

1776 Mariposa Circle
Davis, CA 95618
May 10, 2007

Clerk of the Board
California Air Resources Board
1001 I Street
Sacramento, California 95814

Dear Air Resources Board Members:

While Battery Electric Vehicles (BEVs) are slowly regaining a small percentage of the respect that they deserve, the board continues to make inaccurate assumptions that undermine BEVs while simultaneously putting Fuel Cell Vehicles (FCVs) on a pedestal. Thanks to the CARB, in 1996 we had new ZEVs available to the public. Thanks to the promise of FCVs, today we have just a handful of used ZEVs being sold for astronomical prices – along with the promise of “future” FCVs. There is currently no way to purchase or lease a full-featured ZEV. How have we ended up in worse shape in 2007 than in 1996?

From the panel's summary regarding BEVS:

“...the Panel concluded that in California, full-sized battery electric vehicles are still not likely to be a mass market technology in the foreseeable future due to high cost of the batteries, and limited customer acceptance.”

The “limited customer acceptance” assumes

1. That BEVs were ever marketed to consumers in the same way as today's gasoline cars.
2. That buying a BEV was as easy as buying any other car.
3. That BEVs were all for sale, with options and color choices like any other car.
4. That the BEV drivers were not happy with their vehicles.

And of course these assumptions do not match reality. If BEVs had never been pressed into public service, would they be enjoying the same sort of “future perfection” distinction that is granted to the FCVs of the indeterminate future? If we had no practical, privately-driven, on-road experience with BEVs in the past, we would today be talking about hundreds of miles of range, recharge time measured in minutes and durability measured in 10's of years and 100's of thousands of miles. And all of this in a package that benefits from relatively simple and cheap infrastructure, and costs less than the cheapest FCV product to date! Instead, we DID have BEVs on the road in the late 1990's and for the most part, they were fantastic vehicles that almost nobody wanted to let go of when the leases expired. And from the above assumptions – and also assuming that a modern BEV would be no better than what we could muster eleven years ago – we hear the conclusion that “full-sized battery electric vehicles are still not likely to be a mass market technology in the foreseeable future due to high cost of the batteries, and limited customer acceptance.”



After dismissing the mass marketability of Battery Electric Vehicles, the panel concludes about Fuel Cell Vehicles that ***"...while these challenges [of performance, cost, infrastructure, efficiency and durability] are not trivial, the past rate of success and the massive intellectual and financial resources being devoted to fuel cell vehicle technology, ensures that FCEVs remain a promising candidate for a future mass market true ZEV."***

Compared to BEVs being made by small auto makers today, the FCVs being made by the big players are not as durable, they cost more, they are less efficient, they lack performance and have close to zero infrastructure. Yet, because of the car makers' "devotion" to FCVs, the board has determined that there is better mass market appeal for FCVs than for BEVs. Even though FCVs are still not available to the consumer eleven years after road-ready BEVs were (and in many cases still are!) serving as daily drivers. How can we continue to compare the past performance of BEVs with the promise of stellar *future* performance of FCV's that seem to be pushed back every time they are discussed? BEVs can be on the road today, helping to keep our air clean. Instead we continue to wait for the perfect FCV to save us. To save us from the gasoline cars that the car makers will continue to churn out just as long as they keep being given the "Get out of Jail Free" card of making just a few FCVs for the foreseeable future.

We are pinning our hopes on a vehicle that has no "consumer ready" date even a decade after BEVs proved to be viable and desirable in the real world. FCVs will, at best, use 3-4 times more energy than a BEV. FCVs currently cost an order of magnitude more to build. FCV "mass marketability" is based on promises, and not real-world public acceptance. FCV technology has been chosen as the winner by the same industry that claimed unleaded gasoline would put them out of business; that bankruptcy would be the result of enforcement of the original CAFE standards. Should we not choose the winner simply by selecting the technology that is proven and ready today? Maybe tomorrow the winner will be different, and we can adapt. Why do we keep waiting, year after year, for FCVs to come close to the BEVs of eleven years ago?

With the same amount of funding and devotion, the same infrastructure effort, and given the same production costs, I simply cannot envision how a FCV could be better than a modern BEV by any metric. Yet I already know many of the ways that a BEV is better than a FCV – starting with the most obvious: An affordable BEV could be on the road efficiently driving with zero emissions today, just as they were eleven years ago.

Allow auto makers to continue down the FCV path at their own expense. But demand salable ZEVS now, and see what they come up with. Waiting for FCVs to be perfected is killing us.

Sincerely,



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