



May 23, 2007

Alan Lloyd, Chair  
CalEPA Air Resources Board  
Economic & Technology Advancement Advisory Committee  
California Air Resources Board  
1001 "I" Street  
P.O. Box 2815  
Sacramento, CA 95812

Dear Dr. Lloyd:

I am writing as the Western Regional Field Director of the Apollo Alliance to encourage the Economic & Technology Advancement Committee to incorporate broad economic benefits into ETAAC's Committee Report, in particular, workforce development to support the growth of green technology businesses and to spur high-quality job creation. These two components of economic development go hand in hand with technological implementation and are paramount to its success.

The Apollo Alliance is a coalition of labor unions, environmentalists, community-based organizations and businesses. Our goal is to advance renewable energy and energy efficiency, and drive investments into modern energy technology and public infrastructure that will create high quality jobs, revitalize underserved communities, and reduce dependence on foreign oil.

Members of the California Apollo Alliance Steering Committee include Sharp Solar; Community Fuels, a biodiesel company; the California Labor Federation; the California League of Conservation Voters; the Sierra Club; the Ella Baker Center for Human Rights; the International Brotherhood of Electrical Workers (IBEW); AGENDA, a social justice organization, and the State Building and Construction Trades Council of California.

**Assembly Bill 32 Implementation**

The California Apollo places a high priority on seeing that AB32 is implemented in a way that promotes economic development and job creation while supporting environmental justice by reducing environmental impacts on low-income communities. We believe these goals can

be achieved through a well thought-out mix of mechanisms aimed at the principal economic sectors responsible for greenhouse gas emissions and climate change.

These sectors include transportation, electricity production and use, manufacturing, urban land use, building design, forestation and agriculture. The California Apollo Alliance seeks creative solutions for each of these sectors that will spur innovation and leads to the development and deployment of new technologies and high quality jobs in California.

We recommend that decisions regarding implementation mechanisms be guided by the following criteria:

1. Will the mechanism promote increased economic activity in California?
2. Will the mechanism result in the creation of good-paying jobs with long-term career growth opportunities?
3. Will the economic benefits of the policy bring broadly distributed economic benefits, including rural and inner city communities?
4. Will the mechanism also result in the reduction of other environmental insults such as urban air pollution, water pollution and toxic waste?
5. Can the results of the policy be effectively measured?
6. How will the mechanism result in the development of new technologies?
7. Will the policies result in improved delivery of necessary public services like education and health care?
8. Will the policies have a positive impact on investment in public infrastructure?

AB32 is much more likely to produce real reductions in greenhouse gas emissions, and more likely to serve as a model for the rest of the United States, if it is implemented in a way that spurs economic development rather than simply being unpleasant medicine we must take.

### **Workforce Training**

Assembly Bill 32 has the potential to attract millions of dollars of investments into California. Businesses will only succeed, however, if the state can develop a talented workforce that is prepared to work in the variety of different employment opportunities that can be found in the green technology sector. Training programs must be employer-driven and reflect true workplace needs.

A technically educated workforce is vital for California's growing green sectors to build competitive strength and is paramount to attracting companies to locate in this state.

The reduction of greenhouse gases will involve myriad approaches and technologies that will demand well-trained and qualified workforces in a number of fields, from alternative fuels to renewable energy. In many cases, there will be real changes in existing industrial operations including state-of-the art equipment and new materials and processes. This retooling will require specialized skills and an overhauling of the training curriculum used.

For example, the design and manufacturing of **Alternative Fuel Vehicles** includes the following goods:

- Engine and exhaust systems and parts designed to reduce vehicle emissions, such as fuel cell, hybrid and compressed natural gas power sources.
- Vehicle emissions testing equipment, such as onboard emissions sensors.
- Rechargeable battery systems that collect and store energy.
- Electric vehicle conversion kits.
- Electric propulsion systems.

The **Biodiesel Industry** utilizes some positions with transferable skills from other sectors. As demand grows and the market expands, however, these skilled workers will be in short supply:

- Chemical operators
- Lab technicians
- Chemical / process engineers
- Chemists
- Shipping/Receiving clerk (truck and rail receipt and shipping)
- Quality Assurance/ Quality Control
- Mechanical contractors, pipe fitters and electrical workers.
- Construction of oil crushers and biodiesel plants.

**Training requirements in a Biodiesel Industry:**

- Chemical labeling
- Process safety management
- Laboratory safety training
- Department of Transportation training for chemical receiving
- Respirator training
- Hand lift-truck operation training
- Storm water-sampling training
- Chemical hygiene
- Confined spaces
- Hazwoper- Hazardous Waste Operations and Emergency Response
- Lock out tag out
- Plant inventory training

**Goods Movement**

The California Apollo Alliance commends ETAAC for including Goods Movement as an area of focus. Methods to achieve greater efficiency, improved air quality and cleaner fuel through modern technologies and state-of-the art equipment will require specialized curriculum, additional training and hands-on experiential learning that cuts across the vast transportation

network of seaports, airports, railways, dedicated truck lanes, logistics centers and border crossings.

More than 43% of all U.S. containerized trade moves through California's ports. According to the California Business, Transportation & Housing Agency, the goods movement industry is responsible for *one in seven* California jobs. Worker demand will only grow, as California's population is expected to increase by 7 million people by 2020.

### **Workforce Training Partnerships**

The State of California has a number of well-qualified agencies that could help outline the necessary components of a comprehensive workforce training program that covers the myriad focus areas for technology advancement. These include the California Labor and Workforce Development Agency, the State Workforce Investment Board and the Employment Development Department.

History shows that the most successful workforce collaborations in California include labor-management training partnerships (including union apprenticeship), employers and/or industry groups, community-based workforce training programs, unions and/or labor organizations, community colleges, local Workforce Investment Boards, CA State University, the University of CA system, and private foundations. Members of these diverse sectors are well-suited to form a panel of experts that could design a comprehensive Workforce Training Program.

California Apollo Alliance has submitted a request to Speaker Nunez' Office to include a Workforce & Training grant program of \$10 million over two years (\$5 million each year) based on this structure as part of the Low Carbon Fuel Fund, Assembly Bill 118.

### **Manufacturing**

In addition to Workforce Development, California Apollo Alliance is very much interested in developing incentives to attract new manufacturing to the state. California alone lost nearly 340,000 manufacturing jobs in a recent 5 year period. It is imperative that we find ways to bring back high-paid, technical jobs that are quickly being replaced by lower paid jobs in the service sector. Manufacturing jobs in modern energy sectors could help fill those gaps and have a substantial multiplier effect with suppliers, transportation sectors and financial institutions.

### **Summary**

California must be as well-prepared as possible to meet the workforce demands posed by advanced technologies in growing clean energy sectors. This can only be achieved with a well-trained and highly skilled workforce that takes advantage of up-to-date curriculum, hands-on training (and retraining) and the support of effective workforce training partnerships that bring together the state's diverse workforce and employment sectors.

The California Apollo Alliance urges the Economic & Technology Advancement Advisory Committee to incorporate a well-thought out Workforce and Development plan to be included in the ETAAC report that will meet short and long-term needs.

The California Apollo Alliance would be pleased to serve as a resource and work with the Economic & Technology Advancement Advisory Committee in the areas outlined above. Please feel free to contact me at [din@apolloalliance.org](mailto:din@apolloalliance.org) and (510) 336-3311 for any reason.

Thank you very much for your consideration.

Sincerely,

A handwritten signature in black ink, appearing to read 'Carla Din', written in a cursive style.

Carla Din

cc: Dr. Bob Epstein, Vice-Chair  
ETAAC Members