

2019

# ***3C-REN***

## Workforce Education & Training Implementation Plan



COUNTIES OF SAN LUIS OBISPO, SANTA BARBARA & VENTURA

3C-REN | TRI-COUNTY REGIONAL ENERGY NETWORK

DRAFT

## CONTENTS

Program Budget and Savings Information	3
1. Program Description	4
2. Program Delivery and Customer Services	5
3. Program Design and Best Practices	8
4. EM&V	9
5. Pilots	9
6. Additional Information	9
6.a Design of Incentives to Customers or Implementers	10
6.b Lighting Technologies	10
6.c Workforce Issues and Quality Standards	10
6.d Metrics Referenced in D.15-10-028	10

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## PROGRAM BUDGET AND SAVINGS INFORMATION

The 3C-REN Workforce, Education and Training program has the below projected program budget and savings information for 2019:

### A. PROGRAM INFORMATION

- Program Name: Workforce, Education and Training (WE&T)
- Program ID: TCR-WET-001

### B. PROJECTED PROGRAM BUDGET

- 2019 WE&T budget: \$1,270,776

### C. MARKET SECTOR OR SEGMENT THIS PROGRAM IS DESIGNED TO SERVE:

- Participants by sector is 75% residential and 25% commercial contractors.

### D. PROGRAM TYPE

Primary Program Type	Yes	No
Non-resource	x	
Resource acquisition		x
Market transformation		x

## 1. PROGRAM DESCRIPTION

To successfully expand and grow energy efficiency services and energy savings in the Tri-County area, it is essential to develop a well-trained and knowledgeable workforce, supported by a compelling business case for energy efficiency in the region. The 3C-REN's cross-cutting Workforce, Education, and Training (WE&T) program is designed to leverage existing statewide resources and curriculum, expand and build local partnerships with regional educational providers, and to facilitate the connection between a robust regional workforce and state energy efficiency goals. The 3C-REN program will offer career pathways and enrichment by providing access to in-person trainings, mentorship opportunities and cross promotion of IOU workforce trainings, including hard-to-reach (HTR) workers and those in identified disadvantaged communities (DACs).

The 3C-REN WE&T program will actively fill gaps in current investor-owned utilities (IOU) offerings for the 3C-REN territory, as the region is far removed from IOU training and resource hubs. 3C-REN will address these needs with its training and education efforts, as well as provide program specific training for engaged local building professionals to help ensure quality work, greater energy savings, and compliance with codes and standards. The 3C-REN emphasis will be on retrofitting residential buildings, including the vast majority built before 1978 and the current energy standards. It will also serve to educate builders in modern code and compliance verification concerns.

The 3C-REN territory has two primary needs for training and education in addition to local, in-person mentorship:

- **Technical** Code Compliance, Home Performance, and Zero Net Energy (ZNE)/ZNE-Ready preparedness.
- **"Soft Skills"** Training for better communications, sales and marketing, and business management.

The 3C-REN does not anticipate developing new curriculum, but instead leveraging the robust and extensive resources available via the IOUs, local community colleges, and other providers with WET offerings, when possible.

Past efforts have shown that in order to draw contractors to trainings, the value to their businesses must be strong enough to interrupt ongoing business production schedules - particularly during a strong housing economy. Considering this, 3C-REN will focus trainings to provide this value in the following ways:

1. Provide a certification through training events (i.e. BPI, HERS, or NATE).
2. Co-sponsor with distributors and/or materials manufacturers.
3. Collaborate with known and respected trade groups.
4. Provide trainings focused on local needs assessed through surveys and regular check-in calls.

In addition, the 3C-REN plans to develop (or adopt) online and/or hybrid delivery models for training. Due to travel and time considerations, training and education classes may have an in-person

component, as well as an online component to offer deeper material and learning. The Energy Trust of Oregon provides a comprehensive suite of online training for residential contractors that may be a good model. Other best practices will be evaluated and inform the development of these tools in the mid-term phase of the Implementation Plan.

## OBJECTIVES

3C-REN's objective for its WE&T program is to facilitate and deliver education and training that is designed specifically for the needs of Central Coast building professionals, and the residential and small commercial construction and renovation markets, supporting the 3C-REN RES DI program and enabling greater energy savings throughout the region.

Due to the cross-cutting design of 3C-REN's programs, the facilitation and delivery of WE&T trainings will be coordinated closely with the objectives of the Codes & Standards (C&S) program and the needs of its target audience. For example, many trainings – particularly measure level trainings (e.g. HVAC and QII) – are relevant to both installation contractors and design-side professionals.

## 2. PROGRAM DELIVERY AND CUSTOMER SERVICES

3C-REN will engage the workforce in the Tri-County Region, enrolling them into the 3C-REN programs, and either delivering training directly or partnering/coordinating with other training and education partners in the area. It is important to note that hard-to-reach communities in San Luis Obispo, Santa Barbara, and Ventura Counties are serviced by building firms that tend to be smaller, have fewer resources, and struggle to keep pace with California's Energy Code.

Contractors will be drawn to the program by demand generated in the market through 3C-REN activities. Contractors will have the opportunity to participate in local training events that are otherwise cost prohibitive due to extended travel, lodging, and lost revenue.

A comprehensive workforce able to successfully deliver high-quality energy efficiency upgrades requires several key occupations and skills. A 2009 study by the Centers for Excellence (COE) detailed eight energy efficiency occupations and surveyed the southern Central Coast (Ventura, San Luis Obispo, Santa Barbara and Northern Los Angeles) to determine the availability and potential growth in the Region for those occupations. These occupations include energy efficiency managers; construction project managers; HVAC mechanics, technicians or installers; building performance specialists; building operators; energy auditors/raters; compliance analysts; and building controls technicians. The COE study found that most of the occupations would have double digit job growth over three years, with the highest job growth – over 50 percent - for project management, building performance, and energy raters.

The COE Study found that a majority of employers surveyed have difficulty filling open positions in key energy efficiency occupations with qualified and trained people. The top three knowledge and skill areas employers want to see their employees have are: 1. Ability to communicate with customers in writing and in person; 2. Understanding of local and state codes and standards as well as incentives; and 3. General technical understanding of the mechanics and engineering of energy systems such as HVAC, lighting, and renewables.

## TARGET AUDIENCE

The 3C-REN WE&T program targets local building professionals needing more in-depth training, such as contractors, engineers, architects, designers, certified energy managers, local jurisdictions' building and safety department staff, lighting professionals, real estate professionals, raters, including professionals in DACs and HTR areas, as well as other key market actors to help build this complete workforce. Further, the 3C-REN will help these professionals develop both technical skills and the soft skills needed to sustain a long-term and robust energy efficiency business and workforce.

The focus of the training, particularly in the first phase of the program will be on contractors and HERS raters. When beneficial, outreach efforts will include contractors from multiple specialties to create relationships and enhance understanding across specialties. 3C-REN will collaborate with groups, including, but not limited to: the CEC, the Center for Sustainable Energy, existing RENs, CPUC, Build It Green, IOUs, and the DOE. The following table summarizes who and how these audiences will be engaged.

	Home Performance Contractors	Specialty Contractors	HERS Raters	Architects & Engineers	English as Second Language Contractors	Community Workforce
Presentations/Lunch and Learns	•	•	•	•	•	•
Exhibit/Home Showcases/Events	•	•		•	•	
Community Group Engagement					•	•
Contractor Associations/Builder Exchanges Engagement	•	•				
Leverage Local Government Resources	•	•	•	•	•	•
Leverage Partner Marketing Resources	•	•	•	•	•	•
Social Media						•

Earned Media/Public Relations/PSAs	•	•	•	•	•	•
Trade Magazines	•	•	•	•		
Collateral (print, video, online)	•	•			•	
Targeted Ads	•	•			•	

## PROGRAM DELIVERY

The 3C-REN will focus on several approaches for WE&T technical and soft skills training:

1. Local partner educational providers, especially community colleges and other energy efficiency trainers paired with IOU curriculum delivered via IOUs or through partner;
2. In-Field Training utilizing 3C-REN Energy Advisors, and
3. 3C-REN hosted trainings, online videos, and forums.

### LOCAL PARTNER EDUCATIONAL PROVIDERS

To provide a fully capable and efficient workforce in the Central Coast region, many partners will need to be engaged and efforts will need to be coordinated to ensure that curriculum is valuable and delivered in a way that enables participation in the normal course of business. Workforce Investment Boards, Economic Development Agencies, Colleges, and Vocational Schools seek to provide workers with these skills to the community, however construction firms often struggle to fill vacancies. The IOUs provide valuable technical information, but with training centers too remote to serve the Region effectively. To bridge the gap between workforce development and training and companies active in the market, the 3C-REN's goal is to combine training with workforce development within its programs and to leverage these other actors' resources to improve outcomes and build a robust energy efficiency workforce.

3C-REN has established relationships and partnerships with educational providers such as local community colleges. For example, Cuesta Community College's Workforce and Economic Development Program has partnered with the County of San Luis Obispo for several years to coordinate the emPower tool library and energy efficiency events, and has recently helped procure grants to launch the SLO County Green Business Program with an integrated education component. 3C-REN will expand upon those relationships to foster a reciprocal training program for a certificate program and/or series of classes for EE soft skills and business development.

3C-REN will expand other existing county and local government relationships with Workforce Investment Boards, Trade groups, builders' exchanges, existing contractors, and Economic Development Agencies to refine, expand or build where necessary, trainings for the Region.

Ultimately, 3C-REN will help to establish a dynamic network of trainings and trainers that appeals to the key audiences and are delivered in a diverse number of ways to make it valuable and accessible for everyone possible.

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## IN-FIELD TRAINING

The 3C-REN will leverage established contractor and program relationships to provide technical trainings, Energy Advisor in-field job and installation mentoring, construction firm specific trainings, and certification opportunities. The 3C-REN's partnerships and Residential Energy Advisor service provide a direct connection to the workforce, leverage and improve the existing labor force, and provide apprenticeship-style trainings with real-time experience that business owners value most. This will set up a network of building professionals and connection to the workforce seeking training and career development opportunities.

The 3C-REN RES DI program will provide an opportunity for Energy Advisors to train in energy efficiency concepts and practices, thus affording a steady supply of educated workers to populate local contracting firms and spur economic activity. Being experienced BPI professionals, Energy Advisors can convert DI activities and consultations into baseline assessment testing required for implementing Advanced HUP projects while training workforce development trainees. The 3C-REN will offer mentoring in the field, assistance with processing incentive claims, assistance with reporting savings as needed, and facilitate contractors in assessing which financing is most advantageous for the homeowner.

At the design level and in preparation for the **transition to ZNE**, the 3C-REN will establish a Code Coach program to run concurrent to and alongside classroom style training efforts. Building Departments in the Region will receive behind-the-counter, in-front-of-the-counter, and in-the-field support and mentoring for plan review and field compliance. All design-side stakeholders, from the architect to field inspector or from the mechanical engineer to the plan checker, will be encouraged to attend classroom trainings, fostering an environment where they have a deeper understanding of interrelated concerns. The goal is to foster consistency throughout the Region, providing the workforce with a more stable business climate.

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## 3C-HOSTED TRAINING

"Soft Skills" training for better communications, sales and marketing, and business management offerings related to building a home performance business and other similar offerings designed to help contractors become more successful and profitable will be delivered directly through the 3C-REN. This will include leveraging emPower's existing Energy Advisor support of contractors and specific technical trainings to expand the skills of the workforce and provide certification opportunities. Energy Advisor' and HERS Raters' experience and the needs of the Regional market will inform curriculum.

The 3C-REN will apply a holistic approach to the entire market with highly targeted classroom training events complemented by the relationship building benefits of the mentoring model. Workforce training will be real world reinforced while simultaneously providing direct energy savings. Company owners and management will be provided targeted trainings that will reduce costs, increase sales, and bolster productivity. Building Department's will streamline processes and increase efficiency and efficacy with existing resources.

## 3. PROGRAM DESIGN AND BEST PRACTICES

The number one issue in the 3C-REN region is accessibility and availability of appropriate trainings and resources for building and design professionals. The current IOU training and education programs require substantial travel to energy centers outside of the area and are often not designed to meet the

needs of a residential home performance workforce. In the Phase I Gaps and Market Analysis of the California Energy Efficiency Coordinating Committee process, PG&E’s Workforce Education & Training presentation indicated that just 16 percent of its classes are residential-oriented and that “energy efficiency is not a core education emphasis.” SCE’s presentation indicated a similar gap with just 9 percent of courses oriented to home performance even though 29 percent of its portfolio is for whole building programs. Additionally, SCE’s building performance classes were focused on controls (commercial oriented) and commercial and industrial topics. These figures indicate that services within the Tri-County Region would be even less, since so few programs are offered locally. While PG&E indicates training locations within the area, an evaluation of upcoming training for 2017 indicated no residential or multifamily classes in the Tri-County Region, with 55 in other parts of PG&E’s territory. Considering the size and scale of the housing stock that needs to be upgraded for the State to reach its goal of doubling the energy efficiency of buildings, it is clear that the Tri-County Region will need a much greater quantity of quality, active, and well-trained contracting companies.

Building professionals living and working in the 3C-REN territory face unique challenges given the dispersed nature of communities within the Tri-County Central Coast Region. The region, and its building professional workforce, have historically struggled to fill key positions in energy efficiency, including the retrofit market and energy code compliant new construction. The 3C-REN WE&T activities will address these challenges through collaboration with existing providers, programs, apprenticeship-style learning, targeted management, technical trainings for building professionals, and integrated resources for design, installation, and compliance professionals.

The 3C-REN is dedicated to addressing these issues to help build and establish a locally trained and developed workforce, better suited to meet the needs of the Tri-Counties and State goals. However, this does not mean 3C-REN needs to remake energy efficiency training. Instead the aim is to directly utilize existing best-in-the class resources and better deliver those tools throughout the region. The 3C-REN will apply a holistic approach to the entire market with highly targeted classroom training events complemented by the relationship building benefits of the mentoring model. Workforce training will be real world reinforced while simultaneously providing direct energy savings. Company owners and management will be provided targeted trainings that will reduce costs, increase sales, and bolster productivity. Building Department’s will streamline processes and increase efficiency and efficacy with existing resources.

## 4. EM&V

TBD

## 5. PILOTS

This program does not include pilots.

## 6. ADDITIONAL INFORMATION

### 6.A DESIGN OF INCENTIVES TO CUSTOMERS OR IMPLEMENTERS

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6.B LIGHTING TECHNOLOGIES

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6.C WORKFORCE ISSUES AND QUALITY STANDARDS

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6.D METRICS REFERENCED IN D.15-10-028

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