Plug In America
P.O. Box 1174
El Segundo, CA 90245-6174
www.PlugInAmerica.com
info@pluginamerica.com

Ms. Mary Nichols
Chair, California Air Resources Board
1001 "I" Street
P.O. Box 2815
Sacramento, CA 95812

Response- Staff Proposal: Initial Statement of Reasons
Zero Emission Vehicle Program

Dear Ms. Nichols,

Plug In America has reviewed the "Staff Proposal- Initial Statement of Reasons" and while it contains improvements to the ZEV Program, the Proposal particularly contradicts the board directive in May 2007 to not backslide on the regulation. The program was conceived to improve air quality by promoting the deployment of non-polluting vehicles. While the Program has been expanded in recent years to include more compliance flexibility, its spirit remains the same. This requires prioritizing commercialization over R&D, while also increasing the efficiency floor of vehicles allowed to comply over time. We believe that there are still compelling opportunities to make the regulation simpler and more results-oriented, and propose that the following points be revisited:

First and foremost, the Staff Proposal creates an “either/or” scenario between ZEVs and Enhanced AT-PZEVs that we find very disconcerting because it creates the appearance of “selling out” one technology for the other. While the near-term market potential may be different, there is certainly adequate room for both, and only the market should determine to what extent each is successful. We therefore propose specific treatment for each category, as well as general suggestions for the program.

1) HOLD FIRM ON “GOLD” ZEV NUMBERS - Staff’s proposal notes that the 18-year history of the ZEV Program has yet to make ZEVs commercially available- reducing the number of ZEVs required yet again will not accomplish this goal. The current proposal would require fewer an average of 140 ZEVs per year from any individual automaker until 2015- few enough that several automakers can use banked credits for the next decade to meet this requirement. Those with fewer banked credits can easily accomplish these numbers through credit trading with small automakers, like Tesla. Worse, the lower numbers ensure that ZEVs will never leave hand built production volumes, and that costs will remain too high for commercial viability.

We therefore ask that CARB hold firm on the current 25,000 ZEVs required in Phase III, and 50,000 ZEVs required in Phase IV. These are the numbers previously committed to by automakers, and are appropriate to bridge the gap between R&D and commercialization.

2) TECHNOLOGICAL NEUTRALITY- we appreciate the initial attempts at technological neutrality at the beginning of this revision process. However, the establishment of a “Type IV” ZEV is a thinly veiled attempt to continue to promote hydrogen fuel cell vehicles as the ultimate solution. We again call for neutrality among technologies within the Gold category. It is the place of this regulatory body to dictate air-quality results, not winning technologies; that choice needs to be left to consumers.

Further, to the extent that solutions are to be prioritized, emphasis should be placed on near-term implementation, not technologies that are still in R&D stages or otherwise have significant barriers to adoption (such as inadequate infrastructure). This suggests that technologies with existing infrastructure and/or home refueling capability receive extra credit for their potential to deliver measurable air-quality benefits sooner.

3) ENHANCED AT-PZEVs - these enhanced vehicles are incredibly promising, both for their ZEV-enabling properties, and for the near-term air quality benefits. Several automakers have expressed their enthusiasm for these vehicles, with at least two models committed for production during Phase II. However, these vehicles should not come at the expense of ZEVs, and merit requirements of their own to support their commercialization.

a) PZEVs NEED TO GROW UP - To the extent that allocation is taken from another category to make room for Enhanced AT-PZEVs, it should be taken from the dirtiest category in the ZEV Program, not the cleanest. While PZEVs have served as an air-quality victory for the Program, they no longer need commercialization support, and lend no ZEV-enabling value. Therefore, we propose that the percentage of the Program requirements allowed to be met by PZEVs be reduced to 4% in Phase III, 2% in Phase IV, and phase out completely after 2018. In each Phase, the reduced PZEV requirement would be transferred up to the Enhanced AT-PZEV category, creating a stand-alone requirement for these vehicles without distracting from commercialization efforts of true ZEVs.

As noted above, PIA understands that PZEVs play an important role in achieving California’s air quality goals. However, they don’t support the specific goals of the ZEV Program; our proposal provides adequate time for a PZEV requirement to be shifted to a more appropriate program such as LEV III.

b) PHEV DEFINITION METRICS- We strongly encourage the Board to reconsider defining and crediting Plug-in Hybrid Vehicles (PHEV) by a more straightforward metric such as kWh (either onboard or net usable) rather than miles.

Using kWh provides more flexibility to the automakers to build PHEVs in both propulsion configuration (serial, parallel, etc.) and body style that they think will sell in the marketplace and will result in more overall cars on the road. Because a kWh of electricity offsets roughly the same amount of petroleum in a large vehicle as a small one, it is more important to encourage maximum electrification of all vehicles more than any one particular vehicle. Defining by miles unfairly biases toward small PHEVs, and will result in more similar vehicle models competing for the same market share, while providing few options to the significant segment of CA consumers who want a larger vehicle. Using this metric will still encourage smaller, more efficient vehicles because they are more cost-effective to build, but also allows manufacturers who choose to electrify larger vehicles to earn credit commensurate with the incremental cost.

c) ENCOURAGE ELECTRIFICATION- while we support a fairly low initial threshold of entry for PHEVs in order to encourage this newer technology, the Staff proposal too heavily favors low-mileage, “blended” PHEVs. We propose adjusting the credit scenarios to allow these vehicles to receive credit, but to more heavily incentivize higher-mileage PHEVs and those with true all-electric range. In particular, vehicles that can meet the US06 driving cycle in all-electric mode should receive the highest credit in this category. In no case, however, should any PHEV receive more credits than a Type II ZEV.

d) BATTERY WARRANTY –We recommend a temporary reprieve in this requirement for PHEVs using lithium batteries only, in order to encourage automakers to commercialize vehicles sooner. The following warranty schedule still provides sufficient consumer protection and ensures a low emissions profile for a reasonable amount of time.

Phase II: Seven (7) years/ 100,000 miles
Phase III: Seven (7)/150,000 miles
Phase IV: Ten (10)/150,000 miles

e) CARRY FORWARD- the number and use of “banked credits” remains especially troublesome; it is clear that these credits will likely result in a black-out of not only ZEV production, but also Enhanced AT-PZEVs. According to CARB staff-generated scenarios, the use of banked credits may result in no production of Enhanced AT-PZEVs in Phase III, and only 1/3 production in Phase IV. We therefore believe that it is important to extend the newly proposed “Carry Forward” restrictions to Enhanced AT-PZEVs as well, in addition to creating a separate requirement for these vehicles in general (instead of using them for backfilling purposes).

4)BACKFILLING- Plug In America opposes the use of Enhanced AT-PZEVs to backfill for any portion of the ZEV requirement and prefers to see separate, appropriate requirements created for ZEVs and Enhanced AT-PZEVs.

However, to the extent that CARB is wedded to the idea, we propose raising the bar on both the quality and number of vehicles required to backfill:

- Only PHEV20s or better can backfill (PHEV10s can still get credit in Silver)
- Enhanced AT-PZEVs of any kind would backfill at *half the credit* they would otherwise earn in the Silver category.

This would result in roughly 5-6 Enhanced AT-PZEVs for each ZEV instead of only 2-3, providing compliance flexibility for automakers while still encouraging development of ZEVs.

Additionally, to the extent that EAER must be used (again, we prefer kWh over any mileage metric), we request that CARB base evaluations on the US06 test cycle, not UDDS, which again favors vehicles “blended” at lower speeds and doesn’t represent “real world” driving.

5) PUBLIC FLEET REQUIREMENTS- while there is certainly retail demand for ZEV and near-ZEV cars, fleets can play a significant role in assuring a market for automakers compelled to build them, as well as in producing air-quality results for the areas in which they’re deployed. We therefore encourage CARB to consider requiring public fleets to

purchase ZEVs and Enhanced AT-PZEVs when available and where practical for their intended use. However, because these vehicles are purchased with public funds, we propose that fleets must choose the most economical vehicle technology (lifetime cost) for a given air-quality benefit.

6) CREATIVE ZEV ECONOMICS- It makes sense for staff to consider the economic impact of the regulation on the automaker, however, comparing 2003 battery cost estimates and projected 2012-2014 fuel cell costs to determine the incremental cost of each technology (ISOR, pg. 33) paints an inaccurate economic scenario that biases the reader against plug-in vehicles. We are watching this trend with increasing alarm since these flawed assumptions are appearing in a variety of documents relating to various ARB regulations. The two technologies need to be evaluated on an even economic playing field.

7) TRAVEL PROVISION – Plug In America opposes any travel provision in combination with decreasing the number of ZEVs required in any phase. We are very aware of how this issue has been "gamed" in the past, with vehicles being removed from service after a few years and placed in another state for credit. However, sanctioning the idea of building fewer ZEVs not only for one state, but eleven, will not lead to the market-building volume that we need.

8) EFFICIENCY MATTERS – Vehicles in the ZEV Program should be defined and credited based on their overall energy efficiencies using a wells-to-wheels or lifecycle analysis. We encourage the Board to look toward the future by considering overall efficiency today.

There are certainly positive changes in the Staff Proposal, but we encourage the Board to consider the above changes to make the regulation even simpler and more results-oriented. Only when ZEVs are available in showrooms will this Program truly be a success.

Thank you for your time,

Chelsea Sexton
Executive Director, Plug In America