

GENERAL MOTORS

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Mr. Wade,

General Motors LLC (GM) appreciates the opportunity to provide brief comments on potential changes to electric vehicle and hydrogen crediting as part of the 2018 Low Carbon Fuel Standard (LCFS) Pre-Rulemaking process. California policy goals and planning documents call for an aggressive move toward zero- and near-zero emission transportation options. Vehicle technology improvements alone will not be sufficient to meet these goals. Progress is also needed on lower carbon fuels, fueling infrastructure, and cost competitiveness. Taking steps to address these challenges is consistent with the LCFS policy intent to reduce the average carbon intensity of transportation fuels in California. Below are comments on two general concepts that we believe deserve additional consideration.

GM Supports Staff Consideration of a Hydrogen Infrastructure Pathway

A number of industry stakeholders have voiced support for a hydrogen infrastructure pathway proposal that would amend the LCFS credit program to consider fuel dispensing capacity as part of the LCFS crediting for hydrogen. Such an expansion of the LCFS program has the potential to advance the goals of the LCFS by facilitating increased use of low-carbon hydrogen as a transportation fuel in California. We recognize that there are many program specifics that may require additional work and discussion, including issues such as utilization targets, program duration, and unintended consequences. However, for the reasons outlined below, we believe this concept has merit and deserves consideration.

Every low carbon fuel faces a different set of challenges. For hydrogen, initial low utilization of refueling infrastructure limits the pace of infrastructure development, restricts the availability of the fuel, and increases the cost of dispensed fuel. Attempting to increase the renewable content of the fuel tends to exacerbate these challenges given the added costs entailed.

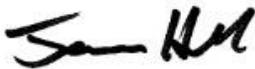
A well-designed hydrogen infrastructure pathway could be an elegant and innovative way to overcome these barriers. Such a pathway could help to offset low station utilization in the near-term, increase efficiency and economies of scale in station development, and enhance the inherent incentives built into the LCFS to encourage higher renewable fuel content. This has the potential to be a scalable solution that could ultimately accelerate the use of low-carbon hydrogen for medium- and heavy-duty applications as well as light-duty vehicles. There may also be opportunities to explore this concept for other fuels.

GM Supports Continued Work on Low Carbon Electricity Pathways

GM also supports further consideration of lower carbon electricity pathways where appropriate and technically sound. Updating the grid average carbon intensity more frequently is logical and justified, and we support further consideration of renewable electricity proposals. Additionally, we are intrigued by some of the “smart charging” concepts that have been discussed to date. Smart charging offers opportunities for even lower-carbon transportation, integration of lower-carbon renewable electricity into the grid, and additional grid benefits. There may be ways to leverage the LCFS to encourage vehicle-grid integration in furtherance of the overall LCFS goal of reducing the average carbon intensity of transportation fuels in California. We do not see a need to include a regulatory requirement for ISO/IEC 15118 as part of a smart charging pathway, given the fact that there may be other options (e.g. telematics) that could also meet program needs. We recommend coordinating with the CPUC Vehicle Grid Integration Communications Protocol Working Group on this standards issue.

In conclusion, we encourage staff consideration of LCFS pathways that can help support customer demand and improve business cases around zero- and near-zero emission transportation. We recognize that there are many implementation details and policy questions for staff to consider as part of this process. While we do not have specific language to provide, we would be interested in remaining engaged in the discussion.

Sincerely,



James Hall, Manager
Advanced Vehicle and Infrastructure Policy