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The California Ethanol Vehicle Coalition

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Staff Report on AB 1007, Bioenergy Action Plan and Low Carbon Fuel Standard California Alternative Transportation Fuels "Plan"

The California Ethanol Vehicle Coalition (CEVC) is pleased to submit comments on California's Alternative Transportation Fuels Plan to increase the use of alternative fuels, reduce petroleum fuel consumption, and greenhouse gas emissions, and support air quality improvement, relative to the requirements of Assembly Bill 1007. CEVC is working to become the state's primary advocate for the advancement of ethanol in California in transportation fuel through increasing the use of E10 and E85, increasing the number of flex-fuel vehicles (FFVs) and Biofuels market development. In collaboration with the NEVC and EPIC, national non-profit membership organizations that serves as the nation's primary advocacy group promoting the use of E10 and E85 as alternative transportation strategies, we represent a wide range of organizations, including state and local interest groups, state and local elected officials, ethanol producers, vehicle manufacturers, agricultural interests, ethanol suppliers, and industry interests.

Assembly Bill 1007 requires the Energy Commission, in partnership with the Air Resources Board to prepare a state plan no later than June 30, 2007, to increase the use of alternative fuels in California to increase the use of alternative fuels to 20 percent of on-road transportation fuels in 2020 and 30 percent in 2030.

CEVC wishes to express its support for the Energy Commission's Alternative Transportation Fuels Plan as it relates to the increased use of E10, E85 and FFVs capable of operating on any combination of gasoline and ethanol up to 85% blend. The following comments provide a basis for CEVC's support of California's Alternative Transportation Fuels Plan and offer several suggestions to increase alternative fuel use including government incentives, standards and programs, development of infrastructure and overcoming market and regulatory barriers to increased availability of E85 and FFVs. Comments will also be provided on the Full Fuel Cycle analyses conducted by TIAX for the Energy Commission. CEVC looks forward to working with the Energy Commission and ARB in the future toward achieving the goals of the Plan through proactive implementation of these suggestions.

CEVC believes that our nation needs alternative transportation fuels to address the projected growth in transportation energy demand and petroleum fuel supply and price concerns and that a variety of alternative fuel and propulsion technology options should be considered. The ongoing volatility in global petroleum markets, refined product supply and consumer pricing is likely to continue to be the subject of public concern and demand for action for the foreseeable future. The Energy Policy Act of 2005 and California initiatives have established specific objectives to increase the use of alternative fuels with a focus on ethanol, renewable fuels and biomass fuel sources.

The 2005 Integrated Energy Policy Report documents California's concerns about petroleum fuel supply and price issues and recommends aggressive targets for alternative fuel use that parallel national policy goals. Governor Schwarzenegger's Low Carbon Fuel Standard (LCFS) goes beyond national policy by establishing a specific CO₂ driver as a means of attaining California's aggressive petroleum fuel use policy goals. The LCFS and legislation such as AB 1007 indicate the State's resolve to address these issues and place California in a leadership role in alternative fuel policy that will help guide other states and future national energy policy. California actions have already spawned new organizational activity in the Western States Governor's Association by creating interstate and international stakeholder partnerships to reduce petroleum consumption and greenhouse gas emissions.

Ethanol, especially E10 and E85 represent perhaps the best near term alternative to address petroleum fuel use concerns. While Propane, L-CNG, Biodiesel, Hybrids and Plug-In technologies must be included in a comprehensive plan, a growing body of research indicates that in 15 to 20 years, at least 30 percent of domestic gasoline consumption could be supplied (displaced) by ethanol on an energy equivalent basis. No other alternative fuel offers the impending fuel supply and replacement potential of ethanol in the near term. With only minor modifications to the existing CARB specification of gasoline, E10 can displace an additional 600 million to 800 million gallons of petroleum based fuel. Additionally, E85 can use the existing liquid hydrocarbon infrastructure with moderate facility and dispensing upgrades to fuel the growing California fleet of flexible fuel vehicles (FFVs), currently estimated at about 350,000 vehicles. The nearly 6-million FFVs on U.S. roads today makes E85 an attractive alternative to increase the use of ethanol as soon as the infrastructure can be built. AB 1811 funding has made the first substantial down payment in establishing E85 infrastructure and has primed the pump for E85 fuel market development.

In addition to offering the best near term alternative to reducing petroleum fuel consumption, ethanol is one of the most effective ways to reduce greenhouse gases from the transportation sector according to research and analysis by the US Department of Energy Argonne National Laboratory. According to Argonne, E85 made with corn derived ethanol reduces greenhouse gas emissions by more than 20 percent. When ethanol is made from cellulosic biomass sources, greenhouse gases can be reduced 70 percent or more.

CEVC is in the process of establishing government and private stakeholder partnerships to establish 100 E85 stations in 24 months and 500 stations in 5 years. While this is an aggressive goal, it is one that is supported by California ethanol producers, industry and equipment suppliers and government policymakers.

CEVC Comments on Achieving 20% Alternative Fuel use by 2020, 30% by 2030

- Implement new EPA guidance that eliminates Stage 2 vapor recovery requirements for new E85 pumps.

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- Adopting the EPA Waiver for Stage 2 Vapor Recovery will require fast tracking S.I.P. integration with support from Air Districts.
 - A majority of FFVs have onboard vapor recovery canisters, which makes fuel dispensing vapor recovery redundant.
 - Support CEVC as a statewide advocacy organization to assist in E85 fuel market development to help achieving policy goals and objectives.
 - Harness the power of CA federally elected officials to create funding allocations and policy directives that will help advance CA Plan.
 - Step up CA proactive participation in the Western States Governor's Association.
 - Integrate some Midwest state models to develop education/outreach and expand fueling stations.
 - Allocate annual funding program for CA based DOE Clean Cities Coalitions.
 - Establish biofuel stations concentrated in major cities that will be most receptive to alternative fuels where the highest concentration of FFVs exist; create regional and statewide fueling corridors; interstate corridor partnerships with bordering states (Cascade Sierra, WA-OR), and Mexico border crossing.
 - Support CEVC Trade Mission to consult with state officials in Minnesota, Illinois and Wisconsin..., where effective policies have already been implemented.
 - Support the development and use of blending pump technology that will allow maximum flexibility for E85 and biodiesel retailers to purchase ethanol and biodiesel, which will support energy equivalent market pricing.
 - Support legislation – long term funding (such as AB 1811), provide state incentives for E85 / Biodiesel dispensing stations, education/outreach and alternative fuels market development.
 - Address barriers for the certification of new flexible fuel vehicles to California emission requirements.
 - Study and implement ARB regulatory revisions that address certification test procedure issues related to PZEV and SULEV standards.
 - Consider the overlap of federal and California testing requirements.
 - Maximize the use of ethanol to 10% in low level blends throughout the state.
 - Resolve permeation evaporative emissions and tailpipe NOx emissions issues through revisions of the ARB Predictive Model for gasoline formulation that are currently under consideration.
 - Maintain the air quality improvements that have been achieved with California's reformulated gasoline program since its implementation in 1996.
 - Implement the RFA Dual Model proposal to maximize the accuracy of the Predictive Model and to maximize the produceability of California reformulated gasoline.
 - Work with ethanol producers, refiners and auto manufacturers to develop a new E85 specification.
 - Base the specification on work that is currently underway within ASTM
 - Maintain the air quality improvements of California reformulated gasoline
 - Provide maximum flexibility for blending components to maintain a high quality, clean fuel that is produceable at the lowest possible cost.

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- Create state incentives for fuel providers and E85 retailers to support the sale of E85 at an energy equivalent price to unleaded regular gasoline.
 - Revise the motor fuel tax structure to an energy equivalent tax calculated on the basis of energy content instead of per gallon of fuel. Such a tax revenue neutral proposal has been developed by NEVC and is supported by CEVC for CA.

**Comments on Energy Commission Full Fuel Cycle Analysis presented at
March 2, 2007 joint Energy Commission, ARTB workshop**

- CEVC supports the use of full life cycle analysis methods as used in the Full Fuel Cycle Analysis and commends the Energy Commission in its ambitious and comprehensive look at propulsion systems and fuels.
- The following comments should be addressed and more time should be permitted to fully consider stakeholder comments and their effects on the conclusions.
- So called “marginal” analysis is highly dependent on the supply contribution of each alternative fuel to overall supply growth, and may distort the advantages and disadvantages of technologies such as PHEVs
- State, national and global analysis boundaries were applied inconsistently application to petroleum, fossil and non-fossil fuels
- Several key assumptions may significantly affect conclusions
 - New petroleum fuel supply assumed to produce no additional refinery emissions
 - Blended fuels applied to existing fleet while new fuels applied only to newer technologies
 - Not clear whether all new (marginal) corn and cellulose derived ethanol is assumed to be produced in CA, or some imported.
 - Electricity generation assumptions are critical to GHG emissions for CNG
- The source of emission, fuel economy and engine mapping data for various propulsion technologies is not clear, and the use of multiple sources may not support direct comparison of technologies.
- HEVs are credited with lower criteria pollutant emissions in proportion to FE improvement, but this is likely not the case since HEVs are certified to the same emission standards as non-HEVs, and engine restart emissions may offset gains.

CEVC appreciates the opportunity to provide comments on California’s AB 1007, Bioenergy Action Plan and Low Carbon Fuel Standard and working with the Energy

Commission, the Air Resources Board and other CA Agencies / Groups in the implementation of the Plan.

We look forward to providing support on technical and policy issues related to ethanol and E85, financial support from US DOE grants and public education and marketing support.

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E85 – that is, motor fuel containing 85% ethanol – represents a direct pathway for attaining California's goals to reduce petroleum fuel use and greenhouse gas emissions. To that end, CEVC has set a goal to establish 100 new E85 fueling stations in California by the close of 2008.

