



National Ethanol Vehicle Coalition

March 17, 2006

Comments on the Draft Consultant Report
Recommendations for a Bioenergy Action Plan for California
March 2006
Docket 06-BAP-1

The National Ethanol Vehicle Coalition is pleased to submit comments on California's Draft Bioenergy Action Plan presented at a public meeting and workshop by the California Energy Commission on March 9, 2006. The National Ethanol Vehicle Coalition is a non-profit membership organization that serves as the nation's primary advocacy group promoting the use of 85% ethanol as a form of alternative transportation fuel. The NEVC is composed of 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 others.

The California Energy Commission is charged with developing a long term plan for biofuels use to implement the recommendations of the 2005 Integrated Energy Policy Report. The plan is to be submitted to the Governor's office by March 31, 2006 as part of an overall plan for state energy use. The Draft Consultant Report by Navigant Consulting to the Energy Commission formally reviewed at the March 9, 2006 public meeting and workshop is a first step in developing a Bioenergy Action Plan for California that responds to the Governor's request.

The NEVC wishes to express its support for the Draft Consultant Report and its conclusions. While the report represents a good first step in the process of defining a bioenergy action plan, more specific actions and targets are needed. The following comments provide a basis for NEVC's support of California's bioenergy plan, and offer several suggested additions to the Action Plan to the Governor on March 31, 2006. Recognizing the very short time to develop and comment on the Action Plan, NEVC looks forward to working with the Energy Commission in the future to develop more specific actions and to implement the plan.

NEVC believes that our nation needs a viable alternative transportation fuel to address the projected growth in transportation energy demand and petroleum fuel supply and price concerns. The recent volatility in petroleum and refined product supply and price have been the subject of public concern, and are likely to continue to affect our economy and energy security for the foreseeable future. The Energy Policy Act of 2005

establishes specific objectives to increase the use of ethanol and renewable fuels, and support for the development of 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 go far beyond national policy goals. Governor Schwarzenegger's response to the report is an indication of the State's resolve to address these issues. As a result, California is uniquely positioned to take a leadership role in developing a rational and data driven alternative fuel policy to guide other states and future national energy policy.

Ethanol and especially E85 represent perhaps the best near term alternative to address petroleum fuel use concerns. A growing body of research indicates that in 15 to 20 years, 30 percent of national gasoline consumption could be supplied by ethanol on an energy equivalent basis. No other alternative fuel offers the supply potential of ethanol in the near term. With only minor modifications, E85 can use the existing liquid hydrocarbon infrastructure. The nearly 5 million flexible fuel vehicles on US roads today make E85 an attractive alternative to increase the use of ethanol as soon as the infrastructure can be built. California is estimated to have approximately 350,000 FFVs that can use any combination of E85 and gasoline.

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 transportation according to research and analysis by the US Department of Energy Argonne National Laboratory. E85 using ethanol from corn 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.

The March 2006 Draft Consultant Report to the Energy Commission provides a good framework for a bioenergy action plan. NEVC supports the recommendation of a near term renewable fuel standard of 2B gallons of ethanol and further recommends that the RFS be met with any combination of E5.7, E10 and E85 with a target date of 2012. Beyond the near term RFS recommendation, a plan to meet the IEPR non-petroleum fuel supply goals of 20 percent by 2020 and 30 percent by 2030 must include specific targets for E85 supply, distribution and use.

The plan must include an achievable number of public and private E85 dispensing stations in strategic locations in the state and appropriate infrastructure and retail fuel price incentives. It should also include interim goals beginning as early as 2008. NEVC supports the Consultant Report recommendation to develop a California biomass ethanol industry since sustained ethanol supply of this magnitude would likely benefit from the rapid development cellulose derived ethanol.

Although almost no public E85 infrastructure exists in California, the successful experiences of several Midwestern states can provide data on the practical level of infrastructure and retail fuel price incentives. NEVC has access to nominal financial support for a limited number of new E85 dispensing stations from US DOE grants. Based on Midwestern state experience, and depending on the price of unleaded regular gasoline (ULR), E85 should be priced between 40 cents per gallon less than ULR and "energy equivalent" (25 percent less than ULR). For example, if ULR is \$2.50 per gallon, E85 should be priced at \$1.88 to \$2.10 per gallon to be attractive to consumers. E85 suppliers have indicated that in 2005 it was possible to be profitable at a discount of 40 cents per gallon. Successful pricing above energy equivalence will be determined by consumers' willingness to pay a premium for the environmental benefits of E85 compared to gasoline.

Various states have experience with incentive funding from excise and sales tax programs as well. For example, Illinois has eliminated the state sales on E85; North Dakota has provided a 20 cent exemption for E85 from the states 21 cent per gallon motor fuel tax; Minnesota taxes E85 on a gasoline gallon equivalent basis with ULR resulting in a reduction of 27% from the state excise tax.

The Consultant Report also touches on the need to mitigate regulatory conflicts and barriers to achieving the IEPR goals without sacrificing environmental benefits. In California, the cost and time associated with certification to "Stage II" vapor recovery requirements has been a deterrent to the development of E85 infrastructure. Recently, the Air Resources Board has provided some helpful assistance with these requirements. However, more is needed to support an aggressive ramp up of E85 dispensing stations to help achieve the time and fuel volume recommendations in the IEPR.

A delay of Stage II vapor recovery requirements for E85 stations while the potential VOC inventory impact is studied could help to jump-start E85 infrastructure, and would have very little environmental impact due to the small number of stations in the first several years. Vehicle based on-board vapor recovery (ORVR) was required beginning with 1999 model year passenger cars and 2000 model year trucks, and fully phased in by 2001 and 2002 respectively. A preliminary assessment of California E85 Flexible Fuel Vehicle (FFV) penetration indicates that over 60 percent of the current vehicle fleet is equipped with ORVR.

When the entire FFV fleet is equipped with ORVR, Stage II would be redundant control of refueling vapor emissions, and future enhanced vapor recovery (EVR) systems may interfere with ORVR operation. An analysis of the benefits of Stage II on E85 pumps and ORVR on FFVs could determine when the phase-in of ORVR equipped FFVs will provide the same level of VOC control that Stage II could provide on E85 pumps according to the bioenergy action plan recommendations. Based on these and other

Page 4
National Ethanol Vehicle Coalition
March 17, 2006

reasons, Illinois has not required Stage II controls on their 100 E85 stations located primarily in the Chicago area.

The PZEV vehicle emissions requirement is also a potential regulatory barrier to the growing and continued availability of E85 FFVs in California. Vehicle manufacturers are currently working with the Air Resources Board to address this issue. There are currently over 300,000 FFVs in the California fleet, or about 2 percent of the fleet. Many more FFVs will be needed to achieve the IEPR non-petroleum fuel use goals. Without this barrier, vehicle manufacturers could add 40,000 to 50,000 new FFVs per year in California.

Although the IEPR states that greenhouse gas emission reduction strategies are a priority, neither it nor the Consultant Report suggests a method of evaluating the greenhouse gas emission benefits that could be used to calculate the "net" environmental benefit of ethanol in transportation fuel. Early development of the future EPA MOVES inventory model indicates the recognition of these benefits. This suggests that the evaluation of various bioenergy and fuel options should be done on a complete life cycle "well-to-wheels" basis to compare the overall environmental impacts. As cellulose ethanol production methods are developed, the use of waste products in the production of ethanol should also be included in net environmental benefits comparison.

NEVC appreciates the opportunity to provide comments on California's Draft Bioenergy Action Plan, and looks forward to working with the Energy Commission, the Air Resources Board and other agencies and groups in the further refinement and implementation of the plan. We look forward to providing support on technical and policy issues related to ethanol and E85, possible limited financial support from US DOE grants and public education and marketing support.

Sincerely,

Gary Herwick
Transportation Fuels Consulting Inc.

On behalf of
Phillip Lampert
Executive Director
National Ethanol Vehicle Coalition