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## **Comments by Senator Josh Newman on the Draft 2024-2025 CTP Investment Plan Update**

Please find attached comments on the draft 2024-2025 CTP Investment Plan Update by Senator Josh Newman.

*Additional submitted attachment is included below.*

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June 21, 2024

The Honorable Patty Monahan  
Commissioner  
California Energy Commission  
715 P Street  
Sacramento, CA 95814

***RE: Comments on the 2024–2025 Investment Plan Update for the Clean Transportation Program***

Dear Commissioner Monahan:

First, I'd like to begin by thanking you and the staff at the Energy Commission for your conscientious and thorough work supporting the development of zero-emission vehicle (ZEV) infrastructure in California. As you're aware, significant investment will be needed on an ongoing basis in the coming years if California is to make meaningful progress toward its infrastructure deployment goals, and I appreciate the opportunity to provide comment on the forthcoming update to the Clean Transportation Program's investment plan.

Please accept these comments as both a reiteration of the importance of hydrogen, including light-duty hydrogen, in attaining California's transportation decarbonization goals, as well as a starting point for reconsidering how the State of California can exercise increased accountability over the hydrogen refueling industry in fulfilling the mandates prescribed by Executive Orders N-79-20, B-48-18, and AB 126 (Reyes, Chapter 319, Statutes of 2023).

*First and foremost, I respectfully urge the Energy Commission to reject the proposal to reallocate the monies returned by Shell toward electric vehicle (EV) infrastructure and urge that these funds instead be reallocated toward completing the build-out of light-duty hydrogen refueling stations already under development.*

Although the Commission could not have anticipated Shell's recent withdrawal from the California hydrogen market, the CEC, through GFO-19-602, made a clear commitment with respect to hydrogen more broadly and, just as importantly, to California's community of fuel cell (FCEV) drivers. Specifically, that commitment entailed the allocation of roughly \$116 million for the construction of an additional 51 additional publicly accessible light-duty hydrogen fueling stations. The \$40.5 million being returned by Shell, which was part of that grant solicitation, would have gone far in doubling the size of the state's hydrogen refueling network, from its current, insufficient network 54 extent stations, as part of the larger strategy of getting the FCEV fueling network to self-sustainability.

At a higher level, the allocations committed to GFO-19-602 represented a promise that California remains committed to investing in hydrogen as a tool for decarbonizing transportation. Affirming that commitment (or at least not actively undermining it) is hugely important as a market signal-- for the automotive OEMs actively developing the next generation of mass-market ZEVs and zero-emission trucks; for technology providers working to improve the reliability of refueling equipment in time for heavy-duty trucking; in support of ARCHES, which is in

active negotiation with the U.S. Department of Energy to unlock the full \$1.2 billion awarded (and for which our leadership in light-duty hydrogen was a major selling point); and, not least, for the installed base of more than 15,000 drivers who, in response to a deliberately designed combination of policies and incentives, proactively invested in California's clean energy transition by purchasing a fuel cell vehicle.

Any decision to reallocate these funds away from light-duty hydrogen to any other purpose would run directly counter to the CEC's obligations under the Clean Transportation Program and—and I don't believe this is in any way hyperbolic-- could represent a potentially fatal blow to the viability of California's light-duty hydrogen ecosystem. This is especially relevant in light of the Energy Commission's proposed Investment Plan Update, which allocates no new funding for light-duty hydrogen infrastructure. Per the letter submitted by some of my legislative colleagues, California's existing refueling network still lacks sufficient reliability, capacity, and coverage needed to sustain California's existing fleet of fuel cell vehicles, as well as to support the much larger number of FCEVs that will be needed if the state is going to be meet its ambitions 2035 goal.

At the least, California should make good on its past promises to complete and upgrade the existing network. Further, if we are serious about meeting our ZEV infrastructure goals, *the Energy Commission should affirmatively commit to greater investment in hydrogen fueling infrastructure over the coming years, consistent with projections for future FCEV adoption and with the explicit obligations set forth in Executive Order B-48-18 and AB 126 (Reyes, Chapter 319, Statutes of 2023).*

Having been a lead participant in last year's negotiations to reauthorize the Clean Transportation Program, it was my understanding, coming out of those negotiations, that the final version of AB 126 obligated the Energy Commission to invest *no less than* 15% of annual program revenues toward hydrogen fueling "*until there is a sufficient network of hydrogen-fueling stations... to support existing and expected hydrogen vehicles,*" as articulated in CARB's *2020 Mobile Source Strategy*. That report found that California will need up to 800,000 FCEVs by 2030 to meet Executive Order N-79-20.<sup>1</sup>

The draft Investment Plan Update estimates that 119 stations will support 180,000 FCEVs.<sup>2</sup> Logically, then, in order to meet the scoping requirement's projection, the Energy Commission will have to enable a quadrupling of the existing hydrogen fueling network by the year 2030. Even using the Energy Commission's own projections, California would need 400,000 FCEVs by 2030, or double the capacity of the currently funded network.<sup>3</sup> Moreover, fuel cell drivers' current, common experience with long lines and unreliable stations strongly suggests that the nameplate capacity estimates being applied by the Energy Commission dramatically overestimate real-world capacity, which in turn supports the assertion that, in order to properly support the number of FCEV vehicles necessary to meet the larger decarbonization goals, the number of stations needed will be far in excess of 200 and likely closer to 500 stations.

It's important to note that the private sector is sensitive to the market signals the Energy Commission sends *today* as it considers making the investments which will be needed to build out the infrastructure needed by 2030. Failing to establish strong market signals, or renege upon past commitments, will have the net effect of deterring private investment and eroding public confidence in California's ability to realize the state's ZEV transition.

With that in mind, I would suggest that the Energy Commission consider the following suggestions as part of developing a robust and properly balanced hydrogen infrastructure program.

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<sup>1</sup> California Air Resources Board, [2020 Mobile Source Strategy](#) p. 93

<sup>2</sup> California Energy Commission, [2024–2025 Investment Plan Update for the Clean Transportation Program](#) p. 47

<sup>3</sup> California Energy Commission, [AB 2127 Electric Vehicle Charging Infrastructure Assessment](#) p. 31 (When applying a 95% BEV to 5% FCEV ratio to CARB's estimate for 8 million ZEVs by 2030.)

## **(1) Improving accountability through clawback contingencies and contingencies for reversion to CEC/state control**

When the Clean Transportation Program was last reauthorized, in 2013, zero-emission vehicles and their accompanying infrastructure needs represented something of an unknown and uncertain frontier. With little precedent to anticipate what policy guardrails would be conducive to positive outcomes and the efficient use of public funds, the Energy Commission's approach in deploying grants as quickly and as widely as possible was understandable. After a decade of deployment, however, and with over 1.1 million ZEVs on the road, we now have a better understanding of what measures may be most effective in ensuring momentum and preventing the stranding of public and private assets.

Whether it's EV charging or hydrogen station developers, these companies are being entrusted with the responsibility of building and maintaining the infrastructure needed to undergird California's energy future. At a minimum, these companies must be held to baseline performance standards, where any persistent non-compliance with basic uptime expectations should trigger a clawback of public funds. Recipients of public funds must be held to demonstrate that the funded infrastructure (e.g., H2 stations or EV chargers) is reliably functioning under real-world service conditions. It goes without saying that publicly subsidized ZEV infrastructure is only really useful if it actually delivers the promised service. It therefore makes good sense that post-commissioning evaluations of a station's uptime performance, enabled by the data reporting requirements from AB 2061 (Ting, Chapter 345, Statutes of 2022) and AB 126 (Reyes, Chapter 319, Statutes of 2023), should be considered a critical milestone, whose satisfactory performance is either required for approval and disbursement of a final tranche of funds, or where nonattainment should trigger a clawback of some or all of allocated grant monies.

Further, the scale of the challenge may necessitate a more dramatic re-evaluation of California's approach to funding ZEV infrastructure. Companies receiving CEC ZEV grants are entering into a contract with the State to build and deliver essential infrastructure to benefit the traveling public, not unlike conventional transportation projects such as tollways. The checkered track records of various awardees over the past decade indicate that not just greater oversight, but possibly public ownership of these assets, may be warranted. Rather than treat awardees simply as grant recipients, the Energy Commission might consider shifting to an approach borrowing from traditional public-private partnerships which provides that a private entity receiving public funds to build and operate ZEV assets allocate some level of equity to the State. California, and California's taxpayers, deserve greater degrees of input, transparency, and leverage over the operations and decision-making processes of these awardees, and allowing for some kind of direct or indirect ownership stake in exchange for public funds seems a fair and rational approach.

Similarly, the state should exercise greater ownership over its publicly-funded ZEV infrastructure network by requiring awardees grant the State the right of first refusal in the event that an operator receiving public subsidies ceases operations. Such a provision would afford the State a degree of surety that, should any such entity happen to fail, the State would retain the ability to facilitate putting these valued assets back into service, with broad discretion to convey them to other market players which have a demonstrated record of viability and performance. This would provide the state with some of the benefits associated with direct ownership, but without incurring the full risk and liability should the system work as designed. This is especially relevant for the current statewide hydrogen fueling system, wherein the current limited number of market participants makes the failure of any single participant potentially catastrophic for the entire ecosystem.

## **(2) Increasing transparency and accountability with respect to retail hydrogen pricing, which despite normalization of feedstock prices and the end of temporary supply shocks, remain at unsustainably high levels**

Over the last two years, retail hydrogen prices have risen to alarming levels, nearly tripling from a price of \$13 per kilogram in December of 2021, to as high as \$36/kg today. As you may recall from the November 2023 Joint Agency Workshop on the FCEV Customer Experience, excessive retail hydrogen prices are inflicting severe and distressing economic burdens on California's existing base of fuel cell drivers that, at best, is depleting the values of their fuel cards at nearly three times the promised rate, and at worst, is forcing them to choose between refueling their vehicle or paying for basic everyday necessities. Just as with gasoline and electricity, fuel cell drivers have little discretion when it comes to their fueling needs, and there must be more transparency and accountability into how hydrogen can continue to cost roughly \$9 to \$10 per kilogram at wholesale while consumers pay as much as four times as much at the pump.

Last year, the Legislature responded to continually rising gasoline prices by passing an unprecedented anti-price-gouging law and creating the nation's first petroleum market watchdog. These aggressive actions recognized the essential role mobility fuels play in the lives of everyday Californians and reflect the belief that they should not be treated as speculative commodities for private profit gain. At current prices, California's fuel cell drivers are paying upwards of \$180 per tank to refuel; that's an effective equivalent of \$13 per gallon for gasoline. In the face of the current, unsustainably high price for retail hydrogen, the Energy Commission might consider leveraging the work being done by the Division of Petroleum Market Oversight in order to provide the public with greater insight into why Californians are paying so much at the pump for hydrogen.

At a November 6<sup>th</sup> Joint Agency Workshop, California's leading provider of retail fuel attributed the substantial increases in retail hydrogen prices to supply disruptions at gaseous hydrogen production facilities; elevated feedstock costs driven by higher natural gas prices; and increased unanticipated costs associated with repairing and maintaining stations in a post-pandemic economy. Those temporary supply disruptions have by all accounts been resolved by now-- by March of last year, wholesale natural gas prices in California had returned to normal levels. And yet, even as the ostensible drivers of upward cost pressures on the supply of hydrogen fuel supplies in California have abated, the state's fuel cell drivers continue to pay exorbitant prices, with no respite in sight.

The CEC should consider leveraging its role as a grant-making agency to identify causes of increased prices, as well as considering including a requirement for awardees of future grants to disclose to the Energy Commission their wholesale procurement costs and periodically provide detailed breakdowns of their transportation, equipment, and other operations and maintenance expenses.

### **(3) Maximizing new station investments by encouraging the development of multi-modal hydrogen fueling stations capable of servicing light-, medium-, and heavy-duty vehicles.**

While there may be disagreement over the extent to which the Commission should be funding light-duty hydrogen stations, there remains a consensus on the overall role of hydrogen in decarbonizing medium- and heavy-duty freight and goods movement. The Commission would be well-served to consider encouraging or requiring any heavy-duty stations receiving CEC subsidies to concurrently support medium- and light-duty refueling as well. While heavy-duty trucks will likely require different refueling nozzles and pressure levels than medium- and light-duty vehicles, it is my understanding from conversations with industry that station designs can be fairly easily adapted to support both modes at minimal additional expense, planning, or permitting. Such multi-modal stations would still be focused on refueling heavy-duty trucks along major freight corridors, but with space reserved for a light- and medium-duty refueling positions. For the consumer, the experience would be similar to getting gasoline at a truck stop, and given the current gaps in light-duty fueling coverage, these added locations could prove instrumental in reinforcing the ailing light-duty platform. They would also be especially critical for enabling longer-distance, intra-state trips for light-duty FCEVs, as well as the accelerated decarbonization of medium-duty vehicles, a use case which BEVs are less likely to accommodate within the ACF timeline, and which will likely not be able to refuel at the same positions as heavy-duty trucks.

Adopting such a multi-modal approach would enable the Energy Commission to optimize its investments and deploy infrastructure that not only facilitates the rapid decarbonization of heavy-duty vehicles but also preserves access for the light-duty segment at minimal additional cost. Such synergistic investments would also help to further drive the economies of scale that will drive down costs over time and better maximize the new federal dollars provided under ARCHES.

With its nationally- leading plans to decarbonize transportation, California has taken on an ambitious and eminently necessary project for which we should be justifiably proud. As the deadlines the State has embraced loom ever nearer each year, without proper prioritization, funding, transparency, and accountability, the current state of California's ZEV infrastructure, especially in the area of hydrogen fuel cell vehicles, represents the single greatest prospective point of failure in the attainment of our essential climate goals.

It is my hope that some of the suggestions outlined above can inform the discussions and resulting course corrections on that path to a prosperous and decarbonized future for our great state. Once again, thank you for the opportunity to provide comment on how California can build a more robust and reliable hydrogen fueling program. If you require any additional information or would like to discuss further, please feel free to contact me or my staff, Brandon Wong, at [brandon.wong@sen.ca.gov](mailto:brandon.wong@sen.ca.gov), or (916) 651-4029.

Respectfully,



Josh Newman  
Senator, 29th Senate District