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**CHBC Comments on Commissioner Workshop on Clean  
Transportation Funding Programs - Clean Transportation Equity,  
Jobs, and Economic**

*Additional submitted attachment is included below.*



# California Hydrogen Business Council Comments on Commissioner Workshop on Clean Transportation Funding Programs - Clean Transportation Equity, Jobs, and Economic Recovery

September 9, 2020

## I. Introduction

The California Hydrogen Business Council (CHBC)<sup>1</sup> appreciates this opportunity to comment on the August 19, 2020 IEPR workshops focused on Clean Transportation Equity, Jobs, and Economic Recovery. Our main points are focused on the opportunities and policy issues related to accelerating light duty hydrogen fuel cell electric vehicles in low income communities. Our comments are summarized below and elaborated on in the Comments section that follows.

- a. **We strongly agree with comments made throughout the workshop that these difficult economic times and the ongoing recovery present a unique opportunity to leverage zero emission technologies in the neighborhoods that are most in need of improved air quality.**
- b. **We support both types of zero emissions electric vehicle (ZEV) technologies – hydrogen fuel cell electric vehicles (FCEV) and battery electric vehicles (BEV). Both are necessary to achieve California’s policy goals and improve air quality in low income communities and we encourage the CEC to expressly promote both, not just BEVs.**
- c. **FCEVs will be key to enabling equitable and affordable access to ZEVs because multi-unit dwellings and on-street parking do not typically provide easy access to EV charging. Further, centralized hydrogen refueling is the more pragmatic ZEV fueling option for many Californians, including many, if not most, low-income drivers.**

## II. Comments

The following comments provide further details on the CHBC’s primary points summarized above.

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<sup>1</sup> The CHBC is comprised of over 100 companies and agencies involved in the business of hydrogen. Our mission is to advance the commercialization of hydrogen in the energy sector, including transportation, goods movement, and stationary power systems to reduce emissions and dependence on oil. 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. Members are listed here: [www.californiahydrogen.org/aboutus/chbc-members/](http://www.californiahydrogen.org/aboutus/chbc-members/)

- a. **We strongly agree with comments made throughout the workshop that these difficult economic times and the ongoing recovery present a unique opportunity to leverage zero emission technologies in the neighborhoods that are most in need of improved air quality.**

Several speakers noted the need for incentives to promote the deployment of ZEVs in low income communities and the challenges these communities face in deploying both the vehicles and refueling infrastructure. These areas of the state are least able to afford the higher cost of zero emission transportation, yet are most in need of their benefits. We support the need for further incentives to promote the deployment of ZEVs and refueling infrastructure in the low-income communities that need them most.

Support of critical programs already approved is an important pathway to deploying zero emission technologies into these neighborhoods. As the California Air Resources Board (CARB) found in their SB 498 report on state ZEV programs, public funding ought to be extended beyond the AB 8 sunset date of January 1, 2024, and beyond the legislation’s goal of at least 100 stations, in order to achieve Executive Order B-48-18 goal of 200 hydrogen stations by 2025 and the California Fuel Cell Partnership goal of 1,000 stations by 2030. CARB specifically states in the report:

- **“Both electric vehicle and hydrogen refueling infrastructure investment will continue to be needed after 2023**, when the funding sunsets, to continue closing the gap between needed ZEV refueling infrastructure and the State’s ZEV deployment targets.”<sup>2</sup>
- **“Support is critical to ensure that stations are distributed throughout the State** to serve all markets and to allow the ZEV market to mature sufficiently for infrastructure to become a sustainable business model.”<sup>3</sup>
- **“Similarly increasing the number of hydrogen retail stations throughout California is important to drive growth in the number of light-duty hydrogen-powered FCEVs sold.** Importantly, the current network of hydrogen stations in California provides coverage to only 41 percent of the State's population within a 15-minute drive; 21 percent of the covered population lives within a disadvantaged community. Hydrogen fueling networks of 200 and 1,000 stations (reflecting the goals of Executive Order B-48-18 and the California Fuel Cell Partnership's A California Fuel Cell Revolution: A vision for 2030,

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<sup>2</sup> Footnotes 22, 23 in Draft: Assessment of CARB’s Zero-Emissions Vehicle Programs Per Senate Bill 498, CARB, December 17, 2019 – Bedir, et al., 2018. California Energy Commission Staff Report CEC-600-2018-001. March 2018. “California Plug-In Electric Vehicle Infrastructure Projections: 2017-2025.” (emphasis added by CHBC)

<https://efiling.energy.ca.gov/GetDocument.aspx?tn=224521&DocumentContentId=55071>

CARB, 2018. July 2018. “2018 Annual Evaluation of Fuel Cell Electric Vehicle Deployment & Hydrogen Fuel Station Network Development.” (emphasis added by CHBC) [https://ww3.arb.ca.gov/msprog/zevprog/ab8/ab8\\_report\\_2018\\_print.pdf](https://ww3.arb.ca.gov/msprog/zevprog/ab8/ab8_report_2018_print.pdf).

<sup>3</sup> Draft: Assessment of CARB’s Zero-Emissions Vehicle Programs Per Senate Bill 498, CARB, December 17, 2019, p. vii (emphasis added by CHBC)

respectively) could provide coverage to 68 percent and 94 percent of the state's population.”<sup>4</sup>

The CHBC strongly agrees with these statements and hopes that they will be reflected in the 2020 IEPR Update discussion and recommendations to support ZEV deployments in low income communities.

- b. We support both types of zero emissions electric vehicle (ZEV) technologies – hydrogen fuel cell electric vehicles (FCEV) and battery electric vehicles (BEV). Both are necessary to achieve California’s policy goals and improve air quality in low income communities and we encourage the CEC to expressly promote both, not just BEVs.**

We agree with the comments made throughout the workshop that both types of zero emissions ZEV technologies – hydrogen FCEV and BEV – are necessary to achieve California’s policy goals, and that reflecting this, policy discussions and programs focused on ZEVs should include both technologies.

Executive Order B-18-48 calls for advancement of both FCEVs and BEVs and their associated refueling infrastructure to meet the state’s 2030 goal of 5 million ZEVs. Numerous state programs have reinforced this inclusive approach to ZEV advancement, including the IEPR. The 2019 IEPR, for example, clearly stated that California recognizes both electricity and hydrogen fueled vehicles as ZEVs, which can address the tailpipe and greenhouse gas challenges of the transportation sector.<sup>5</sup>

We have observed that at times discussions about ZEVs at the CEC tend to focus primarily, even exclusively, on BEVs, which sends a confusing and detrimental signal to industry and potential investors. We believe the CEC Commissioners and staff expressly make note of the growing value of FCEVs and their applicability in low income communities. These benefits are further pointed out in our comments below. We hope that going forward, CEC ZEV discussions and program design will be balanced and broad in their approach.

- c. FCEVs will be key to enabling equitable and affordable access to ZEVs because multi-unit dwellings and on-street parking do not typically provide easy access to EV charging. Further, centralized hydrogen refueling is the more pragmatic ZEV fueling option for many Californians, including many, if not most, low-income drivers.**

More than 80% of EV drivers charge at home due to convenience and cost effectiveness.<sup>6</sup> However, many Californians, in particular those living in low income communities reside in homes where EV charging is not easy or affordable. Nearly half of all homes in the state are not

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<sup>4</sup> Ibid, p. 88 (emphasis added by CHBC)

<sup>5</sup> 2019 IEPR, Final Clean Version, CEC, p. 67

<sup>6</sup> <https://www.energy.gov/eere/electricvehicles/charging-home>


single family detached units.<sup>7</sup> Moreover, low-income people are most likely to live in rental units where EV charging is unavailable and cost prohibitive to install. By contrast, hydrogen refueling for FCEVs is centralized and convenient, developed under a retail distribution model which has evolved over decades to increase convenience, access to amenities and other related services for consumers. The addition of zero emission hydrogen fuel to this mix of retail distribution centers requires no financial investment from the communities they serve. These distribution centers provide similar properties of speed and convenience as today's refueling model and stand to serve the largest number of low-income consumers with the highest level of convenience.

**To ensure that driving a ZEV will be equitably available to all California drivers, state policy should support the advancement of FCEVs and hydrogen fueling centers in low income communities.**

### III. Conclusion

The CHBC appreciates your consideration of these comments and looks forward to working with you to build understanding of how FCEVs and hydrogen fueling are key to providing equitable, mass scale access to ZEV passenger vehicles and to accelerating and realizing state goals to advance zero criteria emissions and greenhouse gas reductions in low income communities.

Best regards,



William Zobel | Executive Director  
California Hydrogen Business Council

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<sup>7</sup> <https://www.infoplease.com/us/census/california/housing-statistics>