

DOCKETED

Docket Number:	21-IEPR-05
Project Title:	Natural Gas Outlook and Assessments
TN #:	239286
Document Title:	Energy Independence Now IEPR Comments - Supporting the Clean Hydrogen Movement
Description:	N/A
Filer:	System
Organization:	Energy Independence Now
Submitter Role:	Public
Submission Date:	8/11/2021 4:59:30 PM
Docketed Date:	8/11/2021

Comment Received From: Brian Goldstein
Submitted On: 8/11/2021
Docket Number: 21-IEPR-05

Energy Independence Now IEPR Comments - Supporting the Clean Hydrogen Movement

Additional submitted attachment is included below.

August 11, 2021

California Energy Commission
715 P Street
Sacramento, CA 95814

Energy Independence Now
Brian Goldstein, Executive Director
PO Box 341227
Los Angeles, CA 90034
brian@einow.org

Energy Independence Now (EIN) Comments on the IEPR Commissioner Workshop on Hydrogen to Support California's Clean Energy Transition

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To Whom It May Concern:

Energy Independence Now (EIN) wishes to submit comments on the IEPR Commissioner Workshop on Hydrogen to Support California's Clean Energy Transition. We would like to thank the California Energy Commission for this opportunity to share our thoughts on how to advance California's adoption of renewable, or "green," hydrogen.

Established in 2000, EIN is the only environmental nonprofit organization dedicated to advancing fuel cell electric vehicles (FCEVs) and renewable hydrogen infrastructure for transportation, renewable energy storage, industrial decarbonization and disaster resilience. Our organization engages in comprehensive research, policy advocacy and outreach to promote the widespread adoption of a diverse, zero-emission portfolio.

We believe that hydrogen is a foundational piece of this portfolio and can play different roles in various zero-emission pathways for California given its versatility as an energy carrier and wide variety of applications across sectors. Green hydrogen can provide immediate climate benefits by decarbonizing hard-to-reach industrial sectors and it will increase community resiliency through renewable energy storage while reducing emissions in the transportation sector with FCEVs.

The adoption of FCEVs will be critical for California to meet its goal of 100% zero-emission vehicles by 2035. For the many residents that live in multi-family housing, FCEVs provide a convenient and practical solution to zero emission transportation where EV charging infrastructure has proven to be impractical, costly and difficult to accomplish. Additionally, FCEVs, like gasoline vehicles, can be refueled at communal stations in less than five minutes and provide long driving range with each refueling.

However, we currently lack the fueling infrastructure to satisfy this future demand. It is crucial that California invests in developing fueling stations and creating a network that is reliable and accessible for all communities. And most importantly, we must supply this network with green

hydrogen that is produced from clean, renewable energy. This fueling infrastructure can also support the acceleration of renewable hydrogen for trucks as well.

In addition to continuing and expanding its investments in infrastructure. EIN strongly encourages the CEC to expand its consumer education and outreach for hydrogen.

Thanks in part to California's leadership, the global community is overwhelmingly turning to hydrogen to support clean transportation, renewable energy storage, industrial decarbonization and disaster resilience. In fact, 30+ countries have recently released hydrogen roadmaps, catalyzing \$500b in new hydrogen projects to support decarbonization. The most recent global leader to jump on-board is President Biden, who is allocating \$9.5b of the Infrastructure Investment and Jobs Act to support hydrogen development (about 75 times the amount that California spent over 17 years to open the first 50 stations).

This is because renewable hydrogen is the cornerstone of the new energy economy. It simply is not possible to sustain 100% renewable grid energy or to decarbonize the transportation sector without this critical tool, one of only two technologies that support the electrification of transport.

In the wake of the latest IPCC climate report, deemed by the UN Chief as "Code Red for Humanity", it's clear that we absolutely must use every tool at our disposal to decarbonize – right now. A one-size-fits all approach to **this global catastrophe** is not only inadequate, but also profoundly irresponsible.

That's why hydrogen technology should be nurtured and encouraged and that is why EIN is calling on California leaders to reaffirm its commitment to this vital technology. California has launched the market for light duty fuel cell vehicles with a tiny fraction of the spending that the state has allocated to BEV charging. Now is the time to bolster this investment, to reassume our leadership position in this exciting global movement and to match the financial commitments and enthusiasm of the Biden Administration.

Hydrogen Education & Outreach Program

EIN can offer tools, templates and examples that could be replicated with state support. Throughout our work we have seen that one of the largest barriers to hydrogen adoption is education with key stakeholders. In our experiences, many groups are unaware of hydrogen technologies and their various applications, or do not have the latest data or research on advancements in the space. These groups can include labor and environmental organizations – both of which are critical to advancing hydrogen infrastructure in California. Therefore, we believe that putting together a sound strategy that can educate and advocate for the sustainable use of the technology is important to developing a robust hydrogen infrastructure.

EIN administers a Hydrogen Education & Outreach Program to help educate the environmental community, policymakers, consumers, decision-makers and thought leaders about the hydrogen ecosystem in the context of transportation, energy storage, deep industrial decarbonization, and disaster resilience.

Through targeted partnerships, we loan out vehicles to high-profile events and individuals to increase awareness of the technology. However, in the past year, we have redirected this vehicle fleet to local COVID-19 relief programs, many of which serve the communities that are most disproportionately impacted by climate change and COVID 19 – low-income communities of

color and senior citizens. This has evolved into an ongoing permanent donation program with parallel media campaigns to highlight the importance of zero-emission vehicle adoption.

COVID-19 & Emergency Preparedness Responses

A partnership with the American Red Cross was highlighted during a recent Senate Select Committee on Hydrogen Energy meeting led by Senator Bob Archuleta. In the past year, EIN donated 5 FCEVs to the American Red Cross, which have since been used for disaster and biomedical operations totaling a combined 7,000 miles. The use of these vehicles has reduced Co2 emissions by 2 tons and prevented other harmful air pollutants from being emitted as they would with fossil fuel vehicles. Additionally, these vehicles have the potential to offer stationary, zero emission backup power to allow responders to support vital activities in the field without the noise and emissions of traditional diesel generators. The American Red Cross' participation in these efforts have led to increased awareness about FCEVs and hydrogen technologies, as well as the limitations when it comes to lack of adequate fueling infrastructure.

Supporting Hydrogen Deployments for Trucks & Shipping

EIN recently collaborated with AltaSea to host the [hydrogen powered Energy-Observer](#) at the AltaSea Campus at the Port of Los Angeles to demonstrate the need and opportunity to transition shipping from dirty fossil fuel sources to clean hydrogen. The event also featured the hydrogen powered class 8 hydrogen trucks to showcase ways that hydrogen can dramatically clean-up the transportation pollution plaguing port adjacent communities like LA/Long Beach. The event was covered by local news and trade press and attracted numerous local and state elected leaders and influencers.

By engaging with these groups, EIN has cultivated new stakeholders to advocate for hydrogen and we hope to broaden awareness with key thought leaders and influencers. We are also increasing consumer awareness, acceptance, and adoption of green hydrogen and how it will benefit society and the environment. And though we have yet to see the full potential of green hydrogen technologies, we are confident that together, with focused and committed action, we can reach this objective which will help California achieve its bold climate and clean air objectives.

To get there, we need significant long-term investment into hydrogen fueling and storage to accelerate the transition to a zero-emission economy. And we strongly encourage the CEC to consider strategies for education, engagement, and advocacy for developing green hydrogen infrastructure in California to complement and support the state's zero emission and carbon neutral objectives for power generation, building operation and transportation.

EIN looks forward to continuing to partner with the State of California to offer technical resources, research and public outreach to advance the critical hydrogen economy to help stem climate change and dramatically improve air quality.

EIN was instrumental in establishing California's landmark FCEV vision and has consistently advocated for robust hydrogen incentive programs to be included in all state zero-emission

transportation initiatives. Our organization has helped educate policymakers, legislators, and environmental advocates about the economic and environmental benefits of FCEVs.

Some of EIN's Policy Achievements:

- Developed the California Hydrogen Highway Blueprint.
- Ensured \$200m in funding for hydrogen fueling infrastructure was included in California AB 118.
- Successfully advocated for hydrogen fuels to qualify for California's LCFS program and for the hydrogen refueling infrastructure capacity credit rule change.
- Co-authored, with the Union of Concerned Scientists, California Senate Bill No. 1505, requiring at least 33.3% renewable content in all hydrogen sold for transport.
- Developed a "Hydrogen Network Investment Plan," demonstrating the need for CA to invest in a critical mass of stations to spur development of vehicles and encourage future rounds of private investment in infrastructure.
- Worked with the DOE Loan Program Office to include hydrogen as an eligible alternative fuel to qualify for loans supporting the deployment of infrastructure as well as the manufacturing of infrastructure under the DOE Title XVII Loan Guarantee Program.

Thank you again for the opportunity to comment on the IEPR.

Sincerely,

Brian Goldstein
Executive Director
Energy Independence Now