

**Energy Workforce Sector Strategy (EWSS)
Advisory Council Meeting
March 28,2013
PG&E Pacific Energy Center**

Meeting Minutes

Participants

In Person:

Christa Ansbergs – Lockheed Martin
Catherine Ayers – Foothill-DeAnza CCD
Chris Beaven – Chevron Energy Solutions
Darlene Besst - NECA
Gerald Bernstein – City College of San Francisco
Justin Bradley – Bradley EE Group
Ed Cheng – S.F. State University School of Engineering
Jose L. Galvan – S.F. State College of Extended Learning
Chris Graillat – California Energy Commission
Bruce Greenstein – Skyline College & Impact Energy, Inc.
Brenda Hopewell – Portland Energy Conservation, Inc. (PECI)
Avni Jamdar – Emerald Cities, S.F.
Bob Knight – Bevilacqua-Knight, Inc. (BKI)
Guido Krickx – CSU, Sacramento College of Continuing Education
Michael Leung – Cal State East Bay
Mark S. Martinez – Southern California Edison
Wendy Miller – City College of San Francisco
Walter Mizuno – Fresno State, Lyles College of Engineering
Saeid Motavalli – Cal State East Bay
Jenni Murphy – CSU, Sacramento College of Continuing Education
Susan Propst – S.F. State Extended Learning
Michele Rodriguez – Consultant
Pete Shoemaker – PG&E Pacific Energy Center
Tom Stewart – Workforce Development Board of Contra Costa County
Aaron Wilcher – Skyline College ESTM
Lisa Shell – PG&E EWSS Project Manager
Jim Caldwell – Workforce Incubator
J.D. Stack – Workforce Incubator

By Phone/Webinar:

Patrick Barney – Southern California Gas
Patti Castro – Alameda County
Ryan Connally – Cosumnes River College
Bob Cormia – Foothill College
Emily Courtney – Strategic Energy Innovations
Peter Crabtree – Laney College
Natalie Culver-Dockins – Fresno City College
Harvey DeLorm – CSU
Glen Foreman – Division of Apprenticeship Standards
Jessie Halpern-Finnerty – UC Berkeley Don Vial Center
Michael Hsieh – UC Berkeley Extension
Bob Johnson, Cosumnes River College
Bonnie Low – Ecology Action
Emir Jose Macari – CSU, Sacramento College of Engineering & Computer Science
Tara Marchant – Emerald Cities
Sally Martin – RHA
Laura McKaughan – S.F. Conservation Corps
John Mummert – CSU, Bakersfield
Mark Novak, CSU San Jose
Mark Ouellette – ICF International
Lisa Paulo - CPUC
Rebecca Riveira – Southern California Edison
Lori Sanchez – Community Colleges Center of Excellence
Charles Segerstrom – PG&E
Devla Singh – CPUC
Lee Stevens – Emerging Technologies Associates, Inc.
Sheila Thomas – CSU
Ingrid Thompson – Workforce Institute
Suresh Vadhva - CSU, Sacramento College of Engineering and Computer Science
Mike Ward – CSU, Chico
David Wylie – ASW Engineering
Carol Zabin – UC Berkeley Don Vial Center

Presentation and Discussion

- Lisa Shell opened the meeting, welcomed all participants and asked participants to introduce themselves and their professional affiliation.
- She explained why we are here discussing workforce preparation needs in the commercial, industrial, and agricultural energy efficiency industry.
- Jim Caldwell then presented a recap of 2012 project activities. Accomplishments included characterization of senior energy professionals, interviews of 67 representatives of energy efficiency (EE) firms, research of community colleges and CSU EE related

programs, creation of the EWSS web portal (www.eesectorstrategy.com), and identification of the Pacific Energy Center as a possible gateway to an array of programs delivered by other organizations.

- Brad Hurte summarized research performed on the top 20 categories of EE jobs, which cover approximately 80% of annual EE job openings.
- Participants raised questions about the job forecast methodology, such as how commercial and residential EE jobs were separated in the forecast. Note: The complete EMSI forecast is available on the portal in the Convening Resources section.
- Bob Cormia asked if the college units used to compute program intensity normalized across semester and quarter systems. Note: Units are normalized; some anomalies were found, but they didn't affect the outcomes or conclusions related to the program inventories.
- 2013 EWSS plans were then presented by Jim and Brad.
- Brad said that 7 CSU and 9 community colleges were identified as having high intensity energy efficiency related programs.
- He also indicated that the EWSS web portal content would include information on career pathways, a recruiting resource, and links to other programs, in addition to existing content on reports and meeting minutes. He invited AC members to contact him if the portal could help promote their programs.
- Jim summarized the portfolio of EE training programs of existing, planned, and defined-but-not-yet-planned courses.
- Bob Johnson commented that Cosumnes River College has programs for residential EE and Sacramento City College offers programs for commercial EE, including energy auditing.
- Michele Rodriguez mentioned that the Energy Upgrade California program discovered that contractors generally lacked sales training and financial tools skills. She also reported that California WIB's Green Jobs Council highlighted the need to leverage the work of county WIBs.
- Lisa Shell said that the IOU's workforce Education & Training (WE&T) consultant would work with California WIB as early as Q3 2013.
- Peter Crabtree referred to a program that recommends using a dashboard as an effective tool for building occupants to easily understand and control their energy use.
- Justin Bradley asked if training programs were using the schools' own facilities to educate students. Catherine Ayers responded that Foothill College is using its facilities as a living lab. She said the new courses on Building Science and Systems Engineering will be offered in Fall 2013. Mark Ouellette added that Laney College is using its facilities. He suggested that Prop 39 dollars might offer opportunities to integrate facilities into school training programs.
- Aaron Wilcher suggested that the portal include information about what various schools are doing (e.g., integrating facilities into instruction).

- Jim Caldwell envisions an “expert network” of educators who can help raise the bar on EE instruction and share best practices with other educators.
- Lisa Paulo recommended that the portal be used to link several threads (e.g., information about various college programs and best practices). She said the IOU WE&T consultant could use the portal to collect information on best practices, which could possibly be a good tool for allocating Prop 39 funding.
- Wendy Miller described CCSF’s grant-funded program to develop curriculum on energy auditing. She said that this curriculum would be freely shared throughout the CC system.
- John Mummert mentioned that Foothill College’s new facility would have a dashboard and hands-on training for students. (Done with assistance from Joint Venture Silicon Valley.)
- Jim Caldwell envisions the future of EWSS as having regional strategies to serve the unique needs of three separate regions (Bay Area, Central Valley, Sacramento North). He suggests that these regional groups will partner with industry, IBEW/NECA, and educational institutions.
- JD Stack said the EWSS team is reaching out to San Joaquin Partnership, Sacramento Area Commerce and Trade Organization (SACTO), and the Bay Area Partnership to help facilitate these regional industry meetings.
- Once this industry input is compiled, EWSS will work with CCs and CSUs to map programs to regional employment needs and to identify skills gaps.
- Jim Caldwell asked for feedback about this proposed regional approach.
- One commenter noted that Prop 39 might demand that training be near the work being performed on the ground. Another commenter said that lessons learned from ARRA-funded training needs to be offered just in time for when the skills are needed and that perhaps the portal could help with that.
- Jim Caldwell observed that Prop 39 will generate a need for more journey and apprentice type labor.
- Michele Rodriguez said a regional approach is critical and that it should be standardized. She pointed to the CPUC-created Regional Energy Networks (RENs) that are well-funded regional models that might dovetail with the EWSS regional groups. She suggested we contact Howard Chow with the L.A. REN and Jerry Larr with ABAG’s REN. Michele also pointed to the DOE Better Buildings Grant program, which is focusing on four California regions (e.g., Sacramento, Bay Area, L.A., San Diego).
- Bob Knight said that Brian Gitt of BKI had run programs similar to REN and that he could be a helpful resource. Bob said he was not sure there were big differences between the regions and that we should start at the market to determine what is needed. He said skills needed are very different between the residential and commercial markets.
- Bob Knight suggested that we need more training for the same people (i.e., go deeper with existing EE practitioners). Either Bob or Peter Crabtree said we should differentiate

between small buildings and large buildings because they require very different skills. We may need very different training classes for these distinct markets.

- Jim Caldwell commented that there is a shortage of EE engineers and project managers. We need to address the entire workforce spectrum from apprentices to engineers and project managers.
- Saeid Motavalli commented that CSU East Bay's Integrated Energy Solutions training was completed last summer by 25 people, many of whom were engineers who needed to broaden their skill sets in EE. He said CSUEB plans to repeat the training in Fall 2013 but with a shorter three-course certificate program. Wendy Miller said the CCSF Energy Auditor curriculum would encompass 15 courses.
- Jim Caldwell indicated that the Foothill College Energy Efficiency in Buildings course would be offered in Fall 2013 (starting September 23). It will be an 80-hour course designed for sustainability analysts. Charles Eley, architect and longtime EE industry leader, will partner with a Foothill instructor to team-teach the course. Jim emphasized that "we need Advisory Council members' help recruiting incumbent workers for these courses" (Foothill, CSUEB, CCSF) and that the portal should help promote them as well.
- Avni Jamdar said that Emerald Cities S.F. performs a Comprehensive Energy Retrofit Program using students (handout materials available at this meeting).
- Jim Caldwell commented that there is a LOT of EE curriculum "sitting on the shelf" that was created with ARRA funding and could be offered.
- Tom Stewart recommended seeking WIB dollars for shorter-term training.
- Michele Rodriguez observed that Energy Upgrade California developed contractor training but did not see new requirements for HERS-II and combustion standards coming. Therefore, we need to outreach deeper with CEC and CPUC to find out what else is coming from the regulatory agencies.
- Brad Hurte foresees regional portal updates that link candidates to jobs and internships and link to other websites.
- Jenni Murphy observed that the "missing slice" here is how to create more demand for EE training. She suggested that non-credit certification programs can be nimbly developed and offered by CSU CCE as soon as Fall for something like Green Project Management. An unknown participant responded, "What a great idea!"
- Lisa Shell stepped in to close the discussion as our allotted meeting time had run out. She thanked all the participants for their time and valuable input to the EWSS project. She plans on convening the Advisory Council three more times during 2013 to help report progress, seek input, and to encourage sharing among members. Notes from this meeting will be compiled and shared with all Advisory Council participants.

Minutes prepared by JD Stack. Corrections can be sent to JD@EmpowerAdvisors.com.