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Subject: Workforce Development and Education Project concepts, AB 118 Docket  
(08-ALT-1)

The Energy Commission held a Workforce Development and Education meeting on November 21. During the meeting, a request for workforce development and education project concepts was issued. In response to this request, the Advanced Transportation Technology and Energy program (ATTE), Economic and Workforce Development Program, California Community Colleges, is submitting the following training concepts, proposed workforce training initiatives, and suggested budget. We are requesting \$4,300,000 to implement our project for the first year. We believe that Energy Commission workforce-training funding should not be scattered, but should be invested in carefully targeted efforts to expand an already well-established, trusted, and successful program that is training workers for alternative-fuel and vehicle jobs today. We are proposing an integrated program to develop or expand ATTE capacities to deliver alternative fuel and vehicle workforce training in regions that are likely to quickly develop related industry clusters. We have laid out a number of options within this programmatic approach for you to consider.

California must train 102,000 transportation workers by 2010.<sup>1</sup> Alternative fuels and power-source development and use will extend far beyond 2020, with hybrid and battery technology leading the drive toward environmentally sustainable transportation. By 2020, all new vehicles – cars, trucks, buses, trains – will use some level of hybrid technology.<sup>2</sup>

Our proposal builds upon a multi-college workforce-training program that already offers and is committed to continue a broad and diverse range of alternative fuel and engine related courses

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<sup>1</sup> [California Community Colleges Sustainable Energy Initiative: Training for Competitive Advantage in The Hydrogen Economy](#), "Advanced Transportation Initiative, California Community Colleges, November 2004.

<sup>2</sup> IBM Institute for Business Value, *Automotive 2020: Clarity Beyond the Chaos*. <http://www-935.ibm.com/services/us/index.wss/ibvstudy/gbs/a1030141?cntxt=a1000041>

and certificates. Training is currently focused on regional public transportation agencies and private companies that use alternative fuel vehicles and hybrid technologies, are part of the alternative energy infrastructure or are part of energy-industry cluster that builds or sells the alternative fuel vehicles and infrastructure. Multi-level training paths are proposed that expand existing programs or that can be quickly established by using existing or identifying appropriate development and marketing approaches. For example, modular program components will be expanded and new ones will be developed and identified online. Methods are suggested for assessing public-sector and business skills, and projected employment needs, in non-attainment areas. A mix of advertisements and other outreach methods are proposed. We also recognize the need to develop technical training within the state's education system itself. Quick-start programs, high school-community college academies, and ethnically sensitive programs that would be offered to assist high-school students, adult-education school students, incumbent workers, unemployed workers, persons seeking a new occupation or promotion, and veterans. Existing industry and private-sector partnerships will be expanded and new ones will be launched.

ATTE was created 15 years ago to maintain California's national leadership position in advanced transportation and energy technologies, by developing a workforce for the rapidly developing, technology-driven transportation and energy industries. The results are a consistent, replicable curriculum, and training services tailored to regional needs and those of employers and employees throughout California.

#### Proposed goals and outcomes

The proposed ATTE project will systematically expand and further develop its multi-college workforce-training infrastructure to meet the Energy Commission's immediate need: to establish a successful hybrid technology, alternative fuels and engine workforce training program that meets AB 118 requirements. The ATTE Program is able to initiate program delivery immediately following contractual agreement with the California Energy Commission. It will track and identify alternative fuel production, engine, fueling and other technology developments, including associated new jobs, throughout the state. In response, ATTE will rapidly offer workforce training, job placement programs by quickly modifying and scaling up its best training practices. The program will be evaluated with assistance from ARB to see that it meets AB 118 standards.

The long-term goal is for ATTE to combine its expected funding with AB 118 funds to create a new capacity where it is needed or to expand its capacity to establish a workforce-training infrastructure that changes with, and adapts to, the job requirements of emerging alternative fuels technologies and hybrids as they are introduced to the market, and that scales up into a regionally targeted programs that addresses these new technologies and regulatory developments, and in response to additional state and federal workforce-training monies. No match has been mentioned yet, but we are willing to consider this option.

The fact that California is in a recession and the decline in the cost of fuel is making it difficult for alternative fuel and engine companies to grow. ATTE program success will depend on partnering with the Small Business Development Program to assist companies with obtaining

loans (SBA's loan program just received a boost in loan guarantees today) and helping companies apply for and obtain ETP training funding. ATTE has also been successful in helping both State and local transportation related agencies to expand their training to meet immediate, pressing needs. The President Elect is also proposing to include a significant transportation component in his economic stimulation package. If these developments should come to fruition, then, based on current levels and cost of training, ATTE should be able to assist a significant number of business, train a significant number of students, and employees and make job placements.

#### Track regional developments and variations in the introduction of alternative fuels and vehicles

The primary goal of the data-collection efforts is to verify and ensure the development successful workforce-training programs with the capacity to quickly meet emerging regional industry training and emerging job requirements. In addition this effort will be integrated with the development of a program Advisory Committee that will include the CEC, other appropriate agencies, industry, labor and other organizations.

The project would deepen ATTE's current ability to track emerging alternative fuel and engine technologies regionally, along with in-market changes in public purchases of alternative vehicles and major auto-manufacturing trends. Changes and developments in the goods-movement sector would be identified. New public and private bus, car, heavy equipment, truck and other fleet purchases and replacements would be tracked. New infrastructure – such as alternative-fuels filling stations and first-responder training needs to respond to alternative fuel spills – would be identified. Each leading to the assessment and creation of new technical training curriculum, courses and/or programs based in clear industry and user needs.

To gather workforce data, ATTE will continue to work closely with LMID and the Regional Economies Project. For industry developments, ATTE will continue to work with or monitor studies done by: ARB, the Energy Commission, regional economic analysis groups such as the LAEDC, various federal agencies, California Transportation Commission, regional air and transportation agencies, California Natural Gas Vehicle Association, ENRG, labor, CalStart, various transportation-oriented natural gas associations, US DOE Biomass Program, Bio-energy Information Network, National Bio-diesel Program, U.S. Fuel Cell Council, and the Energy Source Network. Specialized training skill need surveys of alternative fuels and engine businesses will be conducted. Evaluations of prospective-student surveys will be used to sharpen workforce-skill job requirements and to assess student needs.

#### Focus on Non-Attainment areas and unique industry clusters such as goods-movement where alternative fuels and vehicles are being introduced

Industry and market data will be aligned with emerging regional industry clusters and markets in non-attainment areas that are expected to have a significant number of alternative fuels and vehicle jobs. Alternative fuels and engines workforce-training brokers at the West Valley College, Center for Advanced Transportation Technology Hub, using such resources as the California Economic Development Partnership, Workforce Investment Boards and their WIB

toolkit (<http://wibtoolkit.net/>), and the Workforce Innovation in Regional Economic Development (WIRED) project resources, will identify and assemble a wide variety of formal and informal relationships to create networks of early public- and private-sector first adopters. These networks will be used to organize and share information about the emerging alternative fuels and engines industry cluster, markets, and training opportunities.

Exiting ATTE partnerships already include: California Labor Council, California Association of Local Economic Development, US EPA (biodiesel), Valley Clean Air Now (Light Duty Diesel Engine), All Valley Environmental (biodiesel), Ford Motor Company, Chrysler Corporation, Southeast Regional Occupational Program (automotive repair), Toyota Technical Education T-TEN Program (incumbent works), Orange County Transportation Authority (alternative fuels), Cessna Citation, Sierra Northern Railroad, American Suzuki, Westport Innovations/Cummins-Long Beach (LNG truck technologies), Long Beach Transit (alternative fuels), Bureau of Automotive Repair (emissions measurement), Kenworth-Kirkland (LNG technologies), PGE (alternative fueling station safety, first responders), and Burrtec (CNG tank and other infrastructure).

#### Develop appropriate outreach and advertising to recruit incumbent workers, unemployed workers, veterans and students

ATTE has significant experience with developing transportation training-related advertising, podcast videos, print media and other materials to attract clients to its programs (*Getting It Done*, <http://www.ATTEcolleges.org/html/media.html>). This expertise will be used to develop regionally and ethnically appropriate alternative fuel and engine training-outreach materials, especially for low-income communities. Special emphasis will be given to research what media and content (e.g., YouTube) are most effective at reaching high-school students and young adults. The ATTE's website (<http://www.ATTEcolleges.org>) will be expanded. Innovations, such as recruiting Latino and African-American pop stars to volunteer to make videos, will be investigated.

California has an extensive network of one-stop centers and other services that reach out to California's workforce. ATTE will network with local career technical education, WIBs, one-stops, ROP, veterans services, high-school and related associations, disability programs, ethnic community organizations and other non-profits to recruit clients. Clients include at-risk young adults, high-school students, adult-school students, Latinos, African-Americans, Hmong, Asian, Eastern European and other immigrants, incumbent workers who want a promotion or to make a lateral move from other sectors, the unemployed, and veterans.

#### Actions necessary to systematically expand the ATTE alternative fuels workforce training system

1. Ten ATTE centers located throughout the state are already training students for alternative fuels and vehicles maintenance today. Training-course examples include: electric, hybrid and hydrogen fuel-cell programs; gaseous-fuel programs for heavy-duty vehicles; gaseous-fuel programs for light-duty vehicles; plug—in hybrid, and automotive clean-air car emissions programs. The 10 ATTE programs would be expanded and funding provided to assess local

alternative fuel training needs, distribute marketing and outreach materials, develop new curricula, train faculty, and to offer new courses to increase the number of workers trained and students readied for the workforce in sync with workforce needs, develop new curricula, train faculty, and to offer new courses in line with statewide curriculum development and industry standards..

Anticipated funding: \$1,500,000 (\$150,000 each)

2. Some community colleges are independently offering or developing hybrid and/or alternative fuels and engines related courses. These courses would be inventoried so that curricula can be shared and made consistent on a statewide basis (for funding, see hub funding below).

3. Through ATTE centers, develop partnerships with local high-school and middle-school Career Technical Education programs to include alternative fuels and engine maintenance in: (1) programs that enable high school students to take college level courses so that they can kick-start their career; (2) to strengthen the Career and Technical Education Programs; (3) to develop career exploration for middle-school students particularly in low-income areas, and (4) to deepen faculty and counselor understanding of alternative fuels and engines jobs and to discover opportunities for field-work experience.

Anticipated funding: \$800,000 (awarded based on regional need and proposed most efficient use)

4. To expand the awareness of technical training program opportunities, West Valley College, Center for Advanced Transportation Technology Hub would develop appropriate print advertising, Internet advertising, Web-based media, print, podcast, radio and other materials for all ATTE programs.

Anticipated funding: \$200,000

5. Develop four Advanced Transportation High School-Community College Academies by expanding the California Partnership Academy program.

Anticipated funding: \$600,000 (awarded based on regional need and proposed most efficient use)

6. Scale up Southern California Regional Transit Training Consortium and incorporate it into Northern California by:

- Providing train-the-trainer workshops \$150,000
- Providing technical training classes \$150,000

Anticipated funding: \$300,000

7. Scale-up ATTE Long Beach Community College to establish training infrastructure to meet anticipated training requirements associated with modifying and providing maintenance for 11,000 trucks that must change out engines with Model Year 1989-93 or retrofitted 1994-2003 engines by 2010, and for all trucks to meet 2007 EPA engine standards by 2012.<sup>3</sup>

Anticipated funding: \$460,000

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<sup>3</sup> <http://www1.polb.com/civica/filebank/blobdload.asp?BlobID=5667#267,21>, Next Clean Trucks milestones

8. Expand West Valley College, Center for Advanced Transportation Technology Hub's outreach program to public/private bus, car, rail, and other fleet and transportation managers in targeted ATTE service areas to increase their awareness of Contract Education, ETP and other funding to train their employees.

Anticipated funding: \$30,000

9. Expand West Valley College's Center for Advanced Transportation Technology Hub to prepare a Web-based ATTE training and resources directory, to redesign and continuously update the WIB tools internet site so that WIBs are oriented to job needs and requirements for alternative-fuels and engines jobs, training and partnership opportunities in their region.

Anticipated funding: \$80,000

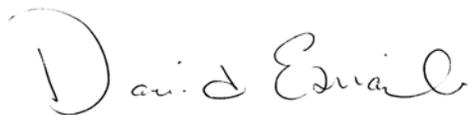
#### ATTE proposed project management

West Valley College's Center for Advanced Transportation Technology Hubs would receive the project funding, and prepare, let and manage all associated ATTE project contracts. Other functions above would be staffed.

- Project Manager Anticipated funding \$90,000
- State, local government coordinator \$60,000
- Regional training coordinator (links to ATTE and other high school, Adult Education, develops and maintains web based course inventory of all college programs) Anticipated funding \$60,000
- Program evaluation and survey research (subcontract: Anticipated funding \$100,000)

The West Valley College's Center for Advanced Transportation Technology Hub would establish a project-advisory group with membership drawn from public corporation, nonprofits, unions, ethnic-minority and low-income community associations, mechanics, high schools and associated academy associations, students, and alternative fuels and engines training faculty or program managers. (\$5,000 per meeting (transportation and per diem for some members) at 4 meetings totals \$20,000)

Anticipated funding total for this component: \$330,000



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