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Transportation Coalition

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May 22, 2007

The Honorable Robert F. Sawyer, Ph.D Chairman, California Air Resources Board 1001 I Street Sacramento, CA 95814

Re: Status Report on the ARB's Zero Emission Vehicle Program, May 24, 2007 Board Meeting, Agenda Item #07-5-5.

Dear Chairman Sawyer:

The California Electric Transportation Coalition (CalETC) respectfully submits the following comments on the ARB Staff Recommendations for this Item, which are contained in the staff report, "Status Report on the California Air Resources Board's Zero-Emission Vehicle Program", dated April 20, 2007.

CalETC is a non-profit business association of private- and public-sector companies working to support the development of zero-emission vehicle (ZEV) technologies because of the environmental and economic benefits they can provide to California. CalETC is governed by a Board of Directors that is comprised of: Southern California Edison Company; Sacramento Municipal Utility District; Pacific Gas & Electric Company; San Diego Gas & Electric Company; and the Los Angeles Department of Water & Power.

1. Enhanced Credits for Plug-In Hybrid Vehicles (PHEVs).

We agree with the ARB staff recommendation that there are adjustments to the ZEV regulations that could facilitate automaker production of PHEVs, and that these should be explored as part of the proceeding that will follow the Board's decision on May 24th.

However, we believe it is premature for the Board at this time to restrict or "close the door" on future PHEV credit generation (i.e. incentive) structure and values as part of the ZEV regulations. The Board should allow consideration of all credit options for PHEVs at the beginning of this proceeding and instead let the workshop and hearing process consider and weigh the options. The Board may choose to restrict PHEV credits in some fashion at the end of the public proceeding; but to do so now would prematurely limit the options to encourage this promising technology and to achieve the public policy goals that you have for this regulation.

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For this reason we would urge the Board to NOT to make a decision at this time to "close the door" on consideration in the upcoming proceeding that PHEVs may be allowed to earn partial "Gold" credits based upon their pure zero-emission (all electric) miles traveled, or other metrics.

We urge the Board to consider the following facts:

The definition of a PHEV envisions that some PHEV's will have significant all electric range, producing significant ZEV miles, where other types of PHEV's will be "blended mode" vehicles that offer little ZEV miles but provide significantly higher efficiency for commuting.

A. All-Electric Range PHEVs can have significant zero-emission range that can displace large percentages of daily driving. According to the National Transportation Board's Personal Transportation Model and analysis, a PHEV-20 (PHEV with 20-miles all-electric range) would mean that the average person would be traveling almost 40% of their daily driving in all electric (zero-emission) mode. A PHEV-40 (like the Chevrolet Volt prototype) would mean that over 60% of their daily driving would be in all electric mode. And a PHEV-60 (like those prototypes produced by UC Davis under the direction of Dr. Andrew Frank) would provide that over 80% of daily driving would be in all electric (zero-emission) mode. The conclusion here is that PHEVs can provide significant all electric and zero-emission operation, and that this should be both recognized and encouraged by the ZEV regulations.

B. Blended-mode PHEVs are envisioned to have an electric propulsion system provide "electric assist" to the gasoline engine, but may get little all-electric range. These early "blended" PHEVs will likely be less expensive than PHEVs with significant all electric range. The ARB should allow automobile manufacturers to make "blended" PHEVs since these will provide significant societal benefits, and encourage technological development and innovation which allows for the production of PHEVs with significant zero-emission range.

C. The existing ZEV regulations employ a sliding-scale of credits for conventional gasoline hybrid vehicles depending upon the "strength" of the electric-drive systems in those vehicles. Five separate categories of gasoline hybrids are identified, with differing credit levels. A similar sliding-scale of credits could be developed for PHEVs, which might provide all "Silver" credits for blended-mode PHEVs that have little or no all electric range; and increased credits for those PHEV that do have significant all electric (zero-emission) range. PHEVs with significant ZEV-range could be allowed to earn partial "Gold" credits in proportion to their ZEV miles. For example, a PHEV-20 (that operates 38% of the time in all electric or ZEV operating mode) might be allowed to earn 38% of a gold credit, with the remaining 62% of credit being Silver. This sliding scale would provide a powerful incentive to automakers to make stronger and stronger ZEV propulsion systems in PHEVs over time.

D. There are <u>existing</u> zero-emission vehicles that are eligible under the "Gold" credit system that have all-electric range and miles that are LESS than those of some PHEVs, such as Neighborhood Electric Vehicles. If these vehicles, with limited ZEV range are eligible to receive credits in the Gold system, then PHEVs that have similar or greater limited range should also be allowed to qualify.

E. PHEVs are widely recognized as a "bridging technology" which will help to achieve technological development and cost reduction of similar fuel cell and battery electric vehicles.

F. PHEVs are closest to commercialization of any ZEV technology, according to the ARB's Independent Expert Review Panel. Now is the time to give automakers some additional incentive to bring this technology to market.

G. Allowing PHEVs to earn partial credits in the Gold (pure-ZEV) category could be limited in time. For example, PHEVs could receive partial Gold credits for a period of 10 years and then be phased out to Silver credits only.

H. Allowing PHEVs to earn partial credits in Gold could also be limited in amount. For example, PHEVs could receive partial Gold credits for only 80 percent of an automakers future Gold vehicle requirements.

I. ARB staff is recommending a reduction in the numbers of Gold vehicles that automakers would be required to produce under the Alternative Compliance Path in the years 2009 through

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2020. A better and more fruitful approach may be to provide an additional compliance option during this time period for PHEVs, which will not only contribute to the technological development and cost reduction of pure ZEV vehicles in the future, but also achieve large environmental and fuel diversity benefits in their own right.

For the above reasons we urge the Board NOT to make a decision at this time to "close the door" on consideration in the upcoming proceeding that PHEVs might be allowed to earn partial "Gold" credits based upon their pure zero-emission (all electric) miles traveled, or other metrics.

2. More Even Treatment of Battery-Electric Vehicles (BEVs).

We strongly agree with the ARB staff recommendation that the Board examine more even treatment of BEVs in the regulation as compared to fuel cell vehicles. We agree with the findings of the ARB's Independent Expert Review Panel that there has been significant progress in battery technology development, particularly in lithium ion batteries. Not only is there renewed interest in BEVs from several large and intermediate automobile manufacturers, several California independent automobile manufacturers will be delivering BEVs this year.

3. Impacts of Huge ZEV "Credit Glut" (Existing Banked Credits).

We believe that the Board needs to fully understand the implications of the existing ZEV "credit glut" on the ZEV regulatory requirements. Most of the major automakers are sitting on tens of thousands of "banked" ZEV credits accrued during the 1990's. The amount of these banked credits is so large that several automakers would NOT have to make ANY Gold or Silver vehicles until 2012 or later, if they did not want to. The exact implications of this credit glut are unknown, largely because automakers claim confidentiality on the number of ZEV vehicles they have made in the past, and the credits that these vehicles have been awarded (see #4 below). What is clear is that automakers will not have to manufacture and sell the number of Gold, Silver, and Bronze vehicles that appear in the ZEV regulations; they will be able to make significantly less than what the regulations would appear to require. One option would be to "age-out" or sunset credits in some reasonable fashion.

We believe the Board needs to better understand the implications and effects of the credit glut. So we urge the Board to include in the upcoming proceeding an examination of the credit glut and how it may affect a reduction in the future number of ZEV vehicles and automaker compliance with the regulations.

4. Need for Regulatory Transparency in ZEV Compliance.

Due to the problem described in #3 above, we believe there is a critical need for more regulatory transparency with compliance under the ZEV regulations. Under the current procedures, the public and interested organizat ions have no way of knowing how automakers are complying with the ZEV regulations, or verifying that they are complying. The Board should examine this issue, and then take action to make compliance with the ZEV regulations more transparent.

5. AT-PZEV (Silver) Volume of Vehicles in the Future.

We agree with the ARB staff recommendation that future volumes of AT-PZEV vehicles should not be changed. We agree with the findings of the Independent Expert Review Panel that AT- PZEV hybrid vehicles are providing major support to future mass market ZEVs by stimulating advances in electric drive systems, electric accessories, and battery technologies. Additional flexibility in meeting these requirements will be provided through the development of enhanced incentives (credits) for Plug-In Hybrid Electric Vehicles.

6. Establish a Blind Credit Trading Market.

Several independent automobile manufacturers are planning on delivering BEVS this year, ARB can encourage competition and technological innovation by creating a Blind ZEV Credit Trading Forum, essentially a blind stock market for ZEV credits. Under this proposal, ARB would post the availability of verified ZEV credits for sale to a central ZEV Credit "Billboard" without identifying the seller of the credits. Buyers (including third party non-automotive brokers/buyers) would also have their identity kept confidential, as negotiation on credit prices and amount would be handled through the Billboard forum. Once the transaction was complete, ARB would record it in their existing ZEV Bank records. Consistent with our position on #4 above, we believe that once this transaction is complete and recorded by ARB then the amount of credits transferred and the identities of the buyers and sellers should be made public.

We recommend that as part of the upcoming proceeding that the Board direct the ARB staff to investigate the feasibility and benefits of establishing a Blind ZEV Credit Trading Forum or Market.

7. Required Numbers of Gold Vehicles (Alternative Path) in the Future.

Before deciding to reduce the number of required vehicles under the ZEV regulations, such as the Alternative Path Gold vehicle volumes, we believe the Board should first consider the impact to making additional compliance options available. For example, the technological progress which has been and is being made with advanced batteries will provide additional compliance flexibility in both the Alternative Path and Base Path Gold vehicle volumes. This technological advancement, coupled with the proposed changes by ARB staff and CalETC in #1 and #2 above, will create additional compliance options and flexibility for automakers.

8. Definition of Intermediate Volume Manufacturers.

We believe the definition of Intermediate Volume Manufacturers should remain unchanged at 60,000 vehicles per year in California. Manufacturers selling this large number of vehicles in California should be subject to the additional requirements of the ZEV regulations. This will spur innovation, the acceleration of ZEVs on our roads, and increase the market size.

We appreciate this opportunity to make these comments and recommendations to you. If I can answer any questions you may have about these issues, please do not hesitate to contact me at (916) 551-1943 or 441-0702.

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Sincerely,

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DAVID L. MODISETTE Executive Director

cc: Members of the Air Resources Board Catherine Witherspoon