

**California State University Los Angeles Comments on 2011-2012 CEC Investment Plan for
the Alternative and Renewable Fuel and Vehicle Technology Program
Advanced Workforce Training and Outreach**

Prepared by: Dr. David Blekhman 5151 State University Dr.
Associate Professor Los Angeles, CA 90032
Power Energy and Transportation 323-343-4569
Technology Department blekhman@calstatela.edu

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Presentation by Elizabeth Stuart of Lawrence Berkeley National Laboratory at California Energy Commission IEPR Committee Workshop, July 21, 2010, identified the need for training the full spectrum of alternative energy engineers. Another report by Carol Zabin and Karen Chapple of UC Berkeley Labor Center at the Green Collar Jobs Council, Dec. 16, 2010, also highlighted that 4-year colleges and universities are a necessary element in green workforce development in CA as shortages of engineers and managers are expected. Currently, all of the funding is being directed only at the community college level. As Stuart and Zabin presentations suggest, it would be an essential step for CA to recognize and seize the opportunity of multi-tier training that needs to take place to move the state out of the recession while addressing the goals of Alternative Fuels and Vehicle Technologies program.

California State University Los Angeles (CSULA) has actively engaged in developing outstanding educational initiatives in Alternative Fuels and Vehicle Technologies. For example, it has Power, Energy and Transportation program (which includes management courses), Hydrogen Fueling Facility and Electrical/Plug-In Vehicle charging stations. As the most important vehicle market in the world, California has long been at the forefront of technological change. The current 2011-2012 Investment Plan identifies a severe shortage in trained workforce in advanced automotive technology and the need for public outreach and education. In addition, the investment plan sets one of its goals as:

Establish workforce training programs, conduct public education and promotion, and create technology centers.

CSULA is pursuing similar goals. Recently, the Department of Energy and GM have selected CSULA as one of the sixteen teams in US and Canada for EcoCAR 2 *Plugging In to the Future* competition. This is the only university in California selected, see www.ecocar2.org. Through this three-year competition, CSULA students will have the chance to design and build an advanced vehicle that demonstrates cutting-edge automotive technologies which are of highest interest to this investment plan.

Under the current investment plan, CSULA is seeking the expansion of CEC workforce training funding opportunities to include bachelor's and master's programs especially at minority-serving institutions to be eligible for funding: student internships, instructional support, and equipment/parts acquisition. Alternatively, research development or inter-agency agreement mechanisms could be considered.

Potential High-Level Funding Outcomes:

- As a technology incubator/center, participation in EcoCAR2 will prepare 30-40 highly-trained future automotive engineers (EE and ME) and technicians who will take the leadership positions in developing and commercializing Advanced Automotive Technology in California.
- Participation in outreach activities by partnering with community colleges, schools, general public and government officials for raising awareness of clean AAT.
- Partnering with other workforce development groups, CSULA can offer train-the-trainer workshops to community colleges and high-school instructors.
- Development of a local internship program with the advanced automotive industry aiming for full-time employment opportunities.