



May 23, 2014

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

[Subject: ZEV Amendments: Second 15-Day Notice](#)

We thank California Air Resources Board for the opportunity to provide comments on the proposed 15-day modifications to the ZEV regulations (Second Notice of Availability of Modified Text for the Minor Modifications to the Zero Emission Vehicle Regulation).

At the October 2013 Board Hearing, our organizations have agreed that the fast refueling credits should be performance-based and technology neutral, so as to allow for technologies like battery-swapping to be recognized together with fuel cells vehicles. However, we also urged that metrics be utilized going forward to ensure that credits are only awarded to ZEVs that demonstrate the use of fast refueling.

While we are supportive of technologies such as battery-swapping as a way to enhance vehicle sales overall and the ability of an individual vehicle to displace more gasoline miles, we also believe a balance must be struck so that the additional credits do not undercut ZEV requirements overall.

The Board members also clearly stated a preference for a "strong metrics" that captured actual use of fast refueling technology. They also recognized the need for safeguards to prevent credits awarded for *potential* increases in one ZEV manufacturer's sales or vehicle use to result in *actual* reductions in the number of zero emission vehicles required to meet the ZEV requirement.

[We support strong standards that maximize ZEV sales and urge ARB to strengthen the fast-refueling credits so as not to undercut those sales.](#)

The 2nd 15-day proposed ZEV rule changes allows for a single vehicle to generate fast refueling credits up to twenty-five (25) times, effectively allowing a single vehicle to qualify other vehicles that did not have a fast refueling event. We urge ARB to strengthen this metric so that credits are awarded on a vehicle-basis, allowing vehicles that have utilized fast refueling to generate the additional credit for that vehicle only.

As an example of the potential impacts, this metric would allow a single vehicle, that would otherwise be classified as a Type III and be awarded 4 ZEV credits, to gain an additional 125 credits by swapping 25 times, equivalent to the number of credits generated by sales of 42 battery electric vehicles with 125 miles of range. As another example, this metric would allow a manufacturer to fast refuel as little as 4% of a ZEV fleet to qualify all vehicles of that type as fast refueling. In addition not all of the miles of those 4% would need to be enabled by fast refueling to garner the maximum allowable credit, such that fast refueling could enable as little as 2% of the fleet vehicle miles and yet the entire fleet would receive credit as fast refueled vehicles. As such, the allowance of credits to vehicles that do not actually fast refuel fails to meet the “strong metrics” that the Board requested.

The entire MY 2015-2017 annual requirements are roughly 80,000 ZEV credits needed for ZEVs and TZEVs based on our estimates. As we have noted elsewhere last October, the number of industry credits already banked enough credits to comply through MY2017 purely on banked credits.¹ We are strongly concerned that, based on our calculations, that as little as 640 Type V vehicles that received the full 25 swap credits each under the current amendments could be enough to meet the entire industry’s ZEV annual standards between MY2015 – 2017.

We believe two options are to either create strong metrics to limit the total credits from fast refueling or, otherwise, make the ZEV requirements significantly stronger to offset potential sales that are undercut.

ARB should adopt a minimum number of fast refueling events that must occur for each vehicle in order for that individual vehicle to receive a Type IV or V credit.

The proposed regulation allows a vehicle to have a single fast refueling event and yet qualify for the highest level of ZEV credit (Type V). This is also far short of a “strong metric”. The threshold level to receive credits needs to be set a level high enough to prevent credits from being generated by one or two battery swaps, such as might occur as part of a maintenance procedure (as Board Member Sperling warned against).

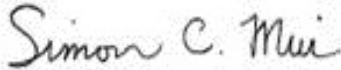
¹ http://switchboard.nrdc.org/blogs/smui/auto_industry_exceeding_califo.html

ARB should ensure that adequate documentation is provided on all fast refueling events.

Finally, ARB should also require a manufacturer that is submitting documentation of potential qualifying fast refueling events to disclose all fast refueling events that occurred with that vehicle. This disclosure is needed in order for ARB to determine whether a particular battery swap enabled increased electric miles. Multiple battery swaps in a short time period would indicate that the battery swap was not a qualifying fast refueling event. However, ARB will be unaware of multiple rapid swaps if a manufacturer chooses to disclose only some of the swap events.

We thank you for the opportunity to provide comments and look forward to engaging with you and the numerous stakeholders to support the strongest possible ZEV program.

Sincerely,



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