



Western HVAC Performance Alliance Recommendations to Operationalize “Employer Support” for the HVAC Sector Strategy

A WHPA Report dated July 13, 2016

WHPA

The Western HVAC Performance Alliance (WHPA) was founded in 2009 as a response to a directive in California’s Long Term Energy Efficiency Strategic Plan (CLTEESP) to require greater collaboration among the CPUC, CEC, IOUs, and industry stakeholders to transform the HVAC market. The WHPA currently has 293 member organizations and 385 registrants that include HVAC residential and non-residential contractors, trainers, energy efficiency program consultants, manufacturers, contractor associations, distributors, certifying bodies, research organizations, IOUs, POUs, and government.

The CLTEESP sets four goals for the HVAC sector. They are:

- **Goal 1:** Consistent and effective compliance, enforcement, and verification of applicable building and appliance standards.
- **Goal 2:** Quality HVAC installation and maintenance becomes the norm. The marketplace understands and values the performance benefits of quality installation and maintenance.
- **Goal 3:** Building industry design and construction practices that fully integrate building performance to reduce cooling and heating loads.
- **Goal 4:** Develop new hot/dry climate HVAC technologies (equipment and controls, including system diagnostics) and greatly accelerate their marketplace penetration.

Commercial HVAC Sector Strategy Committee

Much of the significant and detailed work of the WHPA is accomplished through its subject matter-focused Committees as well as functional Working Groups aligned with the CLTEESP. The Commercial HVAC Sector Strategy Committee is a committee that was created to act as a steering committee for the IOU’s development of an HVAC Sector Strategy as mandated by the CPUC in D.12-05-015. Specifically, the current conception of the Commercial HVAC Sector Strategy partially addresses the following CLTEESP Strategies:

- **HVAC Strategy 2-3:** Develop and provide expanded QI/QM training for contractors, technicians and sales agents.
- **WE&T Strategy 1-2:** Support the community college and adult education efforts to support students to develop their education based on visible career paths in energy efficiency and related fields.
- **WE&T Strategy 1-3:** Incorporate energy efficiency and demand-side energy management into traditional contractor and technician training, such as for plumbers and electricians, and expand training resources to produce target numbers of trained workers.
- **WE&T Strategy 1-4:** Create or expand college and university programs with energy efficiency focus and foster green campus efforts to apply this knowledge in clear view of students and faculty.

Committee Chairs

- Mark Lowry, Pilgrim Consulting (2015)
- Jake Huttner, SCE (2016)

Committee Vice Chair

- Daniel Jones, Honeywell ECC*

Committee Members

- Steve Auld, Ferguson Enterprises/AirCold Supply Division
- Bob Baker, ASHRAE
- Bill Brown, Brownson Technical Center*
- Jim Caldwell, CCCCCO
- Joaquin Contreras, JBS Heating & Air
- Chris Compton, HVACRedu.net
- Susan Davison, CalCERTS, Inc.
- Susie Evans, IHACI*
- Barbara Hernesman, CalCERTS, Inc
- Pepper Hunziker, Tre' Laine Associates*
- Jake Huttner, SCE*
- Gary Johnson, SoCalGas
- Mel Johnson, NCI

- Rick Larkey, NSBIG
- Warren Lupson, AHRI*
- Tim Muckey, El Camino College*
- Bonnie Moreno, SDG&E
- Tom Morton, PIPE Trust Fund*
- Bruce Noble, Rio Hondo Community College
- Len Pettis, Irvine Valley College
- Dennis J. Quinn, Joule Assets
- Mike Ray, Lennox Industries
- Jeremy Reefer, SDG&E
- Charles Segerstrom, SDG&E Commercial HVAC Consultant*
- Bill Spohn, TruTech Tools
- Scott Stroh PipeTrades Training Center Northern California
- Gary Shushnar, SCE
- Jeff Taylor, HVACRedu.net*
- Steve Varnum, Honeywell Smart Grid Systems
- Howard Weiss, HVAC Excellence
- Chuck White, PHCC
- Corey Lee Wilson, Erickson-Hall Construction Co.

**Employer Support Working Group Members*

WHPA Staff

- Ellen Steiner, EMI Consulting
- Bonnie Gustavson, BBI
- Dale Gustavson, BBI

Document Background

The IOUs requested that the WHPA Commercial HVAC Sector Strategy Committee provide recommendations to operationalize HVAC Sector Strategy “employer support” as defined in the WE&T Sector Strategies Background, Definition and Application document approved by the ED in December 2013. This document defines *Employer Support* as “employers commit to hiring/promoting trainees or assuring that trainees apply the skills they acquire as part of their jobs.” The WHPA HVAC Sector Strategy Committee formed the Employer Support Working Group (the Working Group) to work on this goal.

Document Purpose

Through this document, the WHPA Employer Support Working Group makes recommendations for employer support strategies to the IOUs as requested.

Document Disclaimer

It is important to note that the Working Group has not fully vetted how to operationalize these recommendations nor the market acceptance of these recommendations.

Recommendations for Operationalizing Employer Support

The HVAC community is facing challenges in maintaining a skilled workforce in a progressively competitive economy. Some employers have chosen to stay competitive via a low-wage and low-operating-cost strategy (“low-road” employers), while others are committed to improving productivity through greater technician skills, customer loyalty, and improved training (“high-road” employers) (Holzer, 2007). Research shows that by committing to the human capital of their workforce, employers can enhance their competitiveness, increase customer loyalty, increase perceptions of trustworthiness, and reduce employee turnover (Ahlstrand, Bassi, & McMurrer, 2003; Martinson, 2010). A sector strategy is one approach to realizing these benefits linked to skilled workforces.

Sector strategies are regional, industry-focused approaches aimed at developing skilled workforces with industry-specific expertise, while simultaneously fostering job opportunities for those within the field (Martinson, 2010). A key element to a sector strategy is the existence of a liaison organization: this group serves as the link between workers, training experts, and industry employers, and is typically a nonprofit or government agency (Giloith, 2004). As conceptualized by the CPUC in D.12-05-015, the California IOUs serve as this liaison organization for the Commercial HVAC Sector Strategy. However, some authorities have recommended that employer organizations serve as liaisons, as they are familiar with industry needs and vocabulary, and are inherently trusted by businesses (Dworak-Munoz, 2004; Martinson, 2010; Workforce Innovations Network, 2008). The California IOUs have also recognized this need and as such, requested that the WHPA form the Commercial HVAC Sector Strategy Committee to act a steering committee for the HVAC Sector Strategy. Indeed, research suggests that if employers are included in the critical elements of service design and delivery, the utility of sector-based strategies is greatly increased. Specifically, these studies indicate that there is great benefit to involving employers in the creation of advisory boards, program activities, feedback mechanisms, and programmatic decisions (Clymer, 2007; Dworak-Munoz, 2004). This reasoning, and this research, has not ‘fallen on deaf ears’.

In 2014, President Barack Obama charged Vice President Joseph Biden with developing an action plan geared toward making workforce and training systems more job-driven, integrated, and effective. This action plan is intended to support a cohesive and efficient public workforce system at Federal, state, regional, and local levels. Biden’s vision of job-driven training is rooted in four goals: (1) Create a public workforce system that convenes and leads industry-driven partnerships tailored to meet the needs of local and regional economies; (2) Utilize employers and economic development partners to guide and participate in the development of workforce strategies to meet the needs of supply chains; (3) Ensure that job seekers and workers have the skills and industry-recognized credentials needed to obtain jobs with family-sustaining wages and benefits in in-demand industries; and, (4) Strategically and operationally align workforce system investments to maximize the impact of these ventures (United States Department of Labor, 2014).

Vice President Biden created a checklist for job-driven training grounded in the above goals; these tenets could be viewed as a list of best practices for HVAC workforce training, and the incorporation of employer support. The job-driven training guidelines will be summarized in the following text. First, program leaders should work up-front with industry/employers to define (local or regional) hiring needs and design training programs that adequately address those needs. Program leaders should engage in regional collaborations with American Job Centers, educational institutions, labor and industry, and non-profits. High-quality, efficient programs leverage a multitude of resources (both financial, and in-kind) from partners to deliver the best services possible, while concurrently expanding the reach of those services to suit both employees and employers (United States Department of Labor, 2014).

The second series of recommendations, which are particularly relevant to employer support, concern the nature of work-based learning opportunities. Work-based learning enables participants to increase their work-related skills while remaining employed, and increases workers’ hiring-potential while simultaneously providing support for ongoing educational and career advancement. As such, it is recommended that programs offer work-based learning opportunities in conjunction with employers—including the

provision of on-the-job training, internships, pre-apprenticeships, and Registered Apprenticeships as (training) paths to employment. Program leaders should promote a seamless progression from one educational ‘stepping stone’ to another, and throughout work-based training and education to ensure that workers’ efforts translate into tangible progress. Ultimately, training programs should be a step in a continuum of education and training which results in the attainment of industry credentials, good jobs, increased earnings, and career advancement (United States Department of Labor, 2014).

The third and final set of recommendations from Biden and The Department of Labor concern benchmarking, feedback, and evaluation. Specifically, it is suggested that program leaders make better use of data to drive accountability: program data should drive what and how programs are offered, what information is included in education/training, and inform job seekers regarding the pathways and programs that best suit them. In the same vein, program leaders should measure and evaluate employment and earning outcomes, as well as employers’ returns on investments (in workforce training and education). Programs should also ensure that these data are available to, and easily understood by prospective participants (both employers and workers) and current/potential stakeholders, to increase awareness and foster program participation (United States Department of Labor, 2014).

Recommendations for Operationalizing Employer Support for the Commercial HVAC Sector Strategy

With this background in mind, the Working Group makes the following five recommendations.

Recommendation #1 – Expansion of Employer Support Definition. As stated above, the current definition of “employer support,” as defined in the WE&T Sector Strategies Background, Definition and Application document approved by the ED in December 2013, is “employers commit to hiring/promoting trainees or assuring that trainees apply the skills they acquire as part of their jobs.” The Working Group recommends that this definition be expanded to be more comprehensive. A suggested definition is that

“employer support includes: 1) employers identifying the workforce issues, best practices, and specific skills/competency needs of the industry; 2) employers committing to provide work-based learning opportunities; and, 3) employers committing to hiring/promoting trainees and assuring that trainees apply the skills they acquire as part of their jobs.” This new definition draws equal emphasis on both employer input into the sector strategy as well as employer commitment to sector strategy principles.

Recommendation #2 – Letter of Intent. Employers voluntarily commit to providing “work-based learning opportunities.” Employers would be asked to voluntarily¹ sign a letter and circle the following employer support actions they support:

1. Promotes education and training attainment for employees
2. Has policies and practices in place to support training and education
3. Includes education goals in annual job performance reviews
4. Provides onsite education/training advising
5. Support employee’s efforts to attend educational offerings
6. Provides education and training onsite
7. Partners with education/training institutions to offer classes onsite
8. Reimburses some or all fees for training and education
9. Recognizes and celebrates attainment of credentials²
10. Ties salary/wage to attaining additional education

As part of this letter, employers will also commit to both: (1) providing evidence of support such as records of individuals completing training opportunities³ and (2) responding to a semi-annual brief survey.⁴ The objectives of this survey will be to provide: (1) an avenue for employers to provide evidence of what employer support actions are taking place; and, (2) an opportunity to gather general sector strategy feedback.

¹ If an employee takes a large series of classes, such as obtaining NATE certification, we would recommend the IOU’s consider requiring this letter of commitment as opposed to it being voluntary.

² The term credentials is an all-encompassing term that includes recognition of structured achievements, including certifications and journeyman status.

³ It will be important to determine how to accommodate contractor in-house training completed.

⁴ Respondents will be asked to respond to a minimum of two surveys.

Recommendation #3 – Development of HVAC Sector Strategy Contractor

Recognition Strategies. The Working Group discussed at length the need to support HVACR Contractors who are “doing the right thing” as demonstrated through: (1) pulling permits; (2) supporting professional development for employees; and, (3) ensuring employees have the time, resources, and tools to do standards-based installation and maintenance work. While pulling permits are out of the scope of the Working Group, we recommend that the Sector Strategy include recognition strategies that provide these contractors a tool to differentiate themselves in the market and thus drive more business. The Working Group recommends that the IOUs reach out to HVACR Contractors to understand specifically what strategies would be helpful to meet this objective.

One strategy that the Working Group considered was a public list of HVAC contractors who “do the right thing” and acknowledge them accordingly. This “referral list” concept could incorporate a customer feedback functionality. It could also be an expansion of similar lists such as the Better Business Bureau, PG&E Trade Pro Alliance, SDG&E Trade Pro Alliance, IOU program eligible contractor lists, or industry stakeholder website lists. For this strategy, the following issues would need to be further considered:

1. Developing criteria to determine eligibility for inclusion on the list;
2. Detailing processes for verifying continued eligibility;
3. Strategizing on marketing plans and marketing partners – such as industry trade association groups; and,
4. Identifying a list manager(s).

Finally, the Working Group recommends that the IOUs partner closely with the California State License Board (CSLB) to ensure messaging about hiring compliant contractors is strong and consistent in the marketplace, and that CSLB tools, such as what you need to be aware of when hiring an HVAC Contractor, is linked to from IOU Program websites.⁵

⁵ For example of CSLB Documentations, visit <http://www.cslb.ca.gov/Consumers/Consumers.aspx>

Recommendation #4 – Offer HVAC Sales Training. Given the state of the HVAC market, training contractors and their employees who sell HVAC installation and maintenance services how to sell value over price is essential to supporting HVAC contractors. Specifically, offering training that emphasizes selling “performance work” or “standards-based work” to support the market transformation called for in the California Long Term Energy Efficiency Strategic Plan.⁶

Recommendation #5 - Clearinghouse of Internships/Pre-Apprenticeship Program Opportunities. Through the discussion of how “employer support” can be demonstrated in the Commercial HVAC Sector Strategy, a significant focus centered around internships/pre-apprenticeships. The Working Group identified a gap connecting students with contractors (employers) for internship/pre-apprenticeship opportunities. While many internship and pre-apprenticeship opportunities exist, most contractors do not have any idea how such programs work, what is required of them in relation to these programs, and what it takes to get involved. As such, the Working Group recommends that the Sector Strategy develop a clearinghouse of Internships/Pre-Apprenticeship Program Opportunities for hosting on the WHPA website. This clearinghouse would parallel the SoCal Gas and SDG&E funded Sales Trainer and Sales Estimation Tools Clearinghouses housed on the WHPA website developed in 2014.

The Working Group recognizes that this recommendation deviates from the Commercial HVAC Sector Strategy’s focus on the incumbent workforce. However, given that internships/pre-apprenticeship programs were identified as a great opportunity to *demonstrate* employer support, the Group wanted to include it in its recommendations. We also recognize that this recommendation should tie to the Commercial QI/QM Technician Training HVAC Sector Strategy Area of Focus. In addition, recent research studies have concluded that there will be a shortage of HVACR qualified workers in the near future. The HVACR Workforce Development Foundation estimates that “more than 115,000 additional HVACR mechanics and installers will be needed by 2022.” This employee shortage will impact the state of California and the success of HVAC energy

⁶ http://www.energy.ca.gov/ab758/documents/CAEnergyEfficiencyStrategicPlan_Jan2011.pdf

efficiency programs and thus, the Group believes this recommendation is worthy of consideration by the IOUs.

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WHPA Work Product Summary

DATE: July 13, 2016

INITIATING BODY: WE&T Employer Support Working Group

WORK PRODUCT NAME: Western HVAC Performance Alliance Recommendations to Operationalize “Employer Support” for the HVAC Sector Strategy

TYPE OF ACTION REQUESTED: **VOTE** **GUIDANCE** **OTHER:**

The initiating body requests that the WHPA Executive Committee adopt the referenced employer support recommendations as a WHPA Work Product to be posted and marked in accordance with previously established policy. A full review of the 13 page document is recommended.

APPROVAL HISTORY

WORKING GROUP: WE&T Employer Support Working Group

BY CONSENSUS **BY VOTE**

TALLY: Per consensus agreement at the May 13, 2016 Employer Support Working Group meeting, the work product was escalated with a unanimous aye vote cast with no opposition or abstention by the following 5 voting members (or proxy representatives) present:

AYE (x5): Brownson Technical Center (Bill Brown), Honeywell ECC (Daniel Jones), HVACRedu.net (Jeff Taylor), IHACI (Susie Evans), Tre’Laine Associates (Pepper Hunziker).

DATE: May 13, 2016

COMMITTEE: WE&T Committee

BY CONSENSUS **BY VOTE**

TALLY: Per consensus agreement at the June 8, 2016 Workforce Education & Training (WE&T) Committee meeting, the work product was escalated with a unanimous aye vote cast with no opposition or abstention by the following 20 voting members (or proxy representatives) present:

AYE (x20): Brownson Technical Center (Bill Brown), CalCERTS (Barbara Hernesman), California Community College (Len Pettis), CCCC (Jim Caldwell), CEES-Advisors (Carlos Santamaria), Charles Segerstrom Consulting (Charles Segerstrom), Ferguson Enterprises (Steve Auld), Honeywell ECC (Daniel Jones), HVAC Excellence (Howard Weiss), HVACRedu.net (Chris Compton), IHACI (Susie Evans), NSBIF (Rick Larkey), PG&E (Kristin Walker), PipeTrades Training Center (Scott Stroh), SCE (Gary Sushnar), SCE



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(Jake Huttner), SDG&E (Bonnie Moreno), SDG&E (Jeremy Reefe), SoCalGas (Gary D. Johnson), Tre'Laine Associates (Pepper Hunziker)

DATE: June 8, 2016

WORK PRODUCT OBJECTIVES: The IOUs requested that the WHPA Commercial HVAC Sector Strategy Committee provide recommendations to operationalize HVAC Sector Strategy “employer support” as defined in the WE&T Sector Strategies Background, Definition and Application document approved by the ED in December 2013. Through this document, the WHPA Employer Support Working Group makes recommendations for employer support strategies to the IOUs as requested.

CA ENERGY EFFICIENCY PLAN STRATEGIC GOAL ALIGNMENT:

GOAL 1 GOAL 2 GOAL 3 GOAL 4

CEESP HVAC GOAL STRATEGIES:

- HVAC Strategy 2-3: Develop and provide expanded QI/QM training for contractors, technicians and sales agents.
- WE&T Strategy 1-2: Support the community college and adult education efforts to support students to develop their education based on visible career paths in energy efficiency and related fields.
- WE&T Strategy 1-3: Incorporate energy efficiency and demand-side energy management into traditional contractor and technician training, such as for plumbers and electricians, and expand training resources to produce target numbers of trained workers.
- WE&T Strategy 1-4: Create or expand college and university programs with energy efficiency focus and foster green campus efforts to apply this knowledge in clear view of students and faculty.

BENEFITS: The Working Group makes the following five recommendations.

1. Expanding the Employer Support Definition as defined in the WE&T Sector Strategies Background, Definition and Application document approved by the ED in December 2013 to be more inclusive.
2. Asking employers to sign a voluntary Letter of Intent demonstrating how they support “work-based learning opportunities.”
3. Developing HVAC Sector Strategy Contractor Recognition Strategies that support contractors who are “doing the right thing” as demonstrated through: (1) pulling permits; (2) supporting professional development for employees; and, (3) ensuring employees have the time, resources, and tools to do standards-based installation and maintenance work. While pulling permits are out of the scope of the Working Group, we recommend that the Sector Strategy include recognition strategies that provide these contractors a tool to differentiate themselves in the market and thus drive more business.
4. Offering HVAC Sales Training that emphasizes how to sell value over price to help contractors and their sales staff members sell “performance work” or “standards-based work” to support



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the market transformation called for in the California Long Term Energy Efficiency Strategic Plan.¹

5. Developing a Clearinghouse of Internships/Pre-Apprenticeship Program Opportunities to connect students with contactors (employers) for internship/pre-apprenticeship opportunities.

OUTSTANDING ISSUES / DEBATES / MINORITY VIEWS: None

POTENTIAL AUDIENCE: Statewide IOU HVAC Sector Strategy Team

MOTION: At the WHPA Executive Committee meeting held July 13, 2016, Ron Jarnagin (ASHRAE) motioned and Bob Wiseman (IHACI) seconded the motion to approve this Work Product.

VOTE TALLY: The motion was unanimously approved by all EC members present.

FURTHER ACTIONS REQUIRED: WHPA Staff will ensure the combined Work Product Summary and “Recommendations to Operationalize ‘Employer Support’ for The HVAC Sector Strategy” document is properly posted and distributed in accordance with established marketing protocol for approved WHPA Work Product.

NEXT STEPS: The completed Work Product is officially delivered to the IOUs, which will study the recommendations. The IOUs will determine if or how to operationalize the recommendations in this Work Product.

¹ http://www.energy.ca.gov/ab758/documents/CAEnergyEfficiencyStrategicPlan_Jan2011.pdf