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Docket Number:	17-ALT-01
Project Title:	2018-2019 Investment Plan Update for the Alternative and Renewable Fuel and Vehicle Technology Program
TN #:	221823
Document Title:	Energy Independence Now - Comments Re 2018-2019 Investment Plan Update for the ARFVTP
Description:	N/A
Filer:	System
Organization:	Energy Independence Now
Submitter Role:	Public
Submission Date:	11/17/2017 3:30:25 PM
Docketed Date:	11/17/2017

Comment Received From: Brian Goldstein

Submitted On: 11/17/2017

Docket Number: 17-ALT-01

Energy Independence Now - Comments Re: 2018-2019 Investment Plan Update for the ARFVTP

Please see attached document:

Additional submitted attachment is included below.



November 14, 2017

California Energy Commission
Docket No. 17-ALT-01
1516 9th Street, MS-4
Sacramento, CA 95814

RE: 2018-2019 Investment Plan Update for the Alternative and Renewable Fuel and Vehicle Technology Program.

Dear Commissioner Janea A. Scott,

On behalf of Energy Independence Now (EIN), our Board of Directors, hundreds of supporters and hydrogen vehicle and infrastructure stakeholders, I am writing in support of the California Energy Commission's (CEC) overall investment plan for 2018. We are grateful for the Energy Commission's strong support of robust hydrogen fueling infrastructure as well as the Commission's dedication to hydrogen as an integral part of California's commitment to improving air quality and curbing greenhouse gas emissions. EIN submits the following comments on the "2018-2019 Investment Plan Update for the Alternative and Renewable Fuel and Vehicle Technology Program," with a focus on fostering growth for hydrogen fuel cell electric vehicles (FCEVs) and renewable hydrogen fuel.

1. Hydrogen Infrastructure – EIN lauds CEC's continued support for hydrogen infrastructure and the Commission's new efforts to catalyze renewable hydrogen production. Specifically, CEC's success in reducing the time and cost for opening hydrogen stations encourages industry to invest in new infrastructure and vehicles to meet growing demand in California.
2. Low Carbon Fuel Production/Supply – EIN is thrilled to support the pending GFO, dedicating approximately \$2m to renewable hydrogen production projects. We would like to highlight that, of \$168M in total investments for the Low Carbon Fuel Production/Supply Program, none of the investment funds have yet been dedicated to renewable hydrogen production.

Hydrogen is an elegant solution to the challenge of cleaning up the transportation system, but it would be short-sighted to focus solely on promoting vehicle adoption and building retail distribution capabilities without pursuing 100% renewable hydrogen production.

At this early stage in the developing FCEV market, there are just over 30 hydrogen stations and approximately 2,700 FCEVs in California. There is no better time to begin developing the final component - 100% renewable fuel

production - that will support a complete zero-emission well-to-wheel transportation solution.

Projects that commence right now likely will take 2 years to develop, at which point CARB is projecting 13,500 FCEVs and 66 public hydrogen stations. Thus, in order to catch up to the point where renewable production can meet demand in the near-to-medium term (even at 33.3%), policymakers and the hydrogen stakeholder community should immediately consider developing renewable production projects that are scalable well beyond one station. In doing so, the hydrogen community can “catch up” to the point where there is enough renewable fuel supply to fill demand while lowering FCEV well-to-wheel emissions profiles even further, proving the concept to industries beyond transportation and boosting the California economy along the way.

Even waiting 3 years to initiate the development of renewable hydrogen production, assuming a 2 year commissioning process, California would need to start with 10 production facilities (1,000kg/day) just to meet the 33.3% requirement by 2022 and up to 30 production facilities, at the same time, to achieve a 100% renewable hydrogen fuel supply in 2022.

With the \$25m earmarked for 2018-2019 Low Carbon Fuel Production/Supply, the Commission should look for near-term opportunities to invest in renewable hydrogen project development opportunities and research.

3. Advanced Freight & Fleet Technologies (MD/HD Vehicles) – Hydrogen fuel cell technology is beneficial and impactful for medium-duty and heavy-duty applications. Such vehicles make up 3% of the registered vehicles in California, but produce 22% of the state’s transport GHG emissions. To date, the ARFVTP program has supported the development of 13 MD/HD hydrogen vehicles for a total of \$14.5m or 11.14% of the \$130.1m overall budget in this area. There is an opportunity for MD/HD hydrogen vehicles to make a bigger impact on GHG emissions and air quality improvements in this dire area with increased attention from the Commission and industry.
4. Emerging Opportunities – The Energy Commission should continue to support and invest in research focusing on financing mechanisms for renewable hydrogen production and infrastructure development. Ultimately, renewable hydrogen production and fueling infrastructure will become attractive free market investment opportunities. Relatively small amounts of research funding can help advance this transition while facilitating further collaboration with the business community.
5. Community Readiness Planning – EIN recommends that the CEC consider utilizing a portion of the remaining \$1.8M in 2017 funding for this category toward a renewed effort in hydrogen infrastructure readiness planning and renewable hydrogen production readiness planning. Relatively small amounts of funding in this category helps raise awareness about alternative fuels in general, while allowing communities to educate stakeholders and potential investors outside of the CEC, which can speed up infrastructure development and even promote private investment outside of CEC funding opportunities.

6. EIN recommends extending the Innovative Mobility Services with ZEVs grant program and encourages additional programs to help expand consumer access to FCEVs.
7. EIN encourages the CEC to continue to support the development of Movable Temporary Refuelers. Such programs and capabilities will help expand driver access to alternative fuels and offer much-needed flexibility to serve locations when demand is high (such as disaster zones or national parks during peak season).
8. Education & Outreach – EIN encourages the Energy Commission to invest in education and outreach programs to help inform drivers, developers, policymakers and media of the opportunities and capabilities of FCEVs. These types of programs raise awareness of the CEC’s efforts and successes, helping policymakers continue to support alternative fuel programs. Specifically, we recommend that the Energy Commission make public their GHG mitigation, job creation and tax revenue generation metrics and data from state investment programs focusing on alternative fuels.

Thank you for your consideration of our comments. I would be happy to speak with you or your staff further if you have any questions.

Sincerely,

Brian Goldstein
Executive Director
Energy Independence Now