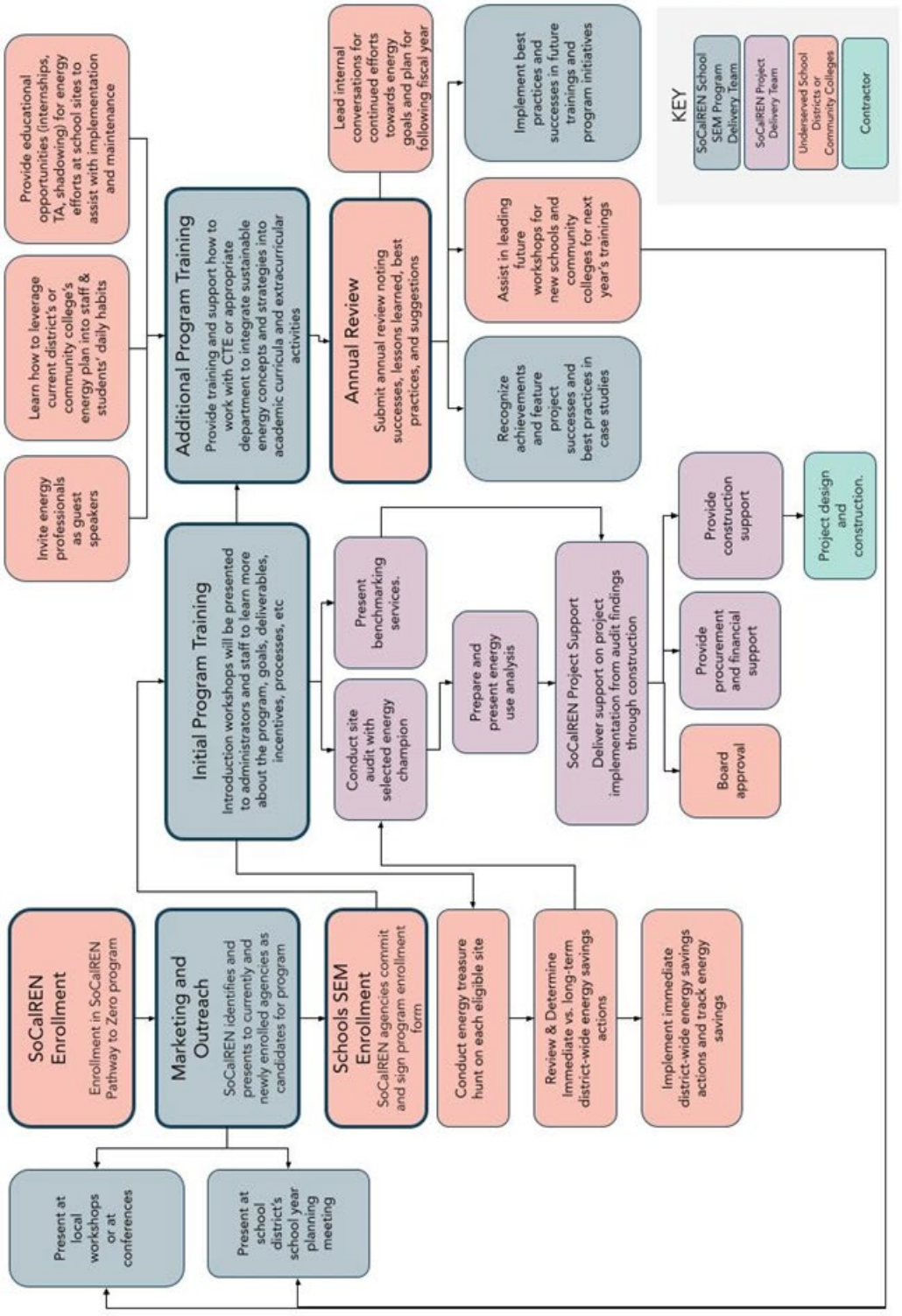
Barriers	Interventions
Limited internal capacity and expertise	USSEM will provide a designated Project Manager to work with the agency throughout their participation in the program. The Project Manager will help facilitate various program services to reduce the staff time needed for energy projects. USSEM will also provide resources such as refresher workshops and annual/semiannual convenings for ongoing learning about current EE initiatives and best practices.
Lack of energy efficiency and sustainability curriculum	USSEM will develop and help agencies integrate EE curriculum. Agencies will learn how to integrate CTE or workforce development opportunities to involve students in energy efforts and support limited staff. USSEM will provide training workshops for students, staff and faculty to learn and participate in their site's energy management.
Competing priorities with limited resources and funding	USSEM will help each school district or community college with customizing their SEM roadmap. USSEM will help agencies conduct an energy treasure hunt at each site to identify, prioritize, and implement their short-term and long-term district-wide energy savings actions based on their available resources and funding. Agencies will be assigned a Project Manager to assist with identifying resources and funding opportunities related to the agencies' potential projects.
Challenges with long-term energy planning	USSEM will provide the needed tools, templates, and guidance to support school districts and community colleges with their long-term strategic energy planning. After identifying and implementing immediate district-wide energy savings actions, USSEM will refer to SoCalREN's project delivery team to provide support on capital project implementation.
Lack of communication between building occupants and centralized facility O&M	USSEM will present at school districts' school year planning meeting/workshop to facilitate conversations and planning between building occupants and centralized facility management and operations. USSEM will also provide CTE or workforce development opportunities to train students and staff/faculty on facility energy management. USSEM will provide guidance on behavioral EE campaigns to help sites work toward their energy goals.
Limited access to resources	USSEM will expand one-stop EE project delivery to include Integrated Demand Side Management (IDSM) audits and recommendations.

Target Market

USSEM will target K-12 schools and community colleges in underserved communities that are committed to integrating strategic energy management practices into their regular business operations and long-term goals. School districts and community colleges must be located within SCE territory to participate.

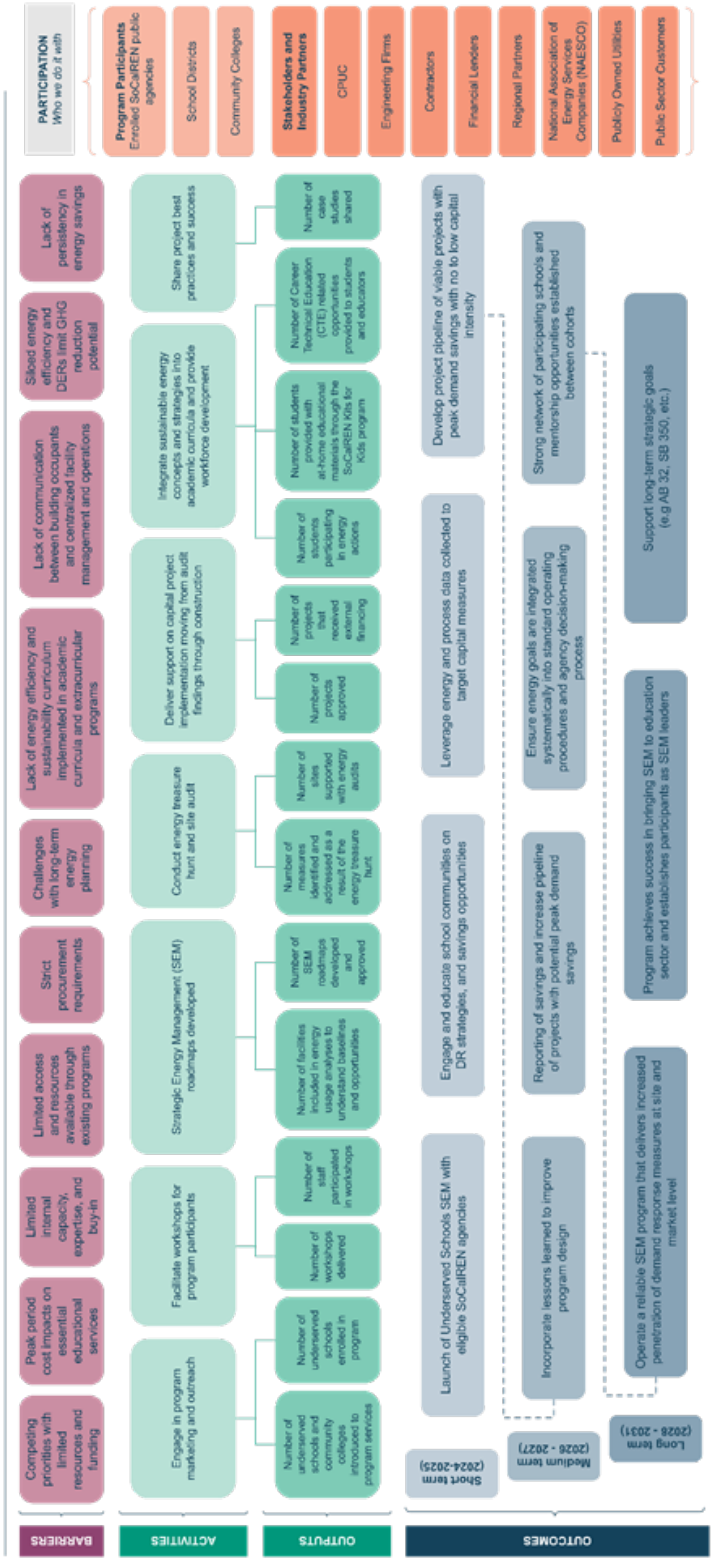
Program Process

Figure 46. USSEM Program Process



Logic Model

Figure 47. USSEM Logic Model



Incentive Structure

Program participants will benefit from and be motivated by incremental incentive payments for kW peak demand reductions and kWh savings achieved.

Program Savings Potential

Table 109. USSEM Energy Savings Targets

Program Year	Net kWh Savings Claimed	Net kW Savings Claimed
2024	777,551	208
2025	1,036,735	277
2026	2,851,019	762
2027	2,851,018	761

Measures and Treatment

This meter-based program is measure agnostic; however, some potential target end uses and measures are below:

Table 110. USSEM Potential Program Measures

End Use	Target Measure
HVAC	• Demand control ventilation • HVAC controls & occupancy sensors • Supply fan VFD • Packaged units • RTU/AHU/Chiller optimization or replacement • Economizer add-on equipment and controls • Evaporative precooler • Retrocommissioning • Supply air reset • Temperature deck reset • Condenser water reset
Lighting	• Interior Lighting • Exterior Lighting • Lighting controls & occupancy sensors
Commercial Refrigeration	• Walk In or reach in cooler or freezer
Food Service	• Ice machine
Building Envelope	• Insulation
Appliance Plug Load	• Window tinting
Service & Domestic Hot Water	• Smart power strip

Program Budget

Table 111. USSEM Program Budget

Program Year	Budget
2024	$791,504
2025	$1,408,011
2026	$1,938,275
2027	$1,938,279
Total	**$6,076,069**

Program Metrics and Targets

Like the other incentive programs within the existing SoCalREN portfolio, the USSEM Program will be reported monthly, quarterly, and annually through CEDARs. In addition to the CPUC required common metrics and equity metrics, the proposed program will include the collection and tracking of the following data/performance metrics:

Quantitative Program Targets

Table 112. USSEM Program Metrics

Metric	Method
Gross 1st year kWh savings	Savings submitted to CPUC
Gross 1st year kW savings	Savings submitted to CPUC
Participants receiving program benefits and pursuing EE and DR actions	Count of participants receiving EE and DR services
Facilities receiving energy benefits through program participation	Count of facilities receiving energy benefits
Energy workshops delivered to build participant capacity and expertise	Count of energy workshops delivered
Strategic Energy Roadmaps developed and implemented to inspire short-, medium-, and long-term energy actions and result in persistent savings	Count of SEM roadmaps delivered
CTE and workforce development opportunities developed	Count of lessons and opportunities developed by SoCalREN USSEM team

SoCalREN will initially recruit from currently enrolled SoCalREN school districts in underserved communities. However, SoCalREN will also consider newly enrolled underserved school districts and community colleges. SoCalREN will use a cohort model to maximize learning opportunities and growth for each participating school district and community college. Each year, additional cohorts with a maximum of 3 schools per district will be enrolled. SoCalREN aims to support 120 schools and community colleges by 2031.

Table 113. Anticipated Participating Districts and Colleges

	2024	2025	2026	2027
# Underserved school districts and/or community colleges participating in cohorts	8	9	10	12
# Underserved schools or community colleges enrolled (max. of 3 schools/District per year)	24	27	30	36

REN Program Compliance with D.12-11-015

The USSEM Program will fill gaps by offering long-term energy management guidance, targeted training, and behavioral capacity building strategies at underserved **HTR** schools. There are no existing SEM energy efficiency programs offered to school districts. By developing climate and energy leadership across facility staff, administrators, educators, and students, the USSEM Program helps schools create and maintain a culture of sustainable energy awareness and habits that will persist far beyond the intervention of the program. Application of the SEM design to schools is in itself an innovative pilot.

Program Partners

When implementing energy efficiency programs, partnerships with stakeholders and market actors are key to achieving performance goals and reducing the cost burden on any one program. The existing SoCalREN PDP and DER DAC programs have developed relationships with more than two dozen school districts. This program will leverage existing contracts with engineering consultants who will provide technical support for the identification and implementation of energy efficiency projects. SoCalREN will also leverage existing third-party technical reviewer to calculate NMEC savings for the participating energy savings

.Program Coordination

SoCalREN will provide an energy use analysis and benchmarking services to determine baseline energy usage and identify facilities for participation. SoCalREN will provide benchmarking through the DER DAC program. Staff will participate in a workshop and be trained on the benefits of benchmarking and the long-term benefits of EE. As part of Phase 1, facility staff will complete an energy treasure hunt to identify low-to-no-cost operational and behavioral strategies to provide energy savings by the end of their first year of program participation. As part of Phases 2 and 3, the program will conduct more extensive audits with a SoCalREN engineering consultant, and the DER DAC program will provide technical support.

The SoCalREN Public Sector team will collaborate with the SoCalREN WE&T sector to engage the local and disadvantaged workforce on USSEM energy projects. SoCalREN will maintain consistency with the WE&T goals of California's Existing Buildings Energy Efficiency Action Plan (AB 758) by supporting the development and employment of a high-performance industry for every level of professional involved in energy efficiency transactions. SoCalREN will also support SB 350 in its directive to "Coordinate with the California Workforce Investment Board, the Employment Training Panel, the California Community Colleges, and other entities to ensure a qualified, well-trained workforce is available to implement the program requirements."

New: Water and Wastewater SEM Program

Market Segment: Market Support

Program Description

The Southern California Regional Energy Network (SoCalREN) Water and Wastewater Strategic Energy Management (WWSEM) program helps public agencies with municipally owned potable water systems and wastewater treatment plants (WWTP) expedite comprehensive peak demand reduction projects. WWSEM offers monetary incentives for qualifying projects based on peak demand reductions.

Participants in the WWSEM program receive technical assistance, financing, procurement, and project management services through the SoCalREN Project Delivery Program (PDP) and DER DAC Program. The strategic energy management (SEM) approach, currently authorized for use in the industrial sector in California (D.16-08-019), fully integrates into plant operations and allows the WWSEM program to address each participating plant's unique constraints and opportunities.

The program creates a foundation for sustained cost-effective peak demand and energy savings by fostering management and staff's knowledge, ability, and willingness to integrate strategic energy decisions into their workflow. The combined offerings from the SoCalREN Public Sector empower public agencies to lead their communities toward a secure, resilient, and sustainable energy future.

Program Objectives

The WWSEM program's objectives are outlined in the table below in alignment with SoCalREN's core values and California's Environmental and Social Justice (ESJ) Action Plan 2.0 goals:

Table 114. WWSEM Program Objectives

Objectives	ESJ Action Plan Goal
Identify short-term savings opportunities ("quick wins") by deploying low to no-cost demand reduction strategies with municipally owned potable water systems and wastewater treatment plants (WWTP), with a focus on underserved agencies.	4
Build agency capacity to identify and implement high opportunity capital measures yielding significant energy efficiency (EE) and peak demand reduction to support program and state goals.	4
Ensure energy goals are integrated systematically into standard operating procedures and decision-making processes.	2 & 4
Provide technical expertise and appropriate training to facility personnel to ensure the persistence of savings.	2
Increase water/wastewater agencies, with a focus on underserved agencies, participating in SoCalREN's EE programs.	2 & 4
Deliver peak demand and deep energy savings to public agencies, focusing on underserved communities that will result in reduced water/wastewater plant operating costs relative to a pre-enrollment baseline.	2 & 4

Program Rationale and Market Barriers Addressed

Through SoCalREN's experience implementing the PDP and feedback collected from a public agency annual survey, SoCalREN learned that the public sector requires additional support when pursuing non-energy efficiency projects, such as on-site generation projects, energy storage, and demand response . Therefore, the WWSEM has been designed to overcome several market barriers in the public sector to address such challenges.

With the closure of several IOU programs, there is a programmatic gap in the market to help public agencies address demand response opportunities. The WWSEM program will provide the necessary resources to get these projects completed. Addressing these barriers will help agencies realize peak demand savings and reduce operating costs.

Financing capital upgrades often requires multiple funding strategies, which can be complicated for agencies to navigate. The WWSEM program will address this barrier through incentive offerings and a number of other services offered at no cost to the agency. WWSEM-eligible projects can also use the SoCalREN Revolving Savings Fund, which offers zero percent five-year term financing to eligible projects.

Implementing auto demand response and EE strategies within water and wastewater plants is resource intensive. It presents several practical and perceived challenges, such as the wide variation in loads and concerns about interrupting schedule processes[25]. The WWSEM program addresses the limited staff bandwidth barrier by mitigating the need to acquire a public agency participant's in-house expertise and resources to identify and implement DR projects. Further, establishing an SEM approach requires a broad set of skills and a significant commitment of staff time. External technical assistance is often critical to assist the process. Energy efficiency programs across the US have demonstrated that they can be a determining factor in implementing SEM by providing targeted customer assistance.

Water personnel are naturally risk-averse, especially when it comes to changes to how they run their systems, due to the industry's regulatory and compliance requirements[26]. Accordingly, water utilities lean on operational consistency to reduce risk[27]. The WWSEM program aims to address this barrier through an SEM approach to build agency-wide buy-in for short-, medium-, and long-term savings approaches. The program will also offer customized DR strategies that reflect the unpredictability of water operations.

Table 115. WWSEM Program Barriers and Interventions

Barriers	Interventions
Limited program services for peak demand reduction strategies	• Deliver comprehensive start-to-finish project management services. • Deliver an array of load control solutions through the WWSEM program. • Acknowledge water operators' risk preferences, work with the customer to develop site-specific DR practices, and educate them on rate schedules and DR necessity.

[25] 1,2 Burgess, J et al. 2014, Industrial Strategic Energy Management Initiative. Consortium for Energy Efficiency: https://library.cee1.org/content/cee-industrial-strategic-energy-management-initiative/

[26] "Demand Response Potential Study" LBNL, 2017.

[27] "Increasing Water and Wastewater Participation in DR programs" R.B. Sowby https://www.sciencedirect.com/sdfe/reader/pii/S2772427121000012/pdf. Accessed 19 Jan. 2022.

Barriers	Interventions
Water and wastewater customer funding and financing constraints	• Implement simple and low or no-cost measures such as scheduling equipment operation for off-peak hours and storing or pre-treating wastewater to allow load curtailment during demand response events. • Utilize wastewater plants with on-site energy generation, such as cogeneration systems fed by biogas from anaerobic digestion or large-scale photovoltaic solar installations, to dramatically reduce demand for grid services and mitigate capacity shortfalls. • Anticipate the reduction of water/wastewater plant operating costs relative to a pre-enrollment baseline. • Monetary incentives of $150/kW to help offset implementation costs for the customer. Typically, once a process change is implemented at a WWTP, it is unlikely to be changed again without substantial investment.
Limited staff bandwidth	• Agencies engaged in the WWSEM program will be offered services by the assigned project manager, who will also act as a DR concierge throughout the program's lifecycle to support the customer with resource intensive services such as procurement, agency board approvals, and financing.
Risk-aversion among water operators	• Highly experienced technical engineering firms with experience supporting water and wastewater projects throughout California and beyond will provide unbiased support, guidance, and training. • Multiple capacity building workshops to educate facility operators will be offered to increase understanding of unfamiliar strategies and increase confidence in their successful implementation. • The agency will be guided through DR strategies to increase reservoir operating capacity that include upstream or downstream water storage optimization, long-term operations, maintenance planning (on seasonal time scales), demand-side management for water use , customization of the duration and frequency of DR requests made to water utilities, and other intelligent load management solutions.

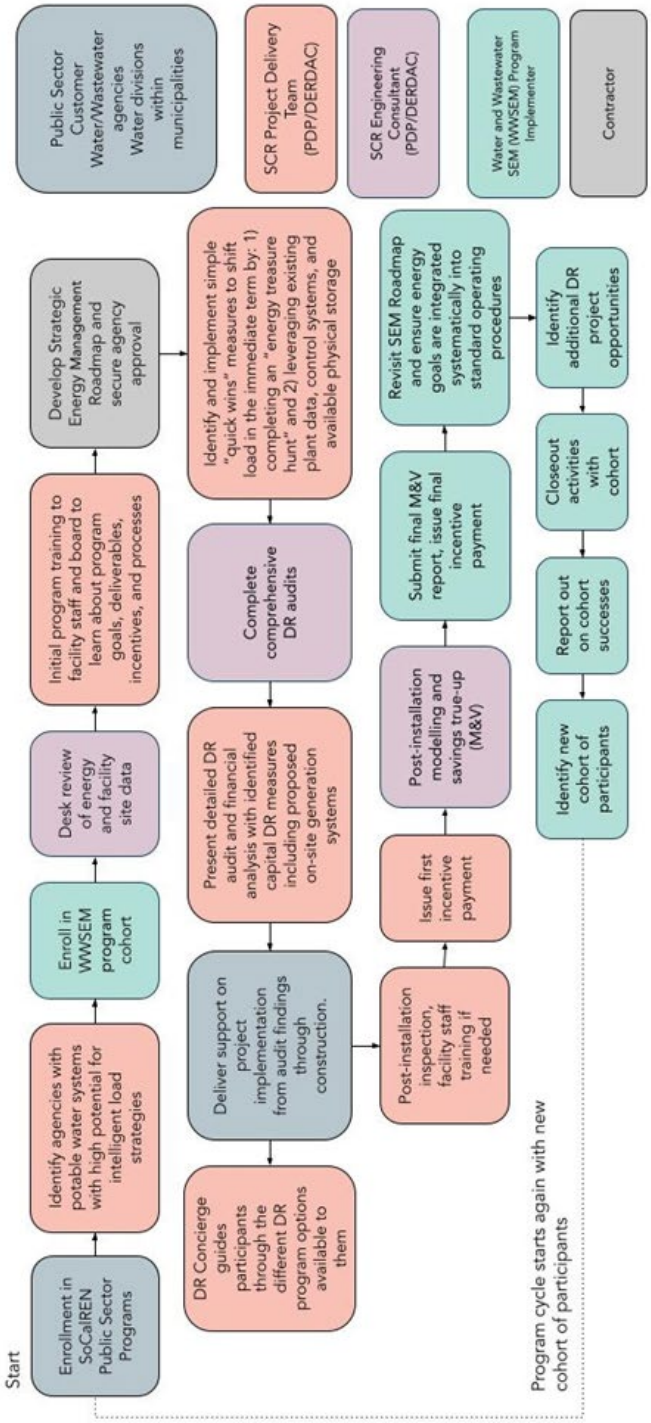
Target Market

The WWSEM program will target enrolled and unenrolled public sector customers with municipally owned potable water systems and wastewater treatment plants (WWTP) within SCE's service territory. Project sites supported by the program will include WWTP, water reclamation facilities (WRF), well pumps, and booster pumping stations.

SoCalREN will build off the successful relationships and project support it already provides to public agencies within its territory. To rapidly deliver load control energy solutions through the proposed program, SoCalREN will need to establish trust with plant operations teams and collect substantial data for project developers with a thorough understanding of plant or system processes. SoCalREN currently has 31 water/wastewater public agencies enrolled in the program and has built a foundation of trust among these partners. The program will prioritize support to underserved agencies including disadvantaged communities (DACs), rural, and low-income communities. More than 46 percent of SoCalREN projects since program launch in 2013 have been in underserved communities.

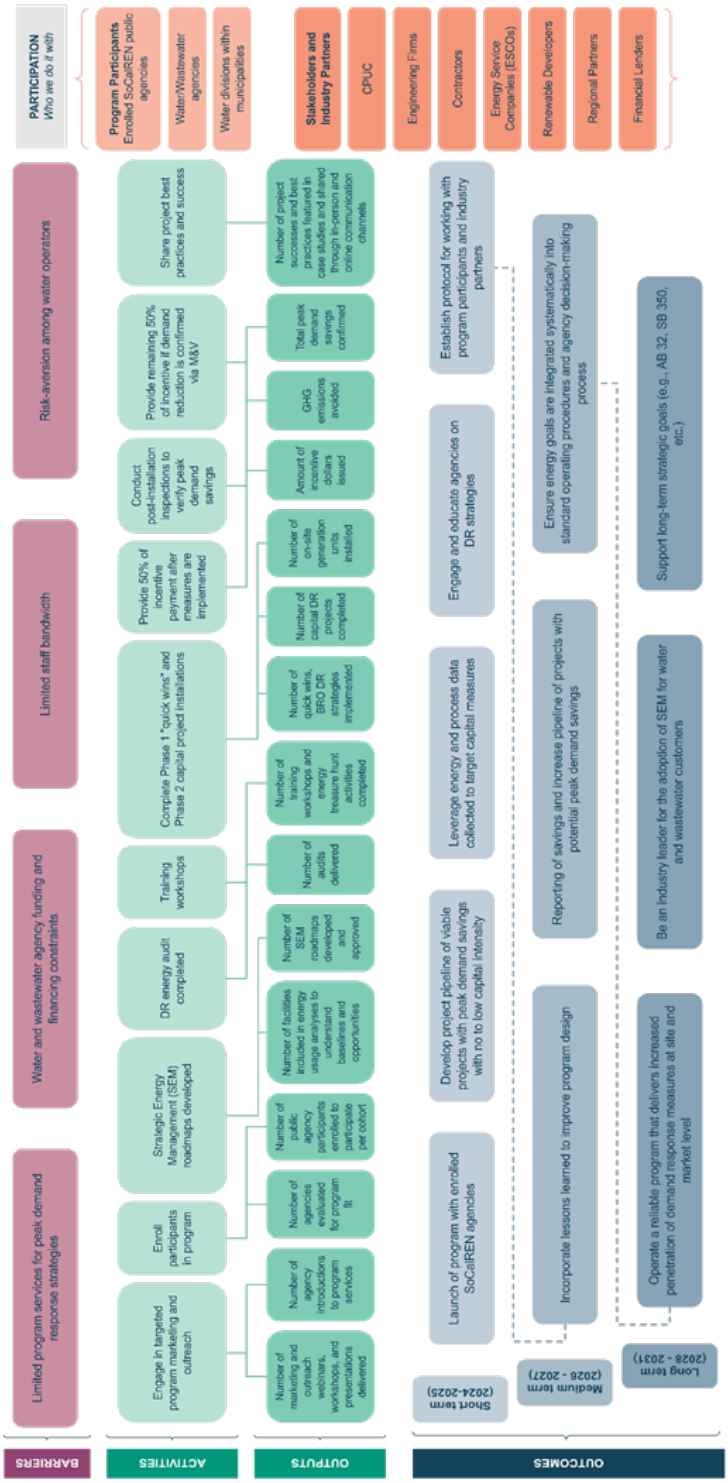
Program Process

Figure 48. WWSEM Program Process



Logic Model

Figure 49. WWSEM Logic Model



Incentive Structure

The program will use a downstream approach offering technical assistance and incentive intervention strategies. Program participants will benefit from and be driven by incremental incentive payments for kW peak demand reductions and kWh savings achieved. Half of the incentive will be paid after equipment is installed, and the other half will be paid when the demand reduction is confirmed through M&V[28].

Program Savings Potential

Table 116. WWSEM Energy Savings Targets

Program Year	Net kWh Savings Claimed	Net kW Savings Claimed
2024	4,937,538	2,589
2025	5,914,993	3,134
2026	5,892,785	3,121
2027	5,875,827	3,112

Measures and Treatment

This program will follow Strategic Energy Management guidelines for program design, implementation, and savings calculations as defined by the California Industrial SEM Design Guide v1.0[29]. A normalized metered energy consumption (NMEC) approach supported by submetered process and energy usage data collected from targeted equipment will be used to determine the peak demand savings achieved through program interventions.

- **Phase I** of the program will target the measures that can be implemented at low or no cost. These no-to-low-cost strategies can use existing facility equipment configurations and/or short lead time control equipment that can be deployed rapidly, such as ammonia-based sensor controls and SCADA-integrated energy or process monitoring equipment.
- **Phase II** targets capital intensive measures. In this phase, SoCalREN will leverage energy and process data collected during the first phase to identify project opportunities with <18-month lead times that could further reduce peak demand savings, such as variable frequency drives on large rotating equipment or additional control equipment to maximize operational efficiency. Other key measure opportunities include upgraded SCADA controls, ammonia-based aeration controls, and expanded physical storage. Measures to increase reservoir operating capacity include automatic transfer to running onsite power generators during peak demand periods, delay dewatering pressate or centrate recycling, and others. This phase will also leverage existing on-site energy sources such as biogas or solar to shift load or reduce peak demand directly with storage equipment. Biogas storage can allow cogeneration engines to shift operation to peak demand periods, and battery energy storage could provide similar capacity value from cogeneration, fuel cell, photovoltaic solar, or other on-site generation systems.

[28] "Resolution E-3949." https://docs.cpuc.ca.gov/publisheddocs/published/g000/m232/k460/232460214.pdf. Accessed 24 Jan. 2022.

[29] "California Industrial SEM Design Guide." https://neep.org/sites/default/files/CA_Ind_SEM_Design_Guide_v1.0.pdf. Accessed 30 Aug. 2021.

Program Budget

Table 117. WWSEM Program Budget

Program Year	Budget
2024	$1,678,094
2025	$2,359,565
2026	$2,359,646
2027	$2,360,990
Total	**$8,758,295**

Program Metrics and Targets

Like the incentive programs within the existing SoCalREN portfolio, the WWSEM metrics will be reported monthly, quarterly, and annually through the California Energy Data and Reporting System (CEDARS). In addition to the CPUC required common metrics, the program will collect and track the following data/performance metrics and indicators to be tracked and reported throughout the program cycle provided in Table 118.

Quantitative Program Targets

Table 118. UWWEM Annual Program Metrics and Indicators*

Metric	Method
Permanent peak demand savings	Savings submitted to CPUC
% reduction during peak demand periods	Savings submitted to CPUC
Dispatchable peak demand savings	Savings submitted to CPUC
*Number of projects reviewed	Projects reviewed through energy analysis
Number of low-cost DR projects completed	Count of low to no cost DR projects completed
Number of agencies enrolled in DR programs	Count of agencies enrolled in DR strategies
*Number of public agency participants	Count of participants receiving EE benefits from program services
Number of projects within low-income and DACs	Count of DR projects within DACs
GHG emissions avoided	Calculated lifecycle reductions
*Number of staff people trained	Count of staff people trained by SoCalREN WWSEM team
*Amount of incentive dollars issued	Dollars disbursed to agencies

*Designates indicators

REN Program Compliance with D.12-11-015

Anticipated third-party programs supporting water and wastewater agencies will have **high-cost** effectiveness criteria and will not target smaller customers with low energy savings potential. The WWSEM program will support the agencies that are excluded from third party program

opportunities. Offering an SEM approach as a program to a new sector—public agency water and wastewater customers—can be considered a pilot. If proven successful, the model can be replicated and or scaled.

Program Partners

When implementing energy efficiency programs, partnerships with stakeholders and market actors are key to achieving performance goals as well as reducing the cost burden on any one program. The existing SoCalREN PDP and DER DAC programs have established trust and partnerships with 31 enrolled water/wastewater agencies and numerous water departments within municipalities in its service territory and anticipates many additional enrollments by the end of 2022. Further, SoCalREN has already audited over 20 wastewater treatment plants in Southern California and has site data on hand to assess new opportunities within the region. The WWSEM Program will also leverage existing SoCalREN partnerships with engineering consultants, process engineering firms, and relationships with ESCOs and renewable developers when applicable.

Program Coordination

This program will leverage existing marketing channels established through SoCalREN's public sector programs to perform targeted outreach to enrolled public agencies in SoCalREN territory with municipally owned potable water systems and wastewater treatment plants.

Once a water or wastewater agency enrolls in SoCalREN, they will be eligible for the WWSEM program as well as SoCalREN's suite of programs, including services from the Project Delivery Program, DER DAC, and SoCalREN's Revolving Savings Fund.

New: Water Infrastructure Program

Market Segment: Resource Acquisition

Program Description

The Water Infrastructure Program (WIP) is a downstream offering within the SoCalREN service territory providing long-term Energy Efficiency (EE) solutions to water production, distribution, and treatment systems. WIP serves facilities/systems including Water Agencies, Wastewater Agencies, Special Districts, Local Government Agencies, Water Investor-Owned Utilities (IOUs), and other water pumping or treatment customers (Customer) paying the Public Purpose Programs (PPP) charge.

WIP delivers demand reductions (EE kW) and energy (EE kWh and therms) savings. The Program processes, qualifies and verifies project documentation to pay rebates and incentives to program participants. Rebates and incentives are provided for eligible measures to drive energy efficiency projects improving the efficiency of simple and complex water and treatment systems.

Program Objectives

To meet the program goals, WIP will:

- Offer incentives/rebates to facilitate customer installations of EE Measures.
- Support program participants through various stages of project development such as marketing energy efficient technologies to targeted groups, identification of new measures to incentivize, measure installation verifications, and providing financial incentives, rebates, and funding options.
- Be a Resource Acquisition Program, providing measurable direct electricity and gas savings, reducing GHG emission and contributing toward the goals of SB32.
- Provide project monitoring and inspection support necessary to verify savings delivery.

Program Rationale

Since most utility programs are required to be cost-effective, they can typically only offer energy efficiency solutions that are simple and do not require long lead times. This creates a gap to provide support for more complex and time intensive projects that other program administrators cannot undertake. To address this gap, WIP Program will provide effective deemed and custom solutions that require multiple years to fully develop and implement. The first year of the program will be entirely focused on working with customers to plan intricate water projects such as wastewater mixing, ultraviolet controls, and pump sequencing projects. The second program year will then deliver initial program benefits through shorter-term opportunities such as behavioral and retro-commissioning measures. By the end of the third and fourth program years, the program will achieve significant benefits through the completion of multi-year custom projects that were first identified during program launch.

The program targets long term projects, where project identification to project installation and verification is within 3-10 years. Influencing this risk-averse customer segment to install energy

efficient options take between 3 and 10 years from initial customer introduction because trust needs to be established before water and wastewater customers seriously consider and are convinced of a recommendation to their water systems.

Market Barriers Addressed

Implementing energy efficiency in water and wastewater infrastructure is not a simple process due to systemic challenges present in water utilities. Operational, institutional, political, regulatory, and financial barriers present a direct risk in a program's ability to successfully carryout implementation actions and deliver its expected outcomes.

These challenges rest on the culture of a water utility and the outside constraints placed on water utilities. The culture at a water utility centers around the public health aspect of providing high quality drinking water with the lowest possible burden through the operation of permanent infrastructure. Utilities take this mandate very seriously, and because of that obligation and various other regulations, utility employees are highly trained in their field.

The principal program **risks and barriers** can be summarized as follows:

1. **Expertise in water treatment is not directly translatable to expertise in energy efficiency.** Employees usually cannot identify and implement energy efficiency projects despite comprehensive technical knowledge of their water systems. Energy engineering is critical to increasing water system efficiency.
2. **Water system management requires balancing public demands for low-cost water and regulatory agency demands to meet quality standards.** Rarely will the public welcome a rate increase. While energy efficiency measures can reduce

Overcoming Market Barriers

- ***Leverage Established Customer Relationships*** in this segment to streamline program enrollment and project identification, deliver project participation. Customer aversion to risk and repair/replace upon failure maintenance practices barriers is also reduced through providing case studies, customer testimonials, and customer referrals of completed projects while delivering project recommendations.
- ***Deemed Measure Mix*** is available in the program to use the financial incentives to increase sales of energy efficient technologies within the water and wastewater segment. This enables program participation with minimal impact to personnel availability.
- ***Project Funding Options*** have been identified to prevent project implementation cycle delays in waiting for the next capital budgeting to approve the project. Incentives, OBF, Bridge funding, external funding (EPIC, DOE, financing), and ESCOs are methods of reducing the customers' upfront costs.
- ***Cost-Effective Measure Expansion*** will Increase market measure adoption and program cost-effectiveness by introducing new measures into the program through developing new workpapers for common custom measures and qualifying new measure offerings for proven technologies, while closely monitoring industry standard practice so measures are sunset at the right time.

costs over time, the upfront capital investment can often be hard for the public to accept. Resistance from the public can often dissuade managers from timely implementation of infrastructure improvements.

3. **Regulatory constraints placed on water utilities are daunting.** Failure to meet any of the standards can result in a dramatic loss in public confidence and possibly hefty fines from regulatory agencies. Federal fines for some infractions can cost utilities thousands of dollars a day. As a result, utilities often take a more risk-averse approach by implementing oversized equipment or maintaining processes that work even if energy-intensive.

Financial constraints revolve around the nature of utilities providing what is seen as a public good. Utilities operate on very tight margins. In many situations, utilities must ask for approval from customers before undertaking new capital expenditures or raising rates. Taken together, this creates an environment where non-essential capital expenditures often sit on the shelf until resources are available. It is not uncommon for pumps to operate for 30+ years, well below the efficiency curve, and still not be scheduled for repair until they fail completely.

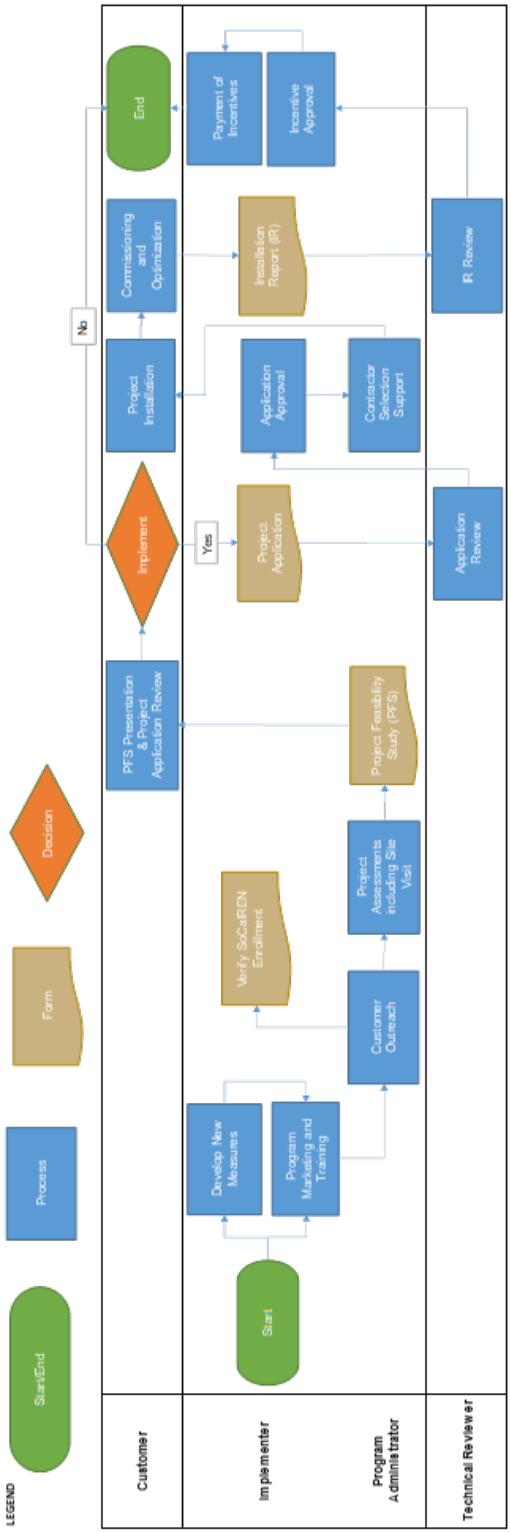
Market barriers to EE in this segment include short-term, start/stop program cycles with long-term projects, Customer risk aversion, infrastructure longevity with repair practices upon failure, limited funding, limited staff availability and EE knowledge, and complex decision-making process. The program activities and intervention strategies address and reduce the impact of the market barriers for water and wastewater customers within the limitations created by the short 4-year program cycle.

Target Market

WIP serves facilities/systems including Water Agencies, Wastewater Agencies, Special Districts, Local Government Agencies, Water Investor-Owned Utilities (IOUs), and other water pumping or treatment customers (Customer) paying the Public Purpose Programs (PPP) charge.

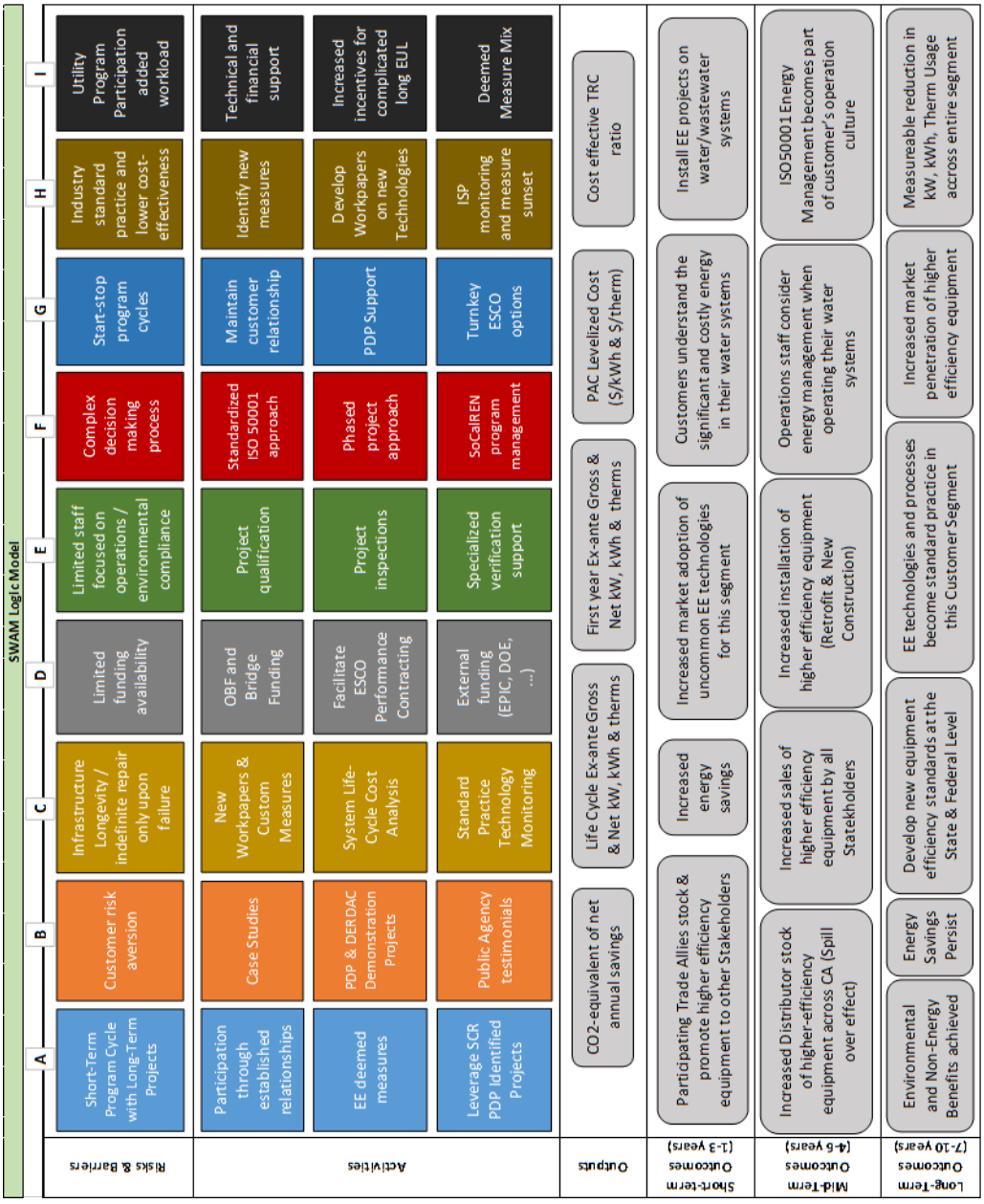
Program Process

Figure 50. WIP Program Process



Logic Model

Figure 51. WIP Logic Model



Incentive Structure

- The incentive levels are specified by customized measure specified based on above code, or BRO or to-code measures.
- The customized incentive rates are based on the gross first year savings.
- The deemed rebates are specified by workpaper.

Program Savings Potential

Measures and Treatment

End-use equipment that will be targeted include irrigation systems and water distribution systems such as going beyond well pumps and booster to look at connected canals, piping, or treatment process systems and more. Furthermore, the program will target and prioritize water and wastewater end-users with potential for embedded energy savings.

Measure Mix

- 2024: No savings delivery
- 2025: Less cost-effective BRO and AOE
- 2026: Custom measure mix and 25% deemed measure mix
- 2027: Custom measure mix and 25% deemed measure mix

Program Budget

Year	2024	2025	2026	2027	Total
Budget	$1,212,500	$2,237,500	$2,750,000	$3,500,000	**$9,700,000**

Program Metrics and Targets

Quantitative Program Targets

Table 119. WIP Program Metrics and Targets

Year	Net kWh	Net kW	Net Therm
2024	0.00	0.00	0.00
2025	5,396,855	515	0.00
2026	6,577,478	666	3703
2027	7,700,872	731	4408
Total	**19,675,205**	**1,912**	**8,111**

REN Program Compliance

This program is designed to complement SCE's statewide water and wastewater program by providing support for more complex and time intensive projects. Since utility programs are required to be cost-effective, they cannot undertake measures and projects that require multiple years to develop and complete.

Program Coordination

The program will coordinate with SoCalREN's Public PDP program to develop and complete long term projects for public agencies operating water and wastewater infrastructure.

RESIDENTIAL SECTOR

SoCalREN believes in making homes healthier through energy efficiency (EE) improvements and understands the Residential Sector's role in achieving EE, grid resiliency, and decarbonization goals.

SoCalREN's Residential Sector programs ensure that residents, especially those in Environmental and Social Justice (ESJ) communities, have access to the technical and financial support needed to act. Programs include our Whole Building Comprehensive Energy Efficiency Multifamily program, which aims to achieve at least 80 percent of program results from hard-to-reach and disadvantaged customers by 2032, and our Kits4Kids program, which delivers self-install energy-saving measures through local schools. Our new Small Hard-to-Reach Multifamily Direct Install program focuses on the underserved market of smaller (under 50 units), independently owned buildings (not addressed by current multifamily program efforts).

Summary of Sector

Multifamily dwellings compose approximately one-third of the total housing stock within the SoCalREN territory which equates to just under 2.4 million residential units. Nearly two-thirds of these dwellings are within Los Angeles County. Orange County has the next highest amount with 16 percent, followed by Riverside and San Bernardino counties. Combined these four urban counties account for more than 90 percent of the multifamily housing units located in the 12 counties that make up SoCalREN territory.

More than 50 percent of the 2.4 million multifamily units are in Disadvantaged Communities (DACs). The highest percentage of DAC properties are in Imperial (77%), Los Angeles (60%) and Kern Counties (60%). Most recent California employment data[30] indicate that seven counties in the SoCalREN territory have a lower unemployment rate than the overall California rate of 6.9

[30] Labor Market Information by County (ca.gov)

percent but two counties, Imperial County (15.5 percent) and Tulare County (8.2 percent) have been hit particularly hard in recent years and exceed the state average.

Notwithstanding relatively low historical unemployment, California's residents are impacted by high rent and low housing availability. Across SoCalREN territory, nearly 50 percent of residents rent their place of living and on average, California renters spend approximately 25 percent of their annual median income on rent.

Monthly rent across California has increased steadily in response to high property costs and high demand. Within SoCalREN territory, average rent for a 2-bedroom apartment ranges from a low of $959 in Tulare County to a high of $2,374 in Santa Barbara County[31]. Rents saw significant increases in 2021 with regions like the Inland Empire (i.e., San Bernardino and Riverside counties), Ventura and Santa Barbara Counties posting double-digit year-over-year increases, significantly outpacing inflation, and wage growth[32].

Meanwhile demand for rental housing is high with a statewide vacancy rate of 4.06 percent[33]. Most counties in SoCalREN territory are consistent with this vacancy rate with some like Los Angeles County having a slightly lower rate at 3.96 percent. Low housing availability limits mobility and restricts people's ability to locate lower cost living options. As a result, residential customers seek to reduce monthly living expenses by reducing discretionary spending like utilities.

Nationally, the monthly residential electricity price is expected to increase steadily over the coming years with increases in California expected to be slightly higher than the national rate. Additionally, residential electricity usage has increased due to the proliferation of remote work arrangements brought on by the COVID-19 pandemic. A recent survey by Gartner, a human resources consultancy, found that 99 percent of HR leaders expect that hybrid work arrangements will be the norm for the future[34]. This increase in work at home means that residential energy usage will continue to be higher than historical usage patterns.

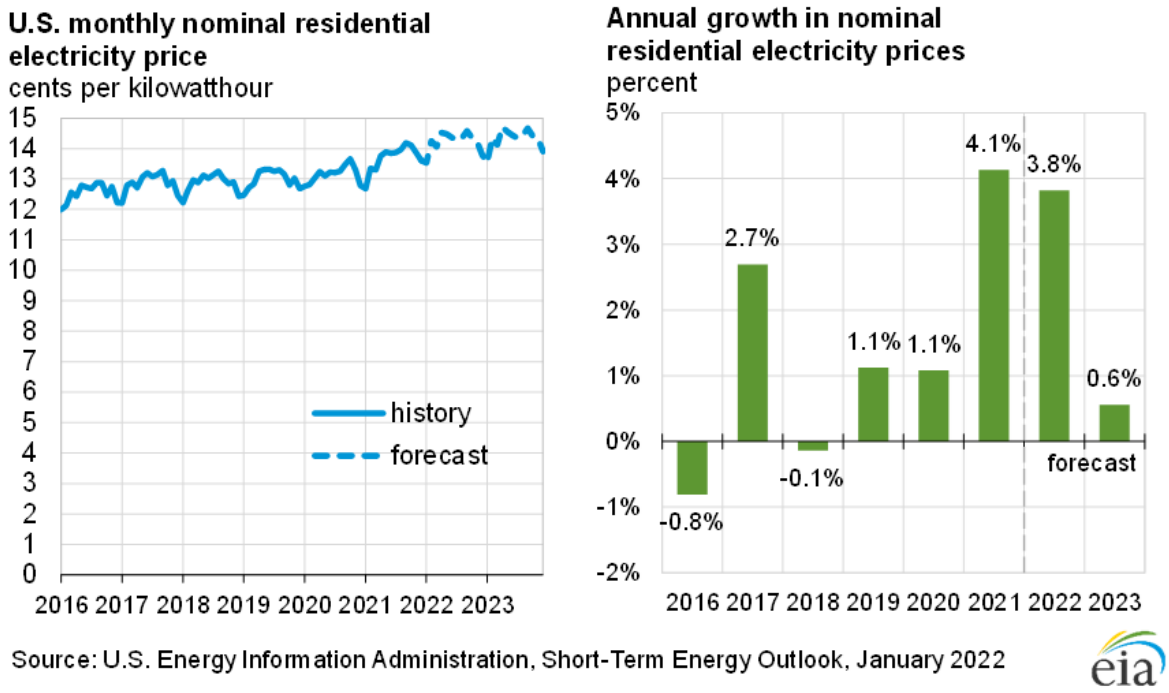
[31] 2021 Fair Market Rent in California | RentData.org

[32] Multifamily Figures, CBRE

[33] https://www.deptofnumbers.com/rent/california/

[34] https://www.gartner.com/smarterwithgartner/3-workplace-reopening-guidelines-for-hr-leaders

Figure 52. Forecasted Residential Energy Usage



Budget Distribution and Rationale

The proposed Residential sector budget is shown in the table below. This budget represents an increase from prior years but is consistent with the increase in energy savings goals forecasted for the 2024–2027 period. It also reflects the addition of a new Small HTR Multifamily Direct Install program which is designed to address a segment of the multifamily sector that is not addressed by current energy efficiency programs.

Table 120. Residential Sector Budget

Budget	2024	2025	2026	2027
Administration	$180,966	$196,942	$212,466	$225,912
Marketing	$227,105	$247,154	$266,636	$283,511
DINI	$2,777,148	$3,022,313	$3,260,549	$3,466,906
DI-Incentive	$7,773,100	$8,459,305	$9,126,115	$9,703,698
Total	**$10,958,319**	**$11,925,713**	**$12,865,766**	**$13,680,027**

Goals, Objectives, Strategies and Outcomes

The primary objective of SoCalREN's efforts within the residential sector is to achieve energy savings through the delivery of a comprehensive suite of programs that address the diverse needs of the sector. Another objective is to better serve ESJ communities by targeting DAC and HTR customers and specifically small properties that are often left out of EE program offerings due to the high cost to serve.

The overall sector strategy is to contribute to California's energy efficiency and greenhouse gas emissions goals by connecting residential customers with contracting trades and facilitating the proliferation of energy efficiency actions within existing multifamily buildings. This strategy will be enacted upon using a combination of tactics that involve targeted marketing outreach and education to multifamily customers coupled with technical and financial support for contractors.

The long-term outcomes of these tactics will be to facilitate increased engagement between property owners and contractors centered around energy efficiency improvements. This engagement will result in deeper level of understanding of energy savings opportunities at multifamily properties and increased ability by local contractors to address these opportunities. Through enhanced focus on DAC and HTR customers, a higher level of savings will accrue to the ESJ communities lowering monthly energy costs for customers and improving the overall health and comfort within their home. Forecasted energy savings goals for the Residential Sector are shown in the table below.

Table 121. Residential Sector Energy Savings Goals

Net Impacts	2024	2025	2026	2027
GWh	3.877	3.936	4.054	4.104
kW	312	317	326	330
Therms	166,291	168,786	173,821	175,991
TSB	$6,269,628	$6,298,632	$6,387,607	$6,285,740

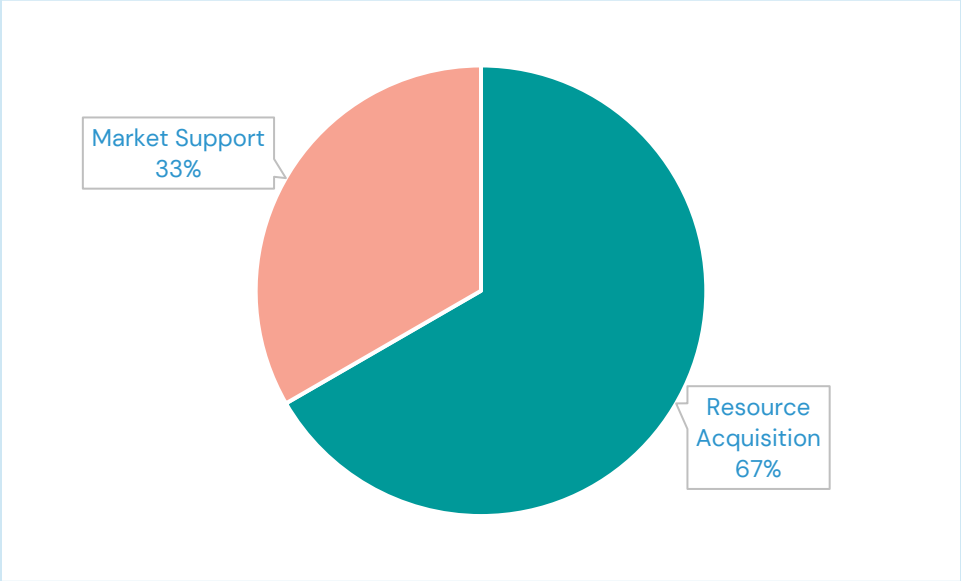
Categorization of Programs by Segment

Table 122. Categorization of Residential Programs by Segment

Program	Category	Rationale
Whole Building Comprehensive Energy Efficiency Multifamily	Resource Acquisition	The Whole Building Comprehensive program is the cornerstone of SoCalREN's residential portfolio and works with multifamily property owners to identify and implement energy efficiency opportunities. This program is best classified as Resource Acquisition due to its singular focus on delivering comprehensive electric and natural gas energy savings.
Small HTR Multifamily Direct Install	Resource Acquisition	The Small HTR Multifamily program is designed to focus on hard-to-reach multifamily customers, specifically properties with 50 units or less. These smaller properties are typically missed by energy efficiency programs due to the high cost to serve thus restricting access to energy efficiency opportunities by omission. This program addresses that gap through specific strategies to capture energy savings from these customers.

Kits4Kids	Market Support	Kits4Kids provides no-cost electric, gas, and water efficiency measures to residential DAC and HTR customers with an educational element to help families better understand how to manage their monthly energy spend. The program works in partnership with regional government partners to provide enhanced outreach to rural and other ESJ communities to ensure equal access to energy efficiency.

Figure 53. Residential Sector Budget by Segment



Changes Proposed Compared to Previous Portfolio

The 2024–2027 portfolio includes the Small HTR Multifamily Direct Install program which is a new program that was not offered in the 2022–2023 portfolio. The addition of this program became evident after years of delivering the Whole Building Comprehensive Energy Efficiency Multifamily program. That program has been successful at delivering energy savings, but these savings primarily come through larger properties. For example, in 2021 the average sized property that participated in the program had more than 200 residential units. These properties are generally corporate-owned properties that are professionally managed by a property management firm and oftentimes have corporate goals to reduce their environmental footprint. Conversely, smaller properties do not have the resources needed for a whole building approach and thus their participation in the Whole Building Comprehensive Multifamily Program lags. The Small HTR Multifamily Direct Install program was designed to specifically target these types of customers through a combination of direct install and rebated measures thus simplifying participation requirements significantly.

Sector-Specific Coordination

The Residential Sector will coordinate with the Public and Workforce Education and Training sectors over the 2024-2027 period. Specific areas of coordination for this period include:

- Promote Green Path Careers program and encourage contractors to leverage graduating students to mitigate staffing shortages.
- Provide guidance about workforce needs to Green Path Careers and ACES programs to ensure students are better positioned to support multifamily customer's longer-term DER actions.
- Provide targeted outreach and communication to school districts participating in the Public Agency program to promote Kits4Kids.

Existing Programs

The following Program Cards offer summaries of the existing Whole Building Comprehensive Multifamily Energy Efficiency and Kits4Kids Programs.

Program Card 6. Whole Building Comprehensive EE MF Program

Program Name: WB Comprehensive EE Multifamily Program	Program ID: SCR-RES-A1
Portfolio Segment: Resource Acquisition	**Implementation Party:** Third-Party
Applicable Sector: Residential	**Market Sub-Sectors:** Large Multifamily
Sector Challenge: The SoCalREN region has seen double-digit percent increases in monthly rents due to short- supply of multifamily housing. Despite positive economic signs for property owners, investments in property improvements remain tight. Meanwhile tenants are spending more time at home and spending more on monthly utilities. Engaging owners and property managers to invest in long term energy upgrades will continue to be a challenge, but overall, we expect higher interest in the program than in the past several years as property owners seek to retain existing and attract new tenants in a highly competitive market.	**Sector Opportunity:** With increasing awareness of climate change, increasing implementation of time-of-use rates, owners (and to some extent, tenants) will seek assistance in addressing these issues. Many large property management companies have corporate sustainability goals and are interested in using their commitment to energy and sustainability to differentiate themselves from other properties.
Known Equity Concerns in the Selected Markets: Large properties in disadvantaged communities will continue to be reluctant to improve their tenant units beyond normal maintenance or replace on failure.	**Proposed Solutions to Equity Concerns:** Increased outreach, additional incentive offers and increased technical support should help overcome reluctance to upgrade properties.
Program Description: Targets large multifamily properties; provides technical and financial support to reduce energy usage at the property through the completion of comprehensive retrofits. The result is result lower utility costs for property owners and tenants, as well as improved property comfort and quality. Assessment of clean distributed generation and microgrids to further reduce GHG emissions and enhance resiliency are supported through technical feasibility studies provided to interested participants.	
Intervention Strategy: The program utilizes technical support services and financial incentives to encourage energy upgrades.	**Program Value Metrics:** 24 GWh, 1.1 million Therms, $34 million TSB
High-level description of delivery workforce including necessary scale and risk: Delivery workforce includes mechanical, electrical, and plumbing (MEP) trades that install qualifying efficiency measures on site. Contracting trades that support the multifamily segment are niche contractors that specialize in this segment. This limits the population of potential contractors that can support program delivery and is a constraining factor in being able to deliver even higher levels of savings.	

Market Actors necessary for success:

- Availability of MEP contractors knowledgeable in energy upgrades.
- Informed and engaged property owners/managers that are motivated to implement efficiency retrofits.
- Manufacturers and distributors of efficiency measures that are currently constrained by supply-chain issues.

Solicitation Strategy: Third-Party	**Transition Plan:** Not Applicable
Expected Program Life: 2024–Ongoing	**Short-Term Plan:** Incorporate new program design features including new incentive mechanism, offer technical support for implementation of clean distributed generation and resiliency measures. Launch program and enroll over 500 projects, with 65% qualified as DAC by 2027.
Cost-Effectiveness: 0.61	**Long-Term Outlook:** Establish long term relationships with owners to ensure SoCalREN's MF program is their go-to resource for energy efficiency upgrades and technical services supporting implementation of distributed generation and microgrid projects.
Proposed 2024–2027 Budgets: **2024: $7,538,318** **2025: $7,939,854** **2026: $8,075,475** **2027: $8,390,839**	**Anticipated directional and scale changes in budget for years 2028–2031:** Annual budgets and energy savings for the program are planned to ramp up approximately 5% over the first four-year period, and level off for the 2028-2031 period. Cost effectiveness and TSB increase proportionally over the four-year period.

Implementation Plan: https://cedars.sound-data.com/programs/SCR-RES-A1/details

Program Card 7. Kits4Kids

Program Name: Kits4Kids	Program ID: SCR-RES-A4
Portfolio Segment: Resource Acquisition	**Implementation Party:** Third-Party
Applicable Sector: Residential	**Market Sub-Sectors:** Multifamily and Single-Family
Sector Challenge: Moderate income residential customers face many barriers to implementing energy upgrades in their homes due to lack of information, hassle factor, first cost, and in the case of renters, split incentive. In many cases, the parents of elementary school students first language may not be English, thus presenting further challenges for energy efficiency programs.	**Sector Opportunity:** By enlisting the homeowner's children in the EE program delivery process and providing a kit of simple EE measures at no cost, the identified barriers in the residential segment can be overcome.
Known Equity Concerns in the Selected Markets: Traditionally, EE programs have focused most of their efforts, and had the most successes, in more affluent communities/regions.	**Proposed Solutions to Equity Concerns:** SoCalREN's program focuses primarily on students/families of school districts located in Disadvantaged Communities.
Program Description: The Kits4Kids program provides energy-saving measures to families within the SoCalREN service area who have fourth grade students attending schools that meet CPUC Hard to Reach criteria or are located within Disadvantaged Communities (DAC). A primary marketing focus will be on schools that have participated in the SoCalREN Public Agency Energy Efficiency Project Delivery Program (PDP). A set of energy saving measures (contained in the Kit), along with a basic energy efficiency curriculum delivered in the classroom, are provided at no cost to the students. The students take the kit home, and together with their family, install the measures in their home. In addition to the energy and cost savings achieved by the installed measures, the Program offers educators with a classroom incentive grant. Kits4Kids will generate energy savings, provide relief to families, and educate future household decision-makers to continue practicing good energy management behaviors in their homes.	
Intervention Strategy: The program uses grade school children to deliver no cost EE measures to their parents' home	**Program Value Metrics:** 6 GWh, 258,000 Therms, $3.6 million TSB
High-level description of delivery workforce including necessary scale and risk: The program utilizes school students to deliver the program to their parents' home.	
Market Actors necessary for success:	Principals and Teachers
Solicitation Strategy: Third-Party	**Transition Plan:** Not Applicable
Expected Program Life: 2024–Ongoing	**Short-Term Plan:** Step up recruitment of school districts to ensure a large pipeline of classrooms for each future program year.

Cost-Effectiveness: 0.46	**Long-Term Outlook:** Continue to recruit school districts and expand the program.
Proposed 2024–2027 Budgets: 2024: $1,620,001 2025: $1,752,837 2026: $2,181,027 2027: $2,374,812	**Anticipated directional and scale changes in budget for years 2028–2031:** Annual budgets and energy savings for the program are planned to ramp up approximately 50% over the first four-year period and should level off over the 2028-2031 period since the market potential is not expected to increase (the number of 4th grade classrooms in the SoCalREN region is expected to be fairly constant over the eight-year period). Cost effectiveness and TSB will increase proportionately over the second four-year period.

Implementation Plan: https://cedars.sound-data.com/programs/SCR-RES-A4/details

New Program: Small HTR Multifamily Direct Install Program

Market Segment: Resource Acquisition

Program Description

SoCalREN's Small HTR Multifamily DI Program addresses two multifamily sub-segments:

- **Small Apartment Buildings:** This subprogram targets multifamily properties with fewer than 50 dwelling units. These smaller properties account for more than 80 percent of the multifamily market and are typically independently owned and operated by the property owner or an on-site resident property manager. This critical segment of multifamily housing occupies the "missing middle" of the housing affordability spectrum. It bridges the gap between government subsidized housing and high-end lifestyle apartments.

  The savings potential for an individual property of this type and size is relatively low, yet this sub-segment includes hundreds of thousands of dwelling units that collectively represent substantial savings opportunity. These smaller properties remain woefully underserved by IOU programs that have historically focused on the low hanging fruit of the largest corporate-owned portfolios as an easier, cheaper, and more cost-effective way to meet program goals. For this subsegment, a combination of simple rebates and direct installed measures are provided to overcome pervasive market barriers of lack of knowledge, capacity, and capital needed to implement energy retrofit projects.
- **Condominium Homeowners Associations:** This subprogram targets condominium complexes in Disadvantaged Communities. Like the small hard-to-reach multifamily segment, condominium complexes have historically been underserved through IOU's EE programs. The energy efficiency opportunity is in both common areas and in the individual units. The common area energy bills are paid by the HOA as part of the operating expense, and the homeowner/tenant pays the bills for consumption within their units.

  Marketing and sales efforts are focused on the HOA managers/board of directors, and will offer voluntary community energy efficiency standards, incentives and financing for HVAC and water heating equipment, and discounted or no cost measures such as smart thermostats and LED lamps and fixtures for the units.

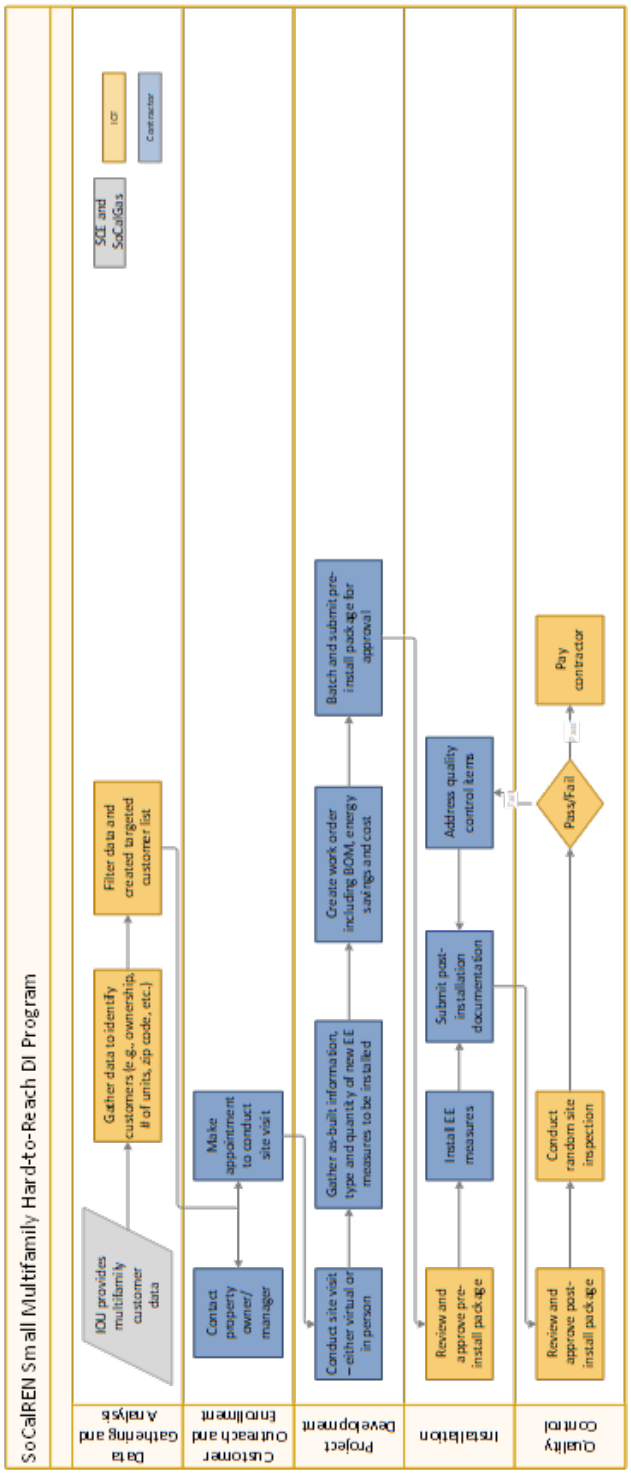
Both subprograms of the Small HTR Multifamily Direct Install will focus exclusively on these smaller, HTR building types and their owners and residents through a community-based approach to outreach and marketing, and a service and incentive offering that makes it easy for the owners and residents to participate. Incentive levels that cover up to 100% of the installed cost of the most common, basic measures, combined with quick and easy financing for early replacement upgrades with higher first cost will drive upgrades at levels that exceed historical participation rates by this sub-segment. Local trade allies will be organized into an effective program delivery channel with in-language outreach and sales support. Collaboration with the WE&T programs will help ensure an adequately trained workforce is able to meet demand.

Target Market

- **Small Apartment Buildings:** Multifamily apartment buildings with less than 50 units, with owner/residents considered Hard-to-Reach or located in a Disadvantaged Community.
- **Condominium Properties:** Complexes with an HOA and/or property management company.

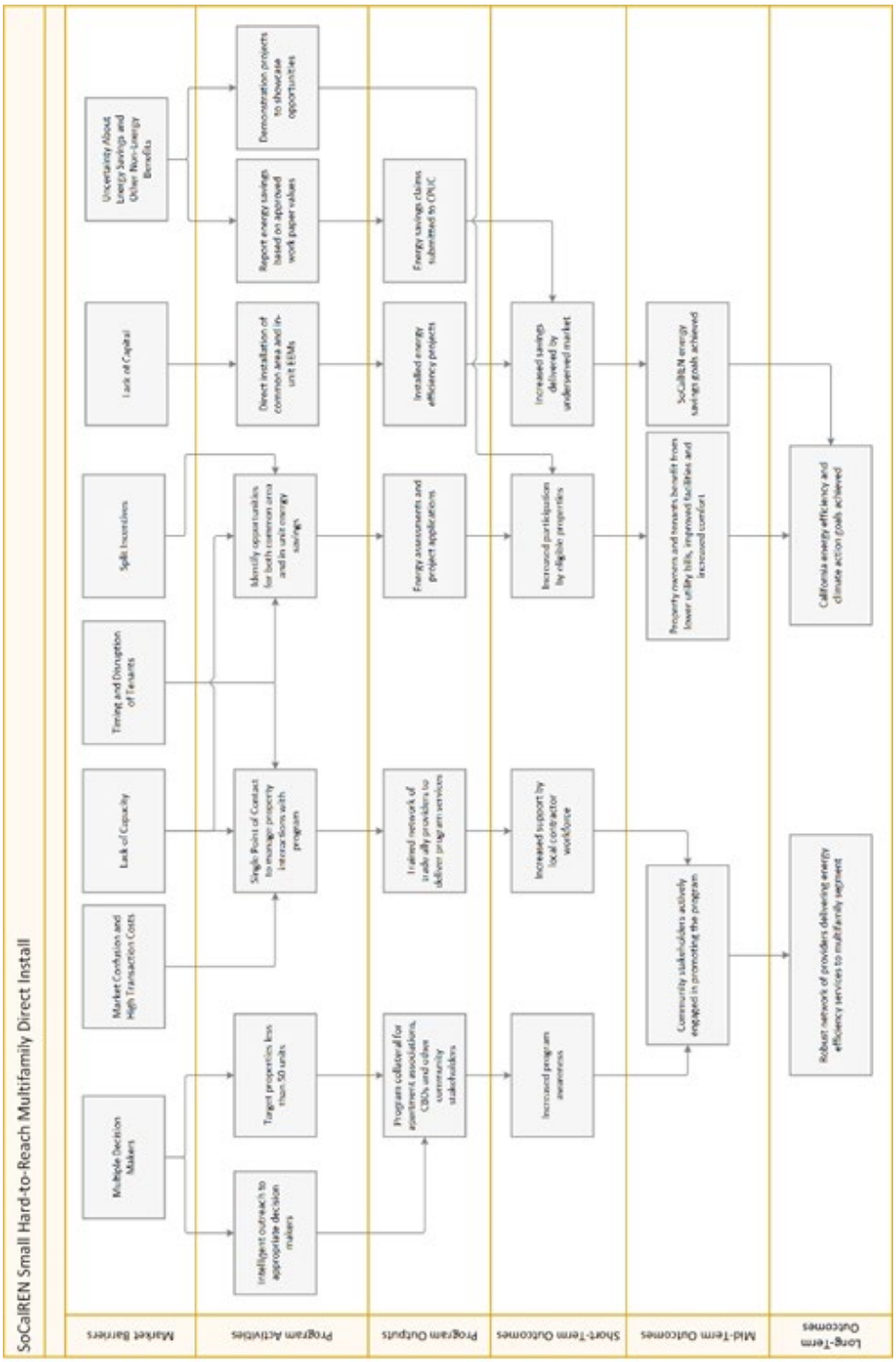
Program Process

Figure 54. Small Multifamily HTR Program Process



Logic Model

Figure 55. Small Multifamily HTR Program Logic Model



Incentive Structure

Below are the approved DI costs per measure which is based on actual contractor's quoted prices and workpaper full measure costs when contractor costs were not available.

Measures	Normalized Unit	DI Cost
(1) 48in T8 Lamp (Common Area) LED replacing (1) 48in T8 Linear Fluorescent	Lamp	$17
(1) 48in T8 Lamp (Dwelling Unit) LED replacing (1) 48in T8 Linear Fluorescent	Lamp	$17
LED A-Lamps LPW Equivalent Avg. Mix Dwelling Area	Lamp	$11
LED A-Lamps LPW Equivalent Avg. Mix Common Area	Lamp	$11
Ductless Mini-Split Heat Pump (NR) SEER 17 HSPF 9.4 Heat Pump replacing StdEff Furnace and Window AC (fuel sub)	Cap-Tons	$1,803
Ductless Mini-Split Heat Pump (NR) SEER 18 HSPF 9.8 Heat Pump replacing StdEff Furnace and Window AC (Fuel sub)	Cap-Tons	$1,858
Res DXHP (NR) SEER>=15 and HSPF>=8.7 Heat Pump replacing SEER14 and TE 80%	Cap-Tons	$1,203
Residential Smart (Communicating) Thermostat replacing Non-Programmable & Programmable Thermostat	Each	$180
Residential Smart Heat Pump Thermostat replacing Non-Programmable & Programmable Thermostat	Each	$180
Attic Insulation >=R-38	Area-ft2	$1
Central System Natural Gas Water Heater Tier II (>=90%TE) (Storage or Tankless)	Cap-kBTUh	$33
DHW Loop Temp Controller Multifamily Gas	Household	$82
DHW Pump Demand Control Gas MF	Household	$103
Efficient Residential Gas Oven	Each	$952
ENERGY STAR Dryer	Each	$940
Faucet Aerator Bathroom Sink 1.0 gpm - MF	Each	$10
Faucet Aerator Kitchen Sink 1.5 gpm - MF	Each	$10
High Efficiency Furnace Residential AFUE 95%-VSM MFm	Household	$452
HW Heater Pipe Sleeve Indoor	Each	$24
Low Flow Showerhead 1.5 gpm - MF	Each	$24
Natural Gas Pool Heater >=84% TE	Cap-kBTUh	$17
Small Tankless WH Tier 3 (UEF>=0.95) Medium Draw	Each	$3,098
Storage Water Heater 40-Gal Medium Draw (UEF>=0.64)	Each	$1,273
High Efficiency (SEER 18) Central/ ductless HVAC unit replacing existing less efficiency unit	Household	$2,538
High-efficient and variable speed fan motor for indoor AC fan replacing constant speed less efficient fan motor	Cap-Tons	$93
Heat pump water heater with grid enabled controls replacing natural gas water heater (average of all configurations) (fuel sub)	Each	$1,945
Tier 2 smart connected advanced power strip (APS)	Household	$68

Program Savings Potential

Measures and Treatment

Table 123. Small Multifamily HTR Program Measures

Measure	Deemed (D) or Direct Install (DI)	Related Programs
LED Outdoor Lighting	DI	
LED Bath/Kitchen Fixture	DI	
Smart Thermostat	DI	ADR
HVAC Equipment Replacement	D	SW HVAC
Central DHW Boiler Controls	D	SW Comm WH, ADR
Furnace Replacement	D	
Tankless Water Heater	D	SW Comm WH
Storage Water Heater	D	
Heat Pump Water Heater	D	TECH, SW PLA, ADR
Bath Faucet Aerator	DI	
Efficient Showerhead	DI	
Window Film	D	
Attic Insulation	D	
Solar PV	N/A	SOMAH
Battery Storage	N/A	SGIP
EV Charger	N/A	SGIP
Solar Thermal Hot Water	N/A	CSI–Thermal

Program Budget

Table 124 below summarizes the Small Multifamily HTR Program budget by category.

Table 124. Small Multifamily HTR Program Budget

Category	2024	2025	2026	2027
Administration	$35,286	$40,827	$45,540	$33,846
Marketing	$31,414	$36,348	$75,900	$56,410
DINI	$534,193	$624,778	$689,420	$512,394
Incentives	$1,199,106	$1,506,070	$1,798,406	$2,311,725
Total	**$1,800,000**	**$2,333,023**	**$2,609,265**	**$2,914,376**

Program Metrics and Targets

Quantitative Program Targets

In addition to program savings, the following goals have been established for 2024:

- Serve 117 multifamily buildings in DAC ZIP codes or meeting HTR criteria
- Provide bill savings measures to 2,900 tenant units
- Establish a team of local Direct Install Contractors to serve a diverse geographic region

REN Program Compliance

This program complies with REN guidelines through its focus on hard-to-reach customers.

Program Partners

The program will work with local government partners and community-based organizations to enroll program participants.

Program Coordination

The Program is delivered through third-party direct installation contractors under contract with SoCalREN's prime implementation contractor. SoCalREN will identify targeted customers using a combination of utility billing information, census data, real estate databases and other data sources. Primary characteristics that will inform target customers include zip code, number of rental units, ownership and year built. The list of target customers will be provided to the DI contractors, who will do outbound calling to screen and qualify properties and to arrange a site evaluation and sales appointment. The number and type of measures will be determined during this phase. Another channel will be local governments in coordination with SoCalREN's Public Agency program. Each of these programs will cross sell SoCalREN services and coordinate delivery.

WE&T CROSS-CUTTING SECTOR

SoCalREN envisions a reliable, diverse, and highly skilled labor force—one that can deliver high-quality energy efficiency (EE) services to all segments of the Southern California ratepayer community. We believe this can be achieved through a comprehensive regional and effective workforce education and training (WE&T) infrastructure.

SoCalREN's Workforce, Education, and Training (WE&T) programs establish a comprehensive regional WE&T infrastructure and increase the size, skills, and diversity of the EE labor force. Programs include E-Contractor Academy, Green Path Careers, Architecture Construction Engineering Students (ACES) Pathway, and WE&T Opportunity Hub programs. A new Agricultural WE&T program will build a local regional trade ally network of qualified EE service providers to expand the implementation of cost-effective projects in the Agricultural Sector. Such programs help investor-owned utilities (IOUs) meet goals of doubling EE savings by 2030 while overcoming barriers connecting disadvantaged workers and contractors to EE training, jobs, and business opportunities.

Summary of Sector

SoCalREN is committed to efforts to ensure that EE measures will be properly installed, operated, and maintained by a skilled and trained workforce, increasing impacts by reducing lost or foregone energy savings. Our WE&T sector—and indeed our entire portfolio—are designed to help workers from minority, low-income, and disadvantaged communities gain better access to career-track opportunities in the energy economy as well as defined pathways for advancement into higher-quality and higher-wage jobs. SoCalREN recognizes the significant local economic development and workforce development benefits that can be generated from proper planning and execution of EE projects.

The five targeted programs that compose the SoCalREN WE&T sector emphasize a robust regional workforce education and training approach that supports underserved Disadvantaged

Workers (DAW), Hard-to-Reach (HTR) and small, women, minority, and disabled veteran owned business enterprises (SWMDVBE).

SoCalREN seeks to build capacity within the EE industry through a local–regional approach. The SoCalREN WE&T Programs leverage public agencies to reach and engage communities while simultaneously building the underserved workforce. Initiatives include:

- Comprehensive regional workforce education, training, and resources for DAW/HTRs and SWMDVBE contractors of all skill levels
- Entry-level workforce skills training for in-school youth
- SWMDVBE contractors' local government public agency training and capacity building regarding sustainability projects and RFPs
- A green career pathway for classified at-risk and or unhoused individuals, such as transition age opportunity youth and adults
- A one-stop shop community resource providing high visibility and access to energy efficiency consumer information, training, and networking opportunities

SoCalREN WE&T Sector Programs

- ACES Pathway
- Agriculture WE&T *(included under Agricultural Sector)*
- E-Contractor Academy
- Green Path Careers
- WE&T Opportunity Hub

Budget Distribution and Rationale

Table 125. WE&T Cross-Cutting Sector Budget

Budget	2024	2025	2026	2027
Administration	$155,400	$162,600	$169,200	$172,800
Marketing	$155,400	$162,600	$169,200	$172,800
DINI	$2,279,200	$2,384,800	$2,481,600	$2,534,400
Incentives	$0	$0	$0	$0
Total	**$2,590,000**	**$2,710,000**	**$2,820,000**	**$2,880,000**

Goals, Objectives, Strategies and Outcomes

Goals and Objectives

- Expand the number of high-performance buildings, especially in DAC/HTR communities
- Increase MWDVBE capacity in green building technologies/EE projects
- Expand EE services in DAC/HTR communities
- Increase awareness and accessibility for youth of color to high road ACE careers.
- Promote local hiring standards for DAC/HTR professional workers.
- Increase diversity in the EE sector.
- Reduce labor shortages in the EE/RE construction field.
- Align regional WE&T and small business ecosystems in EE/clean energy opportunities

Strategies

- Provide resource for information, training, and networking opportunities (WE&T Hub).
- Provide DACs/HTR (ACES/GPC) with training, an EE career path, and supportive services.
- Multi-Pathway Programs in EE careers and skills training curricula (ACES/GPC).
- Provide contractor training and support services to MWDVBE (ECA) contractors.
- A regional network of community-based training partners (WE&T).

Outcomes

- Strengthened EE/Clean Energy workforce and small business ecosystems and programs
- Increased number of skilled workers and businesses in EE sector
- Increase percentage of overall clean energy projects/jobs by DAC/HTR
- Participating Trade Allies stock & promote higher efficiency equipment to other Stakeholders
- Remove cost and technical barriers to implement EE measures
- Increased participation of HTR/DAC students in post-secondary ACE/EE education
- DAC/HTR populations pursuing college and career pathways in EE
- Increased jobs for DAC/HTR students
- Changed participants perspective on achievable outcome of pursuing EE career pathways
- Increased diversity and inclusion in the EE sector

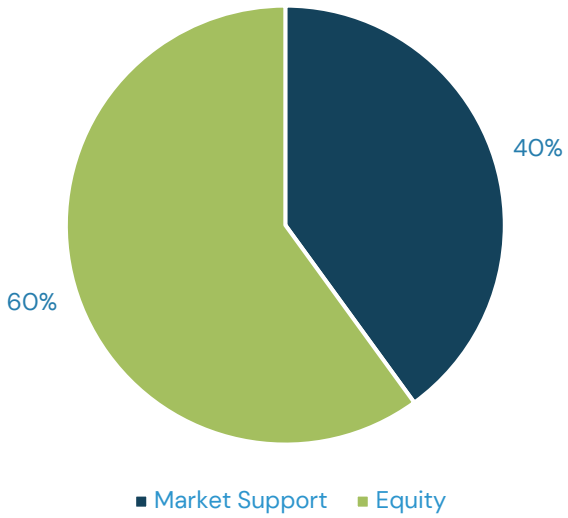
Categorization of Programs by Segment

Table 126. Categorization of WE&T Programs by Segment

Program	Category	Rationale
ACES	Equity	Expanding access to EE benefits

E-Contractor	Market Support	Building capacity and economic resilience
GPC	Equity	Expanding access to EE benefits
WE&T Hub	Market Support	Building capacity and economic resilience
Agriculture WE&T	Market Support	Building capacity and economic resilience

Figure 56. WE&T Cross-Cutting Sector Budget by Segment



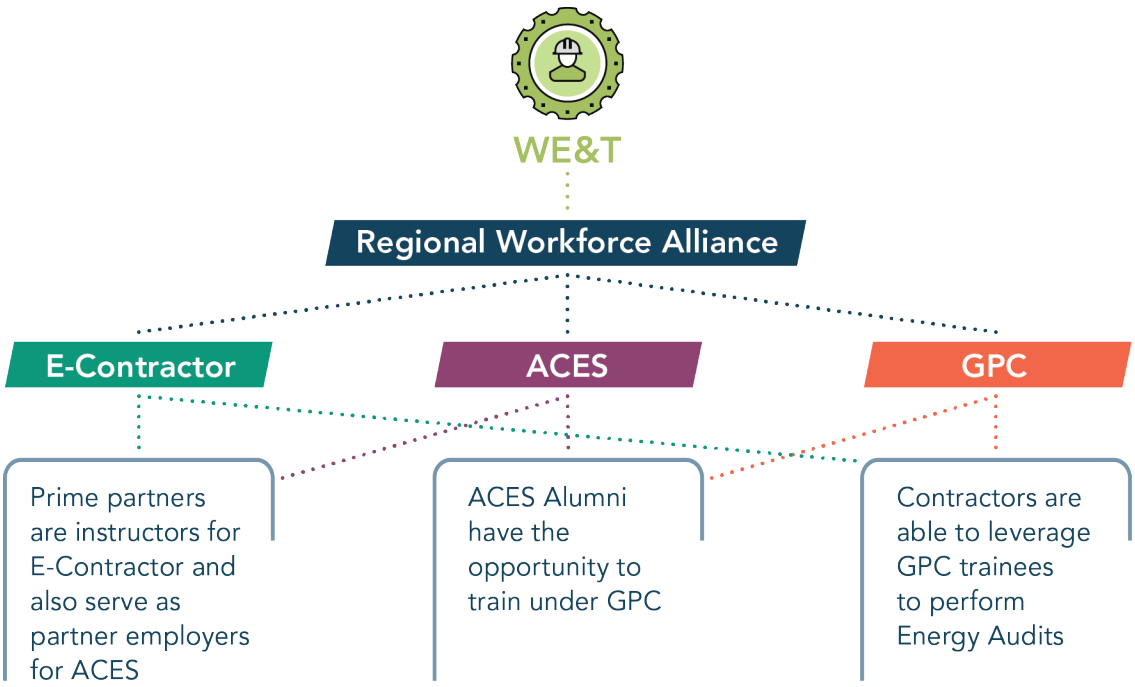
Sector-Specific Coordination

The prior program cycle focused on establishing and strengthening discrete programs for in-school youth to build out a pipeline, and on up-skilling contractors from disadvantaged communities to perform energy efficiency projects.

The new intervention strategies focus on both systems and program development, as well as individual-level interventions to EE education, training, and career development. The intent is to address demand and supply-side interventions to train and place workers and contractors in the

EE sector. Since training alone will not create job opportunities for disadvantaged populations, the SoCalREN strategies involve a multi-level approach.

Figure 57. Cross-Sector Coordination



The SoCalREN Agriculture WE&T program is a new program to increase the size, skills, and diversity of the Ag EE labor force in the Southern California region to ensure effective implementation of the state's EE goals

Existing Program

The following Program Card provides details on the existing SoCalREN WE&T Program.

Program Card 8. Workforce Education and Training

Program Name: Workforce Education & Training Program	Program ID: **SCR-WET-D1**
Portfolio Segments: Market Support & Equity	**Implementation Party:** Third-Party
Applicable Sector: WE&T	**Market Sub-Sectors:** N/A
Sector Challenge: Lack of DAC/HTR contractors and local workers with green building knowledge, ACE careers accessibility and skilled labor.	**Sector Opportunity:** Increased DAC/HTR capacity and accessibility in green building technologies/EE projects, ACE career pathways through training and supportive services.
Known Equity Concerns in the Selected Markets: Quality EE training, technical assistance, supportive services	**Proposed Solutions to Equity Concerns:** Access to training leading to career pipeline; assistance in public procurement, including certifications, RFPs, etc.; supportive services

Program Description: SoCalREN's existing WE&T program will be separated into four stand-alone programs starting in 2024. Please see the applicable program details in the subsequent sections below.

- ACES Pathway Program
- GPC Program
- E-Contractor Program.
- WE&T HUB

Intervention Strategy: N/A	**Program Value Metrics:**
High-level description of delivery workforce including necessary scale and risk: N/A	
Market Actors necessary for success: Utilities, Employers/Industry, Public Agencies	
Solicitation Strategy: Third-Party	**Transition Plan:** Not applicable
Expected Program Life: 2024–Ongoing	**Short-Term Plan:** N/A
Cost-Effectiveness: N/A	**Long-Term Outlook:** N/A
Proposed 2024–2027 Budgets: N/A	**Anticipated directional and scale changes in budget for years 2028–2031:** N/A

New: ACES Pathway Program

Market Segment: *Equity*

Program Description

The Architecture Construction Engineering Students (ACES) Pathway Program provides K-12 and college students with direct alignment to community colleges. ACES provides students with a head start on Science, Technology, Engineering, Arts, and Math (STEAM) pathways to clean energy careers through tuition-free college enrollment that enables students to take engineering, architecture, and construction-related coursework that provides transferable college credit to the California State University and University of California systems.

ACES is actively integrating youth STEAM education and career technical education into its workforce model to help cultivate the skilled workforce necessary to operate and maintain energy efficiency investments in the public sector.

The transition from training to employment is critically important to reinforce academic pathways to clean energy career jobs. Disadvantaged youth who complete two classes each academic year are provided a paid summer internship.

Program Rationale

Market Barriers Addressed

Table 127. ACES Program Barriers and Interventions

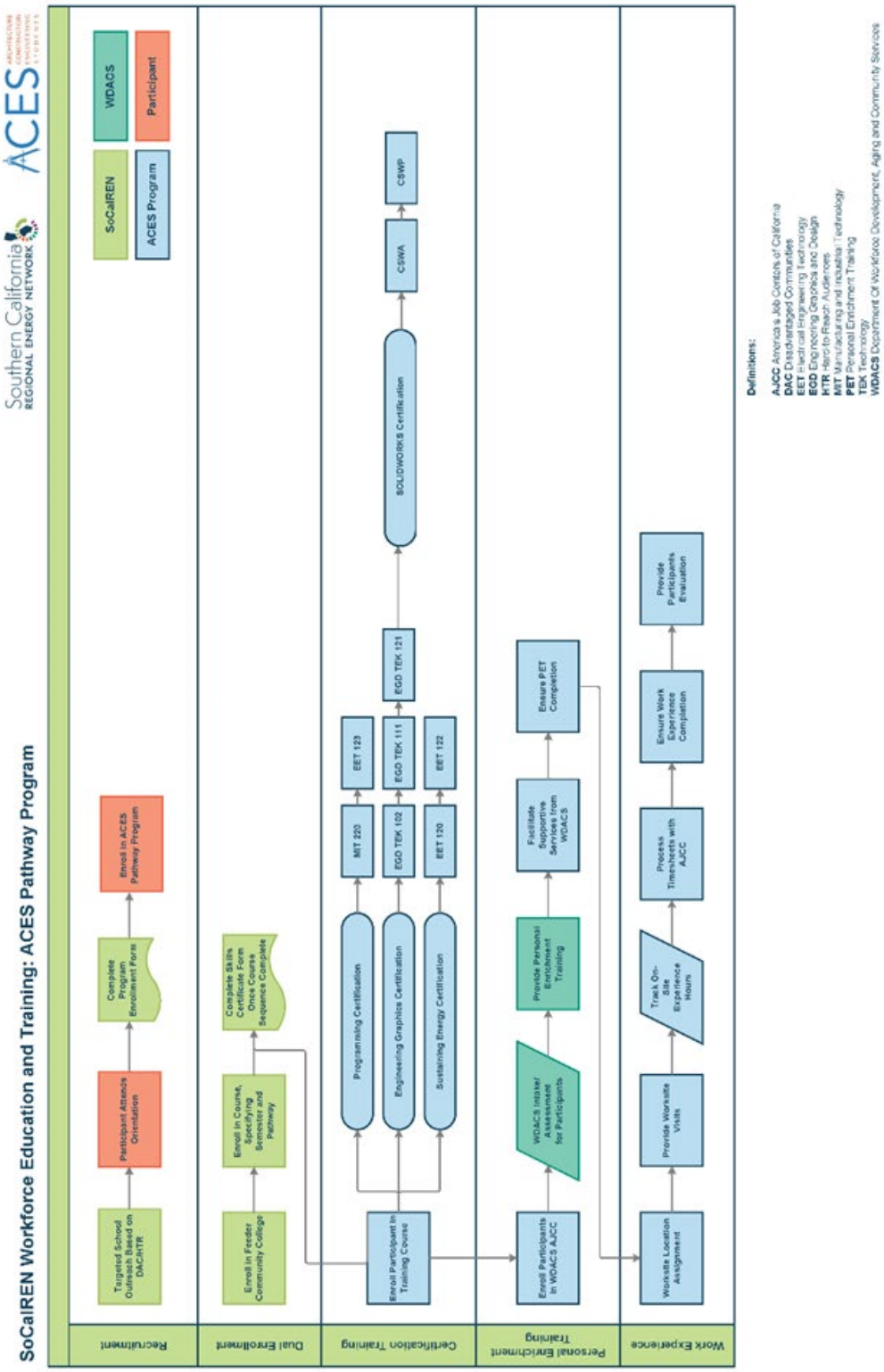
Barriers	Interventions
Accessibility for youth of color to high road ACE careers	Outreach/recruitment will be done each semester in coordination with the high schools and community colleges.
Local hiring standards for DAC/HTR professional workers	Merge ecosystem of partner employers by identifying entry level opportunities in ACE high road careers
Limited entry-level ACE opportunities	Maintain strong employer relationships and seek out new prospective employers each year. Offer paid industry accepted certificate training every summer.
Accessibility to technology	Participants enrolled in the program will have the opportunity to borrow a laptop and access to hotspots to complete skills certification training.
Transportation	Participants will receive bus pass or gas reimbursement to travel to and from training site.
Clothing	Participant will receive clothing stipend for training/work site attire.

Target Market

The ACES Program will perform direct outreach to feeder schools in service territory with a concentration of Title I schools and those located in DAC/HTR ZIP codes. The focus of the program is to also provide STEAM career pathways to schools not currently offering curriculum to expose students to the clean energy sector.

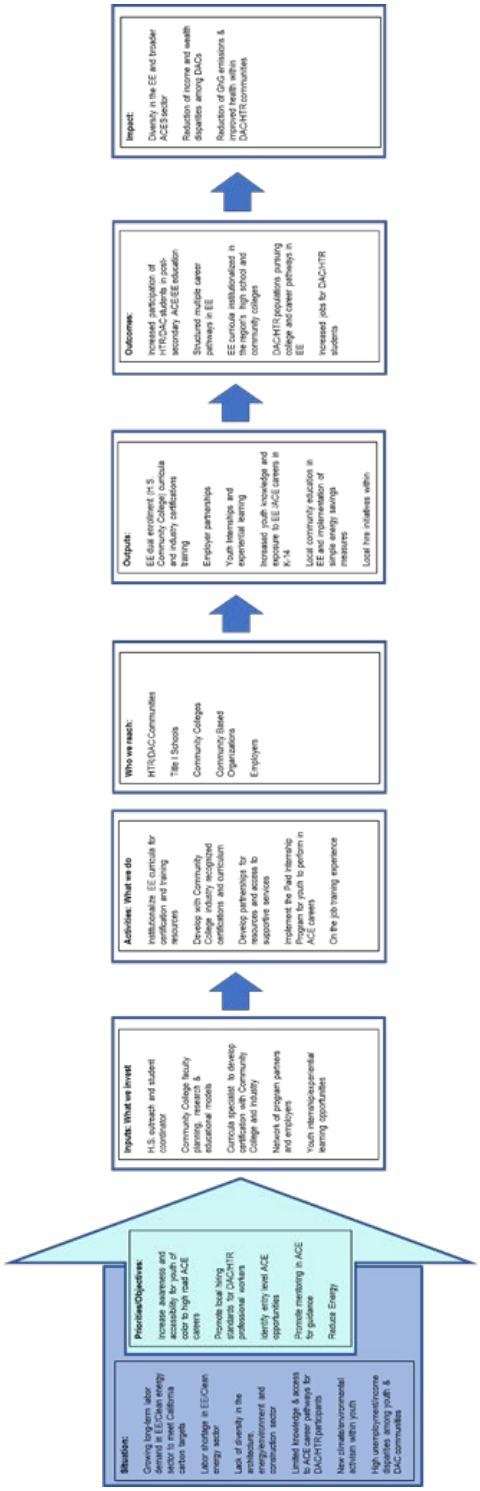
Program Process

Figure 58. ACES Program Process



Logic Model

Figure 59. ACES Program Logic Model



Program Budget

Table 128. ACES Program Four-Year Budget

Category	2024	2025	2026	2027
Administration	$30,000	$30,000	$33,000	$33,000
Marketing	$30,000	$30,000	$33,000	$33,000
DINI	$440,000	$440,000	$484,000	$484,000
Incentive	$0	$0	$0	$0
Total	$500,000	$500,000	$550,000	$550,000

Program Metrics and Targets

- Institutionalize EE curricula for certification and training resources
- Develop with Community College, industry recognized certifications and curriculum
- Develop partnerships for resources and access to supportive services
- Implement the Summer Paid Internship Program for 50 youth to perform in ACE careers
- Conduct 1 training session per school/semester

Quantitative Program Targets

Table 129. ACES Program Metrics

Metric	Data Collected	Four-Year Total Target
Marketing	Number of ACES website page visits; Number of Interest forms completed.	
Direct Implementation	Number of enrolled participants in ACES; Number of enrolled participants in America's Job Center of California (AJCC) – WDACS	13 training sites, 1,000 student participants in ACES
Training	Number of participants who completed orientation session; Number of participants enrolled in PET; Number of participants completing PET; Number of participants enrolled in community college training courses; Number of participants enrolled in SOLIDWORKS Industry certification; Number of participants obtaining skills certification; Number of participants obtaining SOLIDOWORKS Industry Certification	2 certifications per student
Supportive Services	Number of participants receiving supportive services per category.	
Paid Internship	Number of participants who completed 160-hour work experience.	200

REN Program Compliance

The program is designed to increase the diversity of the utility/EE sector by overcoming the barriers/challenges connecting workers and contractors from HTR/DAC to EE training, jobs and business opportunities.

Program Partners

- *BuildLACCD*
- *Boyle Heights YouthBuild*
- *Balfour Beatty*
- *CALO YouthBuild*
- *City of Montebello (Engineering Dept.)*
- *City of Huntington Park (Public Works Dept.)*
- *CNC Engineering*
- *Englekirk*
- *Expo Park*
- *Fluor*
- *Gonzalez Goodale*
- *HubCities*
- *IMEG*
- *Kemp Bros.*
- *LAUSD*
- *LINXS*
- *Parsons*
- *PCL*
- *SKANSKA*
- *West San Gabriel Valley AJCC*

New: Agricultural WE&T Program

Market Segment: Market Support

Program Description

The goal of the Southern California Regional Energy Network's (SoCalREN) Agriculture Sector is to identify and implement cost-effective energy efficiency projects that yield electricity and gas savings for disadvantaged, rural and underserved agriculture communities/customers across the region. To achieve this goal, the SoCalREN Agriculture Energy Efficiency Workforce, Education and Training (Ag-WE&T) aims to achieve the following objectives:

- Expand the implementation of cost-effective energy efficiency projects;
- Build the trade ally network of qualified Ag service providers;
- Train Ag trade allies on how to "sell" an energy efficiency product in the various Ag sectors;
- Make energy efficiency expertise accessible and available; and
- Integrate energy efficiency as a standard business practice for Agriculture customers.

SoCalREN envisions a reliable, diverse, and highly skilled workforce that is able to deliver high-quality Agricultural EE services to all segments of the Southern California ratepayer community as a result of a comprehensive regional and effective workforce education and training infrastructure.

SoCalREN's overarching goal for workforce education and training (WE&T) is to increase the size, skills, and diversity of the Ag EE labor force in the Southern California region to ensure effective implementation of the state's EE goals. This SoCalREN goal aligns with and leverages public sector economic development resources and capacities to maximize two of the inclusion goals and policies of the California Public Utilities Commission (CPUC):

- General Order (DO) 156 – a supplier diversity ruling that requires a 25 percent disadvantaged business enterprise/women business enterprise/disabled-veteran business enterprise (DBE/WBE/DVBE) contracting goal for all expenditures,
- The 2011 Energy Efficiency Strategic Plan goal for "minority, low-income, and disadvantaged communities [to] fully participate in training and education programs at all levels of the DSM and EE industry."

SoCalREN will leverage its public-sector economic development knowledge, networks, and capacities to achieve the following specific objectives:

- Increase Southern California regional workforce and training infrastructure/partnerships (community-based training organizations, K–12 and higher educational institutions), apprenticeship programs, and workforce investment boards) by 25 percent to increase the quantity and skills of entry-level and incumbent workers at all levels of the demand-side management (DSM) and EE industry.
- Increase entry-level skills training and job opportunities for disadvantaged workers by 50%.
- Develop a regional energy management training program to increase the operational efficiencies of retrofitted projects.

- Standardize local contracting policies and protocols into public bid/solicitation documents across the SoCalREN region to increase capacity and the participation of diverse, small, and disabled veteran–owned businesses in EE work by 25 percent.
- Establish regular coordination with Statewide WE&T efforts to leverage efforts with existing ratepayer funded training centers and programs.
- Establish a SoCalREN online data and reporting system to collect, monitor, and report workforce and contracting outcomes.
- Promotion of the benefits of EE upgrades beyond utility cost savings considering improvement and building long-term relationships with the Ag customer as part of the education process. This includes general AG training for Ag customers, Pump contractor training, Ag energy management, Ag water management, GHG reduction strategies, Ag emerging technologies, etc.

This will be coordinated with the overall SoCalREN WE&T program which provides the following training:

- LA County SoCalREN Intro.
- Climate Policy
- Sustainable Green Buildings Technologies
- How to Do Business with SCE and SoCalGas
- Title 24 Codes and Regulations
- Estimating Energy Savings
- Project Estimating and Incentives
- Virtual Walk-Through
- Bonding Insurance/Access to Capital
- Estimating
- Project Scheduling
- Principles of Project Management

Program Rationale

SoCalREN believes that the small and medium Ag customers in rural, disadvantaged communities will not be the primary focus of SCE and SoCalGas' third-party programs due to TRC constraints of greater than 1.0 and cost to serve. Due to the reduced avoided costs in 2024, SCE's and SoCalGas' third-party program will have difficulty achieving their required TRC of 1.0 which will make it even harder for them to serve small and medium, rural, disadvantaged communities.

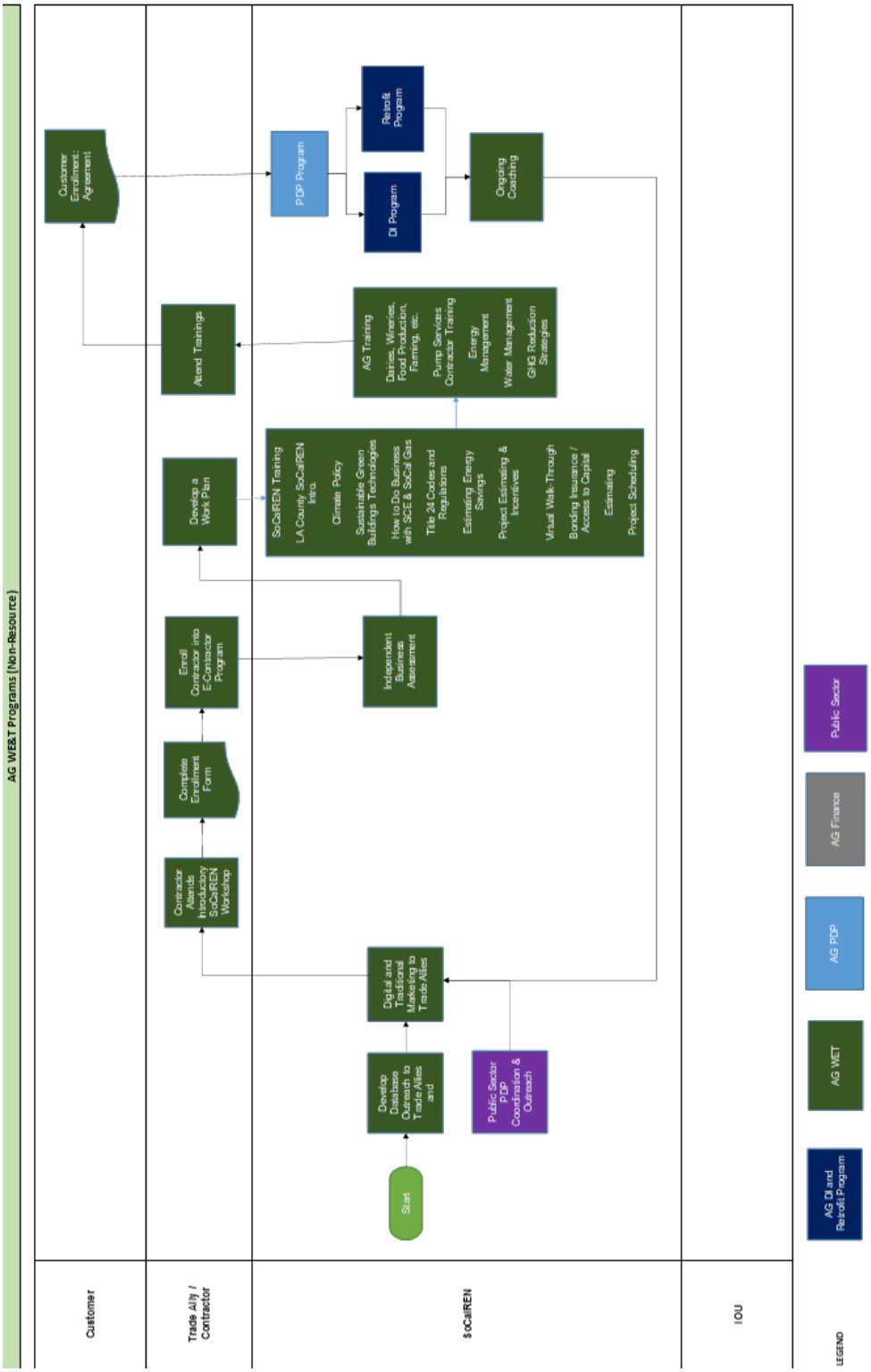
Market Barriers Addressed

Target Market

Priority marketing will be for Small to Medium Ag Customers (<250 kW) including Disadvantaged Communities (DAC) and Hard to Reach (HTR) Ag customers. This includes Small Business Customers, Severely Disadvantaged Communities (SDACs), and Socially Disadvantaged Farmers and Ranchers. However, measures developed and influenced through custom approaches described in Intervention 2, 3, and 4 can also be applied through this program if the measure can more cost effectively be installed through the Deemed Direct Install approach.

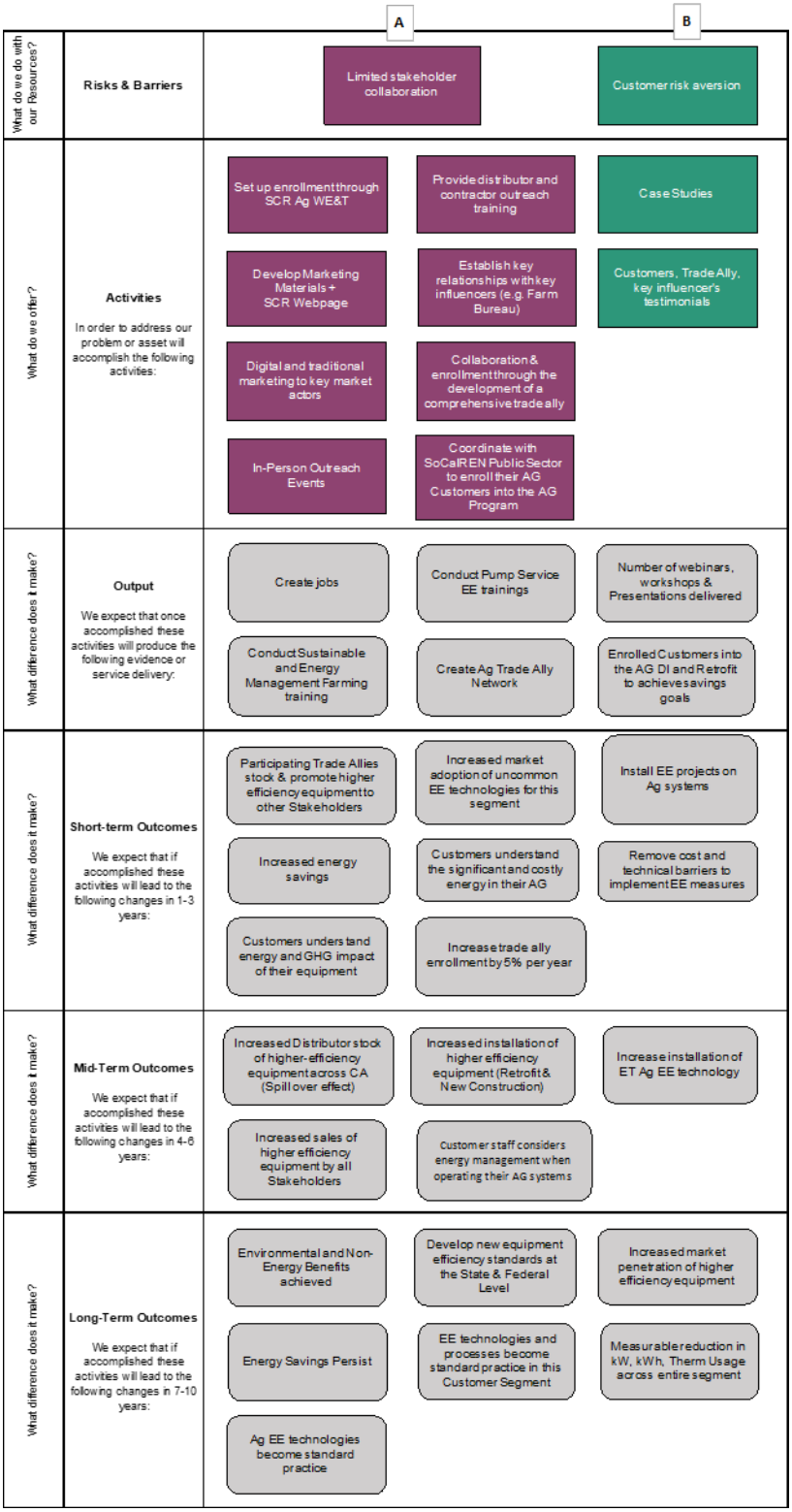
Program Process

Figure 60. Ag WE&T Program Process



Logic Model

Figure 61. Ag WE&T Logic Model



Program Budget

Table 130. Ag WE&T Program Budget

Program Name	2024	2025	2026	2027
Ag WE&T	$500,000	$580,000	$608,000	$650,000

Program Metrics and Targets

Quantitative Program Targets

Table 131. Ag WE&T Program Metrics

Common Problem	Final Common Metric or Indicator	Metric or Indicator
Expanding WE&T Reach via Collaborations	Number of partnerships by sector (complete "partnership" defined by curriculum developed jointly + agreement)	Metric
Penetration of training	Number of participants by sector Percent of participation relative to eligible target population for curriculum	Metric Metric
Diversity of participants	Percent of disadvantaged participants trained (ID by ZIP code)	Metric
	Percent of incentive dollars spent on measures verified to have been installed by contractors with a demonstrated commitment to provide career pathways to disadvantaged workers	Metric
	Number of energy efficiency projects related to the WE&T training on which a participant has been employed for 12 months after receiving the training	Indicator

REN Program Compliance

Neither utilities nor CCA program administrators will intend to have a workforce education and training Agricultural program that will expand the knowledge and adoption of energy efficient measures to disadvantaged, small and medium rural and underserved agriculture communities.

Program Partners

Trade allies, SoCalREN Public Sector, SoCalREN WE&T and Finance, equipment manufacturers, distributors, wholesalers, and contractors

Program Coordination

Coordination will occur with other such as SCE's third-party program, SCE, SCG, SoCalREN's Public Sector, SoCalREN's WE&T and Finance Programs, Trade Associations, Emerging Technology, Trade Allies, etc.

New: E-Contractor Training Program

Market Segment: Market Support

Program Description and Objective

The E-Contractor Training Program is designed to prepare small and diverse contractors to compete for energy efficiency projects and increase their capacity. The program is designed to prepare small and diverse contractors to compete for and perform energy efficiency retrofit projects throughout SoCal. 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 EE 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 and Construction Administration
- Project Labor Agreements and Joint Venture
- Marketing/Networking
- GPRO Certification Training
- Fundamentals of Building Green

Program Rationale

Market Barriers Addressed

Table 132. E-Contractor Program Barriers and Interventions

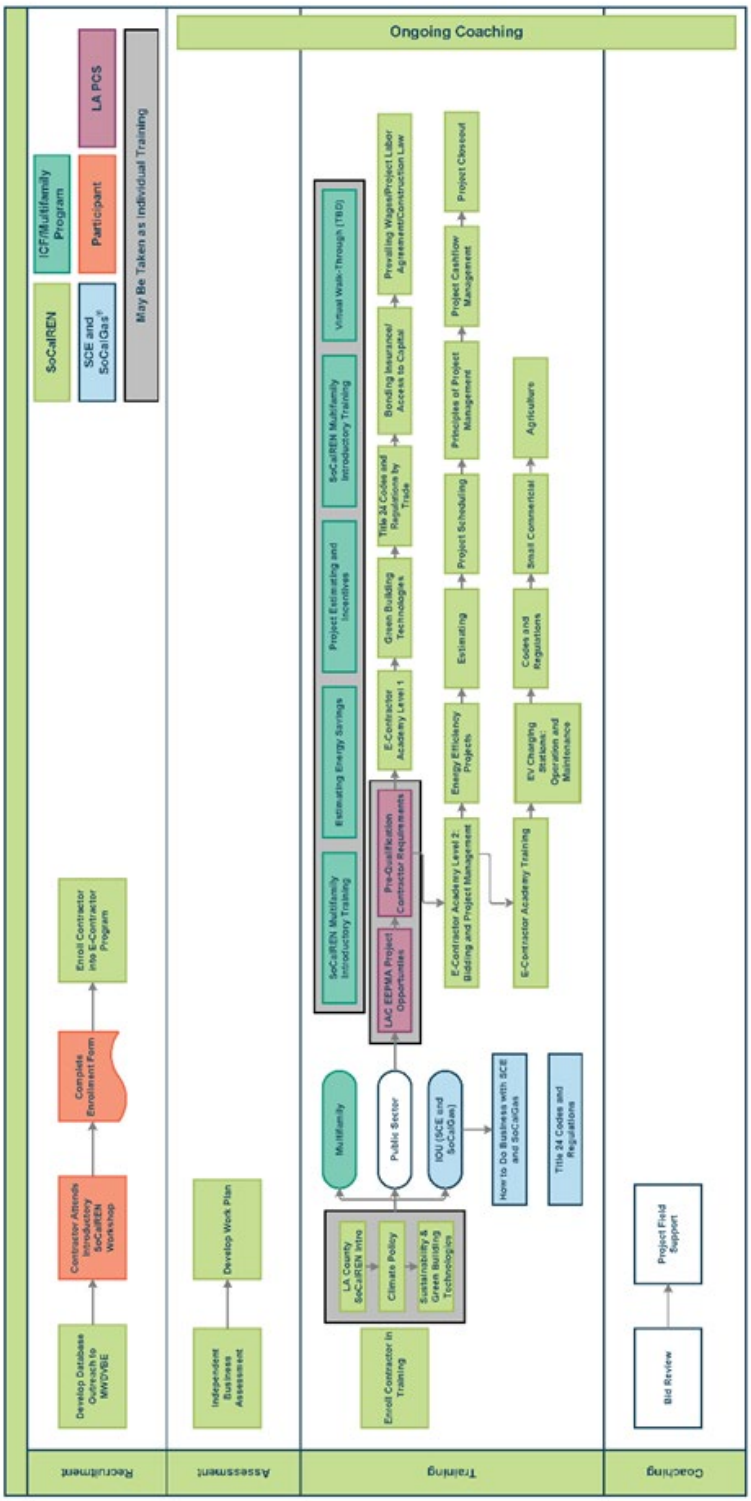
Barriers	Interventions
Lack of small, minority contractors with green building knowledge and skills	Host workshops to increase MWDVBEs basic information and knowledge
Access to Capital, bonding and insurance	One-on-One technical assistance and workshops to increase contractors' access to capital, bonding and insurance.
Access to green building technologies and equipment/materials	Participates will receive training options, certificated programs, access to construction technologies, and equipment/materials.
Challenging public procurement policies and requirements	One-on-One technical assistance and RFP development

Target Market

The E-Contractor programs targets small and diverse contractors in DAC and HTR areas by providing the assistance and resources needed to perform emerging clean energy project opportunities in the public and private sector.

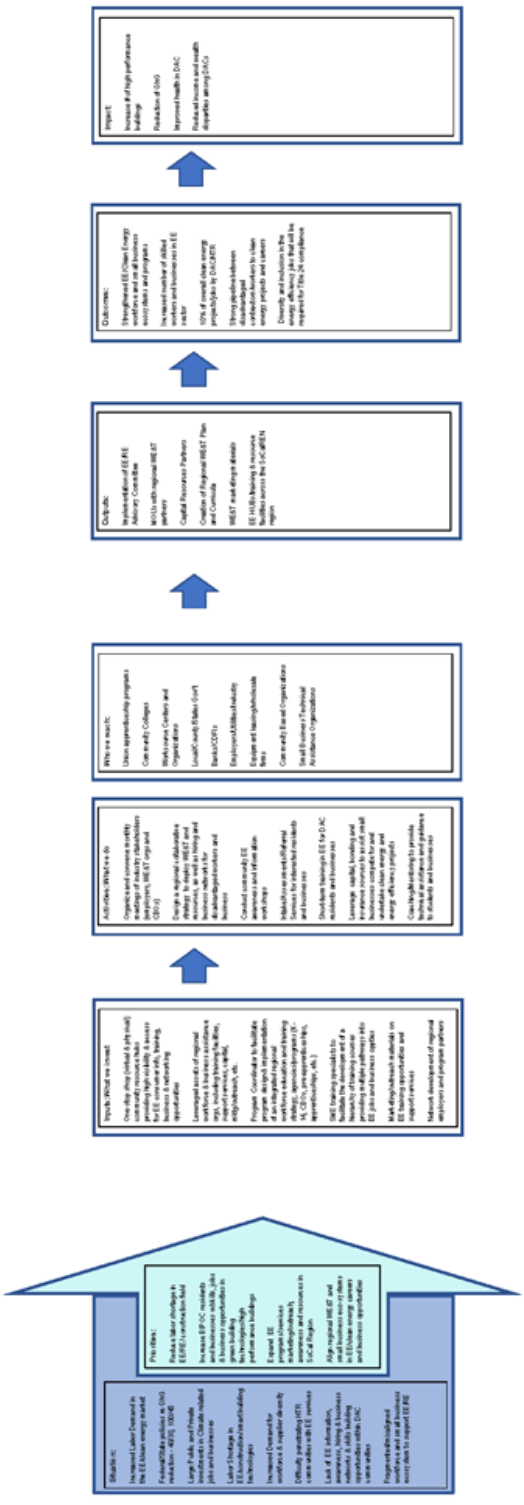
Program Process

Figure 62. E-Contractor Program Process



Logic Model

Figure 63. E-Contractor Program Logic Model



Program Budget

Table 133. E-Contractor Program Four-Year Budget

Category	2024	2025	2026	2027
Administration	$30,000	$30,000	$30,000	$30,000
Marketing	$30,000	$30,000	$30,000	$30,000
DINI	$440,000	$440,000	$440,000	$440,000
Incentive	$0	$0	$0	$0
Total	$500,000	$500,000	$500,000	$500,000

Program Metrics and Targets

- Conduct quarterly "Doing Business with REN" workshops to increase MWDBEs basic information about CPUC and SoCalREN and IOU EE programs
- Conduct bi-annual 7–8-week training series on green building technologies, marketing, public procurement processes and utility rebate programs for multi-family and public sector programs
- Provide 10 hours of coaching and assistance to acquire public and private sector EE projects
- Conduct bi-annual partnership meetings and contractor network events
- Conduct bi-annual public sector workshops and technical assistance to enhance supplier diversity/procurement systems

Quantitative Program Targets

Table 134. E-Contractor Program Metrics

Metric	Data Collected	Four-Year Total Target
Marketing	• Number of E-Contractor website page visits • Number of interest forms completed	• Indicator
Direct Implementation	• Number of enrolled participants	• 400 participants trained
Training	• Number of technical assistance hours • Number of industry certifications completed	• 16 quarterly workshops • 8 bi-annual academies • 8 bi-annual partnership meetings • 8 bi-annual public sector enrolled agencies workshops
Technical Assistance	• Number of business certification completed • Number of pre-qualified contractors • Number of bids submitted • Number of contractors with increased bonding capacity	• 200 contractors coached

REN Program Compliance

The program is designed to increase the diversity of the utility/EE sector by overcoming the barriers/challenges connecting workers and contractors from HTR/DAC to EE training, jobs, and business opportunities.

Program Partners

he E-Contractor Program will leverage sector partnerships withing Public and Residential as well as IOUs to coordinate project and training opportunities.

New: Green Path Careers Program

Market Segment: *Equity*

Program Description

The Green Path Careers (GPC) Program provides at-risk 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 Workforce Development, Aging and Community Services (WDACS).

The program is designed to address the barriers at-risk youth and adults face when moving into the growing workforce, while also addressing the EE workforce expansion needs. GPC aims to assist at-risk 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 to begin their EE career.

The Green Path Careers program provides a multi-step approach that assists a participant in entering the Energy Efficiency workforce from the initial recruitment phase to becoming Job/Career Ready.

Program Rationale

Market Barriers Addressed

Table 135. GPC Program Barriers and Interventions

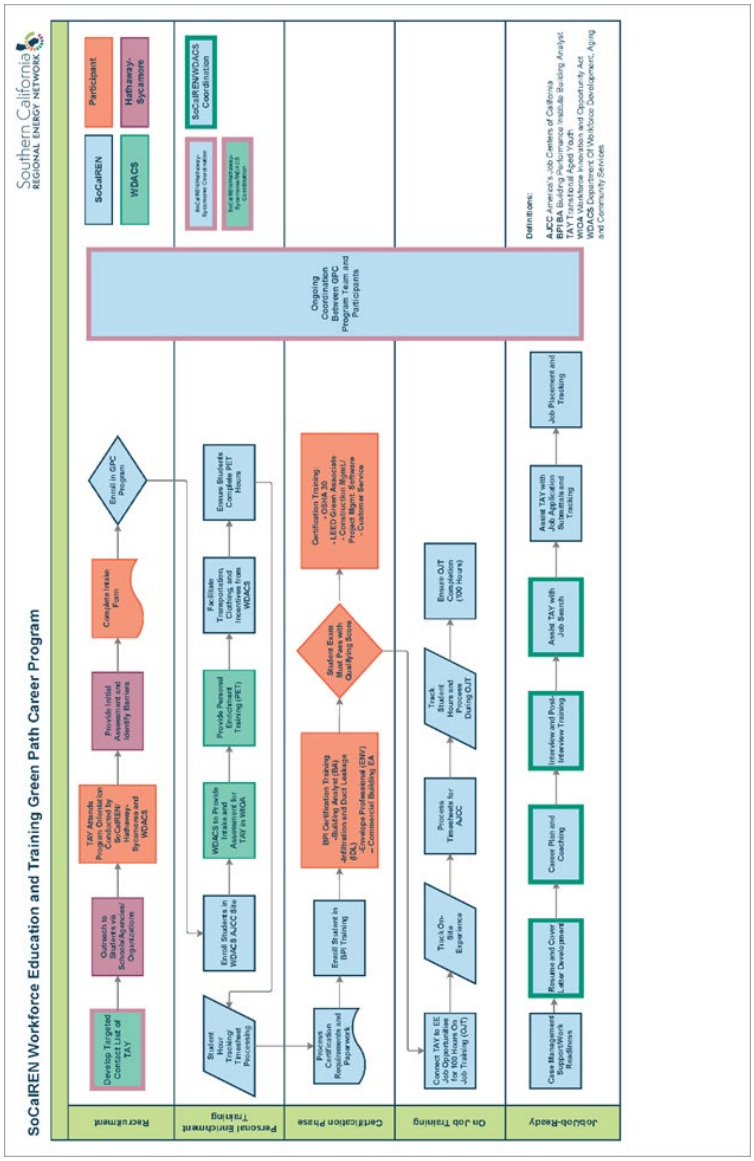
Barriers	Interventions
Accessibility to technology	Participants enrolled in the program will receive a laptop and access to hotspots to complete online certification training. Participants will also have access to a computer lab via one of our partners.
Transportation	Participants will receive bus pass or gas reimbursement to travel to and from training site.
Clothing	Participant will receive clothing stipend for training/work site attire.

Target Market

The program targets at-risk youth and adults who are not pursuing higher education by attending college. The program will offer multi-level certification training that will lead to a career pipeline in the energy efficiency sector.

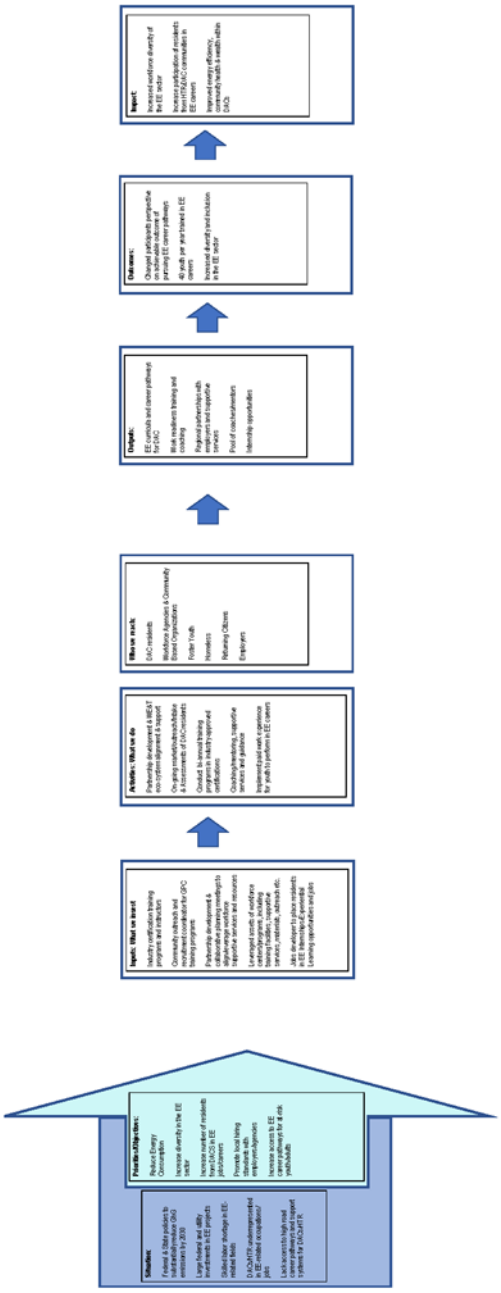
Program Process

Figure 64. GPC Program Process



Logic Model

Figure 65. GPC Program Logic Model



Program Budget

Table 136. GPC Program Four-Year Budget

Category	2024	2025	2026	2027
Administration	$51,000	$54,000	$54,000	$54,000
Marketing	$51,000	$54,000	$54,000	$54,000
DINI	$748,000	$792,000	$792,000	$792,000
Incentive	$0	$0	$0	$0
Total	$850,000	$900,000	$900,000	$900,000

Program Metrics and Targets

- Partnership development and WE&T eco-system alignment and support
- On-going market/outreach/Intake and Assessments of DAC residents
- Conduct bi-annual training programs in industry-approved certifications
- Coaching/mentoring, supportive services and guidance
- Implement paid work experience for 40 youth to perform in EE careers

Quantitative Program Targets

Table 137. GPC Program Metrics

Metric	Data Collected	Four-Year Total Target
Marketing	Number of GPC website page visits; Number of Interest forms completed.	
Direct Implementation	Number of enrolled participants in GPC; Number of enrolled participants in America's Job Center of California (AJCC)- WDACS.	
Training	Number of participants who completed program orientation training; Number of participants enrolled in PET; Number of participants completing PET; Number of participants enrolled in BPI trainings; Number of participants obtaining BPI certification.	360 participants trained
Supportive Services	Number of participants receiving supportive services per category.	
Employment	Number of participants who completed 120-hour work experience; Number of participants who completed On the Job Training (OJT); Number of Job placements.	160 job placements

REN Program Compliance

The program is designed to increase the diversity of the utility/EE sector by overcoming the barriers/challenges connecting workers and contractors from HTR/DAC to EE training, jobs, and business opportunities.

Program Partners

The Green Path Careers Program will leverage sector partnerships to serve as employer partners and to leverage funding within WDACS/AJCCs for paid work experience and internships.

New: WE&T Opportunity Hub

Market Segment: Market Support

Program Description

The WE&T Opportunity Hub is a one-stop shop (virtual and physical) community resource providing high visibility and access to energy efficiency (EE) consumer information, training, and networking opportunities. This initiative will leverage the assets of regional workforce and business assistance organizations, which include training facilities, supportive services, capital, marketing, and outreach.

This program is designed to address the growing labor shortage in the EE/RE construction field by increasing the number of Black Indigenous People of Color (BIPOC) residents with skills, jobs, and business opportunities in green building/technologies/high performance buildings. The WE&T Opportunity Hub is also intended to regionally align the WE&T workforce and small business eco-systems in EE/Clean energy careers and business opportunities. This will include implementing and deploying a regional WE&T strategy of resources as well as increasing business networks for disadvantaged workers and businesses.

The WE&T Opportunity Hub provides a multistep approach that assists participants and businesses in entering or continuing in the energy efficiency workforce from the initial recruitment phase to becoming job, career, and bid ready.

Program Rationale

Market Barriers Addressed

Table 138. WE&T Opportunity Hub Barriers and Interventions

Barriers	Interventions
Support Services	Participants enrolled in the program will receive access to support services from partners such as technology, transportation, or clothing.
Access to Capital, bonding and Insurance	Participants enrolled in the program will receive help with capital, bonding, and insurance. The program goal is to partner with banks, CDFIs, and other associations to assist with the barrier.
EE/RE Outreach to DAC	Participants enrolled in the program will be informed through outreach measures set in place.
Lack of Peer Exchange	The development of a shared online platform/brokerage system for skilled workers and contractors to identify jobs and contracting opportunities.
Lack of EE Information	Participants in the program will receive ongoing training in new building codes, construction materials and equipment, project management software and estimating technologies, labor standards, construction administration, and project delivery methods (for example, P3s).

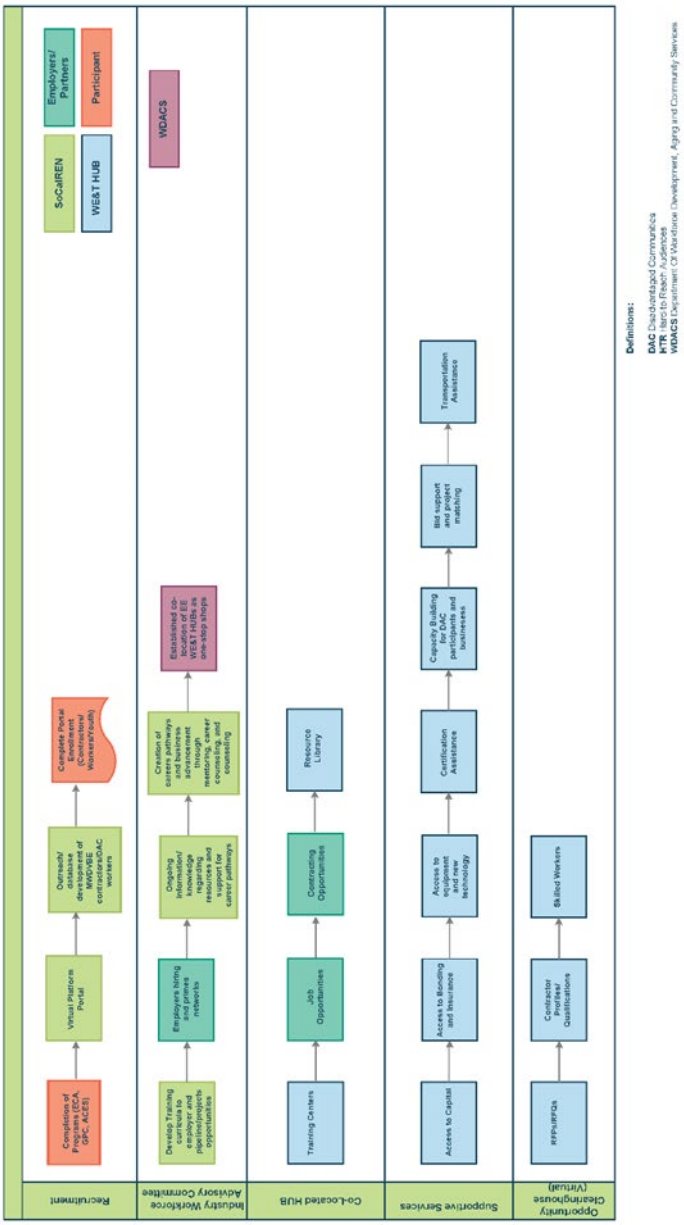
Fragmented workforce ecosystem	ECC entered into partnership alliance agreements with industry, community, and institutional partners to collectively address barriers to entry and growth and define strategies to maximize economic opportunity for communities of color.

Target Market

The program targets HTR and DAC in the Southern California Region in the quest to reducing the labor shortage in EE, RE and construction fields. The program will offer multi-level training and services that will lead a career pipeline in the energy efficiency sector. The program will be offered in collaboration with members of the WE&T Advisory Committee.

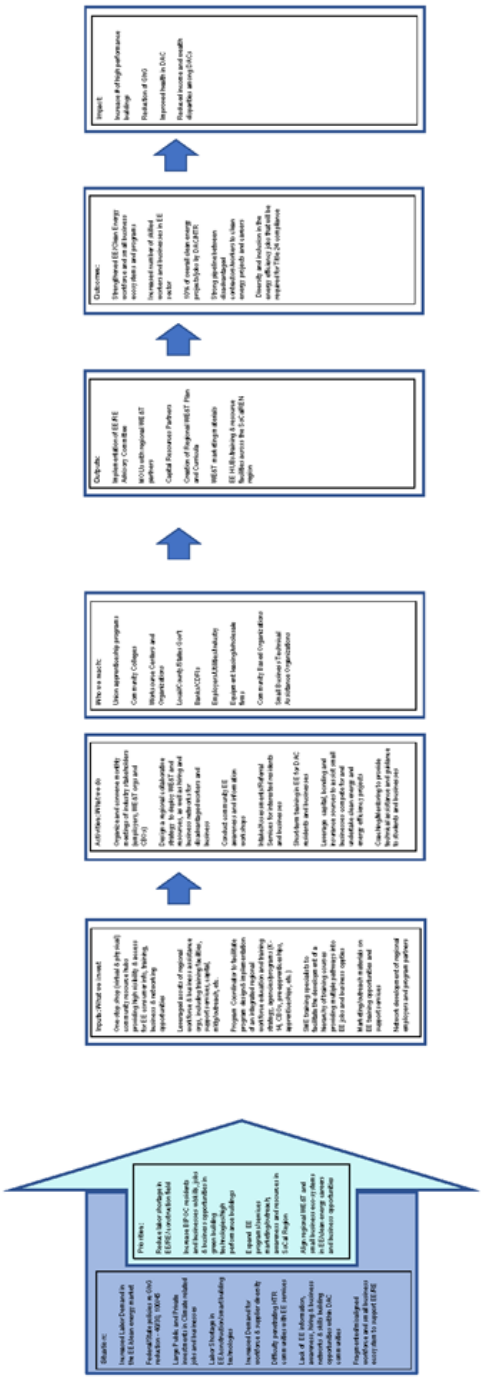
Program Process

Figure 66. WE&T Hub Program Process



Logic Model

Figure 67. WE&T Hub Program Logic Model



Program Budget

Table 139. WE&T Hub Program Four-Year Budget

Category	2024	2025	2026	2027
Administration	$33,600	$36,600	$37,200	$37,800
Marketing	$33,600	$36,600	$37,200	$37,800
DINI	$492,800	$536,800	$545,600	$554,400
Incentive	$0	$0	$0	$0
Total	$560,000	$610,000	$620,000	$630,000

Program Metrics and Targets

- Organize and convene monthly meetings of industry stakeholders (employers, WE&T orgs and CBOs)
- Design a regional collaborative strategy to deploy WE&T and resources, as well as hiring and business networks for disadvantaged workers and business
- Conduct two community EE awareness and information workshops
- Provide Short-term training in EE for DAC residents and businesses
- Provide coaching/Mentoring to provide technical assistance and guidance to students and businesses
- Host eight (8) community awareness workshops as a resource for participants from other programs

Quantitative Program Targets

Table 140. WE&T Hub Program Metrics

Metric	Data Collected
Marketing	• Number of website page visits • Number of Interest forms completed
Direct Implementation	• Number of enrolled participants in WE&T Hub • Number of enrolled participants in America's Job Center of California
Training	• Number of participants receiving current WE&T Program offerings
Supportive Services	• Number of participants receiving supportive services per category
Employment	• Number of jobs placements • Number of bids submitted • Number of awarded projects • Number of completed projects

REN Program Compliance

The program is designed to increase the diversity of the utility/EE sector by overcoming the barriers/challenges connecting workers and contractors from HTR/DAC to EE training, jobs, and business opportunities.

Program Partners

Regional Clean Energy Workforce and Contractor Development Alliance members

Program Coordination

The **Regional Clean Energy Workforce and Contractor Development Alliance** convenes bi-monthly 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. This includes workforce, education, and training programs for in-and-out of school youth, community college students, unemployed and underemployed individuals, incumbent workers and contractors in AEC professional services, construction and maintenance and operations. This regional alliance will address the following:

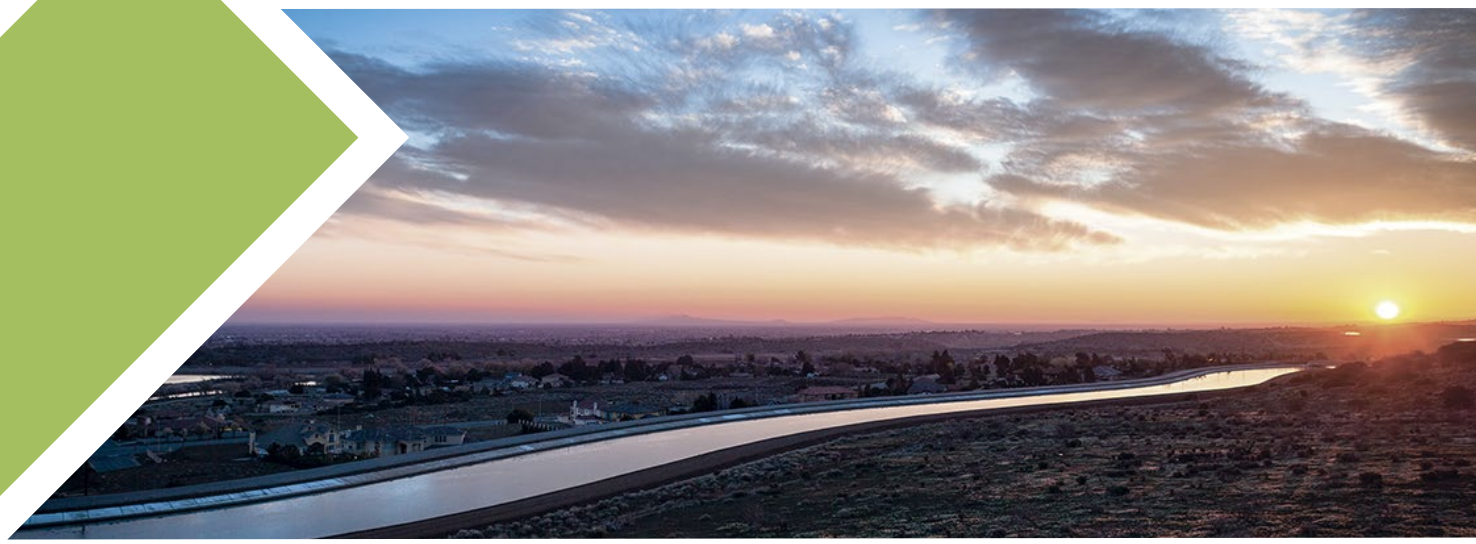
- Forecast labor market demand and energy efficiency jobs and contracting opportunities
- Identification of occupations and skills requirements for workers performing energy efficiency work
- Development of curricula and workforce development pathways for youth, disadvantaged adults, and incumbent workers

LA Regional Clean Energy Workforce and Contractor Development Alliance Member Roster*

- California Hispanic Chamber of Commerce
- California State University, Long Beach
- Institute for Innovation and Entrepreneurship
- Conservation Corps
- Crenshaw Chamber of Commerce
- East Los Angeles Community College
- Engineering and Technologies Department
- Greater Los Angeles African American Chamber of Commerce
- HubCities Consortium
- LADWP
- LA Community College District
- Los Angeles County Department of Consumer and Business Affairs
- Office of Small Business
- Los Angeles County WDACS (America's Job Centers of California)
- LA Local Development Corporation
- National Association for the Advancement of Colored People of Inglewood/South Bay Chapter
- National Association of Minority Contractors-Southern California
- National Electrical Contractors Association (NECA)
- SoCalREN/Los Angeles County
- Southern California Edison
- Southern California Gas
- SOLIDWORKS/GoEngineer
- Swinerton Builders
- US Green Building Council-Los Angeles Chapter (USGBC-LA)
- YouthBuild

*Partial listing

- Development of a shared online platform/brokerage system for skilled workers and contractors to identify jobs and contracting opportunities
- Opportunities for targeted local workers or small contractors to participate in energy efficiency projects
- Training options, certificated programs, access to construction technologies, equipment/materials, and capital, bonding and insurance for small and diverse businesses
- Provide input to public agencies and institutions to help achieve local clean energy goals, such as the Los Angeles Community College Sustainability Vision 2040 Plan
- Resources such as training, expertise, and marketing strategies to achieve shared goals
- Marketing and outreach to maximize awareness via partner websites and social media
- Forum for sharing lessons learned and best practices
- Opportunities for joint initiatives



5. PORTFOLIO STRATEGIES

As SoCalREN continues to drive further energy savings through its proven market support and equity strategies, it has become clear that there remain gaps in resource acquisition program portfolios. As such, and as presented in earlier sections, SoCalREN has carefully designed a portfolio of gap-filling resource acquisition programs. These programs will leverage a combination of deemed, custom, and normalized metered energy consumption forecasting and quantification methods.

SoCalREN has built processes, protocols, and methodologies at the portfolio and program levels to ensure accurate forecasting and quantification of resource acquisition project energy savings. SoCalREN has further integrated marketplace innovations and market interventions strategies to further advance who can participate in energy efficiency programs and ensure historically underserved populations are included. finally, SoCalREN has adopted new strategies to accelerate the adoption of low-GWP refrigerants where feasible.

New Forecasting and Quantification Methods

SoCalREN's Resource Acquisition program portfolio is designed to leverage a combination of deemed, calculated, Strategic Energy Management (SEM), and NMEC energy savings validation protocols. Each program is designed to deliver energy savings and TSB leveraging strategies that are specific to the intended outcomes of those programs and to the customer sector where savings are being developed.

SoCalREN has developed comprehensive implementation plans for all the currently proposed programs, which include savings forecasting and quantification methods. Below are examples of how each of the three proposed methods are applied.

Normalized Metered Energy Consumption

Program Measurement & Verification Overview

Measurement & Verification (M&V) is the process of using measurements to reliably quantify savings from a resource savings project within a facility, a process, a building, or a building subsystem. In investor-owned utility (IOU) energy efficiency programs, the resource saved is typically energy (electric kWh or natural gas therms), demand (electric kW), or water (gallons). For simplicity, this plan focuses on energy savings, but the approach can be applied to any resource.

M&V is used to verify that an energy efficiency project is achieving its intended savings. Energy savings represent the absence of energy use and cannot be directly measured. Therefore, the M&V approach describes how savings are determined from measurements of energy use before and after implementation of a project, with appropriate adjustments made for changes in conditions. Such adjustments may be routine and expected, while others are nonroutine and unexpected, due to factors unrelated to the project.

SoCalREN M&V Plans conforms to CPUC guidance as codified in its Rulebook for Programs and Projects Based on Normalized Metered Energy Consumption (NMEC Rulebook 2.0), issued on January 7, 2020. To meet CPUC guidance, programs will be qualified as either "site-level" or "population-level" NMEC programs.

Projects will be sorted for NMEC platforms based on the following criteria:

- Project site (or qualifying submeter) energy use models that meet goodness-of-fit criteria will be treated as NMEC.
- When NMEC is not applicable, the measure will be treated as Deemed or Custom.

Site-Level NMEC Overview

The NMEC Rulebook 2.0 provides the following definition for site-level NMEC approaches:

- Savings are determined and claimed on a site-by-site basis.
- The method used to estimate savings is developed based on building and/or site-specific characteristics and reflect the unique drivers of savings at the site or project.
- The method may include adjustments for site-specific non-routine events (NREs) that occurred at the site during the baseline, reporting, or installation period.

Such programs will conduct site-level NMEC M&V following the framework in the International Performance Measurement and Verification Protocol (IPMVP), using the Option C-Whole Facility method. However, CPUC direction would take precedence over any variance to IPMVP methodology. All projects will be subject to CPUC review and dispositions.

This document covers the Program-level M&V. For each site-level NMEC project, a supplemental site-level M&V plan will be provided. These site-level M&V plans will include the site-specific details indicated above.

Methodology, Analytical Methods, and Software

The initial step in the NMEC approach is to create a mathematical model of the energy consumption at the project site (or submeter). This is a regression model, that relates energy consumption (the dependent variable), to one or more independent variables. The specifics of

the regression model are determined by observing actual data. In the case of the baseline model, this data comes from the historical performance of the site.

In most cases, weather (outdoor dry-bulb temperature) is the primary independent variable for site-level NMEC models. Secondary variables (such as day-of-week, occupancy rate, or other variables describing operational variation) are added if they demonstrate significant explanatory power on energy use. After collecting baseline data, one of three regression models is selected, .

- **Model #1:** Daily Energy and Daily Weather Data (with Optional Daily Secondary Variable): Single variable (or optional two variable) least squares linear regression will be performed using 365 data points.
- **Model #2:** Hourly Energy and Hourly Weather Data: Time of Week and Temperature (TOWT): Temperature regression with time-of-week as a proxy for occupancy. Separate models fit within temperature buckets each month. This allows analysis of sites with custom schedules.
- **Model #3:** Monthly Energy, Weather, and Secondary Variable Data: For sites that demonstrate strong correlations with a secondary variable, but have only monthly secondary data available, daily usage and weather data are totaled into monthly data. Two-variable least-squares linear regressions are performed using monthly data (minimum 12 data points).

NMEC modelling calculations will follow recognized CalTRACK 2.0 and LBNL NMEC procedures. These modelling calculations will have the following characteristics:

- Automated collection of utility AMI (or sub-meter) data, weather data import, and NMEC calculations compliant with NMEC guidance. Automation saves engineering effort.
- Scalable and not cost prohibitive for most customers and projects.
- Provision of monitoring capability (necessary for NMEC) and trigger notifications of potential sub-performance or NREs (persistence of savings).
- Calculation of statistical fitness metrics to validate appropriateness of a meter-based approach.

IPMVP Option and Measurement Boundary

IPMVP Option C, Whole Facility will be used for savings determination. Option C is applied because programs promote upgrade projects that encompass multiple energy efficiency measures (EEMs) and may have interactive effects.

SCE's revenue meters will be used to provide reference consumption data for electricity savings calculations. These meters account for all energy use of the facilities. If a facility is served by more than one meter, then all EEMs must be properly attributed to the meter that tracks the associated load. Alternatively, meter-level consumption can be summed to the whole-building or site level so long as all meters are included that serve loads affected by the adopted EEMs. In rare cases, if a system submeter of appropriate accuracy is present, the submeter may be used for analysis.

Example: NMEC Regression and Normalization

Electricity is correlated with weather (and secondary variable if it demonstrates influence), using a least- squares linear regression model. Weather data takes the form of Heating Degree Days (HDD), and Cooling Degree Days (CDD). OpenEEMeter tools automatically defines HDD and CDD balance point temperatures that will provide the best correlation to the energy profile.

The typical mathematical form of the regression for Model #1 (defined above) follows:

$$\boldsymbol{kWh(daily) = A\,e \times CDD\,(daily) + Be \times Secondary\ Variable\,(daily) + Ce}$$

$$\boldsymbol{Therms\,(daily) = A\,g \times HDD\,(daily) + Bg \times Secondary\ Variable\,(daily) + Cg}$$

Where Ae, Be and Ce and Ag, Bg and Cg are the constants resulting from the electric and natural gas regressions, respectively. If there is no secondary variable, constants Be and Bg are zero. If there is electric heat (e.g., heat pumps), an HDD term is automatically added to the electric regression formula. Constants Ce and Cg are the base (non-temperature dependent) portion of consumption. The mathematical form for Model #3 is the same as that for #1 but uses monthly data. Model #2 (TOWT) uses hourly data.

Under this site based NMEC approach, new regression models will be created for each project, using metered data from that site. Models will not be carried over from site to site, avoiding the concern of varying projects with complex sizes.

The resulting regression formula is then applied to the most recent typical year weather data for the appropriate climate zone to calculate baseline energy use over a normal weather year. This is the normalized baseline.

Adjustments for COVID-19

To account for the impacts of COVID-19 on energy consumption, a routine adjustment to gross savings will be used to ensure savings claims are not over or underestimated. Methods to perform this adjustment will be reviewed before implementation. Any adjustment to project on account of COVID-19 shall be subject to and in compliance with CPUC approval.

The most straightforward method of adjustment for site-level NMEC will be to adjust the COVID-19-impacted baseline period data associated with a project to reflect expected future site behavior more accurately. This adjustment could take the form of moving the baseline data collection window to look at a period unaffected by COVID-19 (e.g., 12 months prior to February 2020). More elaborate adjustments to the baseline models could also be made based on the site behavior as observed during the implementation period or reporting period.

The CalTRACK 2.0 methodology will be applied in an identical fashion to both the treatment and the comparison group. The 12-month baseline period and 12-month performance period will be set to occur over the same time period for both participants (treatment group customers) and the comparison group customers. Then, the change in energy consumption for each comparison group customer will be calculated as avoided energy use in accordance with the information in this document and external CalTRACK 2.0 documentation. Energy Savings will be calculated as the difference-in-differences between the treatment group customers' avoided energy use and the comparison group customers' avoided energy use.

The process used to select comparison groups is informed by the Department of Energy-funded Comparison Groups Working Group led by Recurve Analytics, Inc. The working group facilitated open discussion via bi-weekly meetings and a public GitHub forum. The findings of this effort can be found in the final report, *Comparison Groups for the COVID Era and Beyond*. SoCalREN programs will follow the recommended methods included in that final report.

Data Collection Plan

The site-level NMEC approach allows for customization of M&V approaches based on site-specific characteristics and unique drivers of savings. SoCalREN programs designed to use this approach will create project-level M&V plans that describe project-specific data collection for each site-level NMEC project.

For NMEC savings evaluation, models of energy use at site level meters will be created for the baseline period (pre-implementation) and reporting period (post-implementation) using 12 months of input data as required by NMEC guidelines. Data requirements and sources for creation of site-level NMEC energy use models are listed in Table 141.

Table 141. Site-Level NMEC Data Sources

Description of Data	Data Sources
SCE Utility Data: Electricity (15-minute or hourly); SoCalGas Utility Data: Natural Gas (daily)	• SCE: automated Green Button "Share My Data" and Building Benchmarking Portal • External: utility application programming interface (API) • Contingency: SCE Business Customer Account Representative assists with obtaining customer data; customer completes CISR form
Other Independent Variables	• Data supplied by customer
Building Occupancy Schedule; Equipment Specifications, Schedules, and Sequences	• Observations from energy consultation • Building management system inspections • Building drawings, specifications, and staff interviews
Equipment Operating Parameters (e.g., chilled water and supply- air temperatures)	• Observations from energy consultation • Building management system inspections and trending • Data collection in keeping with the NMEC rulebook
Weather Data (hourly or daily dry-bulb ambient temperatures)	• Automatic download from NOAA or Dark Sky websites into NMEC tools

Ex-ante savings estimates will be generated during the project investigation. Shorter term data will be gathered for these ex-ante savings estimates. These calculations will use industry standard tools (e.g., spreadsheet calculations, eQUEST models) and methods that are compatible with CPUC policy.

Table 142 shows examples of data collection that will be required for typical ex-ante savings estimates. This example data would be needed in addition to what is shown for the NMEC models in Table 141 above.

Table 142. Example Data Requirements for Ex-Ante Savings Estimates

Data Point and Units	Typical Measure Relevancy	Data Source- Measurement Device	Data Duration/ Interval
CHW Pump #1 & #2 Operating Speed (Hz)	HVAC	Building Management System (BMS) Trending	May 1 to Jun 15 / 15 minutes
Secondary CHW Loop Cooling Load (tons)	HVAC	BMS Trending	May 1 to Jun 15 / 15 minutes
AHU-1 Supply Fan Operating Speed (Hz)	HVAC	BMS Trending	May 1 to Jun 15 / 15 minutes
AHU-1 Supply, Return Mixed Air Temperatures (deg. F)	HVAC	BMS Trending	May 1 to Jun 15 / 15 minutes

Monitoring and Documentation During the Reporting Period

Implementation team engineers (or contractors) will remotely observe energy consumption data for each site-level NMEC project on a routine schedule over the reporting period. The reporting period observation frequency will be set for each project based on size and risk when completing the Pre-Implementation project-level M&V Plan. Observations will be frequent at first (typically monthly), but intervals will increase over time if performance is found to be stable. The purpose of these observations is to identify out-of-range performance or potential non-routine events (NREs) triggering investigation and corrective action. Performance indicating 10% or more savings variance will be considered a justifiable significant NRE triggering further evaluation (ASHRAE 14 Guideline).

Projects incorporating Energy Management Technologies (EMTs) will incorporate continuous monitoring and automated flagging of out-of-range performance and potential NREs.

Project-level M&V reports will be reviewed by SoCalREN as required during the standard NMEC-Custom project workflow. SoCalREN reviewers will also verify performance and accuracy of M&V reports. The M&V reports, with the data, will provide sufficient detail for SoCalREN reviewers to replicate the NMEC results.

Identifying and Adjusting for Non-Routine Events

NREs are unexpected changes in building operation that significantly impact energy use, skewing meter- based results. NREs may occur during baseline, implementation, or post M&V periods, and may be one- time occurrences which must be isolated from the regression model, or recurring events requiring adjustments incorporated into the model.

Site-level NREs will be identified by observing baseline and reporting period energy use and identifying where savings deviate from ex-ante estimates by greater than 10% (ASHRAE 14 Guideline). These deviations will be further evaluated, and corrective action will be taken in the form of adjustments to the savings models and/or modifications to the installed measures.

Significant NREs will be quantified regardless of whether they have a positive or negative impact on savings. Typical potential NREs are:

- Equipment outages or maintenance shutdowns
- Equipment replacements, additions, or removals unrelated to program measures

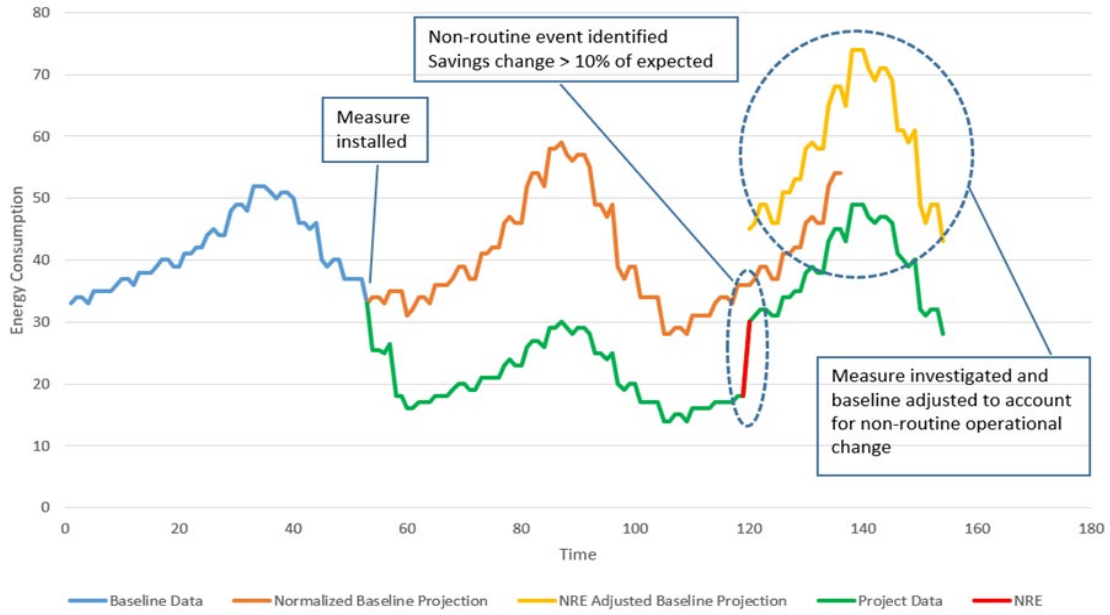
- Building use or tenancy changes, and
- Construction or facility closures.

Typical methods employed to prevent NREs from skewing NMEC results are:

- Remove the data points from the regression data set during the NRE:
  - Data points associated with NREs during the baseline period will be removed if they constitute a small portion of the overall data, and remaining data points contribute to models exhibiting acceptable goodness of fit. Where this is not the case, the associated projects will be moved to custom or deemed savings platforms or rejected from the program as appropriate.
  - Data points associated with NREs during the performance period will only be investigated if they cause project savings to move above or below a preset threshold. Before data-point removal, these projects will undergo manual review and investigation by program engineering staff to determine the true nature of the NRE.
- Quantify the impact of the NRE by performing measurements and calculations. Calculated NRE adjustments will be normalized.
- For deviation caused by project related systems, reconfigure to operate as intended.

Figure 68, following, depicts how an NRE is identified and adjusted for. In this example, the customer site implemented increased operating hours during the reporting period.

Figure 68. Identifying and Adjusting for a Typical NRE



Determining Program Influence

Influence for NMEC projects will follow the same procedures as for custom projects, following SoCalREN's free-ridership screening processes. The program's Early Screening QA/QC procedure step requires determination and documentation of program influence. This screening identifies customers' plans for upgrades and/or replacements, barriers to implementing higher efficiency options, and the incentives or services needed to overcome these barriers.

This step requires description of the options presented to customers, normal replacement practices for the customer, and how the monetary incentives, technical services or financing assistance influenced the customer to invest in higher efficiency. The following documents will used to demonstrate influence:

- Timeline of customer-implementer meetings, deliverables, and decision-making milestones
- Documentation of customers replacement and/or upgrade practices, plans, and budgets
- Reports and business cases of options presented to customer (requires measure level preliminary or ex-ante savings estimates)
- Customer-implementer correspondence (e.g., e-mails, letters, meeting notes, letters, etc.)
- All influence documentation associated with each project will be uploaded and stored in the program's online platform.

Depth of Savings Thresholds and Model Accuracy

SoCalREN programs will not use Site-level NMEC methodology on projects that save less than 10% of the site's annual energy consumption as measured at the meter or submeter level. Site-level NMEC models' goodness-of-fit between energy use and the independent variables will meet thresholds suggested in the LBNL NMEC Guidance and ASHRAE Guideline 14.

Incentive Structure

Site-level NMEC savings will be claimed by SoCalREN in accordance with the provisions under the CPUC guidelines. These savings will be calculated based on ex-ante savings estimates and adjusted as needed by changes in project details (e.g., scope, operating parameters) found during post-implementation inspections and review.

Once the performance period data collection period is over and true NMEC savings are calculated, the program savings will be trued-up against the prior savings claimed at the end of project installation. This savings true-up will be implemented in the form of reductions in current project savings at the time the true-up process is implemented.

Program payments to customers will be split in portions between payments tied to installation, and a follow-up payment provided after the performance period has been evaluated. If savings degrade during the performance period to the point that the upfront payment was found to be in excess (i.e., greater than the NMEC verified savings multiplied by the appropriate incentive rates), no further payment will be made to the customer.

Customer Incentives

- Maximum customer incentives will be calculated based on net, lifecycle savings. Lifecycle savings will be based on project-level EULs).
- EULs for electric energy and gas energy (kWh and therms) will be discounted for the purposes of incentive calculations.
- Net, discounted lifecycle savings will be multiplied by site-level NMEC incentive rates to calculate the maximum incentive. These calculations will be based on ex-ante savings estimates, which will then be trued-up to NMEC measured savings once obtained.
- Maximum incentive calculations may receive a DAC, HTR, or Grid Constrained Load Shape Benefit multiplier where justified. Depending on customer barriers and needs, the calculated

maximum incentive may be provided as equivalent technical or financing services, or as direct cash incentives.

Expected Costs, Energy Savings, Peak Impacts and EULs

Program estimates of costs, energy savings, peak impacts and effective useful life (EUL) of project measures are based on Database for Energy Efficient Resources (DEER) values and latest workpapers. Costs from previously implemented projects or other reputable sources (e.g., RS Means) may be used when DEER or approved workpaper values are unavailable.

Project Level EULs

Project level EULs will be calculated as weighted averages of individual measure level EULs that make up a given project. Weighting of the measures in these calculations will be based on the individual measure level savings converted to BTUs. Savings for the purposes of this calculation are estimated first-year savings. Individual measure level EULs will be based on the most updated DEER values and CPUC guidance. If a EUL does not exist for a measure, the team will propose an estimated EUL for SoCalREN approval. To facilitate EUL estimating, the implementation team will collect site-level data for the implemented measures and document any equipment being replaced.

Eligibility

All customers without excessive variability in operations and occupancy (except industrial processes) that meet savings levels and statistical fitness thresholds are eligible for NMEC. NMEC will be used for project bundles with interactive, predominantly existing baseline (AR, AOE and BRO), measures. SoCalREN will screen for NMEC applicability. This includes verification of an appropriate utility meter location (or sub-meter location meeting accuracy requirements as found in LBNL NMEC Guidance), and permissible project types.

Site-level NMEC will not be used for projects with ex-ante savings estimates below 10% of baseline consumption. Eligible site-level NMEC projects must be able to have their energy use simulated with models meeting statistical thresholds suggested in the LBNL NMEC Guidance and ASHRAE Guideline 14.

To-Code Savings Insight

Insight into questions surrounding to-code savings will be generated during the program's Early Screening QA/QC procedure. This step includes an identification of customers' business-as-usual plans for upgrades and/or replacements, the customers' barriers to implementing higher efficiency options, and the incentives or services needed to overcome these barriers. The following documents will contribute to insight into why these customers currently operate below code requirements:

- Documentation of customers replacement and/or upgrade practices, plans, and budgets.
- Reports and business cases of options presented to customers (requires measure level preliminary or ex-ante savings estimates).
- Customer-implementer correspondence (e-mails, letters, meeting notes, letters, etc.)

Deemed Projects

Deemed projects will follow all procedures from the workpaper. Verification requirements include paid itemized invoices from the project, photos of both pre-existing and new equipment, specification sheets, project application, and any supplemental measure-specific information. Inspections for 10% of deemed projects will take place.

Technical Pre-Agreement Review: a Project Feasibility Study (PFS) will be developed for each project. Pre-Agreement (PA) Review is a formal review of Energy Conservation Measures (ECMs). The PA Review verifies each ECM to rules, practices, and guidelines, and documents the review results. The PA Review locks in the baseline, calculation methodology, and lists prerequisite data for projects requiring an Installation Review (IR).

CMPA Review: If project's technical PA Review is approved to proceed, the project will be uploaded to the CMPA list. The project could be selected for CPUC review within 10 business days of being uploaded. If the project is not selected for review within 10 business days, the project is allowed to move forward. If the projected is selected, the CPUC will then have 30 business days to review aside from supplemental data requests (SDRs). Implementer, program advisor, and SoCalREN will respond to these SDRs. The CPUC will provide a disposition at the end of the review. CPUC review timeline is pursuant to Senate Bill 1131 and details are provided in the CPUC's Timing Protocol document.[35]

Installation Verification: Installation of ECMs will be verified through site inspections or pictures provided by the customer for all deemed projects. Invoices for the installation will also be collected. For low rigor projects, photos and remote data gathering will be sufficient in lieu of an on-site inspection. For medium to high rigor projects (i.e., when incentive is $25,000 or higher), on-site verification will be done in accordance with the IR parameters listed in the PA Review.

Post-Technical Installation Review: SoCalREN will carry out a technical post-installation review. A site visit will be conducted unless sufficient project data and supporting documentation is provided to validate installations remotely. SoCalREN will verify and approve the final project energy savings.

Post-Measurement CMPA Review: If required by the CPUC, the project will be uploaded to the CMPA list for a post-M&V review. The CPUC post-M&V review timeline is pursuant to Senate Bill 1131 and will still follow the details in the CPUC's Timing Protocol document.

Tracking/Recording

Data gathered through site inspections and M&V activities will be documented for future use by SoCalREN and evaluation teams. This data will also prove useful in helping inform future program design to improve overall cost-effectiveness.

Savings Calculation

Savings calculations will follow approved workpapers. SoCalREN may suggest the development of certain workpapers for common program measures currently only offered through Calculated or NMEC methods. The Measure Development and Peer Review QA/QC Guidelines (Guidelines)

[35]The CPUC Staff Selection and Response Timing Protocol for Energy Efficiency Custom Projects Review document can be accessed here: https://www.cpuc.ca.gov/General.aspx?id=4133

provides specific guidance for measure development, quality assurance and quality control (QA/QC), and management approval of a statewide deemed measure before the measure is advanced to review by the California Technical Forum (Cal TF) and California Public Utilities Commission (CPUC). These Guidelines are not intended to replace existing governance procedures within organizations that develop deemed measures; rather, they are intended to supplement any such existing procedures to ensure standardization and transparency of statewide measures in the eTRM. The CalTF Statewide Rulebook v1.0 demonstrates the workpaper and measure development process. SoCalREN will follow these Guidelines to develop workpapers for additional deemed measures. SoCalREN will continue using Calculated and NMEC approaches for such measures until they are approved as deemed.

Custom Projects

Custom projects will receive a site-specific M&V plan, tailored to the specifics of the unique project while also adhering to the guidelines laid out in program implementation plans.

Custom Process

There are seven overarching phases to a custom project:

1. **Pre-screening phase:** Each site will be pre-screened for program eligibility. SoCalREN will track potential projects so that pre- screening activities can be conducted in collaborative manner. SoCalREN will ensure the customer account and past program participation adhere to current CPUC policies.
2. **Pre-Installation Application Technical Review:** Following pre-screening, the project will be assigned for a technical review. Pre-installation site visit may be performed to verify the baseline conditions. Application Review (PA Review) is a formal review of ECMs before the installation of any ECMs where the PFS acts as the submission package. The PA Review verifies each ECM to comply with SoCalREN Program rules, Standard Practices (SPs), CPUC guidelines, and CPUC dispositions, and documents the review results. The PA Review locks-in the baseline, calculation methodology, and lists prerequisite data for projects requiring an Installation Review (IR).
3. **CMPA Review**: If project's technical PA Review is approved to proceed, the project will be uploaded to the CMPA list. The project may be selected for CPUC review within 10 business days of being uploaded. If the project is not selected for review within 10 business days, the project is allowed to proceed with installation. If the projected is selected, the CPUC will then have 30 business days to review aside from supplemental data requests (SDRs). SoCalREN will respond to these SDRs. The CPUC will provide a disposition at the end of the review. CPUC review timeline is pursuant to Senate Bill 1131 and details are provided in the CPUC's Timing Protocol document.
4. **Installation Verification:** Installation of ECMs will be verified through site inspections or pictures provided by the customer for all custom projects. Invoices for the installation will also be collected. For very low and low rigor projects, photos and remote data gathering will be sufficient in lieu of an on-site inspection. For medium to high rigor projects (i.e., when incentive is $25,000 or higher), on-site verification will be done in accordance with the installation review parameters listed in the Pre- Agreement Review.
5. **Measure Verification & Reporting:** After sufficient data is collected, and the M&V activities and analysis is complete, a Post-Installation Report (PIR) will be completed in accordance with the Statewide Post Installation Report Template on the CPUC website.

The report will present and compare the post-installation savings and savings analysis to the pre-installation savings and savings analysis. Changes to the baseline, modeling methodology employed, and the measurement period will be noted, if applicable. If deviations from the original proposed M&V plan occurred, this will be documented and substantiated. For behavioral, retro-commissioning, and operational measures, a repair and maintenance plan that adheres to CPUC rules will be formulated. The participant must agree to carry out the plan for a minimum of three years.

6. **Post-Installation Technical Review:** Following receipt of the PIR custom projects will be assigned for a technical post-installation review. A post-installation site visit is performed to verify the installed equipment is fully operational unless sufficient project data and supporting documentation is provided to waive such an inspection. An assigned technical reviewer will verify and approve the final project energy savings.
7. **Post-Measurement CMPA Review:** If required by the CPUC, custom projects will be uploaded to the CMPA list for a post-M&V review. The CPUC post-M&V review timeline is pursuant to Senate Bill 1131 and will still follow the details in the CPUC's Timing Protocol document.

Tracking/Recording

Data gathered through site inspections and M&V activities will be documented for future use by SoCalREN and evaluation teams. This data will also prove useful in helping inform future program design to improve overall cost-effectiveness.

Custom Project M&V Guidelines

Custom measures will follow the IPMVP. At a high-level, M&V can be executed in through the following options:

- **Engineering Calculations (IPMVP Option A):** Inputs are sourced from known specs and/or measurements. This method is ideal for straightforward ECMs that have a high level of certainty around the load profile and equipment specifications.
- **Metering and Monitoring (IPMVP Option B):** Measurements are used to fill in knowledge gaps around the ECM. Spot measurements are sufficient for constant load profiles and continuous measurements can be taken when the load is quite variable. Most ECM savings can be determined with Option B, but the difficulty and costs can be great if metering requirements are complex and are not already in place for other purposes. In general, it is harder and more costly than Option A, but more certain.
- **Utility Bill Analysis (IPMVP Option C):** This method is exclusive to the site level, which poses challenges regarding understanding how a specific ECM is contributing to differences in utility data before and after the project. There are risks that factors unrelated to the ECM (i.e., water demands, system failures, etc.) that can cause changes to the utility data post-project. These changes from unrelated factors could be significant and eliminate the ability to see the effects of the ECM. Ideally, this option will only be employed for single measure, single service account projects.
- **Calibrated Computer Simulation (IPMVP Option D):** In this approach, a simulation is built and calibrated to metered data. The calibrated model provides the baseline and then it is used to model the building or system with the ECMs. This method provides the ability to look at the impact of all ECMs together (which is great for capturing interactive effects) or at

individual ECMs in isolation. A unique challenge of this option is that the measure's energy use needs to be isolated from the rest of the system by appropriate meter. This option is a good choice if the savings associated with individual ECMs is desired, and a calibrated model of the system is available.

Project specifics will dictate which IPMVP is chosen for each custom project. For projects scopes where the measurement or calculation boundary would encompass all or almost all the targeted system, Option D would be preferred. Option C would be applicable for these types of projects but is not preferred for the reasons described above; it will be reserved for single measure, single service account projects. For standalone equipment upgrades or replacements, Option A or B will be used. Existing metering equipment will be leveraged where possible.

If spec sheets and information provided from the customer can sufficiently answer all questions that the engineering team needs to calculate the estimated savings from the project, Option A will be used. If more information is needed and the savings are significant enough, metering will be done under Option B.

Expected Useful Life

The project lifecycle savings will be based on a weighted average EUL method. 10 The weighted EUL for the recommended ECMs will be determined in the feasibility study and will be updated as needed for the final report, after installation. EULs for the ECMs will be sourced from the Database for Energy Efficient Resources (DEER).

Key Sources

M&V for Custom measures will be guided by the IPMVP. The following sources will be key for the Custom M&V approach:

- International Performance Measurement and Verification Protocol, Efficiency Valuation Organization, Concepts and Options for Determining Energy and Water Savings, Vol 1, 2012
- U.S. Department of Energy, M&V Guidelines: Measurement and Verification for Performance-Based Contracts, version 4.0, 2015

Low-GWP Refrigerants

While new equipment using R-22 were banned in 2010 under Environmental Protection Agency's Significant New Alternatives Policy Program, R-22 can still be seen within existing equipment. With the proposed phase-out of hydrofluorocarbon-based refrigerants, SoCalREN will consider taking a more active role in accelerating the adoption of low-GWP alternatives within 2024-2027 through the strategies listed below:

- SoCalREN's Commercial Food Desert Energy Efficiency Equity Program will incorporate refrigerator replacement that will utilize verified equipment lists where each unit will contain low-GWP refrigerants.
- Through refrigeration and HVAC measures, SoCalREN may consider including metrics specific to refrigerant management and low-GWP refrigerant. Metrics such as pounds of high-GWP refrigerant reclaimed and pounds of low-GWP refrigerant retrofits.

- Offer low-GWP deemed measures listed below that have potential for high volume adoption through resource-based program and develop measure packages for these measures. These measures may also provide energy savings.
  - Low-GWP water cooled chiller
  - Low-GWP air cooled chiller
  - Low-GWP commercial refrigerators
  - Low-GWP commercial freezers
  - Natural refrigerant racks for supermarket refrigeration
  - Low-GWP refrigerators, residential
  - Refrigerant leak detection through smart sensors and repair

Marketplace Innovation

As a non-IOU PA, SoCalREN has demonstrated that its portfolio can adapt to changing market conditions and innovate quickly through its service offerings. SoCalREN's Business Plan includes all successful and valuable activities from its current portfolio and incorporates new innovations and cost efficiencies. SoCalREN's Plan comprises an eight-year plan to merge and balance innovation with performance and allow nimbler and more cost-effective administration of energy efficiency (EE) programs. SoCalREN's strategic vision and Unique Values Proposition along with California Public Utilities Commission (CPUC) guidance from D.21-05-031 have all been used to shape the sector focuses, segmentation strategies, and budgets in SoCalREN's Plan. Once approved, this comprehensive framework will guide the deployment of the portfolio, to both meet the goals described above and support California's aggressive climate goals.

SoCalREN recognizes that continued innovation is necessary to meet the ever-changing energy, economic, and social landscape. This includes seeking to leverage other partners and funding sources to support more holistic solutions that promote decarbonization.

Specific strategies that SoCalREN deploys to provide additional community value include:

- **Leveraging outside funding that can be integrated into SoCalREN program offerings.** Previous examples include CEC funding for DER technical assistance alongside EE services for public agencies, and funding to launch SoCalREN's Revolving Savings Fund. SoCalREN has also coordinated with electric municipal utilities to provide supplemental funding for EE technical assistance for agencies in locations serviced by SoCalGas® and not SCE.
- **Supporting communities in applying for grant funding to offset the capital costs of energy projects**. SoCalREN has proven experience in identifying and supporting public agencies and partners in applying for outside funding. A significant current opportunity is funding through the Federal Infrastructure and Jobs Act which will provide resources to tackle the climate crisis, advance environmental justice, and invest in communities that have too often been left behind. Federal funding flowing to the states and local governments will provide opportunities for public agencies to make investments in their facilities and communities. Now, more than ever, SoCalREN can help leverage those resources and help guide public agencies to make sound investments in EE and resilient communities.
- Coordinating with SoCalREN's regional partners to design innovative solutions that meet the unique needs of their local communities. The SoCalREN has successfully onboarded several

regional partners to tailor program messaging and engagement practices that have resulted in increased local participation in SoCalREN program offerings while expanding SoCalREN's territorial reach. To expand on this success, SoCalREN has also engaged regional partners to propose unique initiatives that can be piloted within their regions. This successful approach will continue in our proposed Plan through a stand-alone program designed to accommodate new innovative proposals from regional partners.

- **Adopting processes to align with multiple customer procurement models.** SoCalREN services are designed to be customized to meet the unique needs of individual customers. When working with public agencies, SoCalREN has benefited by collaborating with organizations such as the National Association of Energy Service Companies (NAESCO) to understand how EE programs can be successfully delivered through energy service contracts models and how SoCalREN designed services can be more effectively adapted to these design-build procurement models.
- **Presenting a strong business case for holistic decarbonization projects.** SoCalREN will bring forward the information, technical assistance, and resources needed to present a strong business case to customers for comprehensive EE and clean energy solutions, building a greater level of confidence about decisions to implement holistic energy projects.
- **Collaborating and coordinating among SoCalREN implementers for cross-sector support and efficient service delivery.** SoCalREN will continue its practice of ongoing, open and robust, collaboration among SoCalREN implementers and also with the other PAs' implementers to promote innovations and synergies that can improve and enhance portfolio-wide impacts across segments and sectors.

To facilitate escalation toward greater cost effectiveness, SoCalREN proposes to expand certain strategies which it has found successful and terminate strategies that no longer meet market needs. In addition, SoCalREN is working to identify and incorporate approaches that will amplify success through performance-based structures, improved cost economy, greater measurability, and tracking of diverse metrics and deliverables, e.g.:

- Strategic performance assessments of all existing programs to identify and integrate performance-driven adjustments and corrections;
- Enhanced competitive procurement, e.g., requests for abstracts, pay-for-performance, and multi-implementer programs to increase competition;
- Advanced market, building, and consumer analytics to develop focus-and-target investments in marketing, education, and outreach;
- Potential for leveraging of other funding and programs;
- Routine performance monitoring, target-tracking, and rapid-response deployment of design corrections and adjustments, and;
- Enhanced coordination with IOUs, CCAs, and RENs.

Pursuant to CPUC's direction, these and other planned actions will serve as key operational, functional, and assessment drivers in SoCalREN achieving stated goals. In aggregate, SoCalREN's approach is to pivot its portfolio toward optimization of energy savings and comparable cost efficiency and effectiveness while delivering on market support and equity goals to magnify and expand the value delivered to customers from the investment of ratepayer funds.

Market Intervention Strategies

The key to driving EE adoption starts with developing trusted and effective connections with targeted customer groups through our program implementers, regional partners, key stakeholders, and other program partners.

Our programs offer a full range of intervention strategies designed to meet the unique needs of public agencies, schools, multifamily property owners, rural farmers, small and medium sized business owners, and disadvantaged workers and contractors. For example, small equity-focused customers and facilities may receive high-value direct install as a key intervention, while other targeted customer groups may receive energy analysis, technical support, EE/DER education, financial analysis, incentives and loans, procurement support, and/or construction support. Services are discussed with targeted customers at each stage of the process to determine the appropriate level of support and manage costs.

To encourage and continue long-term investment into EE and general capacity building, all customers receive educational resources that explain the benefits of EE and encourage additional actions, such as ongoing operational energy management opportunities.

6. PORTFOLIO MANAGEMENT

Since its inception, SoCalREN's portfolio has delivered strategies motivating customers to adopt more comprehensive energy efficiency approaches that are characterized by deeper, longer-lasting savings. These energy efficiency strategies have, over time, provided a meaningful suite of benefits to ratepayers within the market sectors the SoCalREN serves.

As a program administrator, SoCalREN has consistently implemented its portfolio as a strategic platform with an eye toward long-term value, impact and scalability, cost-effectiveness, and transformative influence.

SoCalREN is confident that it will successfully, and increasingly advance program cost-effectiveness, using standards and criteria comparable to those used to assess IOUs and scaled for scope and other distinctions inherent in non-IOU programs and portfolios. SoCalREN will achieve this through an integrated action plan over short-, mid- and long-term timeframes that includes increased administrative efficiencies (reduction in costs), increased savings (resulting in lower costs per TSB), streamlining of program implementation and pay for performance contracting, and outcome-driven pilots ranked for savings potential, replicability, and nexus to under-performing markets.

To continue providing long term value, SoCalREN will leverage its Market Support, Equity, and Codes and Standards strategies to direct further savings to its partner utilities while delivering Resource Acquisition savings in gaps left in IOU and CCA portfolios through-out its respective covered territory. SoCalREN will also seek to identify new resource approaches that will lead it to a more cost-effective portfolio. The comprehensive strategies proposed across segments and sectors will help to ensure that SoCalREN is on a continued course to provide ratepayers the greatest long-term value in energy efficiency.

Strategies to Optimize Portfolio and Manage Risk

SoCalREN will continue to adopt a path toward administrative efficiency and strive to find areas that maximize outcomes, customer benefits, and program performance, while minimizing costs. This path could include but is not limited to practices such as streamlining reporting processes, instituting more internal detailed budgetary tracking reports, as well as applying lessons learned from the COVID-19 pandemic such as utilizing remote attendance options for conferences and workshops thus alleviating pressure on travel costs. In addition, SoCalREN plans to identify administrative tasks that can be automated or eliminated so long as regulatory compliance or customer support is not compromised.

SoCalREN will also work internally to identify additional streamlining opportunities on a quarterly basis by reviewing impacts, needs, and performance of existing contracts/services. SoCalREN is also working to eliminate duplication amongst implementer services by consolidating common tasks such as website content management, data tracking systems, and streamlining marketing functions. SoCalREN will utilize administrative metrics to gage on an annual basis if there are additional budgetary efficiency gains and if the REN is continuing to meet a % range of administrative efficiency.

Some of the metrics SoCalREN will utilize to determine administrative effectiveness and portfolio cost effectiveness include but are not limited to:

- TSB, TRC, and PAC
- Percent of Administrative costs as compared to overall total portfolio costs
- Program administrative cost per saved energy, dollar per energy saved

In addition, SoCalREN will comply with any future additional reporting metrics in determining administrative effectiveness and portfolio cost-effectiveness as required by the Commission or as needed by Energy Division.

Staying On Target

SoCalREN will continuously monitor, track, and report progress toward energy savings, TSB, cost-effectiveness, and other portfolio targets. RENs are subject to the same periodic reporting requirements as the IOUs to the Commission, which are listed in Rule V of the Energy Efficiency Policy Manual.[36] SoCalREN regularly provides the Commission the following reports:

- ***Monthly*** Reports on expenditures and savings: the energy efficiency monthly report provides the monthly forecasted budget by program as well as the current month spending and year to date expenditures by program. In addition, this report provides an expenditure breakdown by cost category (administration, marketing, direct implementation, incentive) and is uploaded to the Commission's public web-reporting platform the California Energy Data and Reporting System (CEDARS)[37,38].

[36] Energy Efficiency Policy Manual v5. July 2013. p. 14.

[37] D.15-10-028 adopted an online filing tool to be utilized for annual reporting; this tool has now been expanded and will include monthly and quarterly reporting support.

[38] The Commission's California Energy Data and Reporting System (CEDARS) can be found at the following link: https://cedars.sound-data.com/filings/list/

- ***Quarterly*** Reports on budgets and expenditure caps: the energy efficiency quarterly report provides the annual forecasted budget by program as well as year to date expenditures by program and the current portfolio cost-effectiveness. In addition, this report provides an expenditure breakdown by cost category (administration, marketing, direct implementation, incentive) and is uploaded to the Commission's public web-reporting platform CEDARS.
- Energy Efficiency Program ***Annual*** Reports: the energy efficiency annually report provides the annual forecasted budget by program as well as the annual expenditures by program and the current portfolio cost-effectiveness. In addition, this report provides an expenditure breakdown by cost category (administration, marketing, direct implementation, incentive) for the entire program year and is uploaded to the Commission's public web-reporting platform CEDARS.

Moreover, SoCalREN will comply with any future additional reporting requirements required by the Commission or as needed by Energy Division, whether directly or through the California Energy Efficiency Coordinating Committee (CAEECC).

Risk Management and Lessons Learned from COVID-19

The unprecedented disruptions caused by the COVID-19 pandemic resulted in major shifts in SoCalREN's approach to portfolio and risk management. SoCalREN put in place many successful COVID-19 mitigation strategies, such as remote energy assessments, virtual workshops, and online customer enrollment. These risk mitigation and portfolio management strategies not only enabled SoCalREN to adapt its approach during periods of reduced customer site access, but also resulted in cost and time optimizations that will result in permanent portfolio efficiencies. SoCalREN will continue to leverage these strategies as California moves beyond the pandemic. The pandemic however is not over. SoCalREN currently faces several COVID-19 related challenges that may impact its 2024-2027 portfolio, and which have been considered in the development of this portfolio application, such as rising project costs and supply chain challenges.

It is unclear whether the challenges faced during the development of this document will continue as the 2024-2027 SoCalREN portfolio launches. COVID-19 and its related impacts led to factory shutdowns and decreased production globally. This has resulted in supply shortages and a backlog in demand within and outside the energy efficiency industry. For example, the supply chain slowdown58 has impacted the delivery of equipment to energy efficiency contractors. Several public sector projects anticipated for 2021 installations were delayed into 2022 due to supply chain backlog at the Ports of Los Angeles and Long Beach59. This will further delay projects previously scheduled for installation in 2022 and 2023, as it is unclear how soon the backlog at the Ports and other stages of the supply chain will be remedied.

The gap in savings created during the pandemic can however be made up through the strategies proposed in this portfolio application. SoCalREN is anticipating that the forthcoming years will likely see a sharp upward turn in EE portfolio pipelines as supplies are injected into the industry.

SoCalREN programs have also felt the impact of rising material and equipment prices for energy efficiency projects compared to prior program years. Increased equipment prices have resulted in higher submitted project costs, leading to higher program incentive expenditures. Unfortunately, industry analysts predict that shortages and high costs are expected to continue into 2022 and possibly even 2023. 60 Beginning in 2022-2023, and continuing into the 2024–

2027 portfolio implementation, SoCalREN has incorporated budget and strategy adjustments to ensure the successful delivery of portfolio goals, while controlling incentive and program expenditures. SoCalREN expects that these changes will help address some of these continued and anticipated COVID-19 impacts.

Although the government at all levels, from County to Federal, is trying to address the many barriers in the supply chain, it remains a global problem with lasting effect.61 SoCalREN continues to monitor COVID-19's impact on the State's EE portfolio and will continue to implement mitigation strategies to deliver goals. Budget and savings forecasts detailed in this document are estimates reflecting the best currently available information. SoCalREN anticipates that it will continue to utilize virtual methods, and other process improvements developed during the pandemic, where applicable and necessary, to support the success of the 2024–2027 programs and beyond.

Approach to Flexible Portfolio Management

One advantaged afforded SoCalREN as a small non-IOU program administrator is the flexibility to adjust its portfolio, programs and strategies as the market changes or as unpredicted events occur. Over the last 9 years SoCalREN has utilized data and market indicators to evaluate its portfolio quarterly and annually. Based on this internal portfolio evaluation, SoCalREN has closed programs that either the market no longer needed or that proved to no longer being filling a gap. In addition, SoCalREN has utilized data and peer-to-peer feedback from its advisory committee and its regional partnerships to identify market gaps arising in the industry. This has allowed for new programs to be implemented when needed and as appropriate for a given sector.

All program administrators regardless of size need the flexibility to close, remove, and or add new programs or strategies. In addition, certain strategies deployed by Program Administrators sometimes need the opportunity to be deployed and then assessed prior to a full program cycle to ensure that either the modification is working as intended or must be modified or removed. One example is incentive structures. SoCalREN has overtime adjusted its MF program incentive structure not only to optimize its program implementation but also to help more market investment. These small modifications can impact pipelines both positively but also negatively depending on the market's position and sensitivity.

Lastly, SoCalREN understands that it has a fiduciary duty to maximize the benefits that are leveraged from ratepayer funds and ensure that goals are met continuously. By leveraging data and measuring progress monthly, quarterly and annually SoCalREN will deploy the best possible programs and also examine where improvements can be made.

Portfolio Course Correction

As program administrator run by a local government, SoCalREN relies heavily on third party contracts not only to fill implementation staffing gaps but also to help alleviate cost burden. By leveraging third party contracting, SoCalREN can outsource 90% of its portfolio thus ensuring it is more administratively efficient. The County of Los Angeles manages, administers, and provides all oversight and reporting required by the Commission.

Within all SoCalREN competitive contracts awarded is a course correction plan if a contractor/implementer is off-track from meeting 4-year cost-effectiveness requirements,

goals, and/or metrics. This course correction action plan is first initiated by the County Environmental Initiatives Manager who notifies that contractor of the current concern. The Contractor then can first provide the County with a corrective action plan to resolve any deviation from meeting 4-year cost-effectiveness requirements, goals, and/or metrics. Once reviewed and approved by the County Environmental Initiatives Manager the plan is put into place and monitored until the concern is resolved.

Third-Party Programs

Responsibility of Program Administrator in Relation to Third-Party Designers/Implementers

The portfolio administrator of the SoCalREN portfolio is Los Angeles County. Los Angeles County's sole role in the proposed 2024-2027 Portfolio is as the Portfolio Administrator. As such implementers are fully responsible for designing and delivering programs, while Los Angeles County will administer the portfolio including tasks such as soliciting and managing contracts, tracking performance, and making all portfolio level decisions necessary to deliver the program and portfolio goals. Los Angeles County will not serve in the role of implementer and will not implement programs. Implementation responsibilities will lie solely with the implementer.

Solicitation Strategy

SoCalREN program administration, design, and implementation is currently outsourced to third parties that have been selected through a competitive bidding process by Los Angeles County, the administrator of SoCalREN. Los Angeles County procurement processes are open and transparent, and all contracts are reviewed and executed by the Los Angeles County Board, comprised of elected officials from Los Angeles County respective jurisdictions. Contract approvals are placed on Board Agendas and discussed at public Board meetings that are subject to the Brown Act. Los Angeles County has a solicitation process with built in procurement compliance of both state requirements and local rules and procedures related to competitive solicitations.

SoCalREN plans to continue to outsource program administration, design, and implementation. Current contracts are not due to be renewed by the county until 2023. SoCalREN estimates based on Los Angeles County's solicitation process the following timeline based on a date of Business Plan approval as the baseline:

- Months 2-3: Develop Implementation Plan
- Months 3-4: Develop Scopes of Work for solicitation
- Months 4-6: Release, Evaluate and Designate awards from RFPs
- Months 5-7: Conclude and Execute Contracts

Within LA County services there are specific departments, responsible appointed authority, and legal bodies that provide oversight, compliance control, and enforcement of the County's service contracting process. Oversight of LA County's solicitation process for competitive offerings is not only robust but redundant and rigorous, with the potential for legal liability in the event of non-compliance. In addition to standards and conditions set by State law, the County has established policies and procedures for purchasing goods or contracting professional services.

These combined protocols govern the full procurement process, from the form and content of solicitations, to evaluation and ranking of proposals or bids, to the issuance, approval, and monitoring of awards and contracts.

At all stages, the process is subject to public transparency requirements and, in order for any contract of $100,000 or more, no agreement is valid unless and until approval by the LA County Board of Supervisors in the course of the Board's weekly public agenda meeting (a process itself subject to public comment and/or protest, including the opportunity of other unsuccessful bidders to be heard).

Successful vendors or consultants are bound by and must agree to both general and specific terms and requirements established by the Board of Supervisors. Due to LA County's low threshold ($100,000 and above) for mandatory approval by the Board of Supervisors, all SoCalREN procurement issuance and oversight, evaluation of submissions, and development, execution and tracking of contracts shall fall under the strict solicitation process mandated by LA County solicitation and procurement policies and procedures.

The primary vehicle in which contracts will be solicited by SoCalREN will be through the RFP Process. In brief, the RFP procurement process under the County of Los Angeles is executed through a number of steps and checkpoints. These include but are not limited to:

- First, by identification of the type of competitive procurement, e.g., Request for Proposals, Request for Abstracts, Request for Statement of Qualifications, Pay-for-Performance. General Provisions are embodied in template bid document and, while most are shared in common across all documents, there will be certain customized provisions depending upon the type of competitive procurement
- A clear, concise, and comprehensive Scope of Work must be developed by the County responsible agency, as the primary exhibit to the bid document.
- Both the template document and the Scope of Work are reviewed by the programmatic manager, a finance representative, and a Procurement and Contract Services (PCS) manager. Where Scope of Work provisions may demand, the combined bid document may also undergo review and approval by County Counsel in advance of release. Otherwise, all bid documents used by the County have already undergone extensive review by County Counsel, and are promptly updated to reflect new local and State policies, ordinances, and regulations.
- The Bid Response process is open and fully transparent, and fully conducted at arms-length to County and the SoCalREN staff. Prior to release, and continuing throughout the Bid Response process, no potential bidder may have contact with County or SoCalREN staff. Any such contact is grounds for disqualification. Proper questions and/or requests for clarification are addressed through a public written question and answer forum, or may be satisfied through a scheduled, advertised Pre-Bid Conference (which itself is agendized, monitored, and recorded).
- An Evaluation Committee of subject matter experts is assembled, and each member is subject to County procurement standards and restrictions, including but not limited to:
- Review and evaluation limited to the Procurement Bid documents and Responses only
- Communication is banned between Evaluation Committee members and bidders and, also, among Evaluation Committee members themselves prior to the Evaluation Committee

Meeting. Evaluation Committee Members are required to sign statements verifying that no such communication has occurred.

- SoCalREN Managers do not serve on the Evaluation Committee, but are permitted to observe the Evaluation Committee Meeting to ensure that each Member has fully read the solicitation document(s) and all proposals, and monitor or respond to clarifying questions and answers.
- The Evaluation Committee Meeting is supervised by PCS staff.
- Recommended awards submitted by the Evaluation Committee trigger a vetting process that verifies the information and references submitted by the potential awardees, and verifies that no conflict-of-interest exists
- Awards are announced and subject to a protest period. If a protest is submitted, awards are suspended until PCS staff and County Counsel have investigated the basis of the protest and rendered a decision whether its substance does or does not vacate the recommended award
- Master Agreements developed by the County and previously approved by PCS, Finance, and County Counsel are executed between or among the parties. Master Agreements include quality assurance/quality control, insurance, licensing and certification, key personnel clauses, performance plateaus, failure to perform, reporting and invoicing requirements, and termination—and other—clauses that protect the security and use of the underlying funds
- All executed Master Agreements are unenforceable and non-actionable until approved by the County Board of Supervisors in a public meeting that allows for public comment. Prior to the Board Agenda date for the approval, the matter is also subject to a prior Board Deputies Meeting, which requires the SoCalREN Administrative staff to answer questions, if any.
- Consistent with the framework for the energy efficiency portfolio, contract terms are flexible, and can run from a single year to multiple years, with limited options for automatic renewal.
- Master Agreements contain provisions that allow for termination for failure to perform or for convenience.

Third-Party Solicitation Schedule 2024–2027

SoCalREN anticipates a comprehensive solicitation for existing program sectors (Public, Residential, and WE&T) in Q2 of 2023 in the form of Requests for Proposals (RFPs). Contracting will be expected to launch ahead of the 2024-2027 cycle.

An additional solicitation covering new program sector implementation is anticipated to take place in Q1 and Q2 of 2024, also in the form of RFPs. These anticipated solicitation strategies will assist the SoCalREN in enhancing its current and future portfolio.

Throughout the term of the portfolio cycle, the SoCalREN will evaluate its programs and strategies on an annual basis. Based on its annual evaluation, SoCalREN will look to further optimize its portfolio and may solicit additional RFPs.

Table 143 provides a high-level summary of SoCalREN's anticipated solicitation schedule through 2027.

Table 143. Anticipated 2024–2027 Portfolio Solicitation Schedule

Year	Q1	Q2	Q3	Q4
2023		Public, Residential, and WE&T		
2024	Agricultural and Commercial	Codes & Standards and Financing		
2025 & 2026		*No Solicitations*		
2027			Possible re-bids of sector(s)	Possible re-bids of sector(s)

Risk Distribution

SoCalREN intends to continue its established practice of soliciting and contracting for all implementation activities, whiles establishing oversight and performance management structures to monitor progress and performance. SoCalREN will diversify its implementation strategy across sectors and segments so that programs are in place to fully realize intended outcomes and goals.

SoCalREN also mitigates portfolio risks through partnerships and coordination with other PAs and Program Implementers. SoCalREN's focus on partnership coordination with regulated PAs has been critical to its success. Since launching the REN nearly a decade ago, SoCalREN has deepened coordination and exchange with the region's incumbent Utilities, SCE and SoCalGas, as well as with non-IOU PAs. SoCalREN fundamentally operates in the service of ratepayers and adds value to property owners by providing information and referrals to programs across all program implementers, including those outside SoCalREN's implementation focus. This requires positive mutual relationships with program implementers across the region. It also requires that the PAs establish clear messaging to differentiate, but also to complement and orchestrate, the suite of available energy management services. SoCalREN will bring this same level of coordination and cooperation as the market and program administration expands and gains new market actors, such as new CCAs and new RENs, while ensuring services continue to be complementary and not duplicative.

SoCalREN also aligns its portfolio priorities with non-traditional market participants. For example, SoCalREN has successfully established an Advisory Committee comprised of key stakeholders across the region, as well as critical partnerships with industry organizations that shape the energy efficiency marketplace. These key stakeholders include city governments, county governments, community-based organizations, academia, industry organizations, non-profits, and councils-of-governments, to name a few.

Building stakeholder coalitions toward energy efficiency objectives aligns the interest of parties toward the portfolio's success, diversifies which actions will lead to the intended outcomes, and largely distributes and mitigates the risk of not moving toward and achieving the intended outcomes of the portfolio.

Incorporation of Input on Current Solicitation Process

This is not applicable to non-IOU PAs.

Supplier Diversity

Although not subject to the requirements of CPUC General Order 156, SoCalREN understands that it can play an important role in increasing women-owned, minority-owned, disabled veteran-owned and LGBT-owned business enterprises' participation in the energy efficiency market. SoCalREN both values and encourages the participation of Diverse Business Enterprises (DBE) and Small Business Enterprises (SBEs) in its solicitation process outlined above. SoCalREN also encourages its contractors performing energy efficiency work to engage with DBE subcontractors and will require that contractors provide monthly reports on payments made to certified DBE subcontractors. SoCalREN will report its contractor's DBE contracted and subcontracted dollars and other data to its partner utilities and in its Annual Report. It is SoCalREN's intention that transparency in reporting on DBE expenditures will enable greater participation by diverse businesses and may enable SoCalREN to set achievable future targets.

- Minority, Women and LGBT DBEs will be required to be certified through the CPUC's Supplier Clearinghouse: www.thesupplierclearinghouse.com
- Service-Disabled Veteran DBEs will be required to be certified by the California Department of General Services, Office of Small Business & Disabled Veteran Business Enterprise Services ("OSDS"): https://caleprocure.ca.gov/pages/sbdvbe-index.aspx
- SBA 8(a) DBEs will be required to be certified by the U.S. Small Business Administration: https://certify.sba.gov/

Continued Stakeholder Engagement on Solicitation Process

This is not applicable to non-IOU PAs.

Statewide Programs

This is not applicable to non-IOU PAs.

Assessment and Mitigation of Risk

As outlined above in the Solicitation Strategy section, SoCalREN uses LA County's rigorous public solicitation process to solicit, select, and award implementation contracts for its energy efficiency portfolio. This process is designed to protect the use of public funds and ensure they are spent efficiency and effectively. This process also carefully considers the performance risk of potential implementers. As also described above, SoCalREN has successfully divided implementation work by customer sector and intends to continue managing solicitations at the sector level. This provides economies of scale when managing fewer implementers per sector, while enabling SoCalREN to select implementers with targeted expertise in these customer sectors. As SoCalREN continues to diversify its portfolio to offer a balanced distribution of market support, equity, and resource acquisition programs, SoCalREN is also considering issuing targeted solicitations for specific segments of the portfolio. For example, the portfolio may benefit from assigning contracts with the objective to support a customer segment separately from contracts specifically targeted at delivering energy savings. SoCalREN will carefully way options based on the portfolio's approval and select implementers which are most likely to deliver the results targeted in this application.

Contract Management

As a Program Administrator managed by a local government, SoCalREN will administer the portfolio including tasks such as soliciting and managing contracts, tracking performance, and making all portfolio level decisions necessary to deliver the program and portfolio goals. It will utilize internal monitoring and reporting such as CRM dashboards and monthly check-ins to track implementation teams progress to meeting goals. If at any time during the course of a program year a contractor is not on course to meet goal based on monthly dashboards, SoCalREN will alert that applicable implementation team and request for a corrective action plan.

In addition, SoCalREN will process, review and vet all invoices prior to approval for payment. These invoices have been developed and approved by its Fiscal Agent. Lastly, protocols for any errors or in accuracies would be addressed and followed up with each implementer prior to any payment of invoice. Once remedied invoices will be submitted for final review and payment. All expenses and costs must fall within contract award pricing schedules and costs/budget contract spend is monitored by SoCalREN on a monthly basis to ensure that contract budgets are not exceeded.

Coordination and Stakeholder Input

Coordination with Other Program Administrators

Partnerships are critical to SoCalREN's success in implementing its intervention strategies; however, having multiple program implementers in similar geographies can introduce the potential for duplication of efforts, and thus requires additional coordination. To avoid duplication of efforts with potential partners such as IOUs and RENs, SoCalREN will continue to work proactively with its partners to ensure clear lines of communication and program differentiation.

The primary document guiding the coordination approach between PAs is the joint cooperation memorandum (JCM) between EE PAs with overlapping service areas, initially required in D.18-05-041. Specifically, the directive states: "We will require the PAs (RENs, IOUs, and CCAs) to develop a joint cooperation memo to demonstrate how they will avoid or minimize duplication for programs that address a common sector (e.g., residential or commercial) but pursue different activities, pilots that are intended to test new or different delivery models for scalability, and/or programs that otherwise exhibit a high likelihood of overlap or duplication and are not targeted at hard-to-reach customers. For such programs, each PA must explicitly identify and discuss how its activities are complementary and not duplicative of other PAs' planned activities." D.21-05-031 continued to require JCM but allowed them to be included in the Annual Report rather than being submitted as a separate advice letter annually.

SoCalREN's Portfolio is designed to continue implementation of programs in areas where the REN has been successful and to launch new programs and sectors where a clear gap exists. SoCalREN will continue to coordinate with SCE and SoCalGas, as well as RENs and CCAs, (referred to as "Joint-PAs") to focus on collaboration across overlapping programs. As part of the Joint PAs' focused transition to performance-based and comparatively cost-effective and cost-efficient portfolios, the Joint PAs will be continuing to collaborate to ensure that their respective overlapping regional programs do not result in unnecessary duplication or cause customer

confusion. PAs can derive additional value by providing information and referrals to programs across all program implementers, including those outside each other's implementation focus. The Joint PAs will continue to conduct ongoing performance assessments, introduce program administrative and implementation adjustments to reduce costs and increase energy savings, and optimize performance of all their portfolios.

SoCalREN also plans to continue its quarterly collaboration meetings and monthly statewide program coordination calls with IOU program implementers, as well as participation in program PCGs, with the goal of reaffirming clearly defined program goals and messaging. This collaboration will minimize confusion for property owners, public agency stakeholders, and non-governmental market actors. Partnering will continue to be a key component of SoCalREN's activities for the foreseeable future in order to continue successfully implementing programs and supporting hard-to-reach audiences, and to strengthen the regional nature of SoCalREN.

SoCalREN Complementary Portfolio

Since its launch in 2013, SoCalREN has successfully met the criteria set forth by the CPUC for RENs. In D.12-11-015 and reasserted in D.19-21-021, the CPUC directed the RENs to deliver programs and activities that met a threshold of criteria:[39]

- Activities that utilities or community choice aggregator (CCA) program administrators cannot or do not intend to undertake.
- Pilot activities where there is no current utility or CCA program offering program offering, and where there is potential for scalability to a broader geographic reach, if successful.
- Pilot activities in hard-to-reach markets, whether or not there is a current utility or CCA program that may overlap.

As a peer-driven organization where public agencies learn from one another, SoCalREN's portfolio has brought special expertise and relationships with customers that other administrators or local government partnerships do not possess. SoCalREN successfully complements and supplements the activities of existing LGP programs as well as other public, residential, commercial, agricultural, and crosscutting sector energy efficiency programs administered by its partner utilities, SCE and SoCalGas. Specifically, SoCalREN's portfolio strategies and services address gaps not filled by other PAs. For instance, Public Agencies face unique challenges and barriers that include limited technical resources to identify, develop, and implement projects; inadequate and limited access to data about building performance; financing hurdles; unique procurement requirements; protracted decision-making processes; and managing within a political environment, among others. As an entity that is managed by the public sector for the public sector and its constituents, SoCalREN is uniquely suited to overcome these barriers and unlock the potential for public agency energy leadership and collective energy actions. In addition, more than 40% of SoCalREN's enrolled Public Agencies encompass disadvantaged communities.

In addition, SoCalREN has utilized program assessment and optimization strategies to reform its residential offerings which has resulted in an increase in programs efficiencies, an increase in conversion, improved program satisfaction, and, perhaps most importantly, better targeting and participation by hard-to-reach customers. Additionally, the SoCalREN has planned strategies which leverage other residential programs and anticipate cost-efficient program elements that reduce incentive-intensity per project and will demonstrate further higher conversion rates.

[39] D.12-11-015, p. 17.

These strategies will continue to reach hard-to-reach markets and underserved communities within the residential sector.

Since its inception, SoCalREN has sought to fill critical gaps and overcome barriers by providing opportunities to areas that the IOUs have underserved to meet California's EE goals. The Commercial and Agricultural Sectors are being proposed to fill clear market gaps that have emerged in recent years. Small businesses and rural agricultural customers were left behind in both planning and practice. SoCalREN reviewed public documents such as past business plans, Annual Budget Advice Letters (ABALs), Annual Reports, as well as stakeholder meetings with local governments and regional partners to assess the energy efficiency needs of local communities. A clear pattern of lack of services to agricultural and small business customers in the SoCalREN region emerged.

In addition, beginning in 2024, SoCalREN believes that the small and medium Ag customers in rural, disadvantaged communities will not be the primary focus of SCE and SoCalGas' third-party programs due to cost-effective (TRC) constraints of greater than 1.0 and cost to serve. Due to the reduced avoided costs in 2024, SCE's and SoCalGas' third-party programs will have difficulty achieving their required TRC of 1.0 which will make it even harder for them to serve small and medium, rural, disadvantaged communities.

SoCalREN has designed its agricultural sector portfolio to serve all agricultural customers but will place special emphasis on small and medium operators, who collectively use 63% of the energy in the segment. This group of customers still desperately need the support of energy efficiency programs to help them learn how to better manage their resources, and to assist with the financial burden of implementing energy efficiency upgrades.

The Commercial sector has also seen clear gaps, particularly for small businesses. SCE's 2018-2025 Business Plan found that although small business customers represented 92% of commercial accounts, SCE only installed EE measures in 9% of those accounts between 2013 and 2015[40]. Since then, SCE has closed its Commercial Direct Install Program, which was the primary source of savings for this sector and launched a very large Commercial Energy Efficiency Program (CEEP) which specifically excludes commercial accounts under 20kW.

The Small Business Utility Advocates (SBUA) found that RENs as local entities can leverage local partnerships to serve HTR customers that the IOUs have struggled to serve.[41]As a public agency, and as a partner to local governments which greatly value their local small business constituents, SoCalREN is committed to the success of this hard-to-reach sector.

Although SoCalREN has not previously provided Commercial and Agricultural Sector portfolios within previous business plan cycles, SoCalREN will leverage its previous experience within the Public and Residential Sectors to provide robust, comprehensive, and cost-effective opportunities to these sectors.

The Commercial and Agricultural Sector programs are designed with coordination in mind to provide a seamless experience for customer participants. All implementers will regularly coordinate resources to ensure that all available resources available to SMBs are understood. This includes programs outside of the SoCalREN portfolio, such as IOU 3P EE programs and other DER offerings. This creates efficiencies among programs and develops partnerships among

[40] SCE 2018-2025 Business Plan, Page 90

[41] SBUA Protest to PAs ABALs, page 3

organizations to share resources and increases reach to deliver on California's aggressive climate goals more effectively.

In terms of implementation, since its inception SoCalREN has also exercised the power of governments to leverage alternative funding, community networks, and other government programs to enhance portfolio capacity, particularly in support of programs that fill gaps or represent scalable offerings. SoCalREN has conducted performance assessments, introduced program administrative and implementation adjustments to economize costs and boost outputs, and mapped programmatic, procurement, outreach, and collaborative enhancements and tactics that have matured and optimized its performance as a Program Administrator in furtherance of the roles set forth in D. 12-11-015 and direction contained in D. 16-08-019.[42] In addition through D.19-12-021[43], SoCalREN has further continued to demonstrate its unique value toward California's energy, climate, and equity goals by developing sector level unique value metrics.

As reinforced in D.16-08-019, SoCalREN will continue to adopt a "long-term" path toward administrative efficiency and strive to find areas that maximize outcomes, customer benefits, and program performance, while minimizing costs. This path could include but is not limited to practices such as streamlining reporting processes, instituting more internal detailed budgetary tracking reports, standardizing infographics and other data-sharing and marketing collateral, maximizing web-based tools, and utilizing remote attendance options for conferences and workshops to alleviate pressure on travel costs. In addition, and foremost, SoCalREN plans to identify administrative tasks that can be automated or eliminated so long as regulatory compliance or customer support is not compromised.

SoCalREN will continue to utilize this "peer driven" approach to leverage public agency programs with a focus on serving hard-to-reach communities in both its existing (public and residential) and newly proposed (commercial and agricultural) sectors while maintaining a path to increased cost efficiency. SoCalREN's services will continue to complement and supplement IOU programs and will fill gaps and find synergies among approaches to maximize opportunities for customers and other market actors which is in-line with all the objectives laid out in D.12-11-015, D.16-08-019, and D.19-12-021.

Program Coordination Efforts

SoCalREN has established a solid and effective working relationship and coordination with overlapping PAs and local partners to deliver services that support public agency leadership in energy efficiency and engagement with its residential constituents. With the goal to ensure a seamless customer service experience, SoCalREN has implemented effective coordination and communication protocols with SCE and SoCalGas to ensure that it does not duplicate but rather fills gaps and complements current services.

SoCalREN's portfolio design continues this systemic approach to portfolio integration ensuring that customers are driven to the most appropriate energy efficiency service offering in order to accelerate the deployment of energy efficiency. SoCalREN's sector level market support and equity programs support the long-term success of and the equitable access to energy efficiency within assigned sectors by driving customers and market participants to participate in resource acquisition programs, whether offered by SoCalREN or other PAs. It is SoCalREN's long

[42] D.12-11-015, p. 7-19; D.16-08-019, p. 8-12.

[43] D.19-12-021, Conclusions of Law 9

established practice to ensure customers receive optimal service offerings. For example, when the public sector project delivery market support program launched in 2013, SoCalREN worked to develop a data exchange and tracking process with their IOU partners SCE and SoCalGas. This data exchange and tracking process ensures non-resource activities explicitly align with resource activities. REN projects were "flagged" through a monthly data reconciliation with IOU core program participation data to ensure that the IOU data submitted to the Commission was comprehensive and accurate. The data exchange is referenced in the SoCalREN, SCE, and SoCalGas 2021 Joint Cooperation Memo.72 The 2020 SoCalREN Annual Report shows that in the public sector alone, SoCalREN had channeled savings into 9 separate resource programs offered by SCE, SoCalGas, and SoCalREN73. This careful coordination and planning maximized the work that could be done through these agencies and ensured they had access to what they needed to implement energy efficiency projects, while ensuring there was no duplication of effort, unnecessary spending, or customer confusion.

SoCalREN is also an active participant in the California Energy Efficiency Coordinating Committee (CAEECC). This stakeholder engagement forum engages with all energy efficiency program administrators, as well as other stakeholders participating in the R.13-11-005 proceeding. This forum meets quarterly and provides for public discussion on portfolio and program changes as well as other regulatory activity affecting the portfolio. CAEECC further forms working groups and sub-working groups for targeted assignments, such as addressing the Market Transformation framework or defining metrics for the new market support and equity segments. SoCalREN is actively engaged in this coordinating committee and its working groups and intends to continue these coordination efforts. This stakeholder engagement process limits misunderstanding on portfolio and program coordination efforts and enable a public process to optimize portfolio administration around customer energy efficiency needs.

In addition to actively participating in the CAEECC, SoCalREN holds regular coordination meetings with the IOUs and regional partners including coalitions of government, community-based organizations, enrolled public agencies, and its Advisory Committee composed of various governmental organizations. This stakeholder engagement ensures collaboration and coordination on program offerings, program incentives, program changes, customer needs, and effective use of resources. SoCalREN regularly coordinates and shares information with the BayREN as well as representatives of the Tri-County REN and with the newly formed I-REN and CCA Authorities within the SoCalREN territory. As new SoCalREN programs are authorized and implemented, SoCalREN will continue to build on its successful coordination and communication protocols to avoid any duplication or contradiction of effort and maintain the highest level of customer service along with the proper and effective use of ratepayer funds.

SoCalREN is extremely mindful of its energy efficiency funds and statutory requirements around the use of those funds. SoCalREN utilizes a budgetary tracker approach that tracks detailed costs by projects and only allows funds to be charged to its energy efficiency accounts based on tasks directly related to energy efficiency implementation. SoCalREN will partner with communities and local governments to identify additional funding for non-energy efficiency components in a proposed project; however, SoCalREN will not directly manage the funds and would only distribute funds or services that support energy efficiency savings. Funding management of non-energy efficiency components would be a responsibility of the program participants. Notwithstanding this division of roles, the SoCalREN will account for any and all

leveraged, alternative, and unrelated grant funds, in order to report funding modifiers and exponentials as a performance metric.

Finally, As outlined in past JCMs, SoCalREN and the IOUs are committed to coordinating to prevent double dipping between SoCalREN and other PA program offerings, including upstream, midstream, and downstream local and statewide programs. Early screening and ongoing communication on potential projects will support this activity. Additional protocols will be developed as projects emerge and new programs come online.

Coordination with Other Demand-Side Programs

Although SoCalREN is not yet authorized by the Commission to administer programs outside of the energy efficiency portfolio, SoCalREN will carefully coordinate program activity and offerings with complementary and supplementary demand side program offerings through both Commission regulated programs such as decarbonization and distributed energy resource programs, as well as external programs including federal, state, and local grant programs. SoCalREN has been successful in leveraging external funding to provide incremental services through their energy efficiency offerings. For example, SoCalREN enhanced program offerings and services by securing non-ratepayer funds to design and implement a Sub-Program to DER DAC called Benchmarking Call to Action. The Sub-Program funded through a California Energy Commission grant was made available to enrolled DACs in 2020 and provides enhanced benchmarking support and technical assistance for audits that evaluate various Distributed Energy Resources (DERs) as part of energy efficiency upgrades.

Coordination with Decarbonization, Demand Response, and DER Programs

SoCalREN will work with IOU partners as well as other local, statewide, and federal programs targeting demand side energy solutions which align with the SoCalREN mission. SoCalREN will continue its established practice of guiding enrolled agencies and their constituents to advance carbon reduction strategies by leveraging all available solutions, including programs and funding offered by other entities. SoCalREN market support programs will guide customers to participate both in SoCalREN and other PA resource acquisition programs but will also share information of other funding sources which further advance California's climate goals and benefit the long-term energy optimization of those customers.

Coordination with Market Transformation Programs

SoCalREN has proposed a comprehensive portfolio of programs which include market support programs designed to support the long-term success of the energy efficiency market and a codes and standards program which seeks to accelerate local government leadership in energy efficiency (EE), ZNE, and greenhouse gas (GHG) goals through their regulatory authority over construction and land use. These programs are designed to align with the Commission's segmentation definitions in D.21-05-031 and not as Market Transformation Initiatives as described in D.19-12-021. SoCalREN expects its portfolio of programs to be complementary to the anticipated Market Transformation Administrator's (MTA) portfolio of Initiatives, but these Initiatives have yet to be identified. SoCalREN intends to meet with the future MTA once they have been selected and launched and intends to coordinate closely with that entity and the California Energy Efficiency Coordinating Committee (CAEECC) to ensure portfolios are aligned to best serve the state's energy and climate goals.

Stakeholder Engagement in the Development of this Application

SoCalREN recognizes the value of stakeholder engagement and input and has incorporated regular interactions with various groups to continuously evaluate and improve current offerings while gathering ideas for future programs. The proposed portfolio incorporates feedback gathered over years of implementation and intentional stakeholder interactions while also presenting new offerings based on targeted requests to partners.

Regional Partner Engagement to Develop Programs

During the early stages of the portfolio development process, SoCalREN organized conversations with the SoCalREN Regional Partners to solicit ideas for new program ideas or initiatives that could fill programmatic gaps and meet local needs. To ensure that they could effectively participate in the portfolio development process, SoCalREN hosted three workshops between December 2020 and March 2021 to educate and orient the Regional Partners. Representatives from all five Regional Partners participated in each workshop. In addition to the Regional Partners, LA County, SoCalREN implementers, and the SoCalREN EM&V consultant also attended.

Table 144. Regional Partner Workshop Series

Date	Topics
December 2020	• Overview of Current SoCalREN Programs & Current Approved BP • Total Resource Cost (TRC) • Difference Between Resource/Non-Resource Programs • What are EE Measures? Where can I find what measures are eligible? • Deemed vs. Custom • What are workpapers? Who develops? How? • Fuel-substitution
February 2021	• Business Plan proposal for Regional Pilot Programs • Proposed process for proposition and strategies
March 2021	• Proposal update • EAPs Defined • Previous support offered • Considerations with SoCalREN EE funding • Business Plan Proposed Strategy • Open discussion on ideas/Q&A

Following the workshops, SoCalREN distributed a two-page application form to submit ideas for new programs or initiatives. SoCalREN offered support in developing ideas and encourage collaboration among partners. In May 2021, seven applications were submitted by Regional Partners. SoCalREN reviewed the submissions and held calls to discuss each application concept. The below table outlines the submissions and the resulting action.

Table 145. Summary of Regional Partner Submissions

Program	Organization(s)	Feedback	SoCalREN Action
CA Green Business Network Implementation	SBCCOG, HSEF, GCCOG, SGVCOG	• Expand CA Green Business Network to all cities within participating Regional Partnerships and leverage program to assist small/medium businesses to achieve green business certification. Provide enhanced audits and incentives ($500/business). Fills the gap left by SCE Commercial DI program ending. Supports local government GHG reductions goals.	• Accepted. • Included in Business Plan Filing for 2024 implementation. Potential future collaboration with OCPA.
Home Energy Assessment	SGVCOG	• At home or virtual whole-house Home Energy Assessments to provide project recommendations and information about programs. • Build from experience from "EASY" program funded by LGP. Current options are limited to single fuel. • Would offer in-language support and customized approach (e.g., renter vs homeowner) with a special focus on HTR/underserved.	• Accepted • Incorporated as an initiative to be delivered through existing program offering.
Facility Equipment Inventory	SBCCOG, GCCOG, SGVCOG	• Comprehensive inventory of electric/natural gas using equipment in participating facilities that would lead to recommendations and timeline for replacement.	• Accepted. • Incorporated as an initiative to be delivered through existing program offering.
Energy Resiliency Action Plan (ERAP)	SBCCOG, GCCOG, and SGVCOG submitted a combination of four (4) proposals for GHG inventory,	• Revised GHG inventories for cities that have completed CAPs to assess performance and progress toward targets. • ERAP for any interested public agency in SGVCOG territory that would include community,	• Accepted. • Incorporated as an initiative to be delivered through existing program offering and included in the Business Plan as a

Program	Organization(s)	Feedback	SoCalREN Action
	ERAP, and EAP services	municipal, electricity, and natural gas components. • Includes/leverages CEA, GHG inventory, equipment inventory, project recommendations, and funding recommendations. Create a subregional index for larger innovative projects. • Municipally focused EAPs for 3 GCCOG cities. Leverage Clean Path ICLEI tool.	new program in 2024.

Other Stakeholder Feedback

Table 146. Other Stakeholder Feedback

Stakeholder	Feedback	SoCalREN Action
Small Business Utility Advocates (SBUA)	SBUA responded to the SoCalREN 2021 ABAL that they should target HTR customers, including small commercial customers in DACs that IOUs have struggled to serve.[44]	Inclusion of Commercial sector in Business Plan with several programs and strategies that focus on serving HTR small commercial customers.
Public agency program participants	SoCalREN hosted a focus group among participating public agencies in November 2020 to gather feedback in anticipation of the Business Plan filing. Participants requested behavior change strategies and EV infrastructure/fleet replacement services when considering future programs.	Inclusion of two SEM program offerings that incorporate behavior change strategies. The business plan speaks to the importance of IDSM, and SoCalREN has secured non-ratepayer funding to continue non-EE program support for public agencies that includes EV infrastructure.
CCAs: OCPA & CalChoice	Shared interest in collaboration for future program implementation.	SoCalREN encouraged ideas and collaboration. MOU signed with OCPA in 2021 to collaborate once they launch service. OCPA also demonstrated interest in the CAGBN program. CalChoice is considering MOU.

[44] SBUA protest to PAs 2021 submitted on October 1, 2020, page 3

7. EM&V

Evaluation, Measurement, and Verification (EM&V) funds will be used to improve SoCalREN's portfolio of programs and ensure that the programs are collecting data to support evaluation needs.

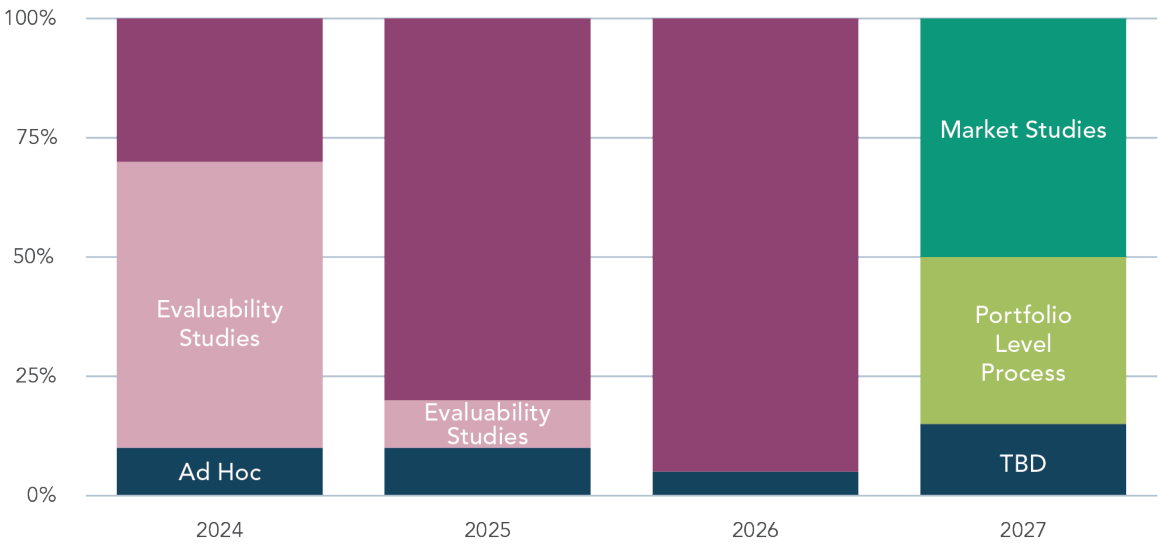
A comprehensive workplan will be developed at the beginning of each year to identify the study needs in the portfolio, determine the timeframe, and allocate the budget per study. The annual workplan may include updates or build upon studies conducted in previous years. The workplan will include the following four types of research activities.

Planned EM&V Studies and Activities

- **Process Evaluation Studies** to examine how to improve the programs and/or improve the participant experience.
- **Evaluability Studies** to ensure that the program goals are well defined and plausible (given the program activities in the logic model) and ensure that the program is cost efficiently collecting data to support future impact studies and/or metrics.
- **Market Studies** to understand gaps in the market, understand how to better serve target audiences, or understand new services.
- **Ad Hoc Research Support** to support quick turn-around research, provide direct SoCalREN support, or assist with other needs such as providing or reviewing information for CPUC-led studies.

SoCalREN expects the nature of the work to change over the four-year period. Early in the period, a large part of SoCalREN's EM&V funds will be spent on evaluability studies since many programs are new. Mid-period, the large majority will be used for process evaluation, and at the end of the four-year period, SoCalREN will conduct a cross-sector Portfolio-level process evaluation and several market studies to help with the direction of the portfolio in 2028-2031.

Figure 69. Distribution of SoCalREN EM&V Budget



- **Process Evaluation Studies** for specific individual programs will be conducted after programs have been implemented for at least one year. These process evaluations may be conducted as embedded process evaluations (i.e., following the program throughout a program year) and/or they may focus on setting up systems to collect information to understand and enhance program influence. SoCalREN also plans to conduct at least one Process Evaluation study at the portfolio level to help look broadly at SoCalREN's accomplishments, identify gaps, and help define the direction of the portfolio in the latter part of the Business Planning period (2028-2031).
- Several of the programs that SoCalREN is proposing are new programs, which require a review of metrics, revisions to logic models, and assurance that they are collecting the information needed to demonstrate value to the CPUC. **Evaluability Studies** will be conducted for newly added programs, with a focus on data tracking for Resource Acquisition programs and any Market Support or Equity metrics deemed critical for the state. These will be used to ensure that the programs are collecting data to support future impact studies and/or metrics. The overall purpose of an Evaluability Assessment is to inform the timing of an evaluation and to improve the prospects for an evaluation to understand the effects of the program.
- In a constantly evolving environment, market studies are an essential EM&V product needed to help set the strategic design of programs and portfolios. **Market Studies** may focus on barriers to taking actions to save energy or reduce consumption, non-participant needs, contractor or other trade ally support, stakeholder-identified issues, or characteristics of the market being explored. Market studies will be used to understand how to encourage additional energy savings and/or meet the needs of those targeted by the portfolio. Note that in the latter years, some of the studies may combine elements of a process evaluation and a market study for cost efficiencies.

Ad Hoc research studies may also be conducted as needs are identified.

PA/ED Budget Allocation and Justification

The following studies are currently anticipated be conducted to improve SoCalREN's portfolio of programs and ensure that the programs are collecting data to support evaluation needs. The study ideas below are being provided to give a rough idea of how SoCalREN plans to use their EM&V budget during the 2024-2027 timeframe. SoCalREN expects that over the portfolio cycle, the needs of the portfolio—and thus the EM&V studies described below—may shift. Future annual EM&V plans will supersede the proposed list of studies below.

Table 147. SoCalREN EM&V Budget

Year	2024	2025	2026	2027
SoCalREN EM&V Budget	$1,742,425	$2,203,341	$2,372,771	$2,757,337

Table 148. 2024 Planned Studies

Study Type and Name	Proposed Program(s)	Description/Justification	Timeframe	Estimated Budget
Process Evaluation Residential/ Multifamily Sector	Whole Building Comprehensive Energy Efficiency Multifamily Program and Small HTR Multifamily Direct Install	SoCalREN conducted a Multifamily Program process evaluation in 2021. SoCalREN will revisit the multifamily programs in 2024, including the newer Small HTR Multifamily DI program. This will include an assessment of the program processes, customer journey, and an effort to ensure that these Resource Acquisition programs are collecting data to support future impact studies.	Jan-Dec 2024	30% of annual budget
Evaluability Study Agricultural Sector Programs that provide energy savings	Agriculture Retrofit Program Rural-HTR Agricultural Direct Install	Evaluation of SoCalREN's Agriculture sector program to ensure goals are clear, logic is plausible, and program is collecting data needed to contribute energy savings and demonstrate success.	Jan-Dec 2024	10% of annual budget
Evaluability Study Direct Install Programs	Small Commercial Direct Install Program Rural-HTR Public Agency Direct Install	Evaluation of SoCalREN's Commercial and Public sector direct install programs (equity segment) to ensure goals are clear, logic is plausible, and program is collecting data needed to demonstrate success.	Jan-Dec 2024	10% of annual budget
Evaluability Study Public Program	Water Infrastructure Program	Evaluation of SoCalREN's Public sector Resource Acquisition program to ensure goals are clear, logic is plausible, and program is collecting data needed to demonstrate success.	Jan-Dec 2024	10% of annual budget
Evaluability Study Equity Programs	Examples include Food Desert Energy Efficiency Equity Program	Evaluation of the new Equity programs to ensure that the logic models reflect program implementation, that the	Jan-Dec 2024	10% of annual budget

Study Type and Name	Proposed Program(s)	Description/Justification	Timeframe	Estimated Budget
	and some small business efforts	metrics are clear and aligned with CPUC/CAEECC suggestions, and that the program is collecting the required data.		
Evaluability Study Market Support Programs	Examples include the EE Project Delivery Program, California Green Business Network, and WE&T programs	Evaluation of the new Market Support programs to ensure that the logic models reflect program implementation, that the metrics are clear and aligned with CPUC/CAEECC suggestions, and that the program is collecting the required data.	Jan-Dec 2024	20% of annual budget
Ad hoc research support	N/A	Support for quick turn-around research, direct SoCalREN support, or other needs such as providing or reviewing information for CPUC-led studies.	As needed	10% of annual budget

Table 149. 2025 Planned Studies

Study Type and Name	Proposed Program(s)	Description/Justification	Timeframe	Estimated Budget
Commercial Sector Process Evaluation	Small Commercial Direct Install Program Food Desert Energy Efficiency Equity Program CAGBN Small & Medium Business Energy Advisor (SMBEA)	Evaluation of program processes and participant experience to help improve the programs. Exploration and documentation of program influence and value. The focus will be on how to best serve SMB customers.	Jan-Dec 2025	30% of annual budget
Public Sector Process Evaluation Resource Acquisition (RA) and Direct-RA-Support Programs	EE PDP DER DAC Program Metered Savings Program SSP Rural-HTR Public Agency DI Public Agency RLF	Evaluation of program processes and participant experience to help improve the programs. Exploration and documentation of program influence and value.	Jan-Dec 2025	40% of annual budget
Public Sector Process Evaluation Policy- and/or LG-support oriented	Energy Resiliency Action Plan (ERAP) Regional Partner Initiatives (early C&S in advance of 2026 eval)	Evaluation of program processes and participant experience to help improve the programs. Exploration and documentation of program influence and value.	Jan-Dec 2025	10% of annual budget
WE&T Process Evaluation Adult Workers	E-Contractor Academy WE&T Opportunity Hub Agriculture WE&T	Evaluation of program processes and partner/ participant experience to help improve the programs. Exploration and documentation of program influence and value.	Jan-Dec 2025	10% of annual budget
Ad hoc research support	NA	Support for quick turn-around research, direct SoCalREN support, or other needs such as providing or reviewing information for CPUC-led studies.	As needed	10% of annual budget

Table 150. 2026 Planned Studies

Study Type and Name	Proposed Program(s)	Description/Justification	Timeframe	Estimated Budget
Agriculture Sector Process Evaluation/Market Study	Ag Retrofit Program Rural-HTR Ag DI Ag Project Delivery Program Rural-HTR Ag Finance Assistance Program	These programs are expected to take longer to ramp up, and thus will be evaluated in 2026. Evaluation of program processes and participant experience to help improve the programs. Exploration and documentation of program influence and value.	Jan-Dec 2026	30% of annual budget
Public Sector Process Evaluation/Market Study Institutions	WWSEM and Water Infrastructure Program , as needed	SEM may have unique needs and/or be covered through standard protocols. Evaluation of program processes and participant experience to help improve the programs. Some exploration of the market and/or non-parts, as needed, to help set direction for the future.	Jan-Dec 2026	30% of annual budget
Codes & Standards Process Evaluation	Codes and Standards Compliance Enhancement Program	Initial evaluation work will be conducted in conjunction with the Public Sector evaluation in 2025.	Jan-Dec 2026	25% of annual budget
WE&T Process Evaluation Youth/student focused	ACES Pathway Program Green Path Careers (GPC) Program	Evaluation of program processes, as well as partner and participant experience to help improve the programs. Longitudinal study of participants	Jan-Dec 2026	10% of annual budget
Ad hoc research support	NA	Support for quick turn-around research, direct SoCalREN support, or other needs such as providing or reviewing information for CPUC-led studies.	As needed	5% of annual budget

Table 151. 2027 Planned Studies

Study Type and Name	Proposed Program(s)	Description/Justification	Timeframe	Estimated Budget
SoCalREN Portfolio-level Process Evaluation	All (by sector)	Portfolio level study to help look broadly at SoCalREN's accomplishments, identify gaps, and help define the direction of the portfolio in the latter part of the Business Planning period (2028-2031).	Jan-Dec 2027	35% of annual budget
Market Study	Residential	Residential sector market assessment to identify gaps and future needs	Jan-Sept 2027	25% of annual budget
Market Study	Commercial	Commercial sector market assessment to identify gaps and future needs	Jan-Sept 2027	25% of annual budget
Ad hoc or Market Study	TBD	TBD additional formal study based on needs that develop over the four-year period.	Jan-Dec 2027	10% of annual budget
Ad hoc research support	NA	Support for quick turn-around research, direct SoCalREN support, or other needs such as providing or reviewing information for CPUC-led studies.	As needed	5% of annual budget

8. PORTFOLIO COSTS AND COMMITTED FUNDS

Summary of Costs at Portfolio Level

SoCalREN built a program-level zero-based budget by breaking down each task required to meet the program, sector, segment, and portfolio deliverables. These budgets were aggregated at the sector level in function of administration, marketing, direct implementation, and incentive costs. Totals for each category are presented at the sector and portfolio level in Table 152.

Table 152. Summary of Portfolio-Level Costs

Sector	Administration	Marketing	Implementation	Incentive	Total
Agriculture	$2,200,700	$1,320,420	$6,202,817	$12,283,068	$22,007,004
Commercial	$2,402,458	$1,594,344	$10,530,490	$16,268,107	$30,795,399
C&S	$298,000	$178,800	$2,503,200	N/A	$2,980,000
Finance	$375,700	$280,560	$4,019,740	N/A	$4,676,000
Public	$6,219,732	$5,704,995	$65,524,311	$18,684,205	$96,133,243
Residential	$816,285	$1,024,405	$12,526,917	$35,062,218	$49,429,826
WE&T	$660,000	$660,000	$9,680,000	N/A	$11,000,000
Total	**$12,972,875**	**$10,763,524**	**$110,987,475**	**$82,297,598**	**$217,021,477**

Unspent Funds Classification

SoCalREN applies policy from the CPUC EE Policy Manual.[45] "Committed funds are defined as those associated with individual customer projects and/or are contained within contracts signed during a previous program cycle and associated with specific activities under the contract. Committed funds are not considered "unspent funds," and need not be spent during that program cycle so long as there is an expectation that the activities will be completed and that the committed funds are spent to complete the activities for which they were committed. Savings will be counted in the cycle in which the project is completed (D.12-11-015, pg. 92)."

[45] CPUC Energy Efficiency Policy Manual, Version 6, April 2020, Section II. 6.

9. APPENDICES

Appendix A: Business Plan Appendix Filing Receipts (Dashboard Link)

Appendix B: Compliance Checklist

COMPLIANCE CHECKLIST

CPUC Template Description	Chapter	Section
a. Portfolio Summary	**FOUR-YEAR PORTFOLIO SUMMARY; PORTFOLIO STRATEGIES**	**All Sections**
i. Key metrics and outcomes	FOUR-YEAR PORTFOLIO SUMMARY	Metrics and Outcomes; Portfolio Metrics and Targets by Sector
1. Discussion of business plan proposed outcomes as they tie to portfolio-, sector-, and segment-level metrics in 4-year portfolio application that are critical for tracking and quantifying progress of 4-year portfolio and budget that will lead to achieving 8-year business plan strategic plan outcomes.	FOUR-YEAR PORTFOLIO SUMMARY	Metrics and Outcomes; Portfolio Metrics and Targets by Sector
2. Narrative on portfolio goals and portfolio performance metrics to be achieved in 4 years	FOUR-YEAR PORTFOLIO SUMMARY	Metrics and Outcomes
ii. Portfolio Strategies	PORTFOLIO STRATEGIES	All Sections
1. Strategy for application/use of various and new methods for savings forecasting and quantification methods (e.g., normalized metered energy consumption including requirements in Public Utilities Code section 25310(c)(5))	PORTFOLIO STRATEGIES	New Forecasting and Quantification Methods

CPUC Template Description	Chapter	Section
2. Strategy for incorporating low global warming potential (low-GWP) refrigerants in the portfolio	PORTFOLIO STRATEGIES	Low-GWP Refrigerants
3. New strategies for spurring innovation: e.g., cultivating new, diverse, businesses to enter EE design/implementation, cultivating relationships with traditional actors in other markets to enter EE design/implementation, supporting the adoption of new and evolving GHG reducing technologies	PORTFOLIO STRATEGIES	Marketplace Innovation
4. Strategies for market intervention and energy efficiency adoption: e.g., targeted points of intervention; delivery channels/platforms/methods	PORTFOLIO STRATEGIES	Market Intervention Strategies
iii. Application summary tables covering the 4-year budget request	FOUR-YEAR PORTFOLIO SUMMARY	Budget Request
1. Annual budget request over four years.	FOUR-YEAR PORTFOLIO SUMMARY	Budget Request
2. Distribution of effort (budget) across segments and sectors	FOUR-YEAR PORTFOLIO SUMMARY	Budget Request
3. For all segments: Projected sector-level and portfolio-level cost effectiveness (Total Resource Cost and Program Administrator Cost) [a. to show the TRC and program administrator cost (PAC) ratios for all segments of the portfolio, separately and combined, including separately showing the portfolio cost-effectiveness with and without the C&S segment of the portfolio]	FOUR-YEAR PORTFOLIO SUMMARY	Cost-Effectiveness Forecast
4. For resource acquisition segment: Forecasted program-, sector-, and portfolio-level cost- effectiveness over 4-year period	FOUR-YEAR PORTFOLIO SUMMARY	Cost-Effectiveness Forecast
5. For all segments: forecasted annual program-, sector-, and portfolio-level Total System Benefit (TSB), kilowatt-hours, kilowatts, therms, and CO2e.	FOUR-YEAR PORTFOLIO SUMMARY	Energy Savings Forecast

CPUC Template Description	Chapter	Section
a. Include comparison of projected TSB to adopted TSB goals	FOUR-YEAR PORTFOLIO SUMMARY	Total System Benefits Forecast
6. Projected percentage of portfolio that is third-party-solicited (for IOUs)	N/A	N/A
b. Forecast Methodology	**FORECAST METHODOLOGY**	**All Sections**
Demonstration of reasonableness of request via zero-based budgeting for portfolio: i.e., budget breakdown by expenditure category (incentive, direct implementation non-incentive costs, administrative costs, marketing, evaluation, etc.) and the value delivered (forecasted performance metrics and quantitative contribution toward portfolio, segment, and sector goals/outcomes) for expenditure.	FORECAST METHODOLOGY	Zero-Based Budgets
i. Program Modifications from 2023 Portfolio	FORECAST METHODOLOGY	Program Modifications from 2023 Portfolio
Description of program modifications (e.g., categorization changes or significant budget shifts), new programs and discontinuation of existing programs from current portfolio	FORECAST METHODOLOGY	Program Modifications from 2023 Portfolio
ii. Portfolio Administration vs Program Implementation Costs [Reference D.21-05-031 pp 32-33]	FORECAST METHODOLOGY	Portfolio Administration vs. Program Implementation Costs
c. Segmentation Strategy [i.e. Resource Acquisition, Market Support, Equity, Codes and Standards]	**PORTFOLIO SEGMENTATION STRATEGY**	**All Sections**
i. Strategies driving distribution of budget among segments and alignment with broader portfolio objectives	**PORTFOLIO SEGMENTATION STRATEGY**	**Strategies Driving Segmentation and Alignment with Portfolio**
ii. Resource Acquisition	**PORTFOLIO SEGMENTATION STRATEGY**	**Resource Acquisition; 2024–2027 Budget Distribution by Segment; Rationale for Program Placement**
1. Preliminary distribution of budget among segments for 2024-2027, and rationale for the distribution	PORTFOLIO SEGMENTATION STRATEGY	2024–2027 Budget Distribution by Segment; Rationale for Program Placement

CPUC Template Description	Chapter	Section
2. Segment-specific strategies, goals, and outcomes	PORTFOLIO SEGMENTATION STRATEGY	Resource Acquisition
3. For all segments: Projected annual portfolio- and sector-level metrics	PORTFOLIO SEGMENTATION STRATEGY	Resource Acquisition
4. Segment-specific Coordination (if needed)	PORTFOLIO MANAGEMENT	Coordination and Stakeholder Input
iii. Codes & Standards	**PORTFOLIO SEGMENTATION STRATEGY**	**Codes and Standards**
1. Preliminary distribution of budget among segments for 2024-2027, and rationale for the distribution	PORTFOLIO SEGMENTATION STRATEGY	2024–2027 Budget Distribution by Segment; Rationale for Program Placement
2. Segment-specific strategies, goals, and outcomes	PORTFOLIO SEGMENTATION STRATEGY	Codes and Standards
3. For all segments: Projected annual portfolio- and sector-level metrics	PORTFOLIO SEGMENTATION STRATEGY	Codes and Standards
4. Segment-specific Coordination (if needed)	PORTFOLIO MANAGEMENT	Coordination and Stakeholder Input
iv. Market Support	**PORTFOLIO SEGMENTATION STRATEGY**	**Market Support**
1. Preliminary distribution of budget among segments for 2024-2027, and rationale for the distribution	PORTFOLIO SEGMENTATION STRATEGY	2024–2027 Budget Distribution by Segment; Rationale for Program Placement
2. Segment-specific strategies, goals, and outcomes	PORTFOLIO SEGMENTATION STRATEGY	Market Support
3. For all segments: Projected annual portfolio- and sector-level metrics	PORTFOLIO SEGMENTATION STRATEGY	Market Support
4. For market support and equity segments: projected annual segment and program-level performance metrics per recommendations of the CAEECC metrics working groups	PORTFOLIO SEGMENTATION STRATEGY	Market Support

CPUC Template Description	Chapter	Section
5. Segment-specific Coordination (if needed)	PORTFOLIO MANAGEMENT	Coordination and Stakeholder Input
6. Interaction with Market Transformation activities	PORTFOLIO SEGMENTATION STRATEGY	Market Support
v. Equity	PORTFOLIO SEGMENTATION STRATEGY	Equity
1. Preliminary distribution of budget among segments for 2024-2027, and rationale for the distribution	PORTFOLIO SEGMENTATION STRATEGY	2024–2027 Budget Distribution by Segment; Rationale for Program Placement
2. Segment-specific strategies, goals, and outcomes	PORTFOLIO SEGMENTATION STRATEGY	Equity
3. For all segments: Projected annual portfolio- and sector-level metrics	PORTFOLIO SEGMENTATION STRATEGY	Equity
4. For market support and equity segments: projected annual segment and program-level performance metrics per recommendations of the CAEECC metrics working groups	PORTFOLIO SEGMENTATION STRATEGY	Equity
5. Segment-specific Coordination (if needed	PORTFOLIO MANAGEMENT	Coordination and Stakeholder Input
d. Sector Strategy	**FOUR-YEAR PORTFOLIO SUMMARY; PORTFOLIO MARKET SECTOR STRATEGIES**	**All Sections**
i. Strategies driving distribution of budget among sectors, and alignment with broader portfolio objectives	**FOUR-YEAR PORTFOLIO SUMMARY**	**Four-Year Portfolio Summary; Metrics and Outcomes**
ii. Description of sectors program administrator proposes to serve (noting expansion into new sectors or withdrawal from sector)	**PORTFOLIO MARKET SECTOR STRATEGIES**	**All Sections**
iii. Preliminary distribution of budget among sectors for 2024-2027, and rationale for the distribution	**FOUR-YEAR PORTFOLIO SUMMARY; PORTFOLIO**	**Budget Request; All Sector Sections**

CPUC Template Description	Chapter	Section
	MARKET SECTOR STRATEGIES	
iv. Agricultural Sector	**PORTFOLIO MARKET SECTOR STRATEGIES**	**Agricultural Sector**
1. Sector-specific goals, objectives and strategies	PORTFOLIO MARKET SECTOR STRATEGIES	Agricultural Sector
2. Sector-specific coordination (if needed)	PORTFOLIO MARKET SECTOR STRATEGIES	Agricultural Sector
3. Categorization by Segment	PORTFOLIO MARKET SECTOR STRATEGIES	Agricultural Sector
4. Program Details	PORTFOLIO MARKET SECTOR STRATEGIES	Agricultural Sector
a. "Cards" for Existing programs: 1-2 pages per program, additional detail in workpapers and implementation plans	PORTFOLIO MARKET SECTOR STRATEGIES	Agricultural Sector
b. New programs being proposed as part of this application: longer discussion of each program, fulfilling AL requirements for new programs	PORTFOLIO MARKET SECTOR STRATEGIES	Agricultural Sector
c. Include program-specific coordination (if needed	PORTFOLIO MARKET SECTOR STRATEGIES	Agricultural Sector
v. Commercial Sector	**PORTFOLIO MARKET SECTOR STRATEGIES**	**Commercial Sector**
1. Sector-specific goals, objectives and strategies	PORTFOLIO MARKET SECTOR STRATEGIES	Commercial Sector
2. Sector-specific coordination (if needed)	PORTFOLIO MARKET SECTOR STRATEGIES	Commercial Sector
3. Categorization by Segment	PORTFOLIO MARKET SECTOR STRATEGIES	Commercial Sector
4. Program Details	PORTFOLIO MARKET SECTOR STRATEGIES	Commercial Sector

CPUC Template Description	Chapter	Section
a. "Cards" for Existing programs: 1-2 pages per program, additional detail in workpapers and implementation plans	PORTFOLIO MARKET SECTOR STRATEGIES	Commercial Sector
b. New programs being proposed as part of this application: longer discussion of each program, fulfilling AL requirements for new programs	PORTFOLIO MARKET SECTOR STRATEGIES	Commercial Sector
c. Include program-specific coordination (if needed	PORTFOLIO MARKET SECTOR STRATEGIES	Commercial Sector
vi. Cross-cutting Sector	**CODES AND STANDARDS CROSS-CUTTING SECTOR; FINANCE CROSS-CUTTING SECTOR; WE&T CROSS-CUTTING SECTOR**	**Codes and Standards Cross-Cutting Sector; Finance Cross-Cutting Sector; WE&T Cross-Cutting Sector**
1. Sector-specific goals, objectives and strategies	CODES AND STANDARDS CROSS-CUTTING SECTOR; FINANCE CROSS-CUTTING SECTOR; WE&T CROSS-CUTTING SECTOR	Codes and Standards Cross-Cutting Sector; Finance Cross-Cutting Sector; WE&T Cross-Cutting Sector
2. Sector-specific coordination (if needed)	CODES AND STANDARDS CROSS-CUTTING SECTOR; FINANCE CROSS-CUTTING SECTOR; WE&T CROSS-CUTTING SECTOR	Codes and Standards Cross-Cutting Sector; Finance Cross-Cutting Sector; WE&T Cross-Cutting Sector
3. Categorization by Segment	CODES AND STANDARDS CROSS-CUTTING SECTOR; FINANCE CROSS-CUTTING SECTOR; WE&T CROSS-CUTTING SECTOR	Codes and Standards Cross-Cutting Sector; Finance Cross-Cutting Sector; WE&T Cross-Cutting Sector
4. Program Details	CODES AND STANDARDS CROSS-CUTTING	Codes and Standards Cross-Cutting Sector; Finance Cross-Cutting

CPUC Template Description	Chapter	Section
	SECTOR; FINANCE CROSS-CUTTING SECTOR; WE&T CROSS-CUTTING SECTOR	Sector; WE&T Cross-Cutting Sector
a. "Cards" for Existing programs: 1-2 pages per program, additional detail in workpapers and implementation plans	CODES AND STANDARDS CROSS-CUTTING SECTOR; FINANCE CROSS-CUTTING SECTOR; WE&T CROSS-CUTTING SECTOR	Codes and Standards Cross-Cutting Sector; Finance Cross-Cutting Sector; WE&T Cross-Cutting Sector
b. New programs being proposed as part of this application: longer discussion of each program, fulfilling AL requirements for new programs	CODES AND STANDARDS CROSS-CUTTING SECTOR; FINANCE CROSS-CUTTING SECTOR; WE&T CROSS-CUTTING SECTOR	Codes and Standards Cross-Cutting Sector; Finance Cross-Cutting Sector; WE&T Cross-Cutting Sector
c. Include program-specific coordination (if needed	CODES AND STANDARDS CROSS-CUTTING SECTOR; FINANCE CROSS-CUTTING SECTOR; WE&T CROSS-CUTTING SECTOR	Codes and Standards Cross-Cutting Sector; Finance Cross-Cutting Sector; WE&T Cross-Cutting Sector
vii. Industrial Sector	**N/A**	**N/A**
1. Sector-specific goals, objectives and strategies	N/A	N/A
2. Sector-specific coordination (if needed)	N/A	N/A
3. Categorization by Segment	N/A	N/A
4. Program Details	N/A	N/A
a. "Cards" for Existing programs: 1-2 pages per program, additional detail in workpapers and implementation plans	N/A	N/A
b. New programs being proposed as part of this application: longer discussion of each program, fulfilling AL requirements for new programs	N/A	N/A

CPUC Template Description	Chapter	Section
c. Include program-specific coordination (if needed	N/A	N/A
viii. Public Sector	**PUBLIC SECTOR**	**Public Sector**
1. Sector-specific goals, objectives and strategies	PUBLIC SECTOR	Public Sector
2. Sector-specific coordination (if needed)	PUBLIC SECTOR	Public Sector
3. Categorization by Segment	PUBLIC SECTOR	Public Sector
4. Program Details	PUBLIC SECTOR	Public Sector
a. "Cards" for Existing programs: 1-2 pages per program, additional detail in workpapers and implementation plans	PUBLIC SECTOR	Public Sector
b. New programs being proposed as part of this application: longer discussion of each program, fulfilling AL requirements for new programs	PUBLIC SECTOR	Public Sector
c. Include program-specific coordination (if needed	PUBLIC SECTOR	Public Sector
ix. Residential Sector	**RESIDENTIAL SECTOR**	**Residential Sector**
1. Sector-specific goals, objectives and strategies	RESIDENTIAL SECTOR	Residential Sector
2. Sector-specific coordination (if needed)	RESIDENTIAL SECTOR	Residential Sector
3. Categorization by Segment	RESIDENTIAL SECTOR	Residential Sector
4. Program Details	RESIDENTIAL SECTOR	Residential Sector
a. "Cards" for Existing programs: 1-2 pages per program, additional detail in workpapers and implementation plans	RESIDENTIAL SECTOR	Residential Sector
b. New programs being proposed as part of this application: longer discussion of each program, fulfilling AL requirements for new programs	RESIDENTIAL SECTOR	Residential Sector
c. Include program-specific coordination (if needed)	RESIDENTIAL SECTOR	Residential Sector
e. Portfolio Management	**PORTFOLIO MANAGEMENT**	**All Sections**

CPUC Template Description	Chapter	Section
Overview	PORTFOLIO MANAGEMENT	
i. Strategies to optimize portfolio and manage risk	**PORTFOLIO MANAGEMENT**	**Strategies to Optimize Portfolio and Manage Risk**
1. Approach to use of goals and metrics for portfolio optimization	PORTFOLIO MANAGEMENT	Strategies to Optimize Portfolio and Manage Risk
2. Plans and procedures PA will follow for staying "on-target" in its ability to meet savings/TSB goals and cost-effectiveness targets	PORTFOLIO MANAGEMENT	Strategies to Optimize Portfolio and Manage Risk
3. Approach to risk management, such as planning for the unpredictable events. Include here any lessons learned from COVID that informed PAs management approach.	PORTFOLIO MANAGEMENT	Strategies to Optimize Portfolio and Manage Risk
ii. Approach to flexible portfolio management	**PORTFOLIO MANAGEMENT**	**Approach to Flexible Portfolio Management**
Portfolio aspects for which PA deems flexibility must be retained to allow PA to meet goals and outcomes[PA]-led Programs. This is not an accounting of the details of each program, but a discussion of how programs are managed by the PA.	PORTFOLIO MANAGEMENT	Approach to Flexible Portfolio Management
iii. Planned procedures and thresholds for course correction if portfolio is off-track	**PORTFOLIO MANAGEMENT**	**Portfolio Course Correction**
Program administrator's planned procedures and thresholds for course correction if off-track from meeting 4-year cost-effectiveness requirements, goals, and/or metrics	PORTFOLIO MANAGEMENT	Portfolio Course Correction
iv. Third-Party Programs	**PORTFOLIO MANAGEMENT**	**Third-Party Programs**
1. Responsibility of program administrator in relation to third party designers/implementers	PORTFOLIO MANAGEMENT	Third-Party Programs
2. Solicitation Strategy	PORTFOLIO MANAGEMENT	Third-Party Programs
a. Strategies for designing scope and schedule of solicitations	PORTFOLIO MANAGEMENT	Third-Party Programs

CPUC Template Description	Chapter	Section
b. Third-party solicitation schedule from 2024-2027	PORTFOLIO MANAGEMENT	Third-Party Programs
c. Risk distribution	PORTFOLIO MANAGEMENT	Third-Party Programs
d. Incorporation of input on current solicitation practices	N/A	N/A
e. Supplier diversity	PORTFOLIO MANAGEMENT	Third-Party Programs
i. Approach to outreach to and participation of a diversity of businesses in solicitations, especially new, small, and/or DBE, as well as organizations and businesses in markets that have not historically engaged with EE programs	PORTFOLIO MANAGEMENT	Third-Party Programs
ii. How does third party solicitation approach align with PA's overall DBE target	PORTFOLIO MANAGEMENT	Third-Party Programs
f. Continued stakeholder engagement on solicitation process [Discuss approach]	N/A	N/A
3. Statewide Programs	N/A	N/A
a. PA-led Statewide programs	N/A	N/A
b. Statewide programs managed by other PAs	N/A	N/A
c. Proposed changes in the designated lead PA for the statewide administration of programs, and/or proposal to convert regional programs to statewide	N/A	N/A
4. Assessment and mitigation of risk from portfolio diversity, in different companies contracted, size of company, type of company (new, existing; DBE), contract budget amount	PORTFOLIO MANAGEMENT	Third-Party Programs
5. Contract Management	PORTFOLIO MANAGEMENT	Third-Party Programs
v. Portfolio Coordination	**PORTFOLIO MANAGEMENT**	**Coordination and Stakeholder Input**
1. Coordination with other PAs	PORTFOLIO MANAGEMENT	Coordination and Stakeholder Input
2. Description of how the program administrator's portfolio is complementary with the portfolios of other program	PORTFOLIO MANAGEMENT	Coordination and Stakeholder Input

CPUC Template Description	Chapter	Section
administrators with overlapping service territory		
3. (IOU PA Only) Description, for both statewide and regional programs, of how strategies have been coordinated with the other program administrators, including designation of the lead for statewide programs and level of coordination for both statewide and regional programs.	N/A	N/A
4. Description of how the 4-year portfolio and budget considers and coordinates with other energy programs to mitigate duplication of effort, unnecessary spending, and customer confusion or a customer participating in a suboptimal program for their needs	PORTFOLIO MANAGEMENT	Coordination and Stakeholder Input
5. Coordination with other demand-side programs	PORTFOLIO MANAGEMENT	Coordination and Stakeholder Input
Description of how the program administrators coordinate their energy efficiency efforts with other demand-side programs (such as marketing, joint rebates for energy efficiency/demand response, Income-qualified Energy Savings Assistance programs, etc.). This should include coordination plans with building decarbonization programs, as well as plans to coordinate with Market Transformation, particularly in the area of codes and standards.	PORTFOLIO MANAGEMENT	Coordination and Stakeholder Input
6. Stakeholder engagement in the development of this Application	PORTFOLIO MANAGEMENT	Coordination and Stakeholder Input
Summary of feedback received through stakeholder engagement process in developing application, with items rejected/accepted, and why.	PORTFOLIO MANAGEMENT	Coordination and Stakeholder Input
f. Evaluation, Measurement & Verification	**EVALUATION, MEASUREMENT, AND VERIFICATION**	**All Sections**
i. Summary of planned EM&V Studies and Activities	**EVALUATION, MEASUREMENT, AND VERIFICATION**	**Planned EM&V Studies and Activities**

CPUC Template Description	Chapter	Section
ii. PA/ED Budget Allocation and Justification	EVALUATION, MEASUREMENT, AND VERIFICATION	PA/ED Budget Allocation and Justification
g. Cost & Cost Recovery (Approx. 5-10 pages)	PORTFOLIO COSTS AND COMMITTED FUNDS	All Sections
i. Summary of costs at portfolio-level	PORTFOLIO COSTS AND COMMITTED FUNDS	Summary of Costs at Portfolio Level
ii. (IOU PA Only) Cost recovery through continued use of Balancing Account	N/A	N/A
iii. PA's approach to classification of which unspent funds are designated "committed" and thus not applied to reduce recovery in future years	PORTFOLIO COSTS AND COMMITTED FUNDS	Unspent Funds Classification