



CALIFORNIA HYDROGEN BUSINESS COUNCIL

Hydrogen Means Business in California!

CHBC 2018 ANNUAL REPORT



The California Hydrogen Business Council connects hydrogen technology developers, businesses, energy leaders, government, and infrastructure providers with a common vision of energy and transportation fueled by zero-emission hydrogen. Our members develop, adapt, and implement technology and services that are taking the hydrogen economy into the mainstream.

www.californiahydrogen.org

CALIFORNIA HYDROGEN BUSINESS COUNCIL

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2018 – PROGRAM EXPANSION AND CREATING IMPACTS

California continues to be at the forefront of hydrogen and fuel cell technology adoption, but the industry continues to lag behind other zero emission technology options in terms of state investment. The 2018 Program Plan and Budget set ambitious goals for the CHBC to support the expansion of the market in all sectors. The programmatic areas were designed to support market growth and attract new business to California to help create new jobs, new projects, cleaner air and a healthier environment for all Californians.

The overall 2018 strategy for CHBC centered around continuing the focus and development of market sector activities that were started in 2016, with a strong drive to expand membership and California representation of the CHBC. CHBC committees and SAGs were consolidated and drove CHBC's activities, increasing the visibility and advocacy of CHBC market sector interests while reinforcing CHBC's impact and effectiveness. CHBC's advocacy committee continued to expand its engagement with the legislature and regulatory agencies with two significant, industry-led policy wins for the industry: the Low Carbon Fuel Standard Hydrogen Refueling Station Capacity Credit and passage of SB 1369 – Green Electrolytic Hydrogen (Skinner).

The CHBC continued the **management and advocacy of market sector interests through its committees and Sector Action Groups (SAGs)** in 2018 with the expanded scope of the Advocacy Committee, and created regular meetings of active members. 2018 CHBC program committees were the following:

- **Advocacy Committee** – established to coordinate and execute CHBC's policy priorities and goals.
- **Communications and Business Expansion Committee** – formed by merging the the Strategic Communications Committee and the Business Expansion and Membership Development Committee to streamline resources.

The SAGs in 2018 were:

- **Public Transport SAG** – principally, buses, and hydrogen fueling infrastructure for transit agencies. At the end of the year, the SAG grew more interested in rail activities taking place ARB.
- **Goods Movement and Clean Ports SAG** – principally FCEV medium and heavy duty vehicles and all mobile and stationary hydrogen and fuel cell products for freight systems, especially in relation to the ports."
- **Hydrogen Energy Storage and Renewable Hydrogen SAG** – the focal point for energy storage, renewable pathways to hydrogen and work that relates to utilities and stationary power, the Public Utility Commission and Cal ISO
- **Infrastructure and Vehicle Deployment Working Group** – the focal point of this working group is the expansion of light-duty hydrogen stations and further deployment of FCEVs.

The CHBC functioned as a **convener** of leaders; enabler of **collaboration**; **communicator** of information to the public; and **advocate** for CHBC market sector interests. The SAGs, in most settings were the primary leaders for these functions. Under the leadership of the SAG chairs, each SAG met by conference call or in person once a month to be proactive in recommending CHBC program and advocacy positions in their market sector. At the Fall Summit in Sacramento, a half-day was set aside for face-to-face SAG meetings. Each SAG reviewed the CHBC calendar for procurement planning, regulatory and legislative opportunities for CHBC action and responded to staff and leadership requests for review of CHBC advocacy positions and other written statements. Furthermore, each SAG provided guidance for the 2019 program plan and budget.

2018 PROGRAM ACTIVITY

In the next sections, detailed information on the CHBC's activities in each program area are provided. Supplementary information is referenced in the Appendices.

ADVOCACY

The **CHBC Advocacy Committee** continued to expand its scope under the leadership of chair Lorraine Paskett and vice chair Steve Jones. All of the committee's comments are available in Appendix D or on the CHBC website here: <https://www.californiahydrogen.org/policy-issues/2018-policy/>

The CHBC Advocacy Committee submitted numerous letters and comments to the State Legislature, ARB, PUC, and CEC to advocate policies favorable to the hydrogen and fuel cell industry. All of these activities culminated in the presentation of CHBC's [first two CHBC Public Leadership Awards](#) to State Senator Nancy Skinner and GO-Biz's Tyson Eckerle, presented at the California Hydrogen and Fuel Cell Summit.

COMMUNICATIONS AND BUSINESS EXPANSION

The Strategic Communications Committee was tasked with identifying low cost high value efforts to educate customers, policymakers, investors, media and other stakeholders on the facts related to hydrogen energy and fuel cells.

Chaired by Bob Desautels and Anca Faur, the committee worked to develop or connect parties to information resources that advance the level of knowledge and interest in hydrogen and fuel cell technologies, products and markets. The committee helped identify key issues facing the industry that could be addressed through education and outreach and help develop strategies for reaching out to key stakeholders and decision makers on these issues. It also helped guide the organization's development of educational resources and materials and resources for the CHBC website, and provided input on hydrogen information materials.

In 2018 a Hydrogen FAQ was developed and ["Opportunities for Hydrogen" Fact Sheet](#), and the [redevelopment of the CHBC website](#) was completed. The Committee provide advice for planning the annual Summit and workshops organized by the SAGs (listed below) and served as a sounding board for new ideas.

The Committee also planned and executed a CEC AB 8 Joint Report Briefing Webinar, available here: <https://vimeo.com/213147231>.

PUBLIC TRANSPORT SECTOR ACTION GROUP

The Public Transport SAG was led by Co-Chairs Lauren Skiver and Nicolas Pocard. The SAG completed an array of activities in 2018, focusing mainly on buses and outreach to transit agencies.

The SAG planned its second Fuel Cell Electric Bus Workshop at the CTE Zero Emission Bus Conference at LA Metro on September 11. This workshop had over 90 attendees, consisting mostly of government and transit agencies.

2018 accomplishments include:

- Completed and published an update to the [Fuel Cell Electric Bus Fact Sheet >>](#) with the CaFCP.
- Collected data on the two zero emission bus technologies, fuel cell and battery, to develop info-graphics and reports.
- Conducted a survey of the ZEBRA group (transit agencies) to collect information on the issues and concerns they have for hydrogen infrastructure. This survey was used to develop the FCEB Workshop agenda.
- Supported development of Low Carbon Fuel Standard comments submitted to the ARB.
- Led the development of CHBC's Innovative Clean Transit Regulation position and comments with the Advocacy Committee.
- Participated in a transit-focused panel at the H2+FC NA at Solar Power International in September.

HYDROGEN ENERGY STORAGE AND RENEWABLE HYDROGEN SECTOR ACTION GROUP

The Hydrogen Energy Storage and Clean Ports SAG was led by Co-Chairs Jack Brouwer and Steve Jones. This SAG focused on engaging with CPUC and CAISO to enable hydrogen to play a stronger role in the energy storage discussion in California.

2018 accomplishments include:

- Developed comments with the Advocacy Committee on the 2017 and 2018 IEPR.
- Commented on the CEC Natural Gas R&D to include hydrogen.
- Supported SB 1369 (passed), SB 1440, CPUC Renewable Gas Standards.
- Supported the development of the EIN Renewable Hydrogen Roadmap and conducted a [webinar >>](#) on the EIN Renewable Hydrogen Roadmap in November.

HEAVY DUTY, GOODS MOVEMENT, AND CLEAN PORTS SECTOR ACTION GROUP

The Heavy Duty, Goods Movement, and Clean Ports SAG was led by Gus Block and Andreas Truckenbrodt, with the support of CHBC Development Specialist, Cory Shumaker.

The SAG focused on educating and promoting the potential for hydrogen and fuel cells in the ports, maritime, off-road and freight sectors, which are capable of the high demand cycles for each of these applications.

2018 accomplishments include:

- Hosted a [webinar >>](#) in February to present the findings of the 2017 Ports Workshop and Briefing.
- Formed a voluntary work group to engage the EPA Region 9 West Coast Collaborative for diesel emissions reductions.
- Conducted its second Hydrogen and Fuel Cell On-Road Freight Workshop at ACT Expo and a follow-up [webinar >>](#) presenting the findings.
- Presented hydrogen for heavy duty applications at the Global Climate Action Summit in September.
- Conducted a Hydrogen and Fuel Cells in Ports Workshop at f-cell in Stuttgart.
- Monitored the CEC and ARB for funding opportunities related to the SAG's focus.
- Engaged the ARB on the use of funds from the VW Environmental Mitigation Trust, Appendix D.
- Explored opportunities for rail applications.
- Organized a two day Hydrogen and Fuel Cells in Ports and Shipping Workshop at the Port of Los Angeles.

INFRASTRUCTURE AND VEHICLE DEPLOYMENT WORKING GROUP

The Infrastructure and Vehicle Deployment Working Group was formed at the beginning of the year, to address light-duty FCEV deployment and station development. The Working Group was led by Steve Ellis and Robert Bienenfeld.

The Working Group focused on three activities throughout the year:

- Passage of the Low Carbon Fuel Standard Capacity Credit Amendment.
- Supported the Governor's proposed budget of \$92 million for hydrogen fueling stations, which would begin the development of 200 station in California (not passed by the Legislature).
- Engaged Electrify America on the Appendix C Cycle 2 funding, which lacked hydrogen project funding.

EVENTS

LOBBYIST RECEPTION IN SACRAMENTO – FEBRUARY 5, 2018

The CHBC welcomed 12 members and lobbyists early in the year to discuss and coordinate advocacy efforts in 2018. CHBC Deputy Director Emanuel Wagner outlined the 2018 Advocacy and SAG priorities for participants. Review the 2018 priorities [here >>](#)

HYDROGEN AND FUEL CELL ON-ROAD FREIGHT WORKSHOP AT ACT EXPO – APRIL 30, 2018

The CHBC hosted its second half-day On-Road Freight Workshop at the ACT Expo. The purpose of the workshop was to build awareness on the ability of hydrogen and fuel cell technologies to enable commercial customers to meet sustainability and regulatory compliance objectives, address the technical and non-technical challenges with transitioning hydrogen and fuel cells into fleets, and understand the key drivers of substantive economic and operational benefits. At the workshop, fleet operators and medium/heavy duty OEMs, technology providers, and the funding options available for heavy duty hydrogen fuel cell projects from the ARB were presented. The workshop had 109 registrants in attendance. Read the workshop report [here >>](#).

Infrastructure Sponsors



Fleet Sponsors



POLICY RECEPTION IN SACRAMENTO – JUNE 18, 2018

The CHBC hosted California legislators, regulators and key staff to discuss policy and regulatory challenges to hydrogen technology in California. The purpose of this unique event was to inform key decision makers and their senior staff about the role of hydrogen energy and fuel cell technology in the transportation and energy sectors, discuss specific issues facing the industry, and develop broader support from policymakers to find solutions to those issues.

FUEL CELL ELECTRIC BUS LUNCH WORKSHOP AT CTE ZERO EMISSION BUS CONFERENCE IN LA – SEPTEMBER 11, 2018

This workshop provided important information on FCEBs and infrastructure benefits and challenges that will prepare transit agencies for the decisions in adopting zero emission bus fleets. The workshop had over 90 attendees, consisting mostly of transit agencies, hearing presentations on the status of FCEBs in California, capabilities of FCEBs, building the supporting infrastructure, and the perspectives of the early FCEB-adopting transit agencies in California -- AC Transit, SunLine Transit, and Orange County Transit Authority.

Gold Sponsor



Silver Sponsors



GLOBAL CLIMATE ACTION SUMMIT IN SAN FRANCISCO – SEPTEMBER 12, 2018

This three-hour workshop highlighted the key roles that renewable hydrogen can play in the energy future of states and countries around the globe that seek to significantly increase the share of renewables. The CHBC hosted this workshop with the Hydrogen Council to provide current information on the state of development in the hydrogen and fuel cell sector in California, policy and regulatory updates and frame the conversation of how other states and governments can apply lessons learned in California to their own jurisdiction.

Sponsors



HYDROGEN + FUEL CELLS NORTH AMERICA FORUM AT SPI IN ANAHEIM – SEPTEMBER 24-27, 2018

The CHBC, in conjunction with Hannover Messe, developed the Hydrogen + Fuel Cell North America Forum speaker program. This three-day event was on the showroom floor of Solar Power International, a massive solar event that attracts 20,000 attendees every year. The CHBC sessions addressed topics across the hydrogen and fuel cell industry, focused on the transportation and energy sector. The unique purpose of this event was to present hydrogen as an important renewable energy storage option, specifically for solar. Review the 2018 program [here >>](#).

HYDROGEN AND FUEL CELLS IN PORTS AND SHIPPING WORKSHOP AT BANNING'S LANDING – OCTOBER 9-10, 2018

The CHBC hosted a two-day workshop to discuss hydrogen and fuel cell activities in ports and maritime, hear the needs and challenges from port and maritime customers (port authorities, terminal operators) of California Ports to reduce their emissions footprint and meet California state air quality requirements. New to this year's workshop was an in-depth look at shipping, as well as a panel discussion with the environmental justice

community on the potential for hydrogen and fuel cells to improve air quality in the communities around the ports. More information on the workshop available [here >>](#).

Gold Sponsors



Silver Sponsors



POLICY RETREAT IN SACRAMENTO – OCTOBER 24, 2018

CHBC hosted a first of its kind daylong member retreat, a structured discussion to assess the policy and regulatory needs of the hydrogen fuel cell industry in 2019, the resulting policy priorities for the CHBC, the strategy and tactics to achieving them. The targets for improvements in government support of hydrogen and fuel cells are the legislature, regulatory agencies and the air districts that, with their budgets, create significant movement in their jurisdictions.

HYDROGEN ENERGY STORAGE WORKSHOP AT ENERGY STORAGE NORTH AMERICA IN PASADENA – NOVEMBER 6, 2018

This three-hour workshop highlighted the potential and key roles of hydrogen as a geographically flexible storage medium that can integrate vast amounts of renewable electricity generation. With SB 100 signed into law, California will need to address the need for cheap, seasonal bulk energy storage to provide a reliable grid all year around. The workshop highlighted the opportunity to decarbonize the gas grid with renewable hydrogen and to fully transition to ZEV transportation in all transportation sectors by deploying green hydrogen produced with surplus grid electricity. Watch Professor Jack Brouwer's presentation [here >>](#).

Sponsor



CHBC MEMBER DAY IN SACRAMENTO – DECEMBER 10, 2018

The CHBC hosted its annual member day, which included committee and sector action group meetings, its annual membership meeting to vote for the Board of Directors candidates, a Board of Directors Meeting, a CalISO tour for members, and a Hydrogen 101 Briefing for policymakers. The Member Day took place ahead of the California Hydrogen and Fuel Cell Summit at the Sheraton Grand in Sacramento

6TH CALIFORNIA HYDROGEN AND FUEL CELL SUMMIT IN SACRAMENTO – DECEMBER 11-12, 2018

The CHBC hosted its 6th annual Summit at the Sheraton Grand and addressed topics from all across the hydrogen and fuel cell industry. The Summit had 258 registrants from industry and government who came

together to discuss the opportunities for hydrogen products and services in California. Review the Summit program and attending organizations [here >>](#).

Diamond Sponsor



Networking Sponsor



Tabletop Sponsor



APPENDICIES

APPENDIX A - STAFF AND CONTRACTORS

Technology Transition Corporation (www.ttcorp.com) continued to manage and staff the growing depth and breadth of the CHBC's activities. TTC is a known name in the hydrogen and fuel cell industry, having managed the National Hydrogen Association (NHA) from its founding in 1989 to the merger with the U.S. Fuel Cell Council to create the Fuel Cell and Hydrogen Energy Association (FCHEA) in 2010. TTC also continues to manage the Hydrogen Education Foundation (HEF) and its programs, the Hydrogen Student Design Contest (www.hydrogencontest.org) and H-Prize (www.hydrogenprize.org).

Jeff Serfass, President of TTC has over two decades of experience in clean energy, mainly in hydrogen sector, serving as President of the NHA and the HEF. As CHBC Executive Director he provides strategic guidance to the organization and oversees management.

Emanuel Wagner, TTC Program Manager, has 8 years experience in managing clean energy projects for the Hydrogen Education Foundation and 8 years experience of program management for the Biomass Thermal Energy Council. Since 2012, he serves the CHBC as Assistant Director, managing the day-to-day operations of the organization.

Peter Thompson, TTC Project Coordinator, has 3 years experience working within trade associations for the forest products industry and representing locally owned businesses in Raleigh, NC. He was hired in July 2017 to support senior CHBC staff in administrative, communication, and project activities, including research, membership support, and event planning.

TTC contracted with several consultants to provide their experience and California relationships and connections to assist with on-the-ground support for special events like technology tours and meetings as well as information gathering and policy support. Contractors are:

- Diane Moss supports CHBC as an Advisor in PUC and energy storage related issues. She is owner of dima Communications & Strategic partnerships, which provides consulting services on communications and forging key relationships to sustainability related projects and businesses. Areas of core expertise include public relations, policy analysis, government affairs, business development, events, media.
- Cory Shumaker was hired to provide staff support in Los Angeles and lend his expertise on goods movement and transportation, having worked at Vision Motor Company until 2014. At the end of 2017, Cory's role with the CHBC shifted to Development Specialist, where he spearheads the effort to make interenational connections for the CHBC in additiona to broadening the network of ports interested in hydrogen.
- Bud Beebe, who worked at SMUD for many years and now serves the CHBC as its Sacramento representative
- V. John White, Executive Director of the Center for Energy Efficiency and Renewable Technologies, has many years of experience advocating and lobbying for renewable energies in California, was hired as CHBC's lobbyist.

APPENDIX B – LIST OF MEMBERS

PLATINUM EXECUTIVE

Cambridge LCF Group	Southern California Gas Company	Toyota Motor Sales
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PLATINUM MEMBERS

Air Liquide Advanced Technologies U.S. LLC.	Hydrogenics
American Honda Motor Company	Pacific Gas and Electric Company - PG&E
Ballard Power Systems, Inc.	Plug Power
Bay Area Air Quality Management District	South Coast Air Quality Management District
FuelCell Energy, Inc.	

GOLD MEMBERS

Alameda-Contra Costa Transit District (AC Transit)	Johnson Matthey Fuel Cells
Beijing SinoHytec	Linde North America Inc
EWII Fuel Cells LLC	Nel Hydrogen (US)
Hitachi Zosen Inova ETOGAS GmbH	Sumitomo Corporation
ITM Power plc	Sumitomo Electric

SILVER MEMBERS

Black & Veatch	Hyundai Motor Company & Kia Motors Corp
BMW of North America LLC	Kontak, LLC
Center for Transportation and the Environment (CTE)	KORE Infrastructure, LLC
Chiyoda Corporation	Kraft Powercon
CP Industries	Loop Energy
ElDorado National - California	Luxfer-GTM/IGX Group
Energy Independence Now (EIN)	McPhy Energy
FIBA Technologies, Inc.	Millennium Reign Energy
First Element Fuel Inc	Mitsubishi Hitachi Power Systems Americas
General Motors Corporation	Montreux Energy
Giner ELX	National Renewable Energy Laboratory (NREL)
Gladstein, Neandross & Associates	Natural Gas Fueling Solutions (NGFS)
Greenlight Innovation	Neuman & Esser
GTM Technologies, LLC	New Flyer of America Inc
H2Safe, LLC	Nuvera Fuel Cells
Hexagon Lincoln	PDC Machines
HODPros	Port of Long Beach
HyET - Hydrogen Efficiency Technologies	Powertech Labs, Inc.

Rio Hondo College
Rix Industries
Sacramento Municipal Utility District (SMUD)
Schatz Energy Research Center (SERC)
Sunline Transit Agency

TLM Petro Labor Force
Trillium - A Love's Company
US Hybrid
Verde LLC
Winkelmann Flowform Technology

INNOVATOR MEMBERS

Advanced Emission Control Solutions
Airthium
Anaerobe Systems
Arriba Energy
Boutin Jones
Charm Industrial
Community Environmental Services
Eco Energy International, LLC
EcoNavitas
EPC - Engineering, Procurement & Construction
Ergostech Renewal Energy Solution
GenCell
Geoffrey Budd G&SB Consulting Ltd
H2B2 USA
Hydrogenious Technologies
Hyperion Motors
Intelligent Energy
Ivys Inc.
Life Cycle Associates
Longitude 122 West, Inc.
Magnum Energy
Manticore Advocacy LLC
Motive Energy Telecommunications

Neo-H2
Next Hydrogen
Noyes Law Corporation
Pacific Northwest National Laboratory (PNNL)
Planet Hydrogen Inc
Politecnico di Torino
Primidea Building Solutions
RG Associates
SAFCell Inc
Sheldon Research and Consulting
Solar Wind Storage LLC
Strategic Analysis Inc
T2M Global
Tatsuno North America Inc.
Terrella Energy Systems Ltd
The Leighty Foundation
Valley Environmental Associates
Vaughan Pratt [Individual]
Vinjamuri Innovations LLC
Volute, Inc.
WireTough Cylinders, LLC
Zero Carbon Energy Solutions

AFFILIATES

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California Fuel Cell Partnership
CALSTART

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APPENDIX D – 2018 ADVOCACY

Our comments and letters submitted throughout the year include:

On December 13, CHBC Executive Director, Jeff Serfass, attended the ARB Board Meeting and **commented on the Electrify America Cycle Two investment plan**. CHBC pursued a dialogue with EA in an effort to better understand investment decisions and criteria that they apply to hydrogen, and to find out why EA has again not invested any funding in hydrogen in cycle 2. Read the comments [here >>](#)

On November 30, the CHBC **provided feedback to the California Energy Commission's Research and Development Division** on future research needs related to increasing energy storage in California and future research areas that would be the most effective in advancing energy storage technologies toward successful commercial implementation. Read the comments [here >>](#)

On November 15, the CHBC submitted **comments to ARB on their staff report regarding Electrify America (EA)'s Cycle 2 draft Funding Plan**, expressing concern about the line of argument that EA has used in its plan to not engage in hydrogen investments. Read the comments [here >>](#)

On November 2, CHBC submitted comments and recommendations to the California Energy Commission (CEC) on the **Draft 2018 Integrated Energy Policy Report Update Volume 2**. Read the comments [here >>](#)

From October 26 to November 1, CHBC Executive Director Jeff Serfass met with CPUC Commissioners Rechtschaffen, Peterman, Guzman Aceves, and Randolph to discuss injection of hydrogen into the gas pipeline.

On October 26, 2018, CHBC submitted comments to Chair Nichols at the Air Resources Board expressing our concerns about **Electrify America's Cycle 2 Proposed Investment Plan**. Read the comments [here >>](#)

On October 22, the CHBC submitted comments to the California Air Resources Board in support of the **Proposed Fiscal Year 2018-19 Funding Plan for Clean Transportation Incentives for Low Carbon Transportation Investments and the Air Quality Improvement Program**. Read the comments [here >>](#)

On September 20, the CHBC published a press release **supporting the passage of SB 100**. Read the release [here >>](#)

On September 7, the CHBC submitted a **letter of support to Governor Brown for SB 1369: Green Electrolytic Hydrogen**. Read the letter [here >>](#)

On September 7, the CHBC also submitted a **letter of support to Governor Brown to sign AB 2061**, which will remove a critical barrier for commercial fleet operators to adopt clean heavy-duty vehicles by providing a 2,000-pound weight exemption for near-zero and zero-emission (ZE), including fuel cell electric vehicles, on California's roads. Read the letter [here >>](#)

On September 5, the CHBC submitted **reply comments CPUC on A.18-03-001 proceeding**, issues pertaining to energy storage technology diversity. Read the comments [here >>](#)

On August 28, the CHBC submitted **comments to the CPUC on A.18-03-001 proceeding**, issues pertaining to energy storage technology diversity. Read the comments [here >>](#)

On July 27, the CHBC submitted comment to the **CPUC on the Amended Scoping Memo and Ruling for R.13-02-008**. Read the comments [here >>](#)

On July 27, the CHBC submitted comments to the California Air Resources Board (CARB) to express **support for the proposed Innovative Clean Transit regulations**. Read the comments [here >>](#)

On July 27, the CHBC submitted **comments to the CPUC for the R.13-02-008 Renewable Gas Standards Proceeding**. The CHBC's comments provided six recommendations for the proceeding to be more inclusive of hydrogen. Read the comments [here >>](#)

On July 3, the CHBC sent a **letter to CPUC Commissioner Rechtschaffen** on incorporating hydrogen made from organic and renewable electricity feedstocks in renewable gas proceeding. Read the letter [here >>](#)

On July 3, the CHBC and its members sent a letter to Sam Wade of the Air Resources Board supporting the **Hydrogen Refueling Infrastructure (HRI) Pathway** as proposed in the 15-day Notice of Public Availability of Modified Text and Availability of Additional Documents and Information for **Proposed Amendments to the Low Carbon Fuel Standard (LCFS) Regulation** and to the Regulation on Commercialization of Alternative Diesel Fuels (ADF). Read the letter [here >>](#)

On June 25, CHBC Chair Jeff Reed provided testimony to the California Assembly Natural Resource Committee in **support of SB 1369**.

On June 20, the CHBC submitted comments in response to the Energy Commission's June 20 **IEPR Commissioner Workshop on Renewable Integration and Electric System Flexibility**. Read the comments [here >>](#)

On June 20, CHBC Board Director Jack Brouwer provided testimony to the California Assembly Natural Resource Committee in **support of SB 1369**.

On June 15, the CHBC submitted a **letter in opposition to SB 1440: Biomethane Procurement Goals**. Read the [letter >>](#)

On June 12, The CHBC submitted comments to ARB, recommending that the **Report "Technology Assessment: Ocean-Going Vessels"** should reassess hydrogen and fuel cells as a solution for maritime applications to meet emission requirements. Read the comments [here >>](#)

On June 7, the CHBC joined a coalition in **support of the Governor's Budget for Zero Emission Vehicle Deployment and Infrastructure Development**. Read the letter [here >>](#)

On May 15, the CHBC expressed appreciation for the CEC's award of a renewable hydrogen project in California under **Grant Solicitation GFO-17-602 "Renewable Hydrogen Transportation Fuel Production Facilities and Systems"** and share concern that as important a step as this is, it will not go far enough to meet state demand. Read the letter [here >>](#)

On May 15, the CHBC submitted a **letter of support for SB 1434: Transportation electrification**. Read the letter [here >>](#)

On April 27, CHBC Deputy Director Emanuel Wagner and Industry representatives provided testimony to the Air Resources Board to **support the Low Carbon Fuel Standard proposed Capacity Credit amendment**.

On April 19, the CHBC submitted comments with **proposed amendments to the LCFS program**, including a change to increase the adoption of renewable and zero carbon fuels like hydrogen to meet California's climate and emission reduction goals. Read the comments [here >>](#)

On April 18, the CHBC submitted a **letter to Senator Skinner expressing support for SB 1369: Green Hydrogen**. Read the letter [here >>](#)

On April 17, the CHBC submitted a **letter of support (if amended) for SB 1440 – Biomethane Procurement Goals**. The letter requested to amend the current bill to be inclusive of a broad spectrum of renewable gas, as opposed to only biomethane, in keeping with the spirit of state law. Read the letter [here >>](#)

On April 15, CHBC submitted a **letter of support for AB 2061, Clean Truck Deployment Act**. AB 2061 which will remove a critical barrier for commercial fleet operators to adopt clean heavy-duty vehicles by providing a 2,000-pound weight exemption for zero-emission (ZE), including fuel cell electric vehicles, on California's roads. Read the letter [here >>](#)

On April 12, the CHBC submitted a **letter of support for AB 3000 (Friedman): Sales and Use Taxes**. In the letter, the CHBC expressed that AB 3000 will ensure parity between the taxation of hydrogen and electricity when sold as transportation fuels for zero emission vehicles. Read the full letter [here >>](#)

On April 3, the CHBC expressed its **support for AB 1970**, regarding low carbon fuels. Read the comments [here >>](#)

On March 15, the CHBC submitted the comments regarding the **Discussion Document for the Volkswagen Environmental Mitigation Trust for California**. Read the comments found [here >>](#)

On March 2, the CHBC submitted comments to provide input to the Air Resources Board's **Discussion Document for the Volkswagen Environmental Mitigation Trust for California**. Read the comments [here >>](#)

On March 1, CHBC submitted comments on Electrify America's Cycle 2 ZEV Investment Plan for California. Read the comments [here >>](#)

On February 26, the CHBC submitted comment to the CEC regarding the **2018 IEPR Scoping Memo**. Read the comments [here >>](#)

On February 9, the CHBC submitted comments to the California Energy Commission regarding **Natural Gas Research and Development Program Expansion**. Read the comments [here >>](#)

On February 8, the CHBC sent a **letter to CEC Chair Robert Weisenmiller regarding the proposed final draft of the IEPR** and expressed disappointment with inaccuracies and omissions that unfairly disadvantage renewable hydrogen, including electrolytic renewable hydrogen, in the IEPR review and in other important CEC efforts. Read the letter [here >>](#)