

DOCKETED

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Comment Received From: Matt McClory
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TOYOTA Comments to Advisory Committee Meeting

Additional submitted attachment is included below.



Toyota Motor North America, Inc.
1630 W. 186th Street
Gardena, CA 90248

August 9, 2019

California Energy Commission
1516 9th Street, MS-4
Sacramento, CA 95814

RE: Docket No. 18-ALT-01, Advisory Committee Meeting, 2019-2020 Investment Plan Update for the Clean Transportation Program.

Dear Chairperson and members of the Commission:

On behalf of Toyota, we sincerely appreciate the leadership of the Commission and the significant effort of the Clean Transportation Program staff to update the 2019-2020 Investment Plan.

Toyota supports the proposed allocations of \$20MM for Light-Duty (LD) vehicle hydrogen refueling infrastructure and \$30MM for Medium-Duty (MD) and Heavy-Duty (HD) ZEV and infrastructure projects. We request that dedicated hydrogen refueling stations for MD and HD ZEVs be eligible under this new funding allocation.

California's leadership to invest in hydrogen refueling has been critical to allow Toyota to launch the Mirai FCEV in late 2015, setup 8 dealers across the state, and reach over 5700 units in operation. The increase in the number of hydrogen stations has directly supported sales of the Mirai and resulting in a 30% increase over last year. The state's cost-share funding has engaged industry investment in hydrogen production, distribution, and fueling stations. This growth would not have been possible without the collaborative process between the state, automakers, and station developers.

Successful commercialization of fuel cell technology will require expansion into multiple vehicle types. In addition to the Toyota Mirai, we have announced our 3rd generation Portal HD fuel cell truck in demonstration with fleet customers. This validates the scalability of fuel cells from sedans to "big-rigs" and everything in between.

To support this increase in fuel cell models, Toyota has constructed new production facilities to support 30,000 units globally annually from the 2020 timeframe, which is an increase of 10x over our current production rate.

In this manner, we are very concerned by the recommendation for co-location of LD fueling with HD fueling (Ch.3, pg.70). This proposal is inconsistent with the need to target both growth in the number of LD vehicle fueling stations and the volume of FCEVs and would be detrimental to the customer experience. With very few exceptions, the published *2019 CaFCP OEM Priority Hydrogen Station Location Recommendations* of 114 sites are NOT in areas that support HD vehicle traffic.

In addition, future HD fueling stations do not have a compatible fueling interface for LD vehicles. With respect to LD vehicle fueling stations, the equipment is generally not designed with the capacity to also support MD and HD vehicles. However, in the few cases where co-location may be practical and equipment is sized consistent with this demand, then LD vehicle dispensers should be separated from HD fueling dispensers for safety of the customers, like existing truck stops. We recommend CEC convene a work shop with OEMs and station developers to review MD and HD fueling requirements in more detail.

In contrast, the new Shell hydrogen station in Berkeley is a great example of a seamless customer experience for LD vehicle fueling – the hydrogen dispensers are next to the gasoline pumps under the canopy and located on a major customer thoroughfare.

We look forward to continuing our dialog with Commissioners and staff to ensure that hydrogen and FCEVs are a critical part of the solution to California's air quality and carbon reduction goals.

Very truly yours,

A handwritten signature in black ink, appearing to read "Matt McClory". The signature is stylized and cursive.

Matt McClory
Senior Principal Engineer
Research & Development
Toyota Motor North America