

Energy Efficiency Programs

Southern California Regional Energy Network (SoCalREN) Workforce Education and Training (WE&T) Program Implementation Plan

Prepared by County of Los Angeles

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Program Budget and Savings Information

a. Program Information

Program Name	Workforce Education & Training
Program ID#	SCR-WET-D1

b. Program Implementer

Program Implementer	Yes
SoCalREN Only	
SoCalREN—Statewide Lead	
Other PA—Statewide Lead	
Third Party	X
Other	

c. SoCalREN Business Plan Sector

SoCalREN Business Plan Sector	Yes
Residential	
Commercial	
Industrial	
Agricultural	
Public	
Codes & Standards	
Workforce Education & Training	X
Finance	
Other	

d. Program Type

Program Type	Yes	No
Resource		X
Non-Resource	X	

e. Intervention Strategies

Primary Intervention Strategy	Yes	No
Upstream		X
Midstream		X
Downstream		X
Direct Install		X

f. Projected Program Budget

Budget data on CEDARS? Yes No If No, then show below:

g. Savings Impact

Budget data on CEDARS? Yes No If No, then show below:

h. Program Effectiveness

Budget data on CEDARS? Yes No If No, then show below:

Implementation Plan Narrative

A. Program Description

Describe the program, its rationale, and objectives.

SoCalREN envisions a reliable, diverse, and highly skilled workforce that is able to deliver high-quality energy efficiency (EE) services to all segments of the Southern California ratepayer community as a result of a comprehensive regional and effective workforce education and training (WE&T) infrastructure.

SoCalREN's overarching goal for WE&T is to increase the size, skills, and diversity of the 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 percent.
- 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.

B. Program Delivery and Customer Services

Describe how the energy efficiency program will deliver offerings (including program strategies/tactics, market channel, and targeted market/customer group); how it will reach customers, including those in CPUC-defined hard-to-reach and/or disadvantaged communities (if applicable), and any services that the program will provide. Describe all services and tools that are provided.

This non-resource program will reach customers and provide services through building partnerships specific to each intervention below. The scope, tactics, method, and frequency of each intervention are presented in sections (e) and (f).

- Intervention 1: Expand WE&T Infrastructure and Partnerships
- Intervention 2: SBE, DBE, and Disadvantaged Workers (DW)
- Intervention 3: Training and Technical Assistance; Organize Integrated Entry-Level Skills Training and Infrastructure
- Intervention 4: Establish Online Data Reporting Tool

C. Program Design and Best Practices

Describe the program strategies/tactics that will be used to reduce the identified market barriers for the targeted customer group and/or market actor(s). Describe why the program approach constitutes “best practices” and/or “lessons learned.” Provide references where available.

SoCalREN facilitates the participation of underrepresented individuals and businesses in the energy efficiency sector through workforce and business development and capacity building. These efforts are leveraged from the previous year’s activities to build upon the workforce development infrastructure and alignment created to support a pathway from pre-apprenticeship training to apprenticeship and the support services to eliminate barriers to participation; and continued capacity building support for diverse SBE/DVBE contractors through the E-Contractor Program. The Program’s ACES Pathway Program and the annual Future Green Leaders Summit are strategies designed to create opportunities for disadvantaged youth and build the skilled worker pipeline. Green Path Careers helps opportunity youth (e.g., Transition Age Youth, unhoused individuals, etc.) gain access to both education and supportive services including transportation and technology access. A summary of barriers and solutions addressed by SoCalREN are described in the table below:

Barrier	Solution
Insufficient skilled worker pipeline	All strategies address this barrier through recruitment, training, and education of current and future skilled workers
Lack of opportunities for diverse contractors	E-Contractor helps diverse contractors gain access to training and job opportunities

Barrier	Solution
Lack of access to STEAM education	Outreach/participation for DAC/HTR and Title I schools to improve access
Stereotypes and Bias	Increase representation of diverse STEAM professionals and role models; provide opportunities for student/youth interaction
Lack of role models and mentors	STEAM professionals to provide guidance and support for students; professional mentoring for diverse contractors; case management for opportunity youth
Limited career awareness and exposure	STEAM career exploration, opportunity youth supportive services
Financial barriers	Access to resources such as financial aid through college partners, private scholarships, etc.; stipends for opportunity youth; paid internships

Best Practice: Using tracking tools to monitor program status for workforce compliance goals and targets.

The implementation of the Local Worker Hiring Program (LWHP) for energy efficiency projects awarded by the County of Los Angeles Internal Services Department helps establish a foundation for the expansion of the LWHP within SoCalREN. The LWHP established a 30% workforce participation goal and the project outcomes thus far support the expansion of the LWHP to help cultivate a skilled workforce to deliver greater energy savings. To ensure compliance with the LWHP provision and to report on the inclusion of disadvantaged individuals performing energy efficiency project work, SoCalREN continues to provide contractor training on how to use an industry-based software, LCPTTracker, an online reporting system (ODRS), and share its best practices and strategies for local worker inclusion.

The table below highlights the impacts of implementing a best practice of setting minimum goals. Our program found that on average we exceeded the minimum goals and in areas where we did not, we adapted our approach to achieve goals going forward. Also, in section (f) we set cumulative targets.

Project Name	Contractor	Hiring Goal	Achievement
EEP125R-1 Antelope Valley Solar	RBT Electric	30%	16%
EEP135 Health Services Building	Dewberry	30%	61%
EEP137 Building Automation Dept of Works	Dewberry	30%	44%

Best Practice: Fill market gaps in workforce training such as entry-level skill and employment opportunities.

SoCalREN’s continued efforts to align workforce development resources to eliminate barriers to participation by disadvantaged workers and to support a pathway from pre-apprenticeship training to apprenticeship has been a resource to public agencies, pre-apprenticeship training programs, and community-based organizations. While labor unions and community colleges cultivate skilled mechanical trades people, the skilled labor demands of the energy sector, specifically skills training for entry-level positions, are largely unmet. This is due to the increasing levels of technology incorporated into building systems and facilities that require a combination of aptitudes and technical skills.

The current market demand for skilled labor in public work and commercial development also challenges the availability of a skilled workforce for the energy sector. SoCalREN is building the skills pipeline through aggressive youth workforce education and training for both out of school and in-school youth by partnering with YouthBuild and the Architecture Construction Engineering Students (ACES) Pathway Program that focuses on getting a head start in careers in Science, Technology, Engineering, Art, and Mathematics.

Best Practice: Engage community-based training organizations and partners to maximize program enrollment, apprenticeship training, and job placement.

Community-based training partners like the regional YouthBuild networks provide life skills and introductory construction skills training. They also have access to the construction labor union’s nationally approved pre-apprenticeship Multi-Craft Core Curriculum that provides exposure to the construction trades and apprenticeship programs. To date, 100 youth have been placed in union apprenticeship programs representing 15 YouthBuild organizations within the County of Los Angeles.

Through ACES, SoCalREN provides Los Angeles high schools with direct alignment to community colleges. ACES provided 340 high school students, of which 39% are female, with a head start on STEAM pathways to clean energy careers through tuition-free college enrolment that enables students to take engineering, architecture, and construction-related coursework that provides transferrable college credit to the California State University and University of California systems. SoCalREN is actively engaging with youth STEAM education and career technical education I its workforce model to help cultivate the skilled workforce necessary to operate and maintain energy efficiency investments in the public sector.

Transition from training to employment is critically important to reinforce academic pathways to clean energy careers. Disadvantaged youth who complete two classes each academic year are provided a paid summer internship. To date, youth have earned \$84,995 in internship wages. The ACES program is made possible by a partnership among Emerald Cities Collaborative, Los Angeles Community College District, Los Angeles Unified School District high schools, Los Angeles County summer youth employment programs, YouthBuild, and industry partners.

High School	Total # of Students	Total Wages Earned
STEAM	53	\$43,865.00
Alhambra	15	\$15,074.25
Bernstein	7	\$4,875.00
Boyle Heights Tech Center	1	\$735.00
RFK	12	\$11,721.75
Mendez	7	\$8,724.00
Grand Totals	95	\$84,995.00

Best Practice: Combine hands-on training with soft-skill training to develop contractor business sustainability.

The SoCalREN E-Contractor Academy Program was a pilot initiated in 2014 to prepare small and diverse contractors to compete for and perform energy efficiency retrofits for the MUSH sector through a series of six weekly seminars that introduce contractors to SoCalREN, green building standards, contractor prequalification, public sector bidding and estimating principles, introduction to the Los Angeles County procurement process, contract and labor compliance, project management, and provide resource access to bonding, capital, business certification, and technical training. These training cohorts resulted in 125 contractors graduating from the program. Due to the success of the pilot, E-Contractor Academy will be expanded to other geographic service areas in the SoCalREN territory.

D. Evaluation, Measurement, and Verification (EM&V)

Describe any process evaluation or other evaluation efforts that the PA will undertake. Identify the evaluation needs the PA must build into the program. These might include:

- Data collection strategies embedded in the design of the program or intervention to ensure ease of reporting and near-term feedback, and/or
- Internal performance analysis during development.

SoCalREN, given the new authority to conduct its own evaluations, is interested in conducting studies to better understand how the material or course impacted, or were relevant to, jobs following WE&T coursework, and aligning the results with ongoing program development.

Knowing if WE&T participants are applying the skills and/or using the information they received in training would be very useful in assessing the course content and in designing or redesigning future courses. Specifically, if those skills have enabled them to elevate their competitive capacity to compete and perform ratepayer-funded projects, and if workers have increased wages due to improved skills development and quality job performance.

Furthermore, SoCalREN would benefit from EM&V studies that capture workforce market data focused on energy efficiency.

In order to prepare for effective program evaluation, the implementer will work closely with the PA to set up an online data reporting tool to collect necessary information, such as participant contact information, training received, and other relevant information.

E. Program Performance Metrics

Describe the program performance metrics (metric, measurement method, frequency, etc.)

The tables below illustrate tactics, metrics, method, and frequency of each intervention strategy that is undertaken to expand the WE&T infrastructure through access to partnerships, training and technical assistance for SBEs, DBEs, and disadvantaged workers, and online data reporting systems to monitor training and workforce participation levels.

1. Intervention 1—Expand WE&T Infrastructure and Partnerships

Tactic	Metric	Method	Frequency
Regional directories of education and training programs, and employment supportive services	Number of programs identified	PA verification of director and number of programs	Annual
Activate, expand, and staff SoCalREN workforce development and small business committees; meet regularly to design and implement workforce programs that meet industry demands for skilled labor	Number of committees	PA approval of committee structure plan	Annual
	Number of committee meetings	PA approval and acceptance of committee notes	Annual
	Workforce program design plan	PA approval and acceptance of program design plans	Annual
Provide ongoing planning and technical assistance to SoCalREN members regarding organizing and implementing an economic inclusion program	Economic inclusion strategy	PA approval and acceptance of strategy	Annual
	Number of recommendations presented to SoCalREN members	Spreadsheet tracking recommendations and outcomes	Annual
Work with SoCalREN finance/project team to effectively	Template language to integrate into program documents	PA review and approval of language	Annual

integrate economic inclusion standards into projects/bid documents			
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2. Intervention 2—SBE, DBE, and Disadvantaged Worker Training and Technical Assistance

Tactic	Metric	Method	Frequency
Conduct E-Contractor Academy training	Number of trainings offered	PA receipt of training schedule	Semi-Annual
Provide ongoing technical assistance/coaching for E-Contractor Academy graduates related to the development of prequalification packages	Number of individuals trained	PA receipt of training rosters	Semi-Annual
	Number of touchpoints of TA and coaching	PA receipt of tracking that includes categories of assistance provided and number of touch points	Quarterly
Provide training graduates with prime/sub/partnering and upcoming contract opportunities	Number of opportunities presented	PA receipt of a list of opportunities presented	Quarterly
Facilitate and establish opportunities to collaborate with other agencies, including K–12 institutions, and to promote procurement efficiencies, maximize use of Los Angeles County’s Master Agreement, and increase the pool of competitive, qualified contractors.	Number of opportunities presented	PA receipt of a list of opportunities presented	Quarterly

3. Intervention 3—Organize Integrated Entry-Level Skills Training and Infrastructure

Tactic	Metric	Method	Frequency
Assess competency of existing ratepayer and local programs and determine assets and gaps, including K–12, community-based, and community college programs	Gap analysis document	PA receipt of assessment document	Annual
Establish a community-based workforce opportunity hub (WOH) to facilitate multiple pathways into centralized EE training	WOH Plan	PA receipt of plan	Annual
Improve the partner capacity of the pre-apprenticeship training programs to meet EE skilled worker demand	Additional number of training opportunities created	PA receipt of a list of opportunities created	Quarterly
Connect skilled workers to contractors	Number of connections presented to workers	PA receipt of a list of opportunities created	Quarterly

4. Intervention 4—Establish Online Reporting Tool

Tactic	Metric	Method	Frequency
Develop workforce management and referral system to connect pre-apprenticeship training graduates to EE opportunities	Acceptance testing of referral system	PA sign-off on system	Annual
Provide technical assistance and training related to SBEs, DBEs, DWs, and Workforce Compliance Administration Services for regional partners to integrate into contracting and compliance procedures	Number of TA opportunities offered related to SBEs, DBEs, DWs, and Workforce Compliance Administration Services	PA receipt of a list of opportunities created	Quarterly
Provide technical assistance and training related to the use of contracting and labor compliance systems for regional partners to monitor and track local and disadvantaged worker participation outcomes	Number of TA opportunities offered to regional partners related to use of system	PA receipt of a list of opportunities created	Quarterly
Provide technical assistance and training related to online contracting and labor reporting systems for contractors	Number of TA opportunities offered to contractors for use of system	PA receipt of a list of opportunities created	Quarterly

5. WE&T Intervention Strategies to Support SoCalREN’s Energy Efficiency Portfolio

Tactic	Metric	Method	Frequency
Residential: connect SBEs, DBEs, and DWs to skilled labor training	List of opportunities created for workforce related to residential sector	PA receipt of report	Annual
Public: connect SBEs, DBEs, and DWs to MUSH training opportunities, Local Worker Hiring Program, financing, and workforce standards	List of opportunities created for workforce related to public sector	PA receipt of report	Annual
Financing: Connect SBEs, DBEs, and DWs to energy project financing and community-based training partners	List of opportunities created for workforce related to financing sector	PA receipt of report	Annual

F. Quantitative Program Targets

Provide estimated quantitative information on the number of projects, companies, non-incentive customer services and/or incentives that the program aims to deliver and/or complete annually. Provide references where available.

The tables below expand on the SoCalREN Business Plan metrics. The program targets are broken down into annual targets as well as program cycle targets to 2025. This is intended to allow the implementer to meet its overall program targets throughout the lifecycle of the Rolling Portfolio.

1. Intervention 1—Expand WE&T Infrastructure and Partnerships

Metric	Annual Target	Cumulative Cycle Target
Number of program partnerships identified	3	16
Number of committees	3	16
Number of committee meetings and notes	6	40

Workforce program design plan and partner MOU	2	16
Economic Inclusion Strategy	1	4
Number of recommendations presented to SoCalREN stakeholders	2	12
Template language to integrate into program documents	1	4

2. Intervention 2—SBE, DBE, and Disadvantaged Worker Training and Technical Assistance

Metric	Annual Target	Cumulative Cycle Target
Number of trainings offered	6	48
Number of contractors, engineers, other types trained	150	700
Number and touch points of TA and coaching	12	90
Number of contracting opportunities presented	25	175
Number of MUSH sector agency procurement collaboration	2	12

3. Intervention 3—Organize Integrated Entry-Level Skills Training and Infrastructure

Metric	Annual Target	Cumulative Cycle Target
Apprenticeship Training Resource Guide	1	5
Pre-Apprenticeship Training Resource Guide	1	5
Employment Supportive Services Resource Guide	1	5
WOH Plan	1	1
Training curriculum development	1	4
Number of trainings offered	12	70

Metric	Annual Target	Cumulative Cycle Target
Number of workforce collaborations	4	16

4. Intervention 4—Establish Online Reporting Tool

Metric	Annual Target	Cumulative Cycle Target
Acceptance testing of workforce management system	1	1
Number of TA opportunities tracked for SBE and Workforce Compliance	4	20
Number of TA opportunities tracked for regional partners related to use of workforce management system	4	16
Number of TA opportunities tracked for contractors for use of labor compliance system	3	20

G. Pilots

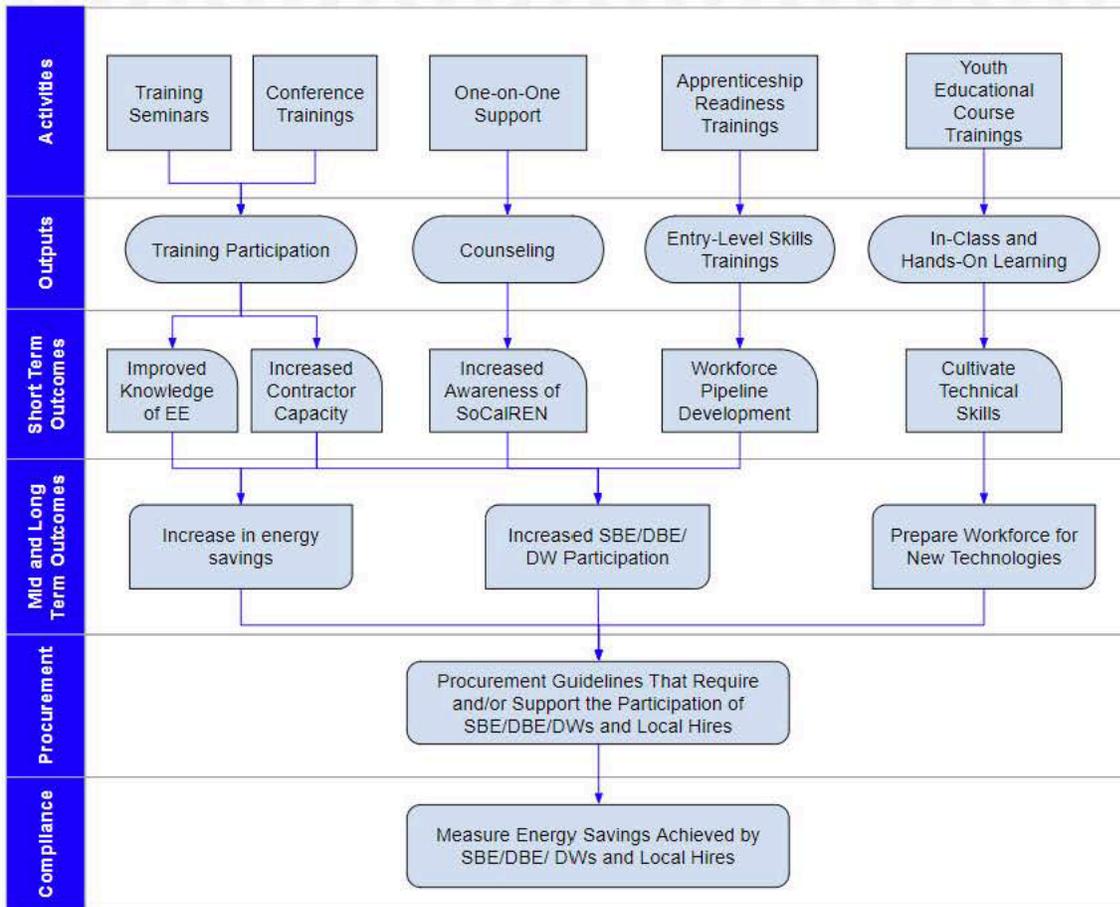
This program does not currently propose pilot activities.

H. Program Logic Model

Model should visually explain the underlying theory supporting the sub-program intervention approach referring as needed to relevant literature.

Below is the general approach we take to each of our interventions in this Implementation Plan. Each intervention focuses on bridging the gap between supply and demand of workforce. Within supply, we focus on creating pipelines to enter the workforce for newly trained workers, and pipelines for businesses development for existing businesses. On the demand side of the Logic Model we focus on connections to ratepayer funding and activities. Demand is also driven by the development of workforce standards to create procurement triggers. Together these program elements drive a supply and demand for workforce education and training where the outcomes can be tracked and reported to the PA.

Program Logic Model

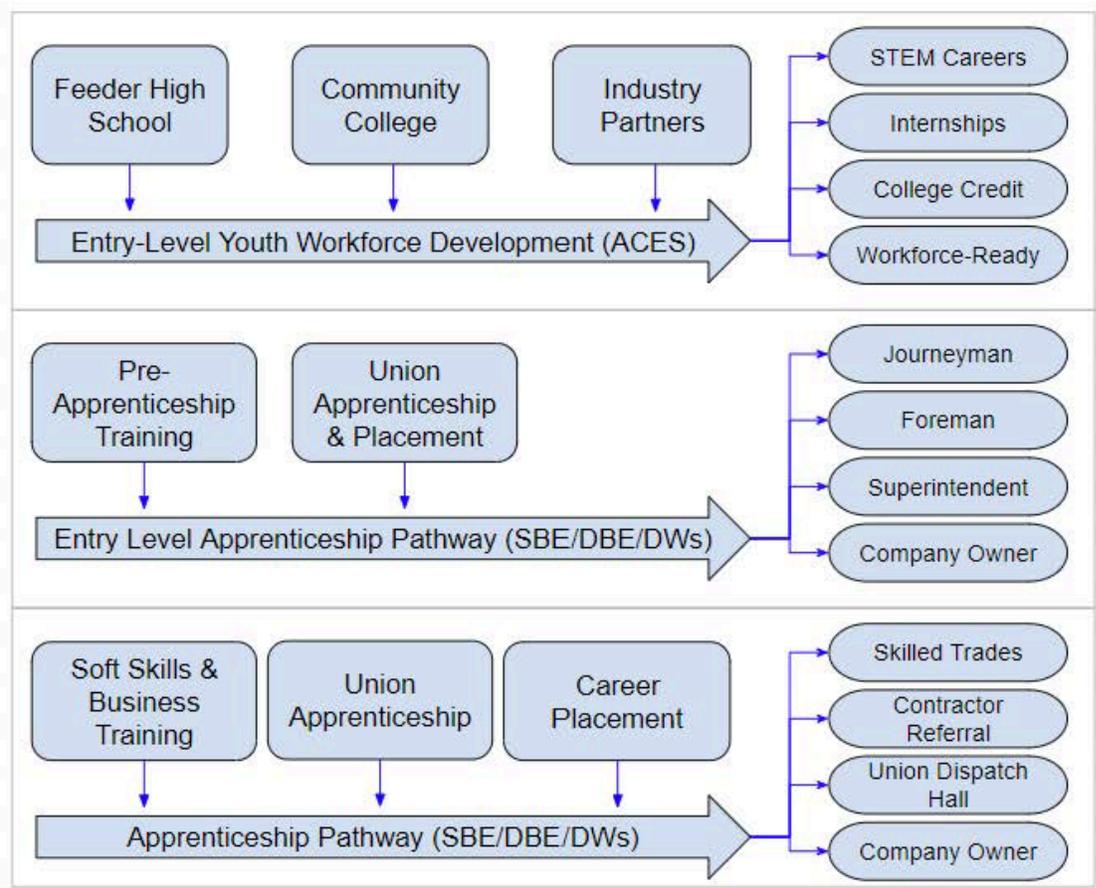


I. Process Flow Chart

Provide a sub-program process flow chart that describes the administrative and procedural components of the sub-program. For example, the flow chart might describe:

- A customer's submittal of an application
- The screening of the application
- The approval and/or disapproval of an application
- Verification of purchase or installation
- The processing of incentive payments
- Any quality control activities

Process Flow Chart

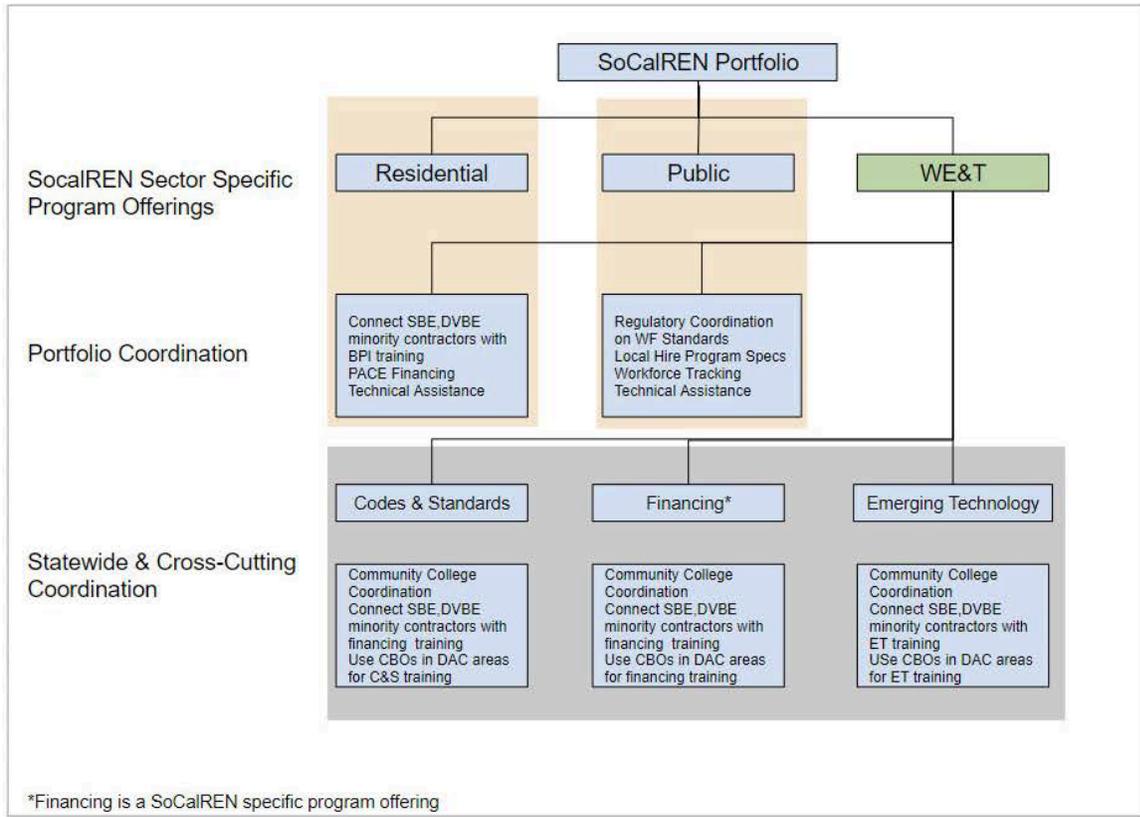


J. Diagram of Program

Please provide a one-page diagram of the program including sub-programs. This should visually illustrate the program/sub-program linkages to areas such as:

- Statewide and individual IOU marketing and outreach
- Workforce Education and Training (WE&T) Programs
- Emerging Technologies (ET) and Codes and Standards (C&S)
- Coordinated approaches across IOUs
- Integrated efforts across Demand Side Management (DSM) programs

Diagram of Program



K. Additional Information

Include additional information as required by Commission decision or ruling. As applicable, indicate the decision or ruling, with page numbers.

Pending the Final Decision on Workforce Standards this document will be updated as necessary.

L. For Market Transformation Programs Only

i. Quantitative Baseline and Market Transformation Information

Provide quantitative information describing the current EE program baseline information (and/or other relevant baseline information) for the market segment and major sub-segments as applicable.

Not applicable to this program.

ii. Market Transformation Strategy

Provide a market characterization and assessment of the relationships or dynamics among market actors, including identification of the key barriers and opportunities to advance DSM technologies and strategies. Describe the proposed intervention(s) and its/their intended results and specify which barriers the intervention is intended to address.

Not applicable to this program.

Appendix: Supporting Information and Documents

A. Program Manuals and Program Rules

All programs must have manuals (brochures) for implementers and customers to clarify the eligibility requirements and rules of the program.

As the Implementation Plan is a living document, Program Manuals and Program Rules will be developed once the subcontractor to this program is awarded renewal notice to proceed in 2019.

Supportive Materials Index

#	Information Required	Short Description	Location Name URL/Link
1	Eligible measures or measure eligibility	A list of eligible measures, or measure eligibility requirements	N/A
2	Customer eligibility requirements	Requirements for program participation (for example, annual energy use or peak kW demand)	N/A
3	Contractor eligibility requirements	List of any contractor (and/or developer, manufacturer, retailer, or other “participant”) eligibility requirements (For example: specific IOU-required trainings, specific contractor accreditations, and/or specific technician certifications).	N/A
4	Participating Contractors, Manufacturers, Retailers, Distributors	Information as to whether: <ul style="list-style-type: none"> • Program or sub-program delivery channel is upstream, midstream, or downstream, and • Program is an incentive and/or buy-down type program. 	N/A
5	Additional Services	Descriptions of any additional sub-program delivery, measure installation, marketing & outreach, training, and/or other services provided, if not yet described above.	See Section 8a, b, and c

#	Information Required	Short Description	Location Name URL/Link
6	Audits	Information as to whether <ul style="list-style-type: none"> • Pre- and Post- audits are required, • Funding or incentive levels have been set for audits, and • The eligibility requirements for audit incentives. 	N/A
7	Sub-Program Quality Assurance Provisions	List of quality assurance and quality control requirements, including accreditations and/or certifications or other credentials of individuals or organizations performing this work.	
8	Other	Emerald Cities Programs and Resources	http://emeraldcities.org/cities/losangeles
8a		Apprenticeship Resource Guide	http://files.emeraldcities.org/cities/losangeles/Apprenticeship_Resource_Guide-2014.pdf
8b		Economic Inclusion Brochure	http://files.emeraldcities.org/resources/ecc-economic-inclusion-brochure/Emerald_Cities_Brochure-7-16.pdf
8c		Local Worker Hiring Guide	http://files.emeraldcities.org/media/news/Inclusive_procurement_final_03.05.18_3.pdf

1. Eligible Measures or Measure Eligibility.

This program does not offer measures.

2. Customer Eligibility Requirements

This program will serve SDBE, DVBE, DAC and minority businesses as defined in the Final Decision on Workforce Standards.

3. Contractor Eligibility Requirements

This program does not participate directly in EE retrofits, therefore has no contractor eligibility requirements.

4. Participating Contractors, Manufacturers, Retailers, Distributors

WE&T Program Implementation Plan WE&T Program Implementation Plan

This program does not directly offer incentives, therefore does not have Participating Contractors, Manufacturers, Retailers, or Distributors. It does however include close coordination with these stakeholders in the delivery of training and workforce opportunities for the stakeholders it serves.

5. Additional Services

This program does not include additional services which are not already specified in the Implementation Plan.

6. Audits

This program does not conduct audits.

7. Sub-Program Quality Assurance Provisions

This program does not include sub-programs.

B. Incentive Tables, Workpapers, Software Tools

Provide a summary table of measures and incentive levels, along with links to the associated workpapers.

#	Measure	Incentive Level	
1	N/A	N/A	N/A

#	Document Name	Short Description	Location Name URL/Link
1	N/A	N/A	N/A