DOCKETED	
Docket Number:	23-IEPR-01
Project Title:	General Scope
TN #:	249334
Document Title:	California Hydrogen Business Council Comments - California Hydrogen Business Council Comments on Draft 2023 IEPR Scoping Order
Description:	N/A
Filer:	System
Organization:	California Hydrogen Business Council
Submitter Role:	Public
Submission Date:	3/17/2023 1:25:37 PM
Docketed Date:	3/17/2023

Comment Received From: California Hydrogen Business Council
Submitted On: 3/17/2023
Docket Number: 23-IEPR-01

California Hydrogen Business Council Comments on Draft 2023 IEPR Scoping Order

Additional submitted attachment is included below.

CALIFORNIA HYDROGEN BUSINESS COUNCIL
Hydrogen Means Business in California!

18847 Via Sereno
Yorba Linda, CA 92886
Phone: (310) 455-6095 | Fax: (202) 223-5537
info@californiahydrogen.org | www.californiahydrogen.org

March 17, 2023

Commissioner, Patty Monahan
Vice Chair, Siva Gunda
California Energy Commission
Integrated Energy Policy Report Scoping Order for 2021
Docket Number 23-IEPR-01
715 P Street
Sacramento, CA 95814

RE: California Hydrogen Business Council Comments on the Draft Scoping Order for the 2023 Integrated Energy Policy Report (IEPR) (Docket Number 23-IEPR-01)

Dear Commissioner Monahan and Vice Chair Gunda:

The California Hydrogen Business Council ("CHBC"), a trade association made of over 140 companies and agencies involved in the business of hydrogen[1], is appreciative of the opportunity to comment on the Draft Scoping Order for the 2023 Integrated Energy Policy Report (IEPR) ("Draft Scoping Order") released on March 3, 2023.

The CHBC supports the inclusion of Senate Bill 1075 (Skinner, Chapter 363, Statutes 2022) directed analysis of the potential growth of hydrogen and its role in the decarbonization of electricity and transportation sectors. Hydrogen technologies are commercially available today to support the decarbonization of these sectors and have the potential to enable deep decarbonization in the state with increased planning, state investment, and leveraging available federal funding.

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

CALIFORNIA HYDROGEN BUSINESS COUNCIL
Hydrogen Means Business in California!

18847 Via Sereno
Yorba Linda, CA 92886
Phone: (310) 455-6095 | Fax: (202) 223-5537
info@californiahydrogen.org | www.californiahydrogen.org

In the electricity sector, hydrogen provides increased reliability and decarbonization of power generation through the use of utility scale electrical generating assets and distributed energy resources like fuel cells[2] and linear generators[3] for continuous generation or backup power. [4] The CHBC requests that the definition of distributed energy resources used in the *Accelerated Connection of Clean Energy* Scope includes fuel cells and linear generators.

Hydrogen has the potential to support utility scale firm power and long-duration energy storage[5]with electrolytic hydrogen production.[6] As a gas resource in the state's energy sector, hydrogen serves as a decarbonization solution for the state's existing natural gas pipeline system when blended with natural gas[7] and has the potential to completely replace natural gas through dedicated hydrogen pipelines[8] or retrofitted existing pipelines which can minimize costs. CHBC recommends support for the study of these pipelines in the scope of the IEPR.

[2] Plug Power, "Fuel Cell Benefits: 5 Facts You Should Know." . Accessed March 10, 2023.
[3] Mainspring. https://www.mainspringenergy.com/solutions. Accessed March 10, 2023; "Mainspring Energy Launches New Power Generation Technology and Announces $150 Million Agreement with NextEra Energy Resources." https://www.prnewswire.com/news-releases/mainspring-energy-launches-new-power-generation-technology-and-announces-150-million-agreement-with-nextera-energy-resources-301242666.html. Accessed March 10, 2023.
[4] Office of Energy Efficiency and Renewable Energy. "Hydrogen: A Clean, Flexible Energy Carrier." https://www.energy.gov/eere/articles/hydrogen-clean-flexible-energy-carrier. Accessed March 10, 2023.
[5] Office of Energy Efficiency and Renewable Energy. "Hydrogen Storage." https://www.energy.gov/eere/fuelcells/hydrogen-storage. Accessed March 10, 2023.
[6] Id.
[7] R. 13-02-008 Order Instituting Rulemaking to Adopt Biomethane Standards and Requirements, Pipeline Open Access Rules, and Related Enforcement Provisions. Decision 22-12-057, issued December 15, 2022.
[8] Office of Energy Efficiency and Renewable Energy. "Hydrogen Pipelines." https://www.energy.gov/eere/fuelcells/hydrogen-pipelines. Accessed March 10, 2023.

CALIFORNIA HYDROGEN BUSINESS COUNCIL
Hydrogen Means Business in California!

18847 Via Sereno
Yorba Linda, CA 92886
Phone: (310) 455-6095 | Fax: (202) 223-5537
info@californiahydrogen.org | www.californiahydrogen.org

Hydrogen is already decarbonizing the transportation system in zero-emission fuel cell electric vehicles (FCEVs) like transit buses[9], light-duty vehicles[10], and heavy-duty vehicles[11]. Major OEMs[12,13] are bringing medium-duty vehicles to market which will be capable of providing onsite energy to displace portable gasoline and diesel generators commonly used in the construction and utility sectors. Currently, hydrogen and fuel cells are being piloted in marine[14], rail[15], and aviation[16] end uses and the CHBC recommends further analysis and investment in bringing these hydrogen solutions to commercial scale in these sectors.

The CHBC supports the Draft Scoping Order and looks forward to participating as a stakeholder in the development of the 2023 IEPR. We would like to offer our diverse membership as a resource to CEC staff in the early development of analyses for the 2023

[9] NREL. "Fuel Cell Electric Bus Technology." https://www.nrel.gov/state-local-tribal/blog/posts/fuel-cell-electric-buses-in-the-usa.html#:~:text=A%20FCEB%20is%20a%20transit%20bus%20that%20utilizes,The%20electricity%20created%20powers%20the%20bus%E2%80%99s%20electric%20motor. Accessed March 10, 2023.
[10] Office of Energy Efficiency and Renewable Energy . "Fuel Cell Electric Vehicles." https://afdc.energy.gov/vehicles/fuel_cell.html. Accessed March 10, 2023.
[11] Hydrogen Fuel Cell Partnership. "California Fuel Cell Partnership Envisions 70,000 Heavy-Duty Fuel Cell Electric Trucks Supported by 200 Hydrogen Stations in-State by 2035." https://h2fcp.org/blog/california-fuel-cell-partnership-envisions-70000-heavy-duty-fuel-cell-electric-trucks-supported. Accessed March 10, 2023.
[12] Ford Authority, "Ford F-550 Fuel Cell Prototype Work Truck Joins Ferguson Fleet" https://fordauthority.com/2022/09/ford-f-550-fuel-cell-prototype-work-truck-joins-ferguson-fleet/. Accessed March 14, 2023.
[13] GM Authority, "Future GM Medium-Duty Trucks To Combine Battery And Hydrogen Tech," https://gmauthority.com/blog/2022/12/future-gm-medium-duty-trucks-to-combine-battery-and-hydrogen-tech/. Accessed March 14, 2023.
[14] Ballard. "Fuel cell technology: The most practical, viable zero-emission solution." https://blog.ballard.com/fuel-cells-marine-vessels#:~:text=For%20marine%20vessels%2C%20fuel%20cells%20are%20the%20only,stored%20separately%20in%20the%20form%20of%20hydrogen%20fuel. Accessed March 10, 2023.
[15] Cummins. "Hydrogen Fuel Cell Trains are on the Fast Track." https://www.cummins.com/news/2021/08/20/hydrogen-fuel-cell-trains-are-fast-track. Accessed March 10, 2023.
[16] "Zero Avia Achieves High Temperature Breakthrough on the Path to Powering Narrowbody Jets with Hydrogen," https://simpleflying.com/zeroavia-technological-breakthrough-high-temperature-hydrogen-fuel-cell/. Accessed March 10, 2023.

CALIFORNIA HYDROGEN BUSINESS COUNCIL
Hydrogen Means Business in California!

18847 Via Sereno
Yorba Linda, CA 92886
Phone: (310) 455-6095 | Fax: (202) 223-5537
info@californiahydrogen.org | www.californiahydrogen.org

IEPR including the SB 1075 work but also including resource adequacy, distributed resources, energy reliability and resiliency, and other topics as they arise.

Sincerely,

Katrina M. Fritz
Executive Director
California Hydrogen Business Council