



December 7, 2009

Mary D. Nichols, Chairman  
California Air Resources Board  
1001 "I" Street,  
Sacramento, CA 95812

RE: ZEV Revision

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Dear Chairman Nichols,

Energy Independence Now (EIN) would like to thank you for the opportunity to comment on the *"Preliminary Assessment of the Need for Revisions to the Zero Emission Vehicle Regulation."*

First, we would like to commend staff on a thorough analysis of light duty sector GHG scenarios to 2050. The analysis makes it clear that California will need large numbers of very low GHG emitting vehicles on the road by 2020 if it is to meet its 2050 climate goals. We believe this provides an excellent platform and rationale for a continued, aggressive ZEV program, and we look forward to supporting staff in its development.

In particular we want to highlight the following statements made by staff in the white paper:

1. Conventional HEVs will not provide the reductions needed to reach 2050. ... Other technologies that can achieve deeper cuts in GHG emissions will be needed to keep on the path towards the 2050 goal. Today these very low GHG emitting technologies are pre-commercial, and policies such as the ZEV program will likely be required to achieve commercialization in time to contribute the necessary emission reductions. (p.8)
2. The goal of the revised ZEV program should be to help move these demonstration, low GHG emitting technologies to commercialization, including FCVs, BEVs, and Enhanced AT PZEVs. (p.6)
3. Regarding infrastructure, "ARB staff believes that a multi-pronged approach of monetary incentives, regulatory incentives, and a regulatory mandate will be needed to effectively support hydrogen infrastructure. (p.21)

In light of these assessments, we would like to make the following points:

1. **"Policy Option 2" undermines the objectives of the ZEV program and should be discarded.**

We recognize that the policy options have not been fully developed, but urge the Board to direct staff to only consider and develop options that maintain the integrity and objectives of the ZEV program.

Option 2 undermines the ZEV program for a variety of reasons, and should be discarded. By offering an option for greater LEV III performance (through conventional hybrid or smaller

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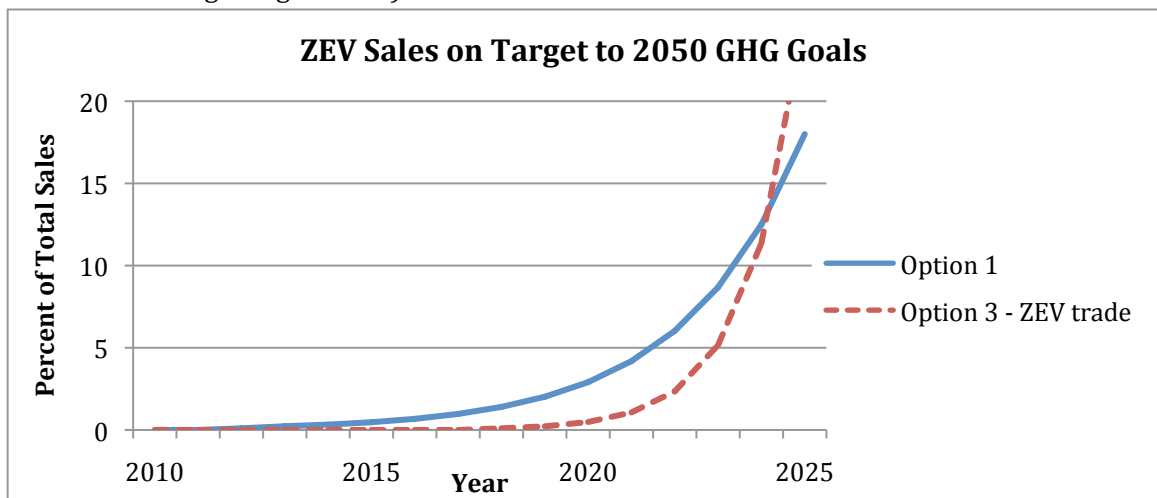
vehicles), in lieu of ZEV developments, this option provides a clear off-ramp for ZEV development, effectively diverting OEM resources away from ZEV technologies and toward other investments. Furthermore, it will establish an uneven playing field, where some OEMs are committed to ZEVs while others are not. This will undermine cooperation on ZEV-related promotion (marketing, standards, infrastructure etc) as well as limit the ability to set strong LEV III requirements in the future.

2. In place of Option 2, other policy options should be explored with OEM input

We recognize that the effectiveness of the ZEV program may be enhanced, and more aggressive objectives set, if some elements of flexibility are incorporated into how each OEM reaches the ZEV targets. In developing alternatives beyond Option 1, staff should consult with OEMs on specific parameters within the context of ZEV technology development that would provide potentially necessary flexibility. While doing so, the ZEV objective of requiring a common target of commercial-scale proportions of ZEV sales for every manufacturer by a specific end-date should not be altered.

Instead of trading off ZEV for LEV, staff could look into trade-offs between the timing, breadth and ramp-up of ZEV production. For example, an OEM that wishes to delay commercial scale production would be required to pilot ZEV technology across a wider range of vehicles classes to allow for a faster ramp up when it is ready. CARB should also consider providing flexibility in exchange for stronger overall goals, either across the board or for a single OEM. In all cases, the key parameters need to incentivize early action, a fast ramp up, and implementation across a broad set of vehicle classes.

The graph below shows a potential ZEV deployment timing trade off.<sup>1</sup> In exchange for the ability to prolong the ZEV demonstration phase (Option 3 below), automakers would be required to introduce ZEVs aggressively enough to surpass Option 1 requirements by a defined year. Credit could also be gained for deploying ZEVs across multiple platforms (i.e., small cars through large trucks).



<sup>1</sup> These curves are loosely based on the ZEV White Paper Attachment B 2050 Greenhouse Gas Emissions Analysis. The Option 2 curve targets ZEV sales projected to be necessary to reach 100% by 2040. Option 1 would reach 100% ZEV sales between 2040 and 2050.



3. Regarding complementary policies, we support staff's intent to pursue using the Clean Fuel outlet as a mechanism to ensure availability of hydrogen infrastructure and fueling.

In relation to hydrogen infrastructure development, we agree with Staff's assessment that the current financial incentives, although critical to station development, are unlikely to ensure hydrogen-fueling infrastructure is built. Also, while we support Staff's intent to seek enhanced, early-action LCFS credits, we believe that even this will be insufficient to drive infrastructure investment. A mandated regulatory system may be necessary.

We therefore agree with Staff's proposal to develop the Clean Fuels Outlet (CFO) to meet this need. We also agree that the wholesale petroleum distributors would be the appropriate regulated party, and that the trigger mechanism and conditions for "pulling the trigger" will need to be revised.

We urge staff to workshop this important element of ZEV, to gather stakeholder input into the most effective mechanism. Our preliminary thinking, which we have shared with Staff, suggests several elements to consider:

- a. Formalize the FCV roll-out plans of OEMs, to allow binding infrastructure targets to be set by a certain date.
- b. Set the trigger to be "pulled" only if the market is failing to meet these infrastructure targets.
- c. Consider tradable H2 retail obligations, or alternative bidding systems to allow some company-specific flexibility on who builds and/or pays for the infrastructure, while assuring the "when" and the "where" stations are developed.
- d. Allow infrastructure incentives before the trigger point is reached; eliminate funding incentives for major gasoline/diesel wholesalers after trigger is pulled.

EIN strongly supports the continued development of the ZEV program, and looks forward to working with staff on further policy refinement as well as complementary infrastructure policies.

Sincerely,

Handwritten signature of Tyson Eckerle in black ink.

Tyson Eckerle  
Associate Director

Handwritten signature of Remy Garderet in black ink.

Remy Garderet  
Clean Transportation Program