



**Central California Rural Regional
Energy Network**

Codes and Standards Program Implementation Plan

Program Administrator: Central California Rural Regional Energy Network (CCR REN)

May 2025

Version: 1.0

Program ID: CCR-CS-001

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PROGRAM OVERVIEW

The Central California Rural Regional Energy Network's (CCR REN) Codes and Standards Program (CS) supports code enforcement agencies. It better equips the building design and construction community's ability to align with and comply with California's ambitious Building Energy Efficiency Standards. These standards are specified in Title 24, Part 6 of the California Energy Code (Energy Code) and Title 24, Part 11, California Green Building Standards (CALGreen). The enhanced implementation of California's Energy Code helps to create healthier and more energy-efficient buildings in CCR REN's communities. This helps reduce energy use, costs, and greenhouse gas emissions in some of rural California's most climate-challenged regions. The program accomplishes these objectives through educational training, regional forums, field code support, and technical assistance. These efforts are coordinated regionally to improve compliance with the energy codes and to educate participants on updates and compliance with energy codes.

The CS program targets code enforcement agencies and building design and construction professionals serving communities identified and defined by the California Public Utilities Commission (CPUC or Commission) as hard-to-reach (HTR) or located in CPUC-defined Disadvantaged Communities (DAC) or Underserved Communities (Underserved).

Table 1 shows the approved budgets for the CCR REN's CS program for Program Years 2024 through 2027.

Table 1: Program Budget and Savings

Program Budget and Savings		
1	Program Name	Codes and Standards Program
2	Program ID Number	CCR-CS-001
3	Program Implementer	CCR REN
4	Portfolio Administrator	CCR REN
5	Program Implementer Type (IOU Core, Third-Party Solicited, REN/CCA)	REN
6	Portfolio Segment	C&S

Table 1: Program Budget and Savings

Program Budget and Savings		
7	Total Program Budget	\$2,764,559
8	Program Budget by Year	
	2024	\$547,875
	2025	\$742,500
	2026	\$738,497
	2027	\$735,687
9	Program Duration (Start Date - End Date)	3/1/2025 - 12/31/2027
10	Total System Benefit (TSB)	NA
11	(Total Program TSB and TSB by Program Year)	
	2024	NA
	2025	NA
	2026	NA
	2027	NA
12	CO ₂ e (Lifecycle, First Year, Net, Gross)	
	Lifecycle Net CO ₂ e	NA
	First year Net CO ₂ e	NA
	Lifecycle Gross CO ₂ e	NA
	First Year Gross CO ₂ e	NA
13	KW (First Year, Net, Gross)	
	Net (First Year)	NA
	Gross (First Year)	NA
14	kWh (Lifecycle, First Year, Net, Gross)	
	Net Lifecycle	NA
	Gross Lifecycle	NA
	Net (First Year)	NA
	Gross (First Year)	NA
15	Therms (Lifecycle, First Year, Net, Gross)	

Table 1: Program Budget and Savings

Program Budget and Savings		
	Net Lifecycle	NA
	Gross Lifecycle	NA
	Net (First Year)	NA
	Gross (First Year)	NA
16	Program Cost Effectiveness: Total Resource Cost (TRC): (Total TRC and TRC by Year)	
	2024	NA
	2025	NA
	2026	NA
	2027	NA
	Total	NA
17	Program Cost Effectiveness: Program Administrator Cost (PAC):	
	2024	NA
	2025	NA
	2026	NA
	2027	NA
	Total	NA
18	Market Sector(s)	Cross-Cutting Residential: 70% Commercial: 15% WE&T: 15%
19	Program Type (i.e., Non-resource, Resource)	Non-Resource
20	Delivery Type(s)	Codes & Standards

IMPLEMENTATION PLAN NARRATIVE

1. PROGRAM DESCRIPTION

The CCR REN's Codes and Standards program provides support services to code enforcement agencies, building design and construction professionals, and residents in regions of California that have traditionally lacked local and targeted support to help

them reduce energy usage and costs through improved building design and construction. This program is offered throughout the AMBAG, SJVCEO, and HSEF counties, offering these often under-resourced areas access to the services and materials needed for enforcing and complying with California's Energy Codes.

Informed by regional knowledge of local needs, the CS program objectives include:

- Provide building professionals with access to training, tools, and resources to increase awareness and application of California building codes and standards.
- Provide building departments access to tools and resources to increase energy code compliance and ease of adjustment to code cycle updates.
- Facilitate agency collaboration among building officials, plan checkers, and field inspectors, and improve regional cooperation, resulting in more jurisdiction consistency and avoiding confusion for building professionals.
- Act as a conduit for the California Energy Commission (CEC) to Authority Having Jurisdictions (AHJs) to promote bi-directional communications that mutually benefit the CEC in understanding rural communities' needs and to increase compliance with the Energy Code.
- Support an increase in the number of completed permits in the replacement and retrofit market to ensure proper installations and to achieve impactful savings.
- Support and facilitate the transition to new versions of codes by creating easily utilized services for building professionals that result in an ongoing understanding of industry direction and adoption of updated code.

To achieve the above objectives, the CCR REN CS program offers the following services:

ENERGY CODE COACH

Energy Code Coach provides personalized support to help building professionals navigate the Energy Code and CALGreen. Jurisdiction staff, architects, contractors, owner-builders, and any other individuals involved in design and construction can ask a question related to the Energy Code or related procedures by filling out an online form or calling a toll-free number with questions that a Code Coach responds to with expert advice within one or two business days. Code Coaches are also available for specialized training, virtual meetings, field visits, and more.

ENERGY CODE TRAINING

Both in-person, virtual, and on-demand training courses are developed and available to support the needs of building professionals across CCR REN's varied environments and climate zones. Training topics range from Energy Code 101 for residential and nonresidential buildings to Zero Net Carbon practices, covering the 2025 Energy Code and CALGreen updates. These targeted trainings equip professionals throughout CCR REN's expansive territory with the knowledge, tools, and understanding needed to effectively implement the latest code requirements and new standard technologies in their communities. Courses are developed based on input from partner agencies in the CCR REN territory to address knowledge gaps and regional needs.

REGIONAL FORUMS

CCR REN brings together Energy Code experts, experienced practitioners, equipment vendors, and policymakers to address industry trends related to current and emerging energy efficiency equipment and practices. Initially, these forums are virtual, but once there is a better understanding of the interests and needs, the forums may shift to in-person events, alternating locations in the CCR REN territory.

2. PERFORMANCE TRACKING

Program performance is quantified and tracked primarily by the number of activities held, projects served, and the penetration and acceptance of the program by code officials. Table 2 below presents the key targets and associated numeric values to quantify and track program progress and success.

Table 2: Program Performance Targets

Metric Description	2024	2025	2026	2027
Number of training activities, e.g., classes, webinars, held	0	10	25	40
Number of participants who completed training activities	0	150	300	550

Metric Description	2024	2025	2026	2027
Projects receiving enhanced code compliance support	0	40	100	200
Number and percentage of jurisdictions with staff participating in training activities	0	29/30%	38/40%	48/50%
Number and percentage of jurisdictions with staff participating in Regional Energy Forums	0	29/30%	38/40%	48/50%
Number and percentage of jurisdictions receiving Energy Code Coach technical assistance	0	29/30%	38/40%	48/50%
Number and percent of jurisdictions receiving information about the program	0	95/100%	95/100%	95/100%

Additional indicators used to track and manage program performance include the following:

- Number of closed Energy Code cases
- Program/contract budget and schedule adherence
- Participant satisfaction
- Others, as determined during program operation

3. PROGRAM DELIVERY AND CUSTOMER SERVICES

The CCR REN Codes & Standards Program targets local design-side stakeholders, building professionals, and building departments that have a professional need to understand, enforce, or comply with the Energy Code. This includes professionals such as architects, engineers, contractors, field inspectors, plan checkers, and building officials. The program is delivered by CCR REN, with In Balance Green Consulting as a program provider under contract with the County of San Luis Obispo. These services are offered in the CCR REN's vast geographic region, including Monterey, San Benito, Santa

Cruz, Fresno, Kern, Kings, Madera, Merced, San Joaquin, Stanislaus, Tulare, Inyo and Mono counties. The area comprises a total of 95 Authorities Having Jurisdiction (AHJs). Jurisdictions within San Luis County do not participate in the CS program, as they receive services from the 3-C REN. The program benefits from existing relationships and leveraged outreach support from the Association of Monterey Bay Area Governments (AMBAG), the High Sierra Energy Foundation (HSEF), and the San Joaquin Valley Clean Energy Organization (SJVCEO). The three primary services of the program are Energy Code Coach, Energy Code Training, and Regional Energy Code Forums, as described in detail below.

ENERGY CODE COACH SERVICE

CCR REN's Energy Code Coach service assists Building Departments with understanding, reviewing, and enforcing energy codes and assists builders, design professionals, and others with code compliance. The service utilizes a small group of energy specialists who can respond to questions via email, phone, or virtual calls and in ad hoc meetings. Energy Code Coaches also assist builders, developers, and homeowners (or owner-builders) in complying with codes and improving installation quality.

To facilitate the success of the Energy Code Coach service, CCR REN collaborates with the CEC. This provides the CEC a local ambassador to building departments, delivering the added benefits of shared engagement strategies based upon town, city, or county conditions and fostering valuable relationships between Building Department staff, Energy Code compliance specialists, builders, contractors, and developers.

Providing education and strategies to support the transition to decarbonized, all-electric buildings provides underserved and often capacity-constrained agencies with the following benefits: Plan-checking staff has a greater understanding of how to interpret energy reports, which results in consistency for the workforce and better-performing structures.

Providing congruent training for field inspectors and plan checkers helps ensure installation quality is consistent and performs at the level forecasted by designers. As builders are included in the same training courses as field inspectors and plan checkers, they receive additional support from more knowledgeable professionals as they advance along the learning curve. This is expected to reduce costs associated with constructing

compliant buildings and strengthen the incentive for builders to meet code requirements effectively.

CODE COMPLIANCE TRAINING

Multiple training modes, delivered by a team of subject matter experts, drive participation among building professionals. This may also include outreach to students in construction trades programs, colleges, and universities. These trainings leverage local assets, align with IOU offerings, and incorporate a compliance improvement program. CCR REN provides access to training, tools, and resources through the following means:

- Deliver training on the Energy Code and relevant technologies
- Host regional policy forums
- Provide compliance software training, e.g., California's Building Energy Code Compliance Software and Energy Pro
- Coordinate with the Energy Code Ace program and promote its resources
- Offer regional Energy Code support through the Energy Codes Coach service
- Deliver customized training events upon request by AHJs for their building departments and public agency staff
- Conduct measure-specific training, such as HVAC & QII
- Provide specialized training in advanced design strategies, including:
 - Passive House Design
 - Zero Carbon Design
 - Daylighting, controls, and automation
- Offer ICC and AIA Continuing Education Units and approved learning opportunities
- Maintain an online library in coordination with Energy Code Ace
- Maintain access to the training online course library
- Promote relevant workforce and CS offerings from other Portfolio Administrators (PAs)
- Promote access to online courses offered by other PAs

CODE COMPLIANCE RESOURCES

CCR REN uses existing tools and resources developed by the IOUs, other RENs, CEC, and Energy Code ACE and ensures that local jurisdictions and building professionals are aware of and have access to these resources. CCR REN complements these with tools

developed by CCR REN as needs are identified. CCR REN's website has links to relevant statewide resources, case studies, and information to support local building departments, particularly small jurisdictions, in improving code compliance and permit processing. This may include Spanish language materials, courses developed to address specific climate zones in the CCR REN territory, fire updates, and local standards that adhere to Energy Code updates.

CCR REN's CS program offers local, in-person training, in-the-field opportunities, and on-call expert assistance for codes & standards education. In addition to coordinating with the IOUs to leverage existing Statewide C&S program resources for classroom and online training, the CCR REN establishes a Code Coach service that complements other training efforts by providing technical support for pre-permit issuance questions through in-the-field support.

Building departments receive support and mentoring for plan review and field compliance focused on building performance. All design-side stakeholders—including architects, mechanical engineers, energy analysts, field inspectors, and plan reviewers—are encouraged to participate in training sessions. The Energy Code Coach service, with dedicated on-call experts serving the region, fosters an environment where stakeholders develop a deeper understanding of building performance and interconnected systems. The goal is to promote consistency throughout the CCR REN region while providing the workforce with reliable code compliance resources and contributing to energy code compliance and more energy-efficient buildings.

PROGRAM TIMELINE

The services of the program become available to participants in phases, and continue to be available through December 31, 2027:

Phase 1 - 2025

- March 2025 online Code Coach request for assistance form available
- June 2025 virtual Energy Code Training courses begin
- July 2025 phone Code Coach request for assistance portal available

Phase 2 - Early 2026

- Q1 2026 in-person Energy Code Training courses begin
- Q2 2026 virtual Regional Forums anticipated to begin

Phase 3 - Late 2026

- Q4 2026 in-person Regional Forums anticipated to begin, through December 31, 2027

PLANNED COORDINATION

The Codes and Standards program coordinates with the other PA programs as set forth in the Joint Cooperation Memorandum.

4. PROGRAM DESIGN AND BEST PRACTICES

The CS program represents an innovative and effective design that provides a needed service for code officials and construction professionals. The primary barrier the program addresses is the lack of capacity and resources in rural areas, which hinders effective energy code enforcement. Table 3 below summarizes specific program strategies and tactics to address market barriers to better energy code awareness and enforcement in rural jurisdictions.

Table 3: Barriers, Strategies, and Tactics

Barrier(s)	Strategy	Tactic
Code enforcement agencies lack the capacity	<ul style="list-style-type: none"> • Provide virtual and in-person support to supplement agency resources 	<ul style="list-style-type: none"> • Energy Code Coach
Lack of understanding of codes and emerging technologies and practices	<ul style="list-style-type: none"> • Provide easily accessible, convenient education and training • Provide easily accessible code information resources 	<ul style="list-style-type: none"> • Energy Code Training • Code Compliance Resources
Geographic remoteness and capacity to act	<ul style="list-style-type: none"> • Localize program services 	<ul style="list-style-type: none"> • Provide easy-to-access online services • Provide in-person and virtual support and training

LESSONS LEARNED AND BEST PRACTICES

CCR REN's approach to designing and implementing its CS program draws on valuable lessons and best practices from its partners, who have experience designing and managing Local Government Partnerships and related programs. The CS team has also consulted with other Portfolio Administrators to gain insights into successful strategies and common pitfalls encountered during the development and execution of their own CS programs. This approach is further enhanced by implementing the program provider's extensive experience in designing, implementing, and refining programs focused on energy efficiency code enforcement and training. The guiding principle of the program is to engage with participants based on their existing knowledge and geographic location.

KEY SOFTWARE APPLICATIONS

Table 6 lists and describes software solutions used in the CS Program.

Table 4: Key Software Applications and Descriptions

Software	Description
CCR REN CRM	<p>The CRM vendor and application are currently in the procurement phase, but the functionality provides a system of record for all CCR REN activities, including codes & standards, for participation and compliance reporting, including:</p> <ul style="list-style-type: none"> • Overall contact management consists of determined demographic data points for reporting • Outreach event tracking • Energy Code Coach inquiries
Web Analytics	<ul style="list-style-type: none"> • Reporting on On-Demand Training Downloads • Tracking page views and time spent on training and resource pages • Understanding user flow/experience to improve site design and content delivery

Software	Description
Email Marketing Analytics	<ul style="list-style-type: none"> Tracking effectiveness of program communications to stakeholders by monitoring engagement, e.g., opens, clicks, and event registrations
Survey Tools	<ul style="list-style-type: none"> Tracking the effectiveness of Energy Code Training with pre- and post-attendee qualitative surveys

5. INNOVATION

Not applicable.

6. PILOTS

Not applicable.

7. WORKFORCE EDUCATION AND TRAINING

Not applicable.

8. WORKFORCE STANDARDS

Not applicable.

9. DISADVANTAGED WORKER PLAN

Not applicable

10. MARKET ACCESS PROGRAMS

Not applicable.

11. ADDITIONAL INFORMATION

Not applicable.

SUPPORTING DOCUMENTS

1. PROGRAM MANUALS AND PROGRAM RULES

The following sections delineate eligibility requirements and rules of the Codes and Standards program.

1.1 ELIGIBLE MEASURES

The CS program does not offer any specific energy efficiency measures. The primary services provided are Energy Code Coaching, Energy Code Training, and forums highlighting code technologies. All program services are provided at no cost to participating agencies and building professionals.

1.2 CUSTOMER ELIGIBILITY REQUIREMENTS

Customer eligibility requirements focus on the following factors:

- Utility service for the candidate project is provided by PG&E, SCE, and/or SoCalGas
- Project location is within CCR REN partner territories: AMBAG, HSEF, or SJVCEO

1.3 CONTRACTOR ELIGIBILITY REQUIREMENTS

Not applicable.

1.4 PARTICIPATING CONTRACTORS, MANUFACTURERS, RETAILERS, DISTRIBUTORS, AND PARTNERS

Not applicable.

1.5 ADDITIONAL SERVICES

Not applicable. There are no additional services in the CS program.

1.6 AUDITS

Not applicable.

1.7 PROGRAM QUALITY ASSURANCE PROVISIONS

Quality assurance and controls are integrated into the program through regularly scheduled check-ins and periodic assessments of the program provider to ensure successful implementation of their scope of work and with qualitative input from program participant surveys.

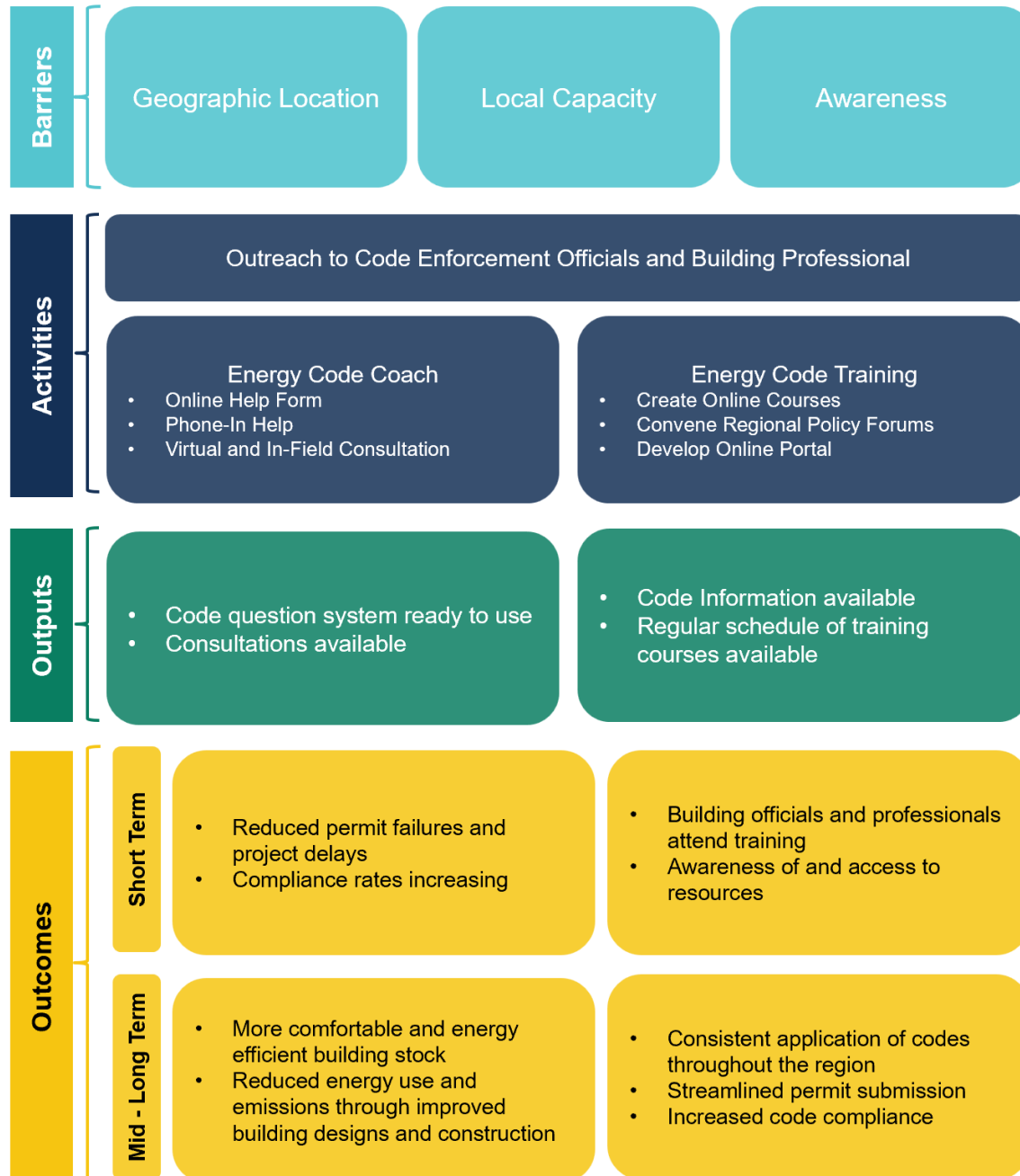
1.8 OTHER PROGRAM METRICS

Documentation used to calculate metrics includes records of contacts, events, event participation, customer surveys, and applicable information collected from the program's CRM database.

DRAFT

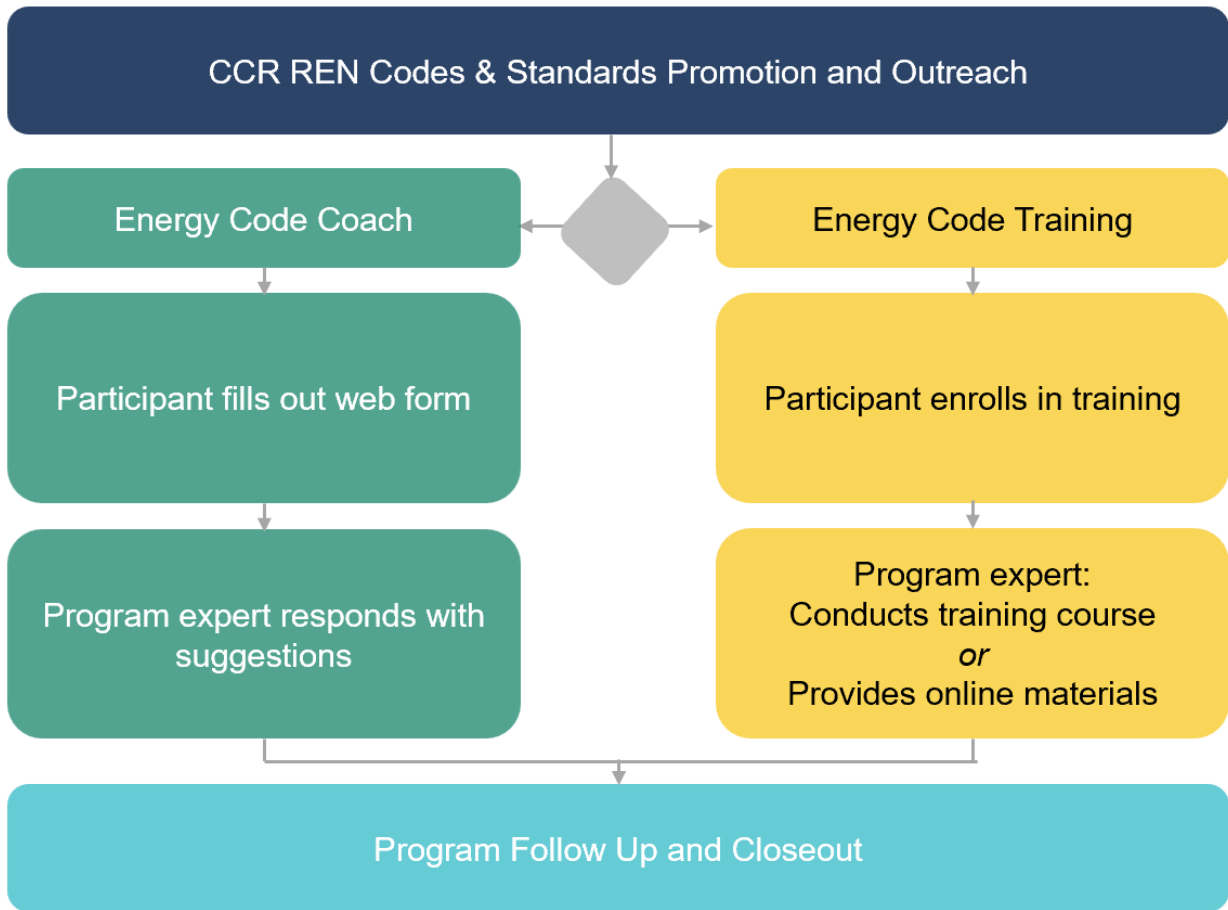
2. PROGRAM THEORY AND PROGRAM LOGIC MODEL

Figure 1: Program Theory and Logic Model



3. PROCESS FLOW CHART

Figure 2: Process Flow Chart

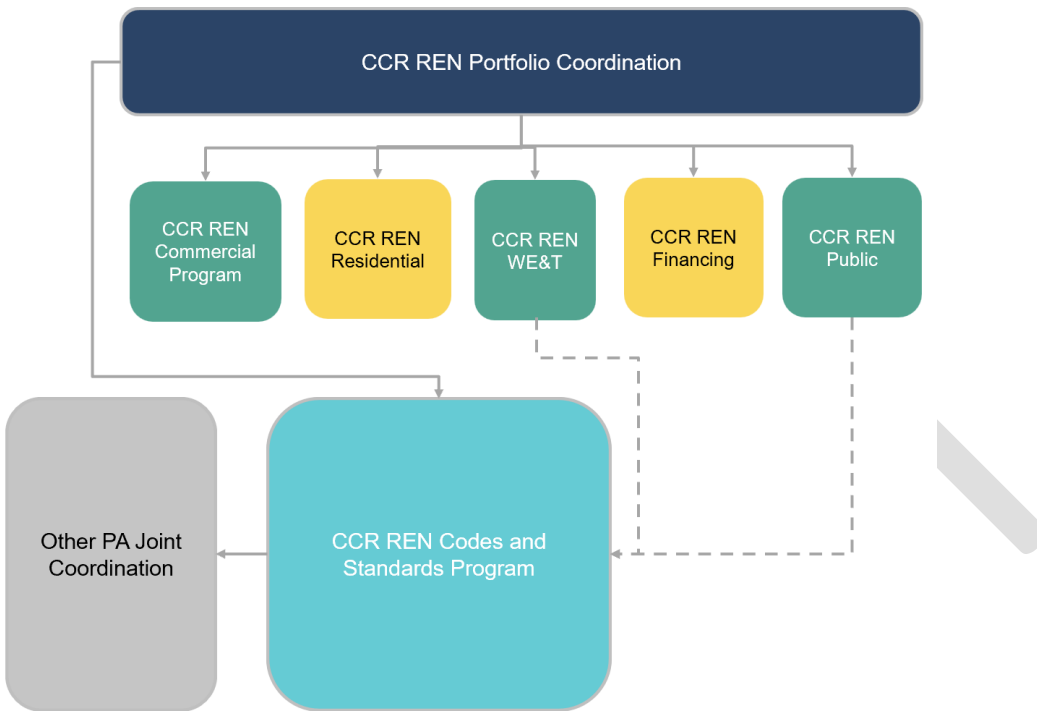


4. MEASURES AND INCENTIVES

There are no measures or incentives in the CS program.

5. DIAGRAM OF THE PROGRAM (LINKAGES)

Figure 3: Program Linkages



6. PROGRAM MEASUREMENT & VERIFICATION (M&V)

DATA COLLECTION STRATEGIES

The CS program uses the following data collection strategies in the program design to support near-term feedback and internal performance analysis. Independent evaluators also retain all data collected to support future program evaluations. A secure database and file transfer protocol store and share all project information, ensuring accurate program, measure, claim, and PII data reporting to the CPUC.

Integrated CRM and Event Tracking

- Capture detailed participant data and attendance for all trainings and events.
- Track interactions with Energy Code Coach services to identify common questions and support needs.

Pre- and Post-Training Assessments

- Evaluate knowledge gained and identify gaps.
- Inform content refinement and follow-up support.

Feedback Loops from Field Staff

- Collect qualitative insights from trainers and Code Coaches through mobile forms or structured debriefs.
- Use findings to adjust in-field support strategies in real-time.

Digital Engagement Analytics

- Use web analytics to track content usage, including downloads, video completions, and session durations.
- Monitor which resources are most accessed to prioritize updates.

METHODS USED TO QUANTIFY AND REPORT AGAINST PROGRAM PERFORMANCE METRICS

HSEF, CCR REN's assigned program Quality Control lead, consults with the program provider to review the completed work monthly, quarterly, and annually. Table 5 below lists review items and frequency of review/evaluation.

Table 5: M&V Timeline, Actions, and Key Performance Indicators

Timeline	Action	Key Performance Indicators
Monthly	Meet with the program provider to review the program's success towards identified metrics and indicators	<ul style="list-style-type: none">• Number of trainings offered• Number of building departments and related associations who were informed about CS program• Number of code coaches closed cases
Quarterly	Meet with the program provider to review the program's success towards identified metrics and indicators	<ul style="list-style-type: none">• Number of trainings offered• Number of building departments and related associations who were informed about CS program• Number of code coaches closed cases• Pre- and post-training surveys knowledge increases.• Refine offerings based on feedback from outreach meetings and surveys

Timeline	Action	Key Performance Indicators
Annual	Meet with the program provider to review the program's success towards identified metrics and indicators	<ul style="list-style-type: none"> Program metric targets as established in the Implementation Plan

SUPPORT FOR FUTURE EM&V BY INDEPENDENT EVALUATORS

CCR REN collects the necessary data to support future independent evaluation and will promptly provide the requested data to the CPUC evaluators.

JUSTIFICATION OF NON-NMEC METHODS

Not applicable.

7. NORMALIZED METERED ENERGY CONSUMPTION (NMEC) PROGRAM M&V PLAN

Not applicable.

8. MULTI-DER IDSM PILOTS

Not applicable.

9. SEM PROGRAMS ONLY

Not applicable.