

May 22, 2014

SM-3170

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Submitted Electronically

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

Subject: ZEV regulations – 2nd 15-Day Notice

Clerk of the Board:

General Motors (GM) appreciates the opportunity to comment on the California Air Resources Board's (ARB) *Second Notice of Availability of Modified Text for the Minor Modifications to the Zero Emission Vehicle Regulation* (Second Notice) regarding proposed changes to the fast refueling credit provisions.

GM believes it is appropriate for the ARB to provide additional credit for fast refueling. Fast refueling results in more electric miles traveled and makes ZEVs more competitive with conventional vehicles, both of which are important toward meeting the overall goals of the ZEV regulation. We believe the opportunity to earn fast refueling credit should be technology neutral, including not just fuel cell and battery swap, but also fast charge at recharge rates that can be met by today's electric vehicles that have DC fast-charge capability such as the Chevrolet Spark EV.

We believe the amount of credit should be more closely aligned with usage than the ARB has proposed in the Second Notice. Based on our understanding of the Second Notice, credit could be given to vehicles that are capable of fast refueling but rarely if ever use fast refueling in the real world. Specifically, the Second Notice proposes that each fast refueling event that occurs during the year provides fast refueling credit for one vehicle that is capable of fast refueling, regardless of whether or not that particular vehicle receiving credit actually ever uses fast refueling. The only limitation is that any one vehicle can only receive credit for a maximum of 25 fast refueling events. This means that a manufacturer that produces 2500 ZEVs capable of fast refueling in a model year could get fast refueling credit for all 2500 of them if just 100 vehicles actually use fast refueling 25 times each. In other words, 2400 or 96% of the vehicles could never use fast refueling at all but would still receive credit.

Alternatively, if each of the 2500 vehicles use fast refueling just one time, the manufacturer would receive full credit for fast refueling. Assuming the average EV owner recharges once per day using either 110V or 220V, this would mean that one in 365 refuelings over the course of the year, or just 0.27%, are fast refueling and yet full fast refueling credit would be given.



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While battery swap and fast charge are not going to have the same 100% fast refueling rate as fuel cell vehicles, we believe fast refueling should be readily available and used consistent with EV drivers needs for fast refueling in order to justify full credit.

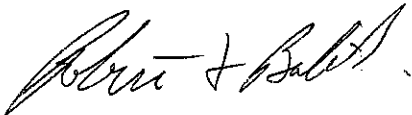
The current structure of the ARB's proposed fast refueling language could actually have the perverse effect of crediting a technology rarely if ever used and provide zero credit to one that regularly uses a DC fast charger. By focusing on the outcome (usage of fast charging) as opposed to the specific medium for refueling, and by looking to actual versus theoretical or potential use, CARB will achieve its goal of more electric miles driven with an abundance of confidence that the electric miles driven with a fast charge are real and not just conceptual.

Therefore, we respectfully request that ARB develop a modified regulatory proposal that:

- 1) Provides credit for fast refueling that is more closely aligned with actual usage; and
- 2) Is technology neutral including current fast charge technology in addition to fuel cell and battery swap.

As ARB continues to develop its regulatory proposal, it should ensure that whatever usage metric is chosen applies equally to fast charge as it does to battery swap, consistent with ARB's long-held policy of technology-neutrality.

Sincerely,

A handwritten signature in black ink, appearing to read "Albert J. Baltes". The signature is fluid and cursive, with the first name "Albert" and last name "Baltes" clearly distinguishable.