

Docket # 12-EPIC-01
California Energy Commission
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August 17, 2012

Comments of the UC-Berkeley Donald Vial Center on Employment in the Green Economy on the California Energy Commission's First Triennial Investment Plan for the Electric Program Investment Charge (EPIC) Program (Docket No. 12-EPIC-01)

Dear Commissioners and Staff:

The Electric Program Investment Charge (EPIC) is designed to address innovation, emerging technologies and the growth of markets for clean energy. We believe that workforce issues are a critical component of this and we would like to encourage a strong emphasis on labor market analysis and workforce planning and innovation in the EPIC program.

The Donald Vial Center on Employment in the Green Economy conducts research on the green economy and climate change policy in California, as these relate to the labor market. In addition to these written comments, we also made public comments at the August 3rd EPIC workshop panel on Workforce Development at the California Energy Commission.

Workforce development involves critical, cross-cutting issues that affect the primary guiding principle of EPIC to “provide electricity ratepayer benefits, defined as promoting greater reliability, lower costs, and increased safety,” as well as the complementary guiding principles of societal benefits, economic development, and efficient use of ratepayer money.¹ As we described in our *2011 California Workforce Education and Training Needs Assessment for Energy Efficiency, Distributed Generation, and Demand Response*,² workforce planning and labor market analysis are critical to successfully growing the clean energy and energy efficiency markets.

The goals of the workforce portion of the EPIC program should be to:

1. Facilitate innovative, strategic, and effective workforce planning through EPIC to help emerging technologies be successfully deployed in the market;
2. Help to overcome existing workforce or labor market-based barriers to market expansion, and troubleshoot these kinds of problems for emerging technology; and
3. Expand the body of research on workforce issues in clean energy.

¹ EPIC Decision, P. 12 http://docs.cpuc.ca.gov/word_pdf/FINAL_DECISION/167664.pdf

² Zabin et al (2011). The study was mandated in the California Long Term Energy Efficiency Strategic plan to provide recommendations to the CPUC and other agencies on the workforce strategies needed to achieve the state's ambitious energy efficiency goals. <http://irle.berkeley.edu/vial/>

The Needs Assessment took a broad look at the training infrastructure in CA and how it can meet the needs of the clean energy economy. We found that successful implementation of California's ambitious energy agenda and deployment of new technology requires a market that supports high-quality work, which in turn depends on supporting a skilled and professionalized labor force. A lack of attention to workforce planning and labor markets can cause serious barriers to market growth for clean energy technologies, as we have seen in the residential and small commercial HVAC sectors.³

Based on the findings of the Needs Assessment, we suggest that EPIC's workforce portfolio be aimed at tackling strategic problems, such as poor quality installation impeding market growth for innovative technologies. It should avoid duplicating existing efforts, and should build off California's existing workforce development infrastructure. EPIC's workforce development programs should also focus on skills upgrading for incumbent workers to learn about new technology, and support long-term career pathways versus short-term, one-off training. The Needs Assessment found a surplus of the latter in California. Often these programs have few or no connections with employers, and do not target the skilled construction trades where a majority of the state's new green jobs are.⁴

In contrast, California has a fully-developed infrastructure for apprenticeship training in the construction trades. Apprenticeship is the "earn-while-you-learn" training model, which combines classroom and on-the-job training designed to produce a highly skilled workforce tailored to meet industry needs. Apprenticeship is distinctive for being demand-driven and self-financing; for having strong partnerships between employers, government, educational institutions, and organized labor; and for providing broad-based occupational training that prepares workers for a life-long career in their trade, with wage increases as they move up the skill ladder and opportunities to acquire industry-recognized credentials.⁵ As the Needs Assessment points out, it is clear that state-certified apprenticeship programs are the key training institution that policymakers concerned about both high quality work and solid career pathways should support.⁶

The California Advanced Lighting Controls Training Program (CALCTP) embodies many of the best practices for sector strategies and high-road training identified by the Needs Assessment. This program is a model for how strategic workforce training and certification programs can help overcome market barriers and expand the reach of clean technology in the market. CALCTP was created in response to installation problems that resulted in substandard performance and subsequent customer disabling of energy efficient lighting controls. The program offers training and certification in advanced lighting controls for licensed electricians and contractors, and offers classes at the utility training centers, joint apprenticeship training centers, and community colleges.⁷

³ Zabin et al (2011). *California Workforce Education and Training Needs Assessment for Energy Efficiency, Distributed Generation, and Demand Response*. Report to the California Public Utilities Commission. P. 93. <http://irle.berkeley.edu/vial/>

⁴ *Ibid.*, p. 225

⁵ *Ibid.*, p. 149.

⁶ *Ibid.*, p. 225.

⁷ *Ibid.*, p. 115.

CALCTP certification is intended to be tied to new advanced lighting utility incentive programs, projected to roll out in January 2013. These incentives are essential to spark demand for the technology and ensure that it is installed correctly by qualified technicians and contractors so that expected energy savings are delivered. Linking industry-recognized skills credentials and training to incentive programs is a critical way that utilities and energy regulatory agencies can address both the “supply” and the “demand” for skilled workers, supporting the growth of markets for high quality energy efficiency work that generate significant savings.

CALCTP demonstrates how high-road workforce training and incentives that include requirements for that training are both necessary components for successful technology development and commercialization as described in the EPIC Technology Maturation Curve. The program was the foundation for the Electric Vehicle Infrastructure Training Program (EVITP), which offers training and certification for the installation of electric vehicle supply equipment, and should be considered a model for other types of new technology training and commercialization as well.

One of the key recommendations of the Needs Assessment was for the utilities to partner with the state-certified apprenticeship programs and coordinate workforce planning with the state labor agencies. We suggest that the CEC should put together a panel of workforce agencies and experts to oversee the development of the workforce piece of EPIC’s portfolio. This panel should be the body to develop the requests for proposals on workforce development, evaluate the proposals that relate to workforce issues (which could include research or demonstration projects), and allocate the investments. The CEC, CPUC and the panel should work together to identify areas of focus for the workforce portion of the EPIC program.

The purpose of the panel would be to bring state workforce agencies into the energy policy arena and build off their expertise in workforce planning for the cutting edge, innovative arm of the clean energy sector; leverage their knowledge of concurrent funding and programs, funding gaps, and strategic opportunities; and tap into their expertise to identify strategic opportunities and align with other workforce development resources. The workforce panel could include: representatives from the California Workforce Investment Board, the California Employment Training Panel, the California Division of Apprenticeship Standards, the Chancellor’s Office of the Community College system, the California State University System, a university-based workforce development academic researcher, and a representative from each IOU who has high-level responsibilities for energy efficiency programs.

The scope of issues addressed by the EPIC program under the guidance of the panel could include:

1. Early workforce planning initiatives for emerging technologies;
2. Initiatives or demonstration projects that tackle areas where workforce or labor market conditions are a barrier to market expansion (e.g. CALCTP);
3. Creation of a center on clean energy workforce issues that addresses both supply- and demand-side labor issues, such as the National Center for the Clean Energy Workforce proposed by the Donald Vial Center in 2010;

4. Development of the infrastructure for the collection of job and workforce data from the utilities' energy efficiency programs;
5. Research on workforce issues in the clean energy sectors, such as: analyzing labor markets and documenting job creation, job access, and job quality; analyzing employee turnover and employer investment in training to see which sub-markets support high-road employers; and measuring the costs and benefits of skills standards and certification in the utilities' energy efficiency programs, including non-energy benefits.

We hope that the CEC and other stakeholders will consider our recommendations to build an EPIC program that contributes to the growth of a high-road clean energy economy in California. We are pleased to have the opportunity to participate in this conversation about the direction of EPIC, and we look forward to engaging with the CEC and the CPUC as the program moves forward.

Sincerely,

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