

August 1, 2019

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Jeffrey Serfass | Executive Director
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Kevin Barker
Deputy Director - Fuels and Transportation Division
California Energy Commission
1516 Ninth Street
Sacramento, CA 95814

RE: CHBC Comments on CEC Clean Transportation Plan

Dear Mr. Barker,

The California Hydrogen Business Council (CHBC)¹ appreciates this opportunity to offer the following recommendations for government action that would address challenges that may impede maintaining current progress or achieving future success in the Clean Transportation Program. We recommend that funding objectives specifically include:

- 1) Funding the expansion of existing hydrogen fueling station capacity outside of the \$20M station budget allocation**
 - Station owners have reported a need to expand their station capacity due to the significant demand at some stations.
 - Expansion funds could be used for adding nozzles and hydrogen storage to accommodate more fuelings in a shorter period of time.
 - Funding for capacity expansion to accommodate additional FCEVs would be significantly lower than building new stations.
- 2) Support renewable electricity grid integration via establishing a power to gas target area for CTP funding**
 - Power-to-gas would allow the CEC to support the integration of excess renewable generation into the electricity grid by absorbing it to produce renewable hydrogen, which can be used for multiple applications, including transportation fuel.
 - Expansion of funding for power-to-gas facilities would help scale up hydrogen production and enable cost reduction.
- 3) Support station deployment for medium and heavy duty transportation, including trucks and buses**
 - Funding and other incentives are needed to help deploy infrastructure for transit agencies needing to meet ICT regulation requirements as well as for medium and heavy duty fleets used for long haul trucking and ports operation.

¹ The views expressed in these comments are those of the CHBC, and do not necessarily reflect the views of all of the individual CHBC member companies. CHBC Members are listed here: <https://www.californiahydrogen.org/aboutus/chbc-members/>

4) Secure access to low cost electricity for hydrogen production and stations

- Hydrogen fuel costs from electrolysis are highly dependent on the cost of electricity.
- CEC could support efforts to help establish electric rate design and rate setting that is supportive of cost-effective hydrogen production and fueling station electric demand.

5) Incentivize investment in a robust production and distribution network

- Reliance on sole companies supplying the hydrogen fueling network creates significant challenges in case of interruptions at the production or distribution level.
- Incentivizing competition in this nascent market is needed to overcome bottlenecks in the fuel supply, which affect FCEV drivers region wide, and creates a more resilient hydrogen supply chain network.

6) Funding support in California for transportation electrification, in terms of both vehicles and infrastructure, is heavily tilted towards charging and PHEVs/BEVs, with marginal support for FCEVs.

- We encourage increased funding for FCEVs and hydrogen fueling infrastructure where possible to even the playing field and diversify California's strategy toward adopting zero emissions vehicles. By our calculations, using publicly available data, 97% of transportation electrification funding in California went to charging infrastructure, BEVs and PHEVs, and only 3% went to FCEVs, fueling infrastructure and hydrogen production facilities. That is reflected in the distribution of vehicles - 99% of the EV market is BEVs and PHEVs, 1% is FCEVs. Not customer choice, but lack of funding is currently the greatest obstacle to further adoption of FCEVs in the Golden State.
- The CHBC supports developing additional innovate funding programs to help station buildout at an accelerated rate.

Thank you for your consideration. The CHBC and its members look forward to discuss any of these objectives with your team in detail.

Best regards,



Emanuel Wagner
Deputy Director

California Hydrogen Business Council