Southern California Regional Energy Network

Implementation Plan

WORKFORCE EDUCATION & TRAINING

First Filing Date: 10/03/2018

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2. 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. <u>Intervention Strategies</u>

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

Projected Program Budget	
Budget data on CEDARS ?: X Yes	No If No, then show below:
Savings Impact Budget data on CEDARS?: X Yes	No If No, then show below:
	No If No, then show below:
	Budget data on CEDARS?: X Yes Savings Impact

3. 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 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 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 Services¹

Describe how the energy efficiency (EE) program will deliver savings (upstream, downstream, direct install, etc.), how it will reach customers, and the services and it will provide.

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

- 1. Intervention 1 Expand WE&T Infrastructure and Partnerships
- 2. Intervention 2 Small business entities (SBEs), diverse business enterprises (DBEs), and Disadvantaged Workers (DW)
- 3. Intervention 3 Training and Technical Assistance
- 4. Intervention 3 Organize Integrated Entry-Level Skills Training and Infrastructure
- 5. Intervention 4 Establish Online Data Reporting Tool

c. Program Design and Best Practices

Describe how the program overcomes the market barriers in its market sector and/or end use. Describe why the program approach constitutes "best practices" or reflects "lessons learned." Provide references where available.

The 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 years 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 required to eliminate barriers to participation; and continued capacity building support for diverse SBE/DVBE contractors through the E-Contractor Academy Program.

Best Practice: Use 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 the foundation for the expansion of the LWHP within the 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, ECC continues to provide contractor training on how to use an industry based software, LCPTracker, an online data reporting system (ODRS), and share its best practices and strategies for local worker inclusion.

IP Guidance from D.15-10-028: "Describe how the energy efficiency (EE) program will deliver savings (upstream, downstream, direct install, etc.), how it will reach customers, and the services and [sic] it will provide."

Below is a table that 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 to allow the implementer to be recognized for meeting and exceeding goals in any given year.

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 Public 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 increased 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. The SoCalREN is building the skills pipeline through aggressive youth workforce education and training for both out of school and inschool youth by partnering with YouthBuild and the Architecture Construction Engineering Students (ACES) Engineering Pathway Program that focuses on getting a head start on careers in Science, Technology, Engineering, Art and Math (STEAM).

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 program curricula (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 enrollment that enable students to take engineering, architecture and construction related coursework that provide transferable college credit to the California State University and University of California systems. The SoCalREN is actively integrating youth STEAM education and career technical education in 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 career jobs. 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 program, 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
BoyleHeightsTechCenter	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 and perform energy efficiency retrofit projects for the MUSH sector through a series of six weekly seminars that introduce contractors to the SoCalREN, green building standards, contractor prequalification, public sector bidding and estimating principles, introduction to Los Angeles County procurement process, contract and labor compliance, project management, and provide resource

access to bonding, capital, business certification, and technical training. Three training cohorts resulting in 125 contractors graduated 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 that 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 deployment.

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 rate payer funded projects, and if workers have earned increased wages due to improved skills development and quality job performance.

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

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

e. Program Performance Metrics ²

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 untaken to expand the WE&T infrastructure through partnerships, training and technical assistance for Small business entities (SBEs), diverse business enterprises (DBEs), and Disadvantaged Workers (DWs) access to entry-level skills training for disadvantaged workers, and online data reporting systems to monitor workforce trainings and workforce participation levels.

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² IP Guidance from D.15-10-028: "It is in the implementation plans that we want to see at least one metric for each program/strategy/sub-sector/intervention strategy; more than one where appropriate.... Implementation plans will contain metrics, as already discussed. PAs are free to start with a clean slate in developing metrics and associated reporting requirements, but for all programs will continue to provide monthly cost reports, and for resource programs will provide monthly savings data as well."

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 directory and number of programs	Annual
Activate, expand, and staff SoCalREN workforce	Number of committees	PA approval of committee structure plan	Annual
development and small business committees; meet regularly to design	Number of committee meetings	PA approval and acceptance of committee notes	Annual
and implement workforce programs that meet industry demands for skilled labor	Workforce program design plan	PA approval and acceptance of program design plans	Annual
Provide ongoing planning and	Economic Inclusion Strategy	PA approval and acceptance of strategy	Annual
technical assistance to SoCalREN members regarding organizing and implementing an economic inclusion program	Number of recommendations presented to SoCalREN members	Spreadsheet tracking of recommendations and outcomes	Annual
Work with the SoCalREN finance/project team to effectively integrate economic inclusion standards into projects/bid documents.	Template language to integrate into program documents	PA review and approval of language	Annual

2. Intervention 2 – Small business entities (SBEs), diverse business enterprises (DBEs), and Disadvantaged Workers (DW) Training and Technical Assistance

Tactic	Metric	Method	Frequency
Conduct E-Contractor Academy training	Number of trainings offered	PA receipt of training schedule	Semi-Annual
	Number of individuals trained	PA receipt of training rosters	Semi-Annual
Provide ongoing technical assistance/ coaching for E- Contractor Academy graduates related to the development of prequalification packages	Number of touch points of TA and coaching	PA receipt of tracking log 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, 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 a 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 of system	Annual
Provide technical assistance and training related to SBEs, DBEs, and 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, and DWs and Workforce Compliance	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 compliance 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 BPI trainings, PACE opportunities, skilled labor and financing	List of opportunities created for workforce related to residential sector	PA receipt of report	Annual
Public Sector - connect SBEs, DBEs, and DW contractors with MUSH contracting 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 DW contractors to energy project financing and community-based training partners	List of opportunities created for workforce related to financing	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 – Small business entities (SBEs), diverse business enterprises (DBEs), and Disadvantaged Workers (DW) Training and Technical Assistance

Metric	Annual Target	Cumulative Cycle Target
Number of trainings offered	6	48
Number of contractors, architects, engineers, other types trained	150	700
Number of 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
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

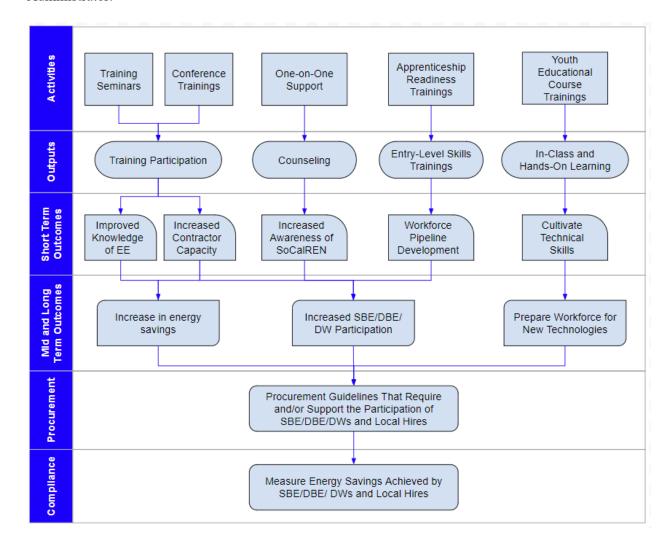
g. Pilots

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 the relevant literature (for example: past evaluations, best practices documents, journal articles, books, etc.)

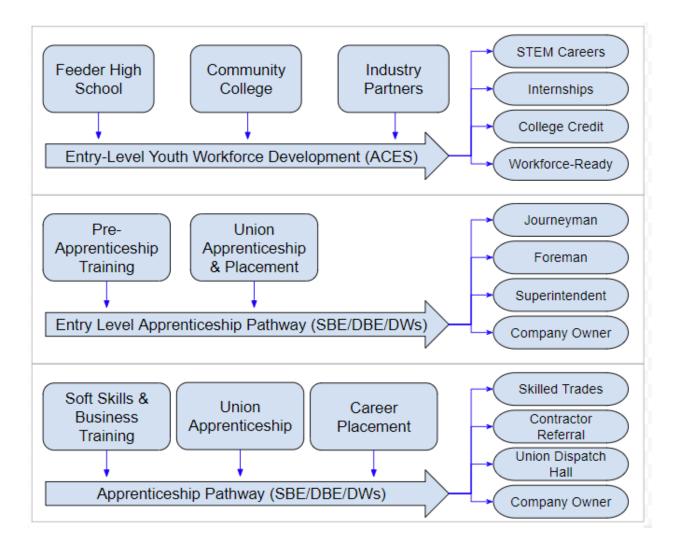
Below is the general approach we take to each of our interventions in this Implementation Plan. Each intervention focuses on bridging the gap between supply and demand of workforce. Within supply, we focus on creating pipelines to enter the workforce for newly trained workers, and pipelines for business development for existing businesses. On the demand side of the program 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 our Program Administrator.



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:

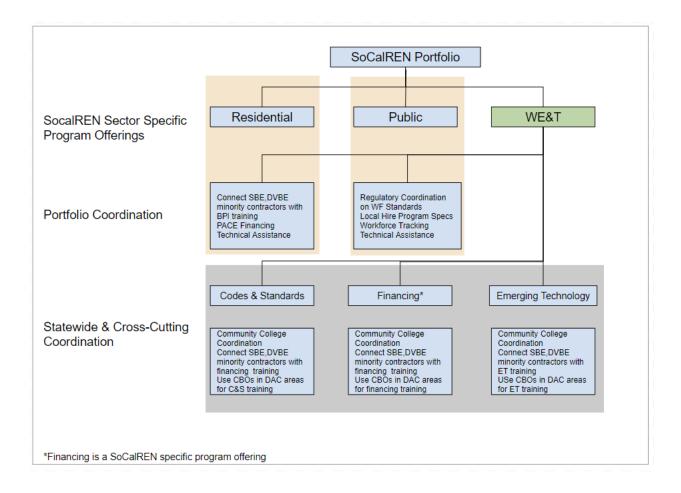
- A customer's submittal of an application
- The screening of the application
- The approval and/or disapproval of an application
- Verification of purchase or installation
- The processing of incentive payments, and
- Any quality control activities.



j. Diagram of Program

Please provide a one page diagram of the program including subprograms. 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, and
- Integrated efforts across Demand Side Management (DSM) programs.



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.

1. For Market Transformation Programs Only³

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 available.

Not applicable to this program.

ii. Market Transformation Strategy

Provide a market characterization and assessment of the relationships and/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.

Codes & Standards program, Emerging Technologies program, Workforce Education & Training program, etc.

4. 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. At minimum, manuals should include:

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.

Table 1. 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: • Program or sub-program delivery channel is downstream, midstream, or upstream, 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,c
6	Audits	 Information as to whether: 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	n/a

		other credentials of individuals or organizations performing this work.	
8	Other (not required)	 Emerald Cities Programs and Resources 	http://emeraldcities.org/cities/losangeles
8a		Apprenticeship Resource Guide	http://files.emeraldcities.org/c ities/losangeles/Apprenticeshi p_Resource_Guide-2014.pdf
8b		Economic Inclusion Brochure	http://files.emeraldcities.org/r esources/ecc-economic- inclusion- brochure/Emerald_Cities_Br ochure_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 SMBE, DVBE, DAC and minority businesses as defined in the Final Decision on Workforce Standards.

3. Contractor Eligibility Requirements

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

4. Participating Contractors, Manufacturers, Retailers, Distributors

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	URL link or location name
1	n/a	n/a	n/a