

Workforce Issues and Energy Efficiency Programs: A Plan for California's Utilities
RECOMMENDATIONS TABLES

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Chapter 2. DEMAND: Energy Savings		
General Recommendations	Specific Recommendations	Goal
A. Adopt a responsible contractor policy for use across all resource programs where contractors work directly with the IOU, or where a customer receives an incentive for equipment or service.	1. Require and verify that all firms (and subcontractors) working on ratepayer-subsidized projects meet pre-established, clearly defined minimum standards relating to contractor responsibility, including: all applicable licenses, bonding and insurance (including workers' compensation), wage and labor law compliance, no OSHA violations, and permitting that includes passing code inspections.	Energy
	2. Pre-qualify all firms (and their subcontractors) meeting any of the following conditions: (1) have contract(s) with the IOU greater than \$1,000,000; (2) implement individual projects with total costs greater than \$100,000; or (3) participate in programs for which contractor pre-approval is required (e.g., HVAC QI/QM, EUC). In addition to the baseline requirements (A.1), pre-qualify firms based on: <ul style="list-style-type: none"> • <i>History of performance requirement:</i> (a) documented history of full compliance with state, health, safety, and work standards; and (b) references from five different clients for five similar past projects. • <i>Skilled workforce requirement:</i> 60 percent of jobsite workforce is comprised of journey-persons or apprentices from a registered apprenticeship program in California, or other proof of skilled workforce. • <i>OSHA requirement:</i> 60 percent of jobsite workers are OSHA 10-hour General Industry Safety and Health Certified and at least one jobsite worker is OSHA 30-hour General Industry Safety and Health Certified. 	Energy
B. Adopt specific skills certification requirements in conjunction with quality assessment activities (see Exhibit 2.2 Decision Tree) for contractors and technicians working on ratepayer-subsidized EE projects.	1. <i>Advanced lighting controls systems:</i> Require California Advanced Lighting Controls Training Program (CALCTP) firm certification for contractors on all projects.	Energy
	2. <i>Energy Upgrade California Whole House:</i> Require BPI firm accreditation for all Advanced Path Whole House projects.	Energy
	3. <i>HVAC Quality Installation and Quality Maintenance:</i> Require graduation from a state-certified apprenticeship program, a 2-year degree in HVAC, or proof of comparable training and experience for jobsite HVAC technicians.	Energy
	4. Utilize US Department of Energy or the state of California skills standard and certification guidance, when/if available, to determine future skills standards and certifications for EE programs.	Energy
C. Implement changes in the resource program design, planning, implementation, and evaluation process to create stronger incentives for the IOUs to promote work quality.	1. Document the competencies of contractors and workers in field tests for new EE measures.	Energy
	2. In work papers, document contractor and worker competencies needed to meet savings assumptions used to estimate <i>ex ante</i> savings.	Energy
	3. In program implementation plans (PIPs), describe contractor and worker competencies required for successful program implementation, and provide an explanation of how program design will ensure that participating contractors and workers meet competency requirements.	Energy
	4. Improve quality assessment processes. Assign highly skilled technicians or certified inspectors to inspect EE measures to see if they meet technical specifications (see Exhibit 2.2 Decision Tree).	Energy
	5. Track the results of inspections by both contractor and measure.	Energy

Chapter 3. SUPPLY: Energy Savings and Inclusion			
General Recommendations	Specific Recommendations	Goal	
A. Create a dedicated skills-building portfolio targeting both energy savings and workforce inclusion goals.	1. Implement the skills-building portfolio via two RFPs: one for the goal of energy savings and one for the goal of inclusion. The RFPs should be based on a sector strategy and career pathways framework, and partnerships with core training and education institutions.	a. Administer RFP #1 to fund projects addressing EE skills-building. Projects to be funded include: <ol style="list-style-type: none"> Sector strategies targeted at incumbent workers, built on regional partnerships and engagement of multiple employers. Allowable activities include curriculum and certification development, instructor training, and piloting of training for incumbent workers. Collaborations with core education and training institutions (high schools, community colleges, state-certified apprenticeships, 4-year colleges and universities). Allowable activities include curriculum and certification development, instructor training, and piloting of new courses. 	Energy
		b. Administer RFP #2 to fund training programs that connect disadvantaged workers to jobs and career pathways in EE. Projects to be funded include: <ol style="list-style-type: none"> Inclusion sector strategies that leverage Workforce Investment Board (WIB) and other resources. 9-12 educational partnerships with a career-technical and career development focus. 	Inclusion
	2. Adopt a priority-setting process based on needs and opportunities to impact energy savings and inclusion goals.	a. For energy savings, the process should identify priority occupations, skills gaps, skills standards and certifications, and intervention strategies, and prioritize interventions by energy savings potential and scale of impact.	Energy
		b. For workforce inclusion, the process should identify the demand for entry-level EE workers, career advancement paths, and regional need, and prioritize programs with strong job placement track records.	Inclusion
	3. Engage a Peer Review Group (PRG) of key workforce stakeholders and experts to advise the IOUs on the development of the skills-building portfolio	a. The role of the PRG should be to: <ul style="list-style-type: none"> Participate in the design of the RFPs for the skills-building portfolio by identifying guiding principles and criteria for project selection; Provide input on appropriate metrics of success; Participate in review committee to select winning proposals; Advise the IOUs on the selection of staff or consultants to administer the RFPs; Provide ongoing input and feedback as needed throughout program implementation; and Offer feedback on program effectiveness upon completion. 	Energy and Inclusion
		b. Staff and/or consultants should have appropriate expertise, experience and relationships to administer the RFPs. Their role: <ul style="list-style-type: none"> Draft RFPs based on the PRG's guidance and priority-setting; Propose specific skills-building priorities for review by the PRG; Oversee the administration and review of the RFPs; and Support implementation, including helping to convene regional training partnerships, identifying opportunities to leverage other efforts, providing technical assistance, and carrying out field reviews. 	Energy and Inclusion

Chapter 3. SUPPLY: Energy Savings and Inclusion			
General Recommendations	Specific Recommendations	Goal	
<i>(continued)</i> A. Create a dedicated skills-building portfolio targeting both energy savings and workforce inclusion goals.	4. Fund three phase-one programs that can begin in 2015. Dedicate unencumbered resources (we suggest approximately \$4 million for each phase one program).	Program #1: Issue an RFP for projects to enhance EE content in the core curricula for accredited degree programs for architects and engineers.	Energy
		Program #2: Carry out a program to enhance and verify EE skills for the key trades in the state-certified apprenticeship system, via a partnership with the Community College Chancellor's Office of Apprenticeship and the California Division of Apprenticeship Standards.	Energy
		Program #3: Issue an RFP for projects to support inclusion via pre-apprenticeship bridge programs to prepare entry-level EE workers or jobseekers for opportunities in higher skilled and higher wage employment in MUSH (municipalities, universities, schools, and hospitals) sector EE work, other skilled construction jobs, and/or further training. Model the RFP after the CWIB's Prop. 39 RFP.	Inclusion
B. Modify WE&T program for market building.	1. Modify Centergies market-building class design and delivery.	a. Develop market-building offerings in coordination with ME&O, skills-building portfolios, and resource programs.	Energy
		b. Target classes to specific market-building audiences.	Energy
		c. Lower ratepayer costs by charging fees for classes where feasible, recording and broadcasting classes via an IOU joint WE&T website, and lowering administrative expenditures.	Energy

Chapter 4. DEMAND: Inclusion		
General Recommendations	Specific Recommendations	Goal
A. Create a workforce inclusion program to broaden access to living wage jobs and career pathways in EE for workers from disadvantaged communities.	1. Add "workforce inclusion" as a factor in ranking proposals by third-party contractors in all EE solicitations.	Inclusion
	2. Adopt "first source" language in all EE contracts to create a formal link between training for disadvantaged workers and job opportunities through EE programs.	Inclusion
	3. Establish prevailing wages and targeted hire goals for all contractors and subcontractors that have a direct contracting relationship with the IOU or are pre-selected (e.g., Direct Install, Local Government Partnerships, third-party, and ESA programs).	Inclusion
	4. Guide and encourage government partnerships, third-party programs, and contractors serving the MUSH (municipalities, universities, schools, and hospitals) sectors to adopt prevailing wage, apprenticeship standards, and targeted hire policies, which together can provide meaningful job and training opportunities for disadvantaged workers.	Inclusion
B. Implement foundational activities to support the workforce inclusion program.	1. Adopt a specific definition of "disadvantaged worker" based on a combination of residence in a high unemployment zip code and/or meeting specific criteria of disadvantage.	Inclusion
	2. Collect data on job quality, workforce diversity, and hiring of disadvantaged workers (see Chapter 5. EM&V Recommendations).	Inclusion

Chapter 5. Evaluation, Monitoring & Verification (EM&V)		
General Recommendations	Specific Recommendations	Goal
A. Collect job quality and work quality data essential for planning, implementation, and evaluation of workforce initiatives.	1. Select indicators of work quality, job quality, and inclusion based on a review of existing indicators and in consultation with labor force experts.	Energy and Inclusion
	2. Require all contractors and subcontractors that have a direct contracting relationship with the IOU and/or are pre-selected (e.g., Direct Install, Local Government Partnerships, third-party, and ESA programs) to report specified jobs and workforce data, via participation in a confidential online jobs reporting system based on certified payroll data.	Energy and Inclusion
	3. For contractors hired by customers, develop, test, and implement workforce data collection methods using "best practice" approaches.	Energy and Inclusion
	4. Collect data on indicators of work quality for measures and systems where quality assurance processes or demonstration and pilot projects have identified work quality problems.	Energy and Inclusion
	5. Develop "scorecard" reports on key program metrics using data from the online jobs reporting system and other sources and make them available to workforce stakeholders.	Energy and Inclusion
B. Evaluate the costs and benefits of standards.	1. Introduce workforce standards as requirements for EE resource programs, and carefully document and monitor the experience of initial introduction.	Energy
	2. Use "quasi-experimental" approaches in conjunction with the introduction of standards system-wide to evaluate the benefits and costs of workforce standards, including standards for advanced lighting systems and HVAC QI/QM.	Energy
C. Reform program planning, approval, and evaluation policies and processes to explicitly address work quality.	1. Support a policy task force (or a subgroup of a larger task force) to develop work papers and assess reported savings in a way that captures the impact of work quality on projections of energy savings.	Energy
	2. Monitor <i>ex post</i> program review to address work quality. As work quality is introduced in quality assessments and program evaluations, explicitly include work quality in <i>ex post</i> program review.	Energy
	3. Integrate and address inclusion as part of program reviews.	Inclusion
D. Develop full program theory, program performance metrics, and comprehensive EM&V plans after specific recommendations are incorporated into program implementation plans.	1. Modify evaluation plans for EE resource programs to address indicators of quality of work and job quality, with priority given to those programs where poor work quality has been identified as an issue. Support explicit consideration of indicators of work quality for impact evaluations for the 2013-2014 program cycle.	Energy and Inclusion
	2. Review program evaluation plans for all skills-building projects whether implemented by IOU staff or third-party contractors. Ensure that all plans have appropriate data collection systems in place, have early feedback loops for program improvements, and include plans for attributing the results of programs to ratepayers when programs are jointly funded.	Energy and Inclusion
	3. Support an evaluation consultant pool and selection process that ensures that the selected consultants have the necessary expertise to evaluate the various workforce initiatives. This recommendation applies to the evaluations administered by the IOUs and by the CPUC Energy Division.	Energy and Inclusion

Chapter 6. Supporting Activities		
General Recommendations	Specific Recommendation	Goal
A. Post-contract stakeholder engagement plan	<ol style="list-style-type: none"> 1. The Stakeholder Advisory Group should oversee Guidance Plan implementation in the short term. 2. The IOUs should establish a Peer Review Group for the WE&T Skills-Building Portfolio (see Chapter 3 recommendation A.3). 3. The IOUs should reconvene the WE&T Task Force and report on implementation of the Guidance Plan. 	Energy and Inclusion
B. Development of a joint IOU WE&T website	The IOUs should develop a joint IOU WE&T website to communicate WE&T activities and plans, post requests for proposals, provide information on workforce requirements for the statewide EE programs, and report progress on WE&T goals. The website should link to other relevant sites, including ME&O, EDR, and ETCC.	Energy and Inclusion

Policy Recommendations for the CPUC and others	
Area	Recommendation
All	The CPUC should direct the IOUs to implement the recommendations in this Guidance Plan.
Identification of EE skills standards and certifications, and EE training priorities.	<p>The California Energy Commission, under AB 758 authority, should convene a Statewide EE Workforce Steering Committee that includes the state's workforce and energy agencies. See Appendix 3H for a full list of proposed steering committee member organizations. The Committee should:</p> <ol style="list-style-type: none"> a. Provide guidance on the skill standards and certifications for ratepayer and publicly funded EE work. b. Establish priorities for training investments in the EE workforce statewide.
Workforce Inclusion	<ol style="list-style-type: none"> 1. The CPUC should articulate specific objectives, benchmarks and strategies to guide IOU resource allocation for a workforce inclusion program. 2. The CPUC should encourage the Regional Energy Networks to adopt a public sector targeted hire policy for MUSH customers. The CPUC should work with the IOUs to explore the feasibility of replicating this for IOU programs serving MUSH customers.
EM&V	The CPUC Energy Division should work with the IOU EM&V teams to implement the EM&V plan, since both groups share responsibility for EM&V.