



July 22, 2015

Ms. Emily Wimberger
Air Resources Board
1001 I Street
Sacramento, CA 95814

Dear Ms. Wimberger:

Thank you for submitting the standardized regulatory impact assessment (SRIA) and the summary (Form DF-131) for the proposed regulatory amendment on Fast Refueling Credits for Zero Emission Vehicles (ZEVs), as required in California Code of Regulations, title 1, section 2002(a)(1). As proposed amendments were not attached, we are unable to conclude whether the SRIA covers all impacts that may occur as a result of the amendments that will be submitted to the Office of Administrative Law for public comment. These comments are thus based solely on the SRIA.

The SRIA discusses the impacts of modifying how many credits manufacturers can receive under the existing ZEV regulations. Under current ZEV regulations, manufacturers selling vehicles in California must offer for sale a certain percentage of ZEVs each year, or must purchase credits from other manufacturers. These credits are generated by manufacturers that supply more ZEVs than the required amount, or by producing ZEVs with qualifying events that are intended to make ZEVs more attractive to consumers, such as fast-refueling events. Although the total number of qualifying fast-refueling events such as battery swaps are limited by the number of ZEVs in a manufacturers' fleet, currently one ZEV could have up to 25 qualifying battery swaps in a year. Each battery swap generates 5 credits, and each credit is valued at around \$3,500. With the restriction from the fleet size, this means up to 4 percent of ZEVs in a manufacturers' fleet could generate \$437,500 per ZEV. The proposed amendment would instead limit qualifying battery swaps per vehicle to one instead of 25. Based on some assumptions about vehicles that would generate credits, the SRIA models the cost of the amendment as a revenue decrease of \$252 million for credit-generating manufacturers. This reduction in revenue was modeled as a direct cost to consumers buying new vehicles.

Under the assumption that manufacturers would generate credits by taking advantage of multiple battery-swap events allowed under current regulations, Finance concurs with the methodology used to assess the economic impact of the proposed amendments. However, the impacts of the amendments are sensitive to the assumption that manufacturers would generate credits from battery swaps on a small subset of ZEVs under the baseline. Assuming there would have been credits generated, there are a number of areas where we would suggest augmenting the analysis of impacts.

While the SRIA discusses the effects of this amendment on revenue from ZEV credits, it could add a discussion of the impacts of fewer credits available on the ZEV credit market and resulting costs or benefits. ZEV credits may be banked indefinitely and this may help manufacturers prepare for ZEV compliance requirements that escalate over the coming decade. A decrease in the supply of credits should increase credit prices, which may increase revenues

from remaining credits, or may induce other manufacturers to supply more ZEVs. The direction of impact depends on how the market for credits functions, so additional background there would be useful, particularly on the distribution of impacts to buyers or sellers of credits. The changes in prices and options available for purchase would then have impacts on individuals, and these should also be discussed.

The impact assessment focused primarily on regulatory costs, but should also include a more substantial discussion of regulatory benefits. For example, the overall decrease in credits could induce faster adoption of ZEVs, and emission reductions would have health benefits. A more complete discussion of benefits would help to illustrate the rationale for the amendment and should help to place it in the framework of existing ZEV regulations, as well as the broader system of regulations supporting reductions in greenhouse gas emissions.

These comments are intended to provide sufficient guidance outlining revisions to the SRIA. The SRIA, a summary of Finance's comments, and any responses must be included in the rulemaking file that is available for public comment. Finance understands that the proposed amendments may change during the notice of proposed action, after the public comment period, and following the ARB Board hearing. If any significant changes to the proposed amendments result in economic impacts not discussed in the SRIA, please note that the revised economic impacts must be reflected on the Standard Form 399 for the rulemaking file submittal to the Office of Administrative Law. Please let us know if you have any questions regarding our comments.

Sincerely,



Irena Asmundson
Chief Economist

cc: Ms. Panorea Avdis, Governor's Office of Business and Economic Development
Ms. Debra Cornez, Office of Administrative Law
Ms. Trini Balcazar, Air Resources Board
Ms. Sadie Macali, Air Resources Board
Ms. Lori Andreoni, Air Resources Board