

## **ATTACHMENT 1**

### **Workforce Education and Training PIP Addendum**

#### **Joint IOU Response to Staff Request for Additional Information<sup>i</sup>**

In the program description section of the IOU's WE&T PIPs include the following, as applicable, for relevant WE&T programs:

- Describe "soft skill" training efforts such as business and sales development, marketing skills, and hands-on training strategies.

#### **IOU Response:**

"Soft skill" training efforts include classes that teach students critical non-technical skills that will help them during the interview process and/or while on the job interacting with customers. Such skills include sales and marketing, communication skills, interview techniques, resume writing, and workplace conduct.

There is some 'soft skill' training provided at IOU Energy Centers through, and as part of, industry member organizations. Rather than conduct these trainings themselves, the IOUs propose to provide students a list of resources available through existing organizations like workforce investment boards, community college courses, and professional development resources. Where appropriate, IOUs will also partner with organizations that provide such soft skills to better direct interested participants to resources for acquiring soft skills.

PG&E will build upon its "soft skills" classes, including courses on financial analysis classes for selling energy efficiency. Such classes provide the energy efficiency workforce tools for calculating and presenting the right financial model for presenting a case to invest in energy efficiency to various audiences, including customers, CEOs, individual contributors, etc.

- Include estimates of training related costs for programs, participating contractors, and customers, as well as related increases in energy savings benefits, lower costs over lifecycle of equipment, and creation of higher quality jobs (Decision X, Section X )

#### **IOU Response:**

As the IOUs implement sector strategies, they will gather estimates of training related costs for programs, participating contractors, and customers. IOUs will work with EM&V to assess and track related increases in energy savings benefits, lower costs over lifecycle of equipment, and creation of higher quality jobs.

At the time of drafting this Program Implementation Plan, since IOUs are in the

process of planning sector strategies for various sectors, information requested herein does not yet exist. However, requested information about CALCTP is provided in the IOU's filing as a response to language in the Decision page 278, and provided below for reference.

- 1) When the program requires CALCTP certified installers, the cost to the customer for the labor component of the project may be 10% - 15% more than prior when no certification was required.
  - 2) Compliance and permitting cost are directly associated to the cost of proper training programs for designers, installers, manufacturers, etc. which may be equivalent to an additional 20% to the project cost. However, proper collaboration with industry associations and manufacturers may offset this cost.
  - 3) With proper incentive levels and education of the segment, it is anticipated that adoption/participation would increase since the misperceptions of advanced lighting control systems, potential for demand response and how DR or ADR works will be corrected causing more demand for the control solution.
  - 4) It has been proven with advanced lighting control system assessment projects at PG&E, SCE and SDG&E that the customer will achieve a minimum of an additional 30% savings over traditional lighting efficiency measures. And dependent upon the level of control allowed to individual employees, savings may increase an additional 5% - 10%. With the opportunity to participation in DR, the customer will achieve even greater cost savings due to the ability to shave or control peak loads. The actual dollar values will be determined as the program adoption occurs and customer site performance is monitored and data collected.
  - 5) Additional benefits include: a. systems do not get overridden due to better understanding as well as the system being designed and installed. Also, ease of proper training of customer personnel regardless of turnover with the local certified installer; b. SCE proved in their assessments, fewer, if any, call backs will be experienced when the system is installed by a certified installer. In contrast, an SDG&E project required numerous call backs before the system was able to be commissioned when a non-certified installer was used. c) increased proper maintenance, d) higher visibility of actual energy use in lighting due to the potential of graphic interfaces and other reporting. e) ability to track GHG emission reductions. f) create market disruption as customers begin talking to others about how well their advanced lighting control system is working and saving them money due to proper design and installation.
- Identify existing skill standards and certification supported by the training activities. Identify any new standards to be developed including identification of partnership entities that will help develop them. Include descriptions of efforts to ensure program contractors support high road strategies<sup>1</sup> and track and report on these efforts.

**IOU Response:**

The IOUs will work with existing and new industry partnerships and applicable

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<sup>1</sup> WE&T Needs Assessment, p. X)

DSM programs to support and promote new skills standards training. Currently, the IOUs offer education and training from among the following continuing education and certificate programs and organizations:

- American Institute of Architects (AIA)
- American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE)
- APPA: Leadership in Educational Facilities
- ASIS International
- Association of Energy Engineers (AEE)
- Association for Facilities Engineering (AFE)
- Building Owners and Managers Association (BOMA)
- BOMI International
- Building Performance Institute (BPI)
- California Home Energy Rating System (C-HERS)
- Carpet and Rug Institute (CRI)
- Cleaning Management Institute (CMI)
- CoreNet Global
- Counselors of Real Estate (CRE)
- Institute of Real Estate Management (IREM)
- International Brotherhood of Electrical Workers (IBEW)
- International Facility Management Association (IFMA)
- ISSA, The Worldwide Cleaning Industry Association
- National Association of the Remodeling Industry (NARI)
- National Council on Qualifications for the Lighting Professions (NCQLP)
- National Electrical Contractors Association (NECA)
- North American Technician Excellence (NATE)
- San Diego Association of Realtors (SDAR)
- Society for College and University Planning (SCUP)
- Society of Industrial and Office Realtors (SIOR)
- U.S. Green Building Council (USGBC)

As part of their shift toward a sector strategy approach and as identified in the Needs Assessment, where applicable and possible, IOUs will work with organizations to modify course content and/or create credential programs that result in stackable credentials that are of value to employers.

Residential and Commercial HVAC Quality Maintenance and Quality Installation programs in the portfolio ensure that contractors support high-road strategies through the programs' requirements that the minimum level of services conducted and incentivized through the programs are based on the HVAC industry's own set of quality standards that define the appropriate high-road level of installation and maintenance services for customers. Tracking of the success of these program requirements that demand high-road quality levels is done through the regular tracking of these HVAC programs that measure the increasing use of these practices as the uptake in the programs grow.

- Describe how the program will target low-income and disadvantaged populations for participation in training programs and/or demand side management (DSM) program delivery.

**IOU Response:**

IOUs will leverage existing communication channels to reach members of low-income and disadvantaged communities. At a local and regional level, IOUs work with local community-based organizations that have established relationships to support their low-income and disadvantaged population. This is often done with the aid of Public Affairs, Community Relations and Diverse Business Enterprises. IOUs will also collaborate with their individual low-income energy efficiency program managers and partners as another channel toward reaching low-income and disadvantaged persons and helping to increase their awareness and participation in IOU education and training opportunities.

Through its PowerPathway Training Network for Energy Efficiency (PPTNEE), PG&E will continue and expand its partnerships with organizations, including but not limited to RichmondBUILD, Rising Sun Energy Center, Proteus, Inc., and the Central Valley Opportunity Center, that have been serving members of the disadvantaged and low income communities. Such partnerships will allow PG&E to leverage their resources and subject matter expertise to work with organizations that already have those connections to low-income and disadvantaged populations.

- Describe how the program will support entry level career pipelines and pathways supporting development of entry level skills leading to higher skill sets utilizing state apprenticeship and pre-apprenticeship programs as appropriate.

**IOU Response:**

IOUs will collaborate with existing implementers of career skills development programs targeted to high school students with degrees, continuing education and post-secondary students for entry level career pipelines and pathways and higher skill sets aligned with pre-apprenticeship and state apprenticeships. Given the wide range of apprenticeship and pre-apprenticeship programs, IOUs will work with State agencies, including the California Division of Apprenticeship Standards, to determine which apprentice/pre-apprenticeship programs should be targeted during the 2013-2014 bridge period. The goal of the partnerships will be to increase awareness and participation in the wide range of training options for students to develop their careers. Trainings will support the spectrum of knowledge and skill level being applicable to someone just entering the energy field, to someone seeking to advance his/her place in a specific career path.

IOUs will collaborate on an effort to develop a statewide memorandum of understanding (MOU) with the California Division of Apprenticeship Standards.

The MOU will provide a framework for partnering with labor, trade, and professional organizations that resembles the existing CALCTP program.

- For WE&T sector strategy efforts describe which characteristics will be sought for employer partners, such as level of joint investment in training efforts, support and participation in apprenticeship programs, enforcement of permitting, code, safety compliance, and other labor laws.<sup>2</sup>

**IOU Response:**

IOUs will involve other organizations that can help to leverage existing and new IOU training opportunities. Potential partners will be sought from government agencies, employers, community colleges, labor organizations, manufacturers, professional organizations, and community-based organizations. IOUs will expect partners to commit direct and indirect resources toward developing specific sector strategies. Partners will need to help drive training program participation to their target audiences, and will be expected to support and participate in apprenticeship programs, support and enforcement of permitting, code and safety compliance and other laws, as appropriate to their roles and activities involved, include participating in leadership roles where possible.

- Also, describe the following:  
Describe the governance structure within sector strategy partnerships, such as processes for agenda development, recording minutes, and decision making;

**IOU Response:**

Each sector strategy effort will be led by one IOU with other IOUs as major contributors and partners. IOU sector strategies efforts will include a steering committee to drive overall development and governance over the strategy. Some sector strategy efforts could require an Advisory Council to drive specific issues within the strategy such as certifications or knowledge, skills, and abilities attached to a particular occupation. The lead IOU will be responsible for assuring that meeting logistics, including agenda development, meeting notices, and recording/disseminating minutes are well-orchestrated.

- Describe the process to develop a mutually agreed upon plan to support existing or new training certifications for each subsector or technology in the non-residential HVAC sector strategy effort and any other sector strategy efforts the IOUs pursue;

**IOU Response:**

All 2013-2014 sector strategy approaches will include a plan for cross-sector stakeholder support towards an existing or new certification, or other appropriate set of qualifications that lead to support of Strategic Plan goals. Such industry-recognized credentials are an essential and necessary hallmark of a successful

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<sup>2</sup> Decision X, Section X.

sector strategy. IOUs will work closely with the internal and external team involved in the HVAC installation programs and associated stakeholders, including through the Western HVAC Performance (WHPA) to develop a mutually agreed plan to support any appropriate existing or new training certifications or set of qualifications for each aspect of the non-residential HVAC sector strategy effort. A similar approach is anticipated in coordinating a sector strategies approach on WE&T intervention for Emerging Technology adoption, codes adoption with Codes & Standards and targeted training of market agents critical to the success of Energy Upgrade California. Through careful and thorough assessment of options, and ongoing and open dialogue with varied stakeholders across the sector at issue, the strategy will be predicated on cross-stakeholder support towards an agreed-upon certification(s) or other appropriate set(s) of qualifications.

- Describe how the program will develop skill upgrade programs that are aligned with the state approved apprenticeship training programs. Skill upgrade programs should include robust entry prerequisites and pathways to other educational establishments.

**IOU Response:**

IOUs will collaborate with stakeholders in a manner similar to that of the WE&T Taskforce structure, taking input on revisions to the sector strategies approach, course portfolio, and training partnerships. IOUs will also work with implementers of career skills development on career pipelines and pathways that lead into higher skill set training equivalents to those of pre-apprenticeship and state approved apprenticeship. IOUs will create a forum for discussion among these stakeholders to continuously evaluate training alignment. Given the wide range of apprenticeship and pre-apprenticeship programs, IOUs will work under an MOU with State agencies, including the California Division of Apprenticeship Standards, to determine which pre-apprentice/apprenticeship programs should be targeted during 2013-2014. A core component of this plan will be the development of partnerships, which will include an implementation plan similar to that used in the CALCTP sector strategies approach

In the budget section of the WE&T PIPs (section X), include a separate table indicating allocated funding for:

- Sector strategy efforts

**IOU Response:**

The IOUs do not see Sector Strategy efforts as mutually exclusive of current WE&T Centergies implementation strategy. IOUs will support sector strategies as a way of restructuring portions of their programs to focus on specific audiences. IOU staff will be allocated on priority sector strategies efforts such as for Commercial HVAC, but in all cases being efficient and effective in funding sector strategies efforts.

PG&E will continue to support CALCTP as a proven sector strategy approach toward upskilling the lighting sector, including electricians, installers, middle-management and salespersons. PG&E will lead the statewide sector strategy effort for commercial HVAC, considering both quality installation and quality maintenance efforts for the program-WE&T connection, in order to determine a best path for a timely pilot, and so that the pilot can lead most directly to improvements of the broader HVAC workforce education and training effort. Other sector strategy efforts will include, but not be limited to the architectural design sector as well as small/medium business commercial building auditors. Where appropriate, all sector strategy efforts will be advised by stakeholders, including community colleges, 4-year colleges and universities, trade organizations, labor organizations, professional organizations, and state agencies.

- Efforts to target low-income and disadvantaged populations

**IOU Response:**

IOUs will proactively partner with community-based organizations, workforce investment boards, community colleges and other local workforce development and training programs to both articulate training leading to certification and assist in easy access to energy center offerings. In addition, where applicable, IOUs will continue to or begin to partner with their internal groups that serve low income and disadvantaged communities.

PG&E will continue its support of the Energy Savings Assistance Program (ESAP). ESAP provides no-cost weatherization services to low-income households who meet the CARE income guidelines. Services provided include attic insulation, energy efficient refrigerators, energy efficient furnaces, weather-stripping, caulking, low-flow showerheads, water heater blankets, and door and building envelope repairs which reduce air infiltration.

In section 13 of the PIP describe an evaluation plan that will collect, monitor, and track:

- Hours of instruction and locations of classes;
- Partner organizations and related co-funding / resource sharing arrangements;
- Specific commitments from employers that support high-road strategies (WE&T NA, p.X);
- Number, specific occupation, skill level, and demographic characteristics of participants;
- Associated certifications and skill standard requirements being leveraged with current training efforts. Track new standards developed and/or required for DSM program delivery;

- Training completion and job placement rates;
- A listing of resource programs that are aligned with training and certification WE&T efforts ;
  - Include a description of career pathways in which the relevant resource program is embedded, including points of entry and paths for advancement;
- Improvements in the quality of installations and / or service activities for contractors participating in the sector strategy.
- Strategies to identify job creation and metrics that result from sector strategy training activities and coordination of training activities with core DSM programs.

**IOU Response:**

IOUs have been making changes to their tracking methods, processes, and infrastructure. To protect customer privacy, certain data such as specific occupation, skill level, and demographic characteristics of participants will be collected on a voluntary basis during time of registration.

Data such as job placement rates, commitments from employers, strategies to identify job creation will be tracked for specific sector strategies as opposed to the thousands of energy center participants that participate in energy center classes.

Tracking information such as improvements in the quality of installations and/or service activities for contractors participating in IOU sector strategy efforts and strategies to identify metrics that result from sector strategy training activities and coordination of training activities with core DSM programs will be considered and monitored with assistance from IOU EM&V groups within the collaborative EM&V effort managed by CPUC Energy Division.

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<sup>i</sup> Attachment 1 is additional information the Staff requested be provided in its May 24, 2012 guidance documents, Appendix F.