



MCE
Workforce, Education and Training
Program
Implementation Plan
DRAFT

June 30, 2020

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Program Budget and Savings Information

1. Program and/or Sub-Program Name

MCE Workforce, Education, and Training Program (Program)

2. Sub-Program ID number

MCE16

3. Sub-Program Budget Table

| MCE16: Workforce, Education, and Training Program | 2020 |
|---|-----------|
| Administration | \$34,600 |
| Marketing, Education, and Outreach | - |
| Implementation (Direct Install Non-Incentives) | \$312,067 |
| Incentives | |
| Total | \$346,667 |

4. Sub-program Gross Impacts Table

Not applicable for this program

5. Sub-Program Cost Effectiveness (TRC)

0.0

6. Sub-Program Cost Effectiveness (PAC)

0.0

7. Type of Sub-Program Implementer (Core, Third Party, or Partnership)

Third Party

8. Market Sector (including multi-family, low income, etc)

Cross-cutting

9. Sub-program Type (Non-resource, Resource Acquisition, Market Transformation)

Non-resource

10. Market channel(s) (i.e., downstream, midstream, and/or upstream)

Midstream

Implementation Plan Narrative

1. Program Description

According to MCE's Business Plan, the Workforce, Education, and Training programs offered will "...help achieve deeper market penetration with expertise in multiple demand-side management technologies and ensure each project has high program quality standards. MCE will support the success of its energy efficiency programs with complementary workforce development and training."¹ This Workforce, Education and Training program (Program) is the first of several opportunities that MCE will offer to meet these goals.

The Program is designed to leverage industry and stakeholder expertise and experience to provide:

1. Long-term, relevant education and training opportunities for the existing energy efficiency contractor workforce, and
2. On-ramping opportunities for job seekers into sustainable and long-term career paths

MCE will achieve these goals through the following methods:

1. Industry roundtables, direct outreach to energy efficiency industry professionals, workforce development groups, Community-Based Organizations, and local governments
2. Contractor and energy efficiency² (EE) professionals education and mentorship
3. Funded and curated contractor/trade internships and new workforce development training coordination

MCE has contracted with the Association for Energy Affordability (AEA) to implement this program for Program Years 2020-2021.

Program Goals

The Program goals are to gain insight into the current professional development needs of the energy efficiency industry by engaging the existing workforce and associated stakeholders. MCE will then leverage AEA and other industry stakeholders' relationships to create a pool of participants and provide onsite training opportunities to contractors. MCE's participant selection will focus on those professionals working on MCE EE programs that serve CalEnviroScreen designated Disadvantaged Communities (DACs). MCE will use existing training materials and new resources developed to fill gaps in education materials.

Another goal of the program is to identify skills and knowledge the current employee pool may be lacking. MCE will work with workforce developers and community-based organizations (CBOs) to recruit job seekers into paid internships with participating contractors, with the dual

¹ *Marin Clean Energy Energy Efficiency Business Plan*, January, 2017, p. 111

² Inclusive Economics conducts research on the employment, economic, equity impacts of energy transitions and climate policies. They also advise on policies to improve workforce outcomes from climate and clean policies and programs.

goal of a) providing real-time intern training and b) familiarizing contractors with job seekers. MCE will pay special attention to recruiting interns from DACs.

2. Program Delivery and Customer Service

MCE will provide WE&T opportunities in three ways: engaging existing workforce, facilitating contractor education, and developing new workforce.

Engaging Existing Workforce

MCE will work with Inclusive Economics to identify barriers that inhibit high-performance building best practices among the existing workforce, and generate recommendations on program design to best address these issues.

Additionally, MCE will work with stakeholders, e.g. MCE Community Power Coalition, Marin Builders Association, Rising Sun, Franklin Energy, trade unions, manufacturers, and others, to participate in industry roundtable events to increase contractor participation in high-performance building training. These events will target contractor groups to get their perspective on high-performance buildings and the challenges they face as the industry continues to change. MCE will ensure that a representative sample of participating contractor groups in MCE's diverse service territory are invited to events that will span the two-year scope of the Program. This will include outreach to contractors related to our partnerships with CBOs, to the properties located in DACs that have participated in MCE's multifamily programs, and to our existing trade relationships.

MCE will work with participating contractors and other vendors to determine the challenges they face when bidding projects and when installing the EE technologies and systems. MCE will leverage new and existing relationships with participating contractors and other vendors to gain more insight into the barriers to promoting, designing, and installing electrification measures and high-performance building work. The information gathered will be used to:

- Inform future program design;
- Identify the practical barriers to heat pump adoption;
- Guide the development of best practices training materials for participating contractors that lack experience in electrification. A summary may include a breakdown of costs from existing proposals and potential project cost reductions from better education/support.

Participating Contractor Education

A MCE-provided trainer will conduct field mentorships to participating contractors consisting of one four- to eight-hour session. When possible, field mentorships will take place at a project site. When in-field options are not available due to COVID-19 or other restrictions, training will occur at a separate classroom or the participating contractor's place of business.

Topics covered will include:

- Building science fundamentals;
- Trade- or measure-specific best practices (as needed);

- Building science resources, including handouts and manuals.

MCE will establish a priority list of electrification topics for which there is a clear need for additional resources and training. This list will be informed by the industry roundtables, as well as lessons learned from mentorships. MCE will develop the necessary materials to deliver workshops for each of the identified topics. For tracking purposes, MCE will develop a tracking sheet that outlines each of the resources selected and/or developed, the number of workshops given, and the number of participants in each workshop.

MCE will use materials identified and developed through the previous tasks to compile Electrification Topic Guides for individual topics.

New Workforce Development

Based on feedback from industry roundtables, mentorships, and direct vendor outreach, MCE will prepare and provide a list of potential partners for a Participating Contractor/Trades Internship. These Internships will provide on-the-job training and education regarding high-performance building in the intern's specific trade. MCE will work with workforce development groups and CBOs to develop an internship pipeline. MCE will work with contractors that have developed their skills through the Program to develop a list of qualified mentors with whom the interns will be matched. Internships will be funded by the Program. The 2020 program will allow MCE and AEA to partner with workforce development providers to develop a training, job procurement plan, tracking system, and protocols for successful outcomes for the participating contractor and intern.

4. Program Design and Best Practices

For each task, MCE will use best practices, using lessons learned from industry experts including Inclusive Economics, MCE and AEA, and local workforce development experts, e.g. Rising Sun, Richmond Build, GRID Alternatives, and Marin City CDC, that focus on workforce development. Additionally, MCE will coordinate with a wide variety of industry partners, including technical assistance providers, raters, inspectors, builders associations, industry associations, as well as trades and pre-apprenticeship programs. These valued trade partners will assist in connecting job seekers, especially disadvantaged workers, to contractors who will provide internships that can lead to long-term job prospects.

As MCE's implementer for the Low Income Families and Tenants (LIFT), Direct Install for Single- and Multifamily properties, and Multifamily Energy Savings programs, AEA has cultivated relationships with EE contractors and their staff. Through feedback and lessons learned from these relationships, MCE with AEA will host industry roundtables that will get further perspective on high-performance buildings and the challenges contractors face in the ever-changing EE field. Feedback from these meetings will inform the mentoring and education topics for in-field mentorships, contractor workshops, and internships.

MCE will facilitate job connections by working with the aforementioned workforce and industry partners. Roundtables and feedback sessions will provide feedback that will inform future program design; these discussions will also help identify obstacles that the workforce faces to developing high-performance building practices. Each feedback opportunity will provide

contractors from all EE trades with the opportunity to convene and learn best practices, and to discover opportunities for cooperation. Workshops will also seek to address industry needs identified in roundtable discussions, and provide resources for industry participants.

MCE will also work with contractors and program implementers that work outside of MCE EE programs, e.g. Bay Area Multifamily Building Enhancement program contractors, to ensure that Program offerings complement existing program goals. MCE will also connect contractors to the Pacific Energy Center for applicable training in both hard and soft skills that are identified during the roundtables.

4. Innovation

MCE has identified several barriers to providing meaningful and practical training to contractors and job seekers. Several barriers are listed below, along with strategies identified to bring these critical skills to the current workforce and to job seekers.³

Barriers and Intervention Strategies

| Problem Statement | Market Barrier | Desired Market Effect | Intervention Strategy |
|--|--|--|---|
| EE workforce requires a variety of trainings for all skill levels | Lack of diverse trainings | Stackable programs that meet workforce where they are | <ol style="list-style-type: none"> 1. Work with partners and industry experts to design and implement trainings 2. Develop a plan for funding sector specific, stackable certifications (entry level professional certifications) |
| Trainings take contractors away from their core job responsibilities | Lack of time for trainings | To seamlessly integrate trainings into day-to-day operations | <ol style="list-style-type: none"> 1. Schedule trainings around peak work schedules 2. Incorporate on-the-job training 3. Bring trainings to contractors |
| There are not enough comprehensive educational programs focused on energy efficiency | Discrete trainings do not contribute to a career pathway | Create meaningful career paths for participants | <ol style="list-style-type: none"> 1. Design an energy efficiency vocational program |

³Marin Clean Energy Energy Efficiency Business Plan, January, 2017, p. 125

| | | | |
|---|--------------------------------------|--|---|
| Contractors don't know how to use, install or explain the value of new technology | Lack of training on new technologies | New technologies are valued and installed by the masses upon release | 1. Facilitate educational workshops with product manufacturers 2. Provide on-the-job training for operations and maintenance staff |
|---|--------------------------------------|--|---|

The Program will increase uptake of cost-effective energy efficiency measures by educating and training the EE workforce on emerging and mainstream technologies. The Program has been designed to meet the workforce where they are, both in geographical and technical terms. MCE will invite their input into the training process and topic definition, and will provide them with the tools that they need to move beyond a single-technology installation mindset to one that encourages whole home, safe and efficient approaches to energy efficiency. and safer, more efficient technologies.

For job seekers, the Program will introduce them to emerging and mainstream EE technologies, skills, and potential employers.

5. Metrics

Workforce, Education and Training programs are measured by providing the CPUC with data on the following, approved metrics:

- Number of partnerships by sector (complete “partnership” defined by curriculum developed jointly + agreement)
- Number of participants by sector
- Percent of participation relative to eligible target population for curriculum
- Percent of disadvantaged participants trained (ID by zip code)
- Percent of incentive dollars spent on measures verified to have been installed by contractors with a demonstrated commitment to provide career pathways to disadvantaged workers
- Number of energy efficiency projects related to the WE&T training on which a participant has been employed for 12 months after receiving the training

6. For Programs claiming to-code savings

Not applicable for this program

7. Pilots

Not applicable for this program

8. Workforce Education and Training

This section refers to how workforce, education and training is incorporated into non WE&T programs. Since the Program focuses solely on WE&T, MCE addresses this topic throughout the IP.

9. Workforce Standards

Although this is not applicable for the current program, MCE will ensure that contractors and potential employers used for the internship portion of the program possess all California regulations related to workforce standards, including continuing training and appropriate industry-level licenses.

10. Disadvantaged Worker Plan

According to CPUC D.18-11-008, "Disadvantaged Worker" means "a worker that meets at least one of the following criteria: lives in a household where total income is below 50 percent of Area Median Income; is a recipient of public assistance; lacks a high school diploma or GED; has previous history of incarceration lasting one year or more following a conviction under the criminal justice system; is a custodial single parent; is chronically unemployed; has been aged out or emancipated from the foster care system; has limited English proficiency; or lives in a high unemployment ZIP code that is in the top 25 percent of only the unemployment indicator of the CalEnviroScreen Tool."⁴

MCE will work with CBOs and workforce development partners that have long-standing relationships with these communities to target disadvantaged workers and recruit them to the Program's internship component. The WE&T program will also engage with properties that have participated in MCE energy efficiency programs and are located within disadvantaged communities. These organizations can be targeted for additional training opportunities and added to AEA's list of contractor references. This strategy will help connect disadvantaged workers to projects through energy efficiency programs.

11. Additional information:

No additional information is required.

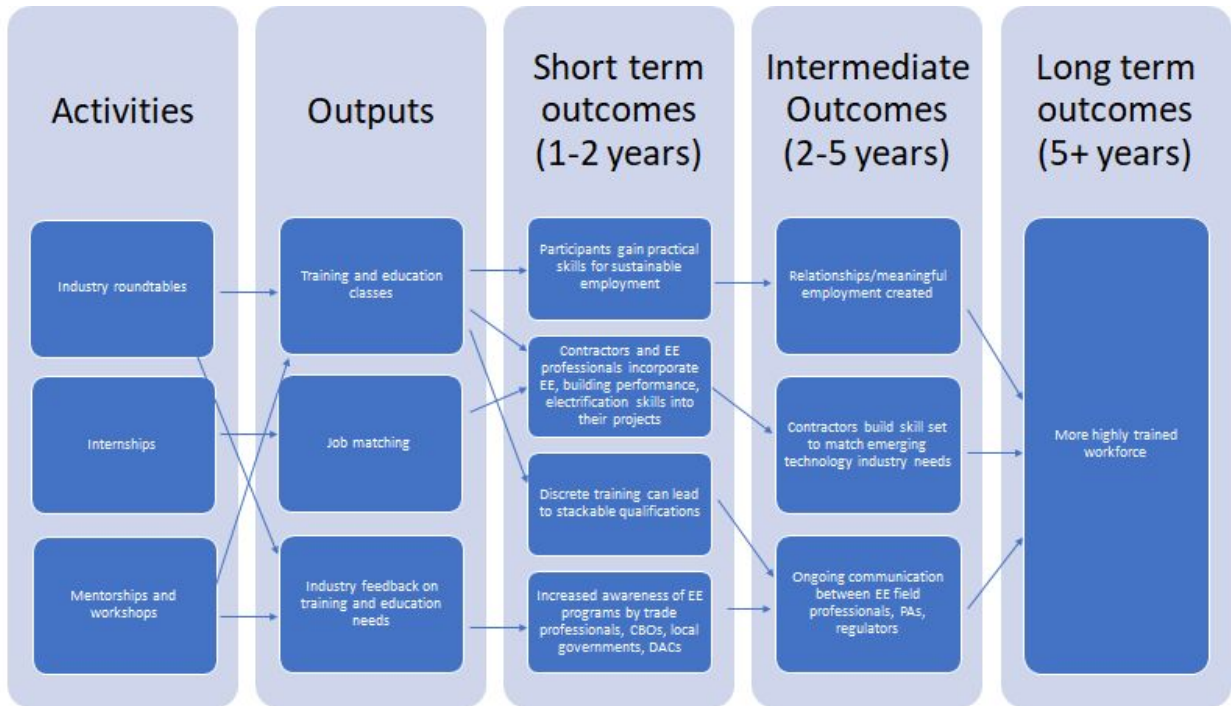
Support Documents

1. Program Manuals and Program Rules

Please see Attachment: MCE Workforce, Education and Training Program(MCE16) Program Manual

⁴ CPUC D.18-10-008 October 11, 2018, Attachment B, Section D, page B-9.

2. Program Theory and Logic Model



3. Process Flow Chart:

Not applicable for this program

4. Incentive Tables, Workpapers, Software Tools:

Not applicable for this program

5. Quantitative Program Targets

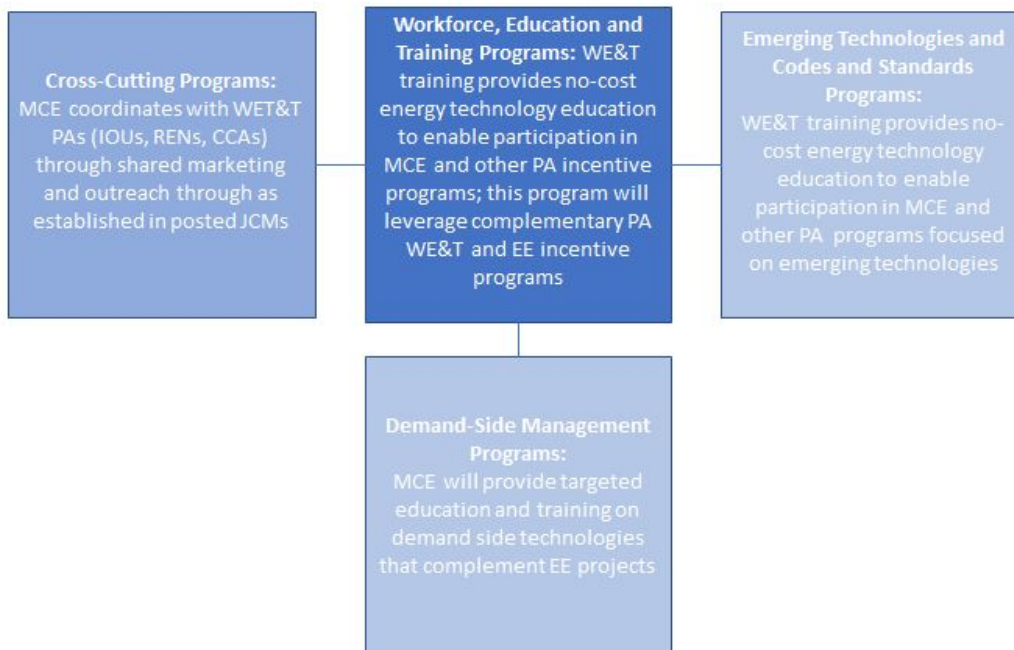
Provide estimated quantitative information on number of projects, companies, non-incentive customer services and/or incentives that program aims to deliver and/or complete annually.

Provide references where available.

| | Deliverable | Quantitative Goals |
|----------------|--|----------------------------|
| Q2 2020 | Perform First Contractor Field Mentorship session | 1 Organization |
| | Host First Industry Roundtable | 5 Attendees |
| Q3 2020 | Perform 2 Contractor Field Mentorship Sessions | 1 Organization Per Session |
| | Host second Industry Roundtable | 7 Attendees |
| | Host Electrification Topic Workshop | 10-20 Participants |
| Q4 2020 | Perform 3 Contractor Field Mentorship Sessions | 1 Organization Per Session |
| | Host Second Electrification Topic Workshop | 10-20 Participants |
| Q1 2021 | Host Industry Roundtable to Share Program Insight and Solicit Feedback | 7 Attendees |
| | Host 1 Electrification Topic Workshop | 10-20 Participants |
| | Perform 3 Contractor Field Mentorship Sessions | 1 Organization Per Session |
| Q2 2021 | Host 2 Electrification Topic Workshops | 10-20 Participants |
| | Perform 2 Contractor Field Mentorship Session | 1 Organization Per Session |
| Q3 2021 | Host 1 Electrification Topic Workshop | 20 session attendees |
| | Perform 3 Contractor Field Mentorship Sessions | 1 Organization Per Session |
| | First Contractor/Trades Internship Starts | 1 Internship |
| Q4 2021 | Host 1 Heat Pump Education Workshop | 10-20 Participants |
| | Perform 2 Contractor Field Mentorship Sessions | 1 Organization Per Session |
| | Second Contractor/Trades Internship Starts | 1 Internship |

6. Diagram of Program

The diagram below represents how MCE's WE&T program will be influenced by and benefit from complementary energy efficiency and demand management programs and their respective program administrators.



7. Evaluation, Measurement & Verification (EM&V):

A traditional evaluation, Measurement and Verification protocol is not required for this program. Measurement of MCE's program will be completed by conducting an internal review of deliverables versus outcomes and the metrics established by CPUC decision 18-05-041. AEA will submit a monthly status report to MCE that includes goals and deliverables completed to date and upcoming tasks. MCE will then conduct a monthly comparison of the report to the established goals and deliverables as well as the program's established metrics. This reporting stream will allow MCE to provide program course corrections as needed to ensure that the goals of the program are realized.

8. Normalized Metered Energy Consumption (NMEC):

Not applicable for this program