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## Faculty Expert Networks

### *Energy Efficiency Professional Development*

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#### **Overview**

Dramatically improved levels of Energy Efficiency is mandated by multiple laws, regulations, and codes for California's built environment – commercial, residential, and industrial buildings<sup>1</sup>. A highly competent workforce is required to design, install, operate, and maintain this environment<sup>2</sup>.

Community college instruction is essential to the Energy Efficiency workforce. Specialized knowledge and skills span electrical, mechanical, construction, architecture, engineering, and computer information systems programs, involving virtually all California Community Colleges and multiple Apprenticeship programs<sup>3</sup>.

Four Faculty Expert Networks provide advanced Energy Efficiency professional development for faculty:

- HVACR: led by Mark Williams
- Building Science: led by Christie Dam
- Lighting: led by Len Pettis
- Energy Auditing and Analysis: led by Jamie Orr

Managed by the Energy, Construction & Utilities (ECU) Sector Team, these networks are open to instructors from community colleges, Apprenticeship programs, and state universities. Other Expert Networks in key areas such as welding are being developed in collaboration with other Sector Teams.

#### **Description**

Originally developed as part of the Prop 39 Clean Energy Workforce Fund, these networks were given a big boost in 2015 through a PG&E program that transferred curriculum from their Energy Training Centers to community colleges. Instructors from eighteen colleges participated in train-the-trainer sessions that facilitated transfer of curriculum in the above four areas.

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<sup>1</sup> AB 32, The California Global Warming Solutions Act of 2006; AB 73, Enactment of Proposition 39, the California Clean Energy and Jobs Creation Act of 2013; Title 24, Building Energy Efficiency Program version 2013; SB 350, Clean Energy and Pollution Reduction Act of 2015

<sup>2</sup> California Public Utilities Commission, California Strategic Long Range Energy Efficiency Plan of 2011.

<sup>3</sup> <http://www.eeusector.com/prop-39/eligible-top-codes/>; <http://www.eeusector.com/prop-39/eligible-third-party-certificates/>; <http://www.eeusector.com/prop-39/eligible-apprenticeship-programs/>

Supported by the Investor Owned Utilities (IOUs), the ECU Sector Team is now expanding these Expert Networks to approximately 60 colleges that now participate in the Prop 39 Clean Energy Workforce Fund.

The ECU Sector Navigator and DSNs currently collaborate with each other to build these Faculty Expert Networks, although work plans and funding are very loosely aligned. Where collaboration exists, it often lacks critical mass among colleges, students, or employers to significantly impact current completion rates and student success. Regional success models exist such as the Southern California HVACR Collaborative and statewide successes have occurred in programs like faculty professional development for Title 24 code compliance.

Adding the Prop 39 Regional Project Directors as full participants in the ECU Sector strategy creates a more robust environment through which all participating Prop 39 colleges can benefit from a statewide approach. Each Faculty Expert Network currently operates as a loose affiliation of colleges, primarily limited to PG&E's service territory. Assigning a statewide leadership role for each network to a Regional Director or DSN provides strategic focus, expertise, and resources that cultivate benefits among all participating colleges.

### **Expert Networks Benefits to Prop 39 Goals**

Faculty Expert Networks greatly amplify impact of Prop 39 Regional Project Directors' Program Operations funds by more fully integrating them with the Sector Team's funds and initiatives<sup>4</sup>. Incremental success in meeting the Prop 39 goals are achievable as follows through this integrated strategy:

- Increased completions through sharing of best practices in student recruiting and employer engagement.
- Skills gap reduction through statewide and regional faculty participation in aligning curricula with industry-valued certifications.
- Common student learning outcomes, better enabling transfer of credits among multiple colleges to meet students' completion objectives.
- Higher percentage of students receiving internships through statewide and regional employer programs supported by Career Catalyst and LaunchPath<sup>5</sup>.

### **Expert Network Objectives**

These networks bring current industry expertise and resources to faculty. They also offer opportunities for individual faculty to form multi-college collaboratives around specific instructional objectives. For example, a regional collaborative could standardize on student learning outcomes and industry-valued certifications across multiple colleges and Apprenticeship programs.

Other objectives include shared and/or mobile laboratory resources, industry relationships for work-based learning experiences and internships, transferable credits among participating colleges, plus regional outreach, enrollment, and placement campaigns. Small or rural colleges with limited resources are expected to benefit from programs that would not be possible on an individual college basis.

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<sup>4</sup> <http://www.eeusector.com/initiatives/>

<sup>5</sup> <https://foundationccc.org/What-We-Do/Workforce-Development>

## **Operation of an Expert Network**

The ECU Sector Team facilitates these networks. A DSN or Regional Director leads each network, supported by their peers in other regions. Typical activities involve outreach and inclusion of colleges and Apprenticeship programs statewide, arranging industry participation, and convening webinar and in-person meetings of the Faculty Expert Network. Local ECU Sector Team members may assist in developing regional collaboratives, building statewide or regional outreach programs, and supporting grant activities.

Each Faculty Expert Network leader (DSN or Prop 39 Director) facilitates professional development activities and other initiatives as prioritized by participating faculty. It is expected that each Network will be unique, taking the direction determined by faculty with only loose coupling to a template that's common to all Networks. Organic growth of the statewide Network is encouraged, with new members from education and industry being engaged according to whatever protocol is established by the members of the Network.

Subject matter experts from related industry segments will be recruited by the ECU Sector Team to infuse the latest thinking into the Networks. This can evolve to the point that industry experts contribute instructional materials and hold webinars that supplement the activities of the Network.

Local ECU Sector Team members may assist in developing regional collaboratives as offshoots of the statewide Network, developing regional outreach programs, building regional industry engagement, and providing support for grant activities to address regional and local priorities. The SoCal Regional HVACR Collaborative is an example of this kind of development. <http://www.eeusector.com/initiatives/hvacr-technicians/>

As new curriculum is made available for replication across the state, these Networks can be the system through which this curriculum is adopted by colleges. Eleven colleges in Northern and Central California already have experience in adapting leading edge content from PG&E's Energy Training Centers.

Collaboration within the networks can leverage funds on a broad scale for increasing enrollment, boosting persistence and completions, aligning curriculum with industry priorities, and adopting industry-valued credentials.

## **Funding**

Participation by faculty is covered by Prop 39 Program Operations Funds. This includes meeting room rental and food, travel costs for faculty, plus stipends and speaker honoraria as appropriate. These funds can be supported by Sector Navigator and DSN funds when required.

## **Launch**

A formal statewide launch is planned for April 19<sup>th</sup>, 2016.

## **Contact**

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