



ANTONIO VAZQUEZ
MEMBER
CALIFORNIA STATE BOARD OF EQUALIZATION

MEMORANDUM

Date: December 4, 2024

To: Sally J. Lieber, Chair
Ted Gaines, Vice Chair
Mike Schaefer, Board Member, Fourth District
Malia M. Cohen, State Controller

From: Antonio Vazquez, Board Member, Third District

Re: December 17, 2024, Board Meeting Item. Report on Informational Hearing on Understanding and Exploring Options for Incentivizing California's Hydrogen Hub Project.

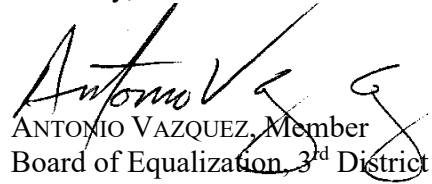
The Board convened the *Informational Hearing on Understanding and Exploring Options for Incentivizing California's Hydrogen Hub Project* (i.e., "*Incentivizing California's Hydrogen Hub Project Informational Hearing*") consisting of the Board Members, Legislators, County Assessors, and private and public sector stakeholders on November 20, 2024. As our core responsibility is to ensure property tax laws are administered by the BOE and County Assessors fairly, equitably, and efficiently, the goal was to gather information and receive input for the purpose of identifying and analyzing the property tax implications of hydrogen hubs (H2Hubs) and their ancillary facilities.

The emerging hydrogen industry presents to the BOE and our County Assessors a new set of opportunities, challenges and questions that will need to be addressed, and a new group of stakeholders, experts, and interested parties who will depend on our guidance and assistance in the property tax arena. There are some real avenues for Board action with regard to incentivizing the development of the hydrogen industry, including perhaps sponsoring legislation, clarifying tax rules for hydrogen infrastructure, and considering how property tax incentives could help the industry get off the ground. Most likely, both state and local assessment authorities and functions and BOE guidance will be involved in the development and build-out of the H2Hubs, pipelines, and other facilities.

The attached draft Minutes and Report summarizing the testimony and discussion received at the November 20, 2024, *Incentivizing California's Hydrogen Hub Project Informational Hearing* are hereby submitted for your review. I will seek Board approval of the Minutes and Report at the December 17, 2024, Board Meeting, after your review is complete.

Thank you for your collaboration.

Sincerely,



ANTONIO VAZQUEZ, Member
Board of Equalization, 3rd District

Ms. Deborah Bautista-Zavala, Chief Deputy, Office of Member Antonio Vazquez
Mr. Douglas Winslow, Chief Deputy, Office of Chair Sally J. Lieber
Mr. Matt Cox, Chief Deputy, Office of Vice Chair Ted Gaines
Mr. Cody Petterson, Chief Deputy, Office of Member Mike Schaefer
Mr. Hasib Emran, Deputy State Controller
Ms. Yvette Stowers, Executive Director

MINUTES OF THE NOVEMBER 20, 2024, STATE BOARD OF EQUALIZATION INFORMATIONAL HEARING ON UNDERSTANDING AND EXPLORING OPTIONS FOR INCENTIVIZING CALIFORNIA'S HYDROGEN HUB PROJECTS

Board Member Vazquez convened the Board of Equalization Informational Hearing on Understanding and Exploring Options for Incentivizing California's Hydrogen Hub Projects on November 20, 2024, at approximately 10:00 a.m., with Mr. Vazquez presiding, Ms. Lieber and Mr. Gaines present, and Mr. Emran present on behalf of Ms. Cohen.

Purpose: Member Vazquez presided, summarizing the overall purpose of the hearing, which was to gather technical and testimonial data from key leaders and experts on the critical issues and challenges of developing clean hydrogen hubs, accelerating production, storage, and delivery, and how property tax incentives may help. The information presented provided the Board, Assessors, and all involved with an understanding of hydrogen hub development, technology, regulations and requirements – so we can begin considering ways to help with tax planning for this fledgling hydrogen energy industry – that is so critically important to our state. Not only is it statutorily mandated by recent Energy and Climate Change legislation, but in July 2024, Governor Newsom signed a \$12.6 billion agreement that includes up to \$1.2 billion in federal funding and authorized ARCHES, the Alliance for Renewable Clean Hydrogen Energy Systems (a coalition of more than 400 partners), called to implement the first three hydrogen projects across the state.

Speakers: Hon. Antonio Vazquez, Presiding, Third District Member; Hon. Sally Lieber, First District Member and Chair; and Hon. Ted Gaines, Second District Member, and Vice-Chair; Hasib Emran, Deputy State Controller on behalf of Malia Cohen, State Controller; Tyson Eckerle, Senior Advisor for Clean Infrastructure and Mobility, GO-Biz, and Government Liaison, ARCHES; Hon. Senator Bob Archuleta, Senator, 30th Senate District; Hon. Senator Ben Allen, 24th Senate District; David Yeung, Deputy Director, Property Tax Department, State Board of Equalization; Hon. Claude Parrish, Orange County Assessor; Eleanor Torres, Managing Director of Strategic Advocacy, Port of Long Beach; Jackie Birdsall, Senior Engineering Manager of Fuel Cell Integration Group, Toyota North America; Jason Coble, Head of Hydrogen Strategy and Development, Nikola Motor Company; Teresa Cooke, Executive Director, CA Hydrogen Coalition and Partner, CA Lobby; Olman Valverde, Secretary, Hispanics in Energy.

Summary and Findings: At the end of the hearing, Member Vazquez summarized several of the key facts, recommendations and conclusions provided by all the speakers, including, but not limited to, the need to work with the Governor's liaison Tyson Eckerle, Senior Advisor for Clean Infrastructure and Mobility, GO-Biz and ARCHES, as well as Legislators, the ports, industry, and consumers to drill down and further explore some of the real avenues for action in removing tax hurdles, including possibly sponsoring legislation, clarifying tax rules for hydrogen infrastructure, and considering how property tax incentives could help the industry get off the ground.

The Hydrogen Hub Project Informational Hearing was adjourned at 3:33 p.m.

(Corrected for clerical error on January 2, 2025).

REPORT ON THE NOVEMBER 20, 2024, STATE BOARD OF EQUALIZATION INFORMATIONAL HEARING ON UNDERSTANDING AND EXPLORING OPTIONS FOR INCENTIVIZING CALIFORNIA'S HYDROGEN HUB PROJECTS

1. Greetings and Introductory RemarksMr. Vazquez / Mr. Emran / Ms. Lieber / Mr. Gaines

Mr. Vazquez expressed gratitude to Governor Newsom and legislature for securing the \$1.2 billion U. S. Department of Energy award to accelerate the development and

deployment of hydrogen hubs in California, and for the speakers' presence and participation in the Informational Hearing. He stated that the goal of the Informational Hearing was to provide the Board, assessors, and all involved with an understanding of hydrogen hub development through property tax exemptions or other tax planning efforts.

Mr. Emran discussed the importance of California's efforts to lead the world in advanced energy technology through clean energy sources like wind, solar, and hydrogen; and emphasized the potential of the hydrogen industry to promote new economic opportunities for Californians, creating highly skilled jobs and driving innovation.

Ms. Lieber thanked the Board for taking on the hydrogen issue through this Hydrogen Hubs Informational Hearing and discussed the importance of helping to move the use of hydrogen forward to address the impacts of climate change in California as well as globally, adding that hydrogen is an energy technology that will promote positive impacts and environmental justice throughout the state's communities.

Mr. Gaines stated that the future of the hydrogen industry is important, as one of many possible ways to solve the challenges in producing clean energy and providing different options to consumers and the business community; hydrogen as well as cleaner nuclear energy technology appears to be expanding nationally.

2. State Agencies Perspective: The ARCHES Project: Challenges and Recommendations.....Mr. Vazquez

Tyson Eckerle, Senior Advisor for Clean Infrastructure and Mobility, GO-Biz, and Government Liaison, ARCHES

Mr. Eckerle provided an in-depth presentation about Alliance for Renewable Hydrogen Clean Energy Systems (ARCHES), its background, role, purpose, goals, partner projects, state and federal funding sources, capacity, planned infrastructure incentives, and the role of GO-Biz. In a series of detailed slides, he showed ARCHES' production – to storage/distribution – to use system, the phases of development, and the economic, health, jobs and other benefits of hydrogen energy. While its hydrogen hubs projects are currently at Phase I of IV, Mr. Eckerle stressed that education and transparency is key to gaining the trust and support from the surrounding communities, stakeholders, and leading lawmakers. Additionally, maintaining a good working relationship and engagement with state and federal partners will garner increased support in the program. He emphasized that any tax relief, along with fair property tax valuations in the early stages are very welcome and will significantly ensure the program's success.

3. Legislative Perspective: Developing the Hydrogen Market, Challenges and Recommendations.....Mr. Vazquez

Hon. Bob Archuleta, Senator, California State Senate, District 30

Sen. Archuleta provided an update on the activities of the Senate Select Committee on Hydrogen Energy, including recent legislative efforts. Sen. Archuleta described several significant ongoing hydrogen energy projects in his district. Sen. Archuleta explained that his goal is to share knowledge about the industry with the general

public as part of the effort to incorporate the hydrogen industry into California's clean energy portfolio. Education regarding the benefits of hydrogen is critical and once understood will result in demand. Sen. Archuleta stated that he was encouraged by the ARCHES investment of \$1.2 billion and believes that tax and financial incentives are extremely important to fostering the environment that will allow the hydrogen industry to become self-sustaining. Sen. Archuleta stated that he was eager to work with the Board Members on any legislation that could encourage the hydrogen industry and invited the Board Members to a site visit in Southern California.

Hon. Ben Allen, Senator, California State Senate, District 24

Sen. Allen discussed the development of the hydrogen industry in the context of environmental quality. Sen. Allen stated that there may be shifting energy priorities at the national level, but there is a wide range of political support for developing the hydrogen industry as a new source of clean energy. Sen. Allen stated that incorporating hydrogen into California's energy portfolio should be done in a tailored approach. Sen. Allen indicated that the efficient transportation of hydrogen will require upgraded pipelines, which is another important consideration for the Board and the counties. Sen. Allen emphasized the importance of tax incentives, stating that there is an existing 45V federal tax credit for hydrogen. Sen. Allen stated that all policymakers should have conversations about appropriate applications of hydrogen energy across different sectors and prioritize the development of this industry where the benefits of its use are the strongest.

4. State and Local Perspective: Hydrogen Industry Assessment IssuesMr. Vazquez

David Yeung, Deputy Director, Property Tax Department, State Board of Equalization

Mr. Yeung discussed and explained the property tax implications of the hydrogen hub projects, including (1) whether properties within the hydrogen hub system are taxable; (2) whether the properties would be state or locally assessed; (3) the assessment process; and (4) the appeals process. Mr. Yeung highlighted examples of properties that may fall within the jurisdiction of the Board, such as pipelines, if they cross property lines or if the companies operating the properties actually produce and sell either gas or electricity. Mr. Yeung discussed the importance of jurisdiction in considering legislation related to tax incentives because Proposition 13 new construction benefits apply to property that is locally assessed, such as hydrogen fueling stations, that are within the jurisdiction of the county assessors.

Hon. Claude Parrish, Orange County Assessor

Mr. Parrish discussed the specific property tax considerations on emerging industries like the hydrogen energy production. Mr. Parrish raised the 1973 new construction exclusion granted to solar energy as an example of a successful tax incentive enacted in the past to help a new clean energy source. Mr. Parrish raised several questions for consideration, including whether there are unique aspects of the hydrogen industry that merit special consideration and what potential incentives could encourage the industry. Finally, Mr. Parrish asked the Board to work with county assessors and issue Letters to Assessors on the specific issues and concerns they should consider in assessing these properties.

5. Industry Perspective: Progress, Challenges, and Recommendations.....Mr. Vazquez

Eleanor Torres, Managing Director of Strategic Advocacy, Port of Long Beach

Ms. Torres described the development of hydrogen technology and use at the Port of Long Beach. The Port established a goal to get to zero emissions for terminal equipment by 2030 and on-road trucks by 2035. Ms. Torres explained that hydrogen technology is well-suited to a range of applications at the port, including commercial transportation and routes over extended ranges. Ms. Torres stated that ARCHES funding will help the Port to purchase hydrogen-powered cargo handling equipment and build up the necessary fueling infrastructure. Ms. Torres stated that challenges with the transition to hydrogen energy include high cost and tax credits that may be too restrictive on the type of technology that qualifies; so, any tax incentives from the state would be helpful. Finally, Ms. Torres described the partnership between the Port and Toyota to create a Tri-Gen system that converts biogas into green hydrogen, renewable electricity, and usable water.

Jackie Birdsall, Senior Engineering Manager of Fuel Cell Integration Group, Toyota North America

Ms. Birdsall discussed hydrogen activities being conducted by Toyota. Ms. Birdsall described the Toyota Mirai, the hydrogen-powered personal vehicle produced by Toyota as a successful product in the market. Ms. Birdsall indicated that the primary barriers to the emergence of hydrogen technology are the high cost of transition and the lack of fueling infrastructure. Finally, Ms. Birdsall discussed hydrogen vehicle technology and the cost of transitioning from existing vehicles.

Jason Coble, Head of Hydrogen Strategy and Development, Nikola Motor Corporation

Mr. Coble described the industry role of Nikola, which produces hydrogen trucks as well as hydrogen fueling stations. Mr. Coble discussed the range capacity of fuel cell vehicles as compared with battery electric vehicles. Mr. Coble explained the purchasing and distribution process for its hydrogen. Finally, Mr. Coble presented a series of slides explaining Nikola's fueling infrastructure including both modular and permanent heavy-duty fueling stations, the development of the hydrogen highway covering the length of the state and the ecosystem value chain and benefits. He indicated that any tax incentives available would be helpful.

6. Community Impact: Progress, Challenges, and Recommendations.....Mr. Vazquez

Teresa Cooke, Executive Director, CA Hydrogen Coalition and Partner, CA Lobby

Ms. Cooke provided an overview of the hydrogen industry as it pertains to actions needed to help the industry grow. First, she clarified misconceptions of the hydrogen industry in terms of how hydrogen is produced, conversion of trucks and related costs, as well as the benefits of hydrogen energy and how it will readily replace oil and gas – including the transferability of oil/gas job skills to hydrogen job skills. Second, she proposed several recommendations on ways to eliminate barriers to progress by leveling the way battery electric vehicles and fuel cell electric vehicles are taxed. Specifically, she emphasized that hydrogen drivers are taxed twice, when they purchase the vehicle and when they purchase the hydrogen, while battery

electric drivers are only taxed once. Third, Ms. Cooke added that the state should not at the same time demand renewable hydrogen exclusively, while limiting its use potential. Specifically, allowing for partial exemption for advanced manufacturing equipment but not allowing exemption for hydrogen fueling stations. Fourth, she wants to encourage political support by eliminating the negative impression of hydrogen's connection with the oil and gas industry. Finally, she recommends the fair distribution of fueling infrastructure dollars that is equal to electric charging station funding to encourage transport manufacturers, such as Ford, to enter the California market.

Olman Valverde, Secretary, Hispanics in Energy

Mr. Valverde provided a description of his organization, its mission, and purpose as it relates to hydrogen energy. Mr. Valverde advocates for a tax holiday for hydrogen businesses to help them get off the ground and be successful, particularly in regard to accelerating consumer demand. He also encourages all stakeholders and the industry to work out administrative conflicts between the utilities, regulators, and various competing interests. Additionally, protections need to be in place to maintain the promises made by the program and provide equal opportunities to all Californians where no one is left behind. Lastly, he recommends stronger compliance tracking that will ensure enforcement and hold projects accountable. His group is willing to offer expertise to help develop an equal opportunity program for ARCHES and to work with the Board on any tax incentives.

7. Board Discussion and Closing RemarksMr. Vazquez

Mr. Vazquez expressed his gratitude to the Board staff and to all speakers for their participation in the informational hearing.

Ms. Lieber adjourned the Informational Hearing at 3:33 p.m.