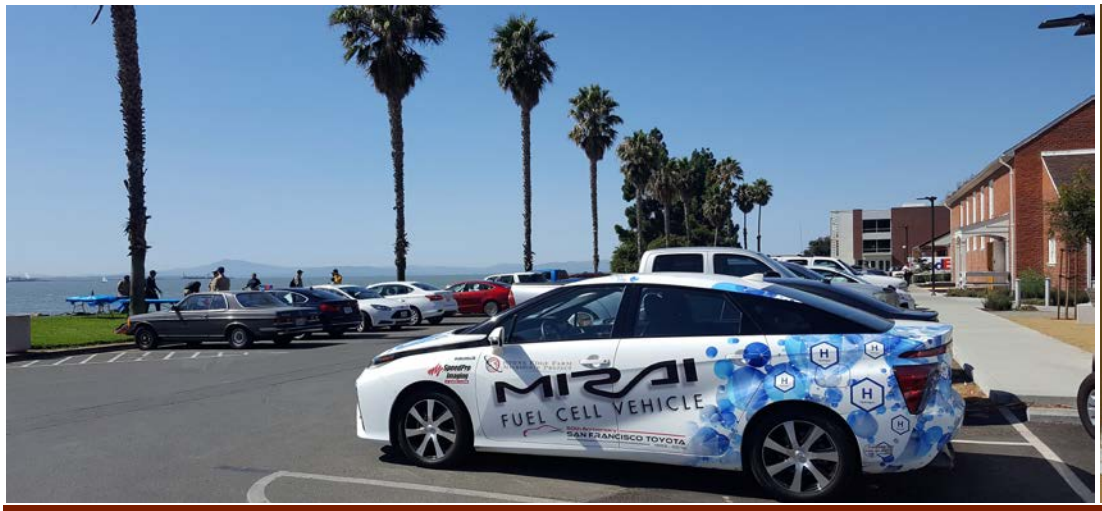

California Hydrogen Business Council 2018 Program Plan & Budget

December 5, 2017 – Amended March 11, 2018

CHBC 2018 Program Plan & Budget

2018 Vision
In 2018, the CHBC envisions concrete results in legislative, regulatory and funding policies in California that provide a stable financial basis for hydrogen and fuel cell technologies and products to move from small scale deployment to the commercial mainstream.

California Hydrogen Business Council
The CHBC is comprised of over 100 companies, agencies and individuals involved in the business of hydrogen. Our mission is to advance the commercialization of hydrogen in the energy sector, including transportation, goods movement, stationary power systems and energy storage to reduce emissions and dependence on oil. More information at www.californiahydrogen.org.

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CALIFORNIA HYDROGEN BUSINESS COUNCIL

Hydrogen Means Business in California!

"The truth of the matter is that California, with its strong renewable energy, its very far-reaching greenhouse gas reduction set of policies — our economy grows faster than the national average. So, I think that is very good proof that green energy, wind, solar, new electricity grid, battery storage, electric cars, hydrogen cars — all of these create new jobs, the jobs of the future."

Governor Jerry Brown

Contents

Changes to the CHBC

CHBC's advocacy work will dominate the organization's work with all market sector action groups provide their member-led leadership in their respective activities addressing their goals to maximize their industry's success. Areas of interest will continue to be hydrogen energy storage and power to gas; renewable hydrogen pathways; public transport; and clean ports, heavy duty transportation and goods movement. The CHBC will continue to host dedicated workshops for each SAG and Summits.

New in 2018 is the creation of an "infrastructure and vehicle deployment" working group to direct CHBC automotive and infrastructure efforts in some cases begun within the CaFCP and implement them in policy actions. The CHBC California Hydrogen and Fuel Cell Summit will be moved to the Spring of 2018, refocused to become a Policy Summit. Guided by the Advocacy Committee, it will include interactive elements on legislation, including a legislative briefing/fly-in for members to meet with legislators and regulators with up-to-date information on the progress and potential of the industry and to enable inclusion of the technology in relevant bills and policy positions. A collaboration with the Solar Power International Expo and the Hannover Fair USA, both in Anaheim in the Fall, is planned to expand the CHBC's role in showcasing and demonstrating hydrogen and fuel cell technology and commercial activity.

Other changes include increases in membership dues to support the doubling of CHBC's advocacy resources deemed necessary to achieve real results in 2018. The CHBC is uniquely qualified to meet those goals because it bridges energy silos and industry sectors that are commonly viewed individually. As such, it is a **unique advocate, convener, collaborator and communicator** for cross sector energy market interests.

2018 Goals

Key CHBC goals for 2018 are presented below. Detailed activities to achieve these goals are provided in the designated "program areas".

Goal #1: Aggressively influence the legislative and regulatory agenda to remove barriers to the expansion of hydrogen and fuel cells in an effort to reduce greenhouse gas emissions, improve air quality, and integrate renewable energy. Expand the work and scope of the advocacy committee and continue retaining advocacy and regulatory

specialists. The legislative expansion will increase the visibility and effectiveness of CHBC market sector advocacy, transforming the value for our existing and potentially new members. See Program Area: Advocacy.

Goal #2: Advocate for increased financial support and recognition of renewable hydrogen projects, highlighting the industry's alignment with environmental groups and support reducing greenhouse gases and air emissions. Publicize a "Roadmap for Renewable Hydrogen" and conduct activities related to this publication. See Program Area: Hydrogen Energy Storage, Power-to-Gas and Renewable Hydrogen.

Goal #3: Continue to educate agencies to consider Hydrogen Energy Storage and Power-to-Gas as an eligible, viable alternative to energy storage solutions and work with utilities to develop the framework for projects. See Program Area: Hydrogen Energy Storage, Power-to-Gas and Renewable Hydrogen.

Goal #4: Increase the utilization of hydrogen and fuel cell technology in California ports, goods movement, and the medium and heavy duty transportation sector in close coordination with government agencies. See Program Area: Heavy Duty Transportation, Goods Movement and Clean Ports.

Goal #5: Broaden the adoption of fuel cell buses in California transit operations, in coordination with the ZEBRA group and key stakeholders, to enable **higher volume larger fuel cell electric bus fleets and reduce unit cost**, and explore development of a hydrogen rail initiative See Program Area: Public Transit.

Goal #6: Create a working group to address challenges in the development and expansion of the **hydrogen fueling infrastructure** and vehicle deployment through increased education and support for legislative and regulatory leadership and staff utilizing shared information and experiences among infrastructure developers and OEMs and the result of CaFCP planning efforts. See Program Area: Infrastructure and Vehicle Deployment.

Goal #7: Combine the activities of the membership committee with the communications committee and focus on business expansion and attracting hydrogen businesses to California, supported by CHBC programs that create a strong interest in CHBC membership. See Program Area: Membership Services, Development and Business Expansion

Goal #8: Host technology tours, quarterly topical workshops with networking components and Summits, creating tangible outcomes, including reports, which are publicized and distributed widely to increase the impact of their findings. See Program Area: Strategic Communications.

Overall Responsibilities of SAGs and Committees

The CHBC will continue to expand the management and advocacy of market sector interests through its committees and sector action groups (SAGs). They will be:

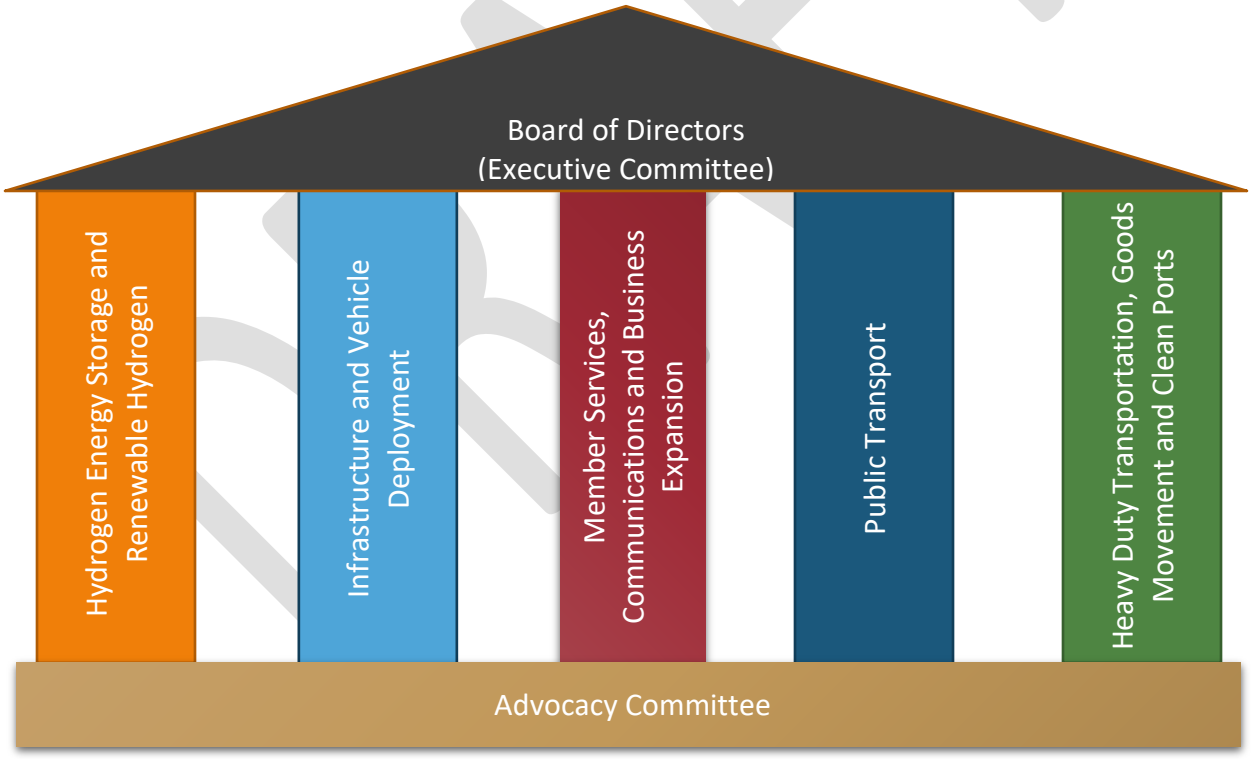
- **Advocacy Committee** – oversee implementation of, and coordination of, CHBC-wide and SAG-generated policy and regulatory activities and direct CHBC's government affairs representative under the direction of the Board and Executive Committee
- **Hydrogen Energy Storage, Power-to-Gas and Renewable 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, including large scale renewable hydrogen production facilities
- **Public Transport SAG** – Fuel Cell Electric Buses and fueling stations in transit operations
- **Goods Movement, Heavy Duty Transportation and Clean Ports SAG** – principally fuel cell electric medium and heavy duty vehicles and mobile and stationary hydrogen and fuel cell products for freight systems, including hydrogen and fuel cell infrastructure solutions in the ports
- **Infrastructure and Vehicle Deployment Working Group** - Coordinate and guide efforts to expand fueling infrastructure funding and support in California to increase vehicle deployment, a home for hydrogen fueling developers and infrastructure providers to address issues common to fueling station providers and operators
- **Communications and Business Expansion Committee** – guide the staff on expansion of membership activities and membership messaging and agenda setting

The SAGs and committees are the primary leaders of all program functions of the CHBC. In 2018, the responsibilities of the SAGs and Committees will be the following:

- Lead the key market and policy activities for their respective market areas
- Provide leadership by a chair and vice chair(s) with whom staff can coordinate
- Conduct regular conference calls to be proactive in collecting information and recommending CHBC program and advocacy positions in their market sector
- Guide staff and leadership on CHBC advocacy positions and other written statements for their respective sector
- Plan and conduct 1-2 hour face-to-face meetings at key events
- Review the CHBC and other calendars for procurement planning, regulatory and legislative opportunities for CHBC action
- Provide guidance for the following year program plan and budget, recommending funding strategies where activities may require additional resources

CHBC staff and board will actively discuss strategies with key stakeholders and associations in California and beyond to maximize impact and coordinate efforts.

The SAGs and Committees work under the direction of the Board of Directors and by extension, the Executive Committee, both with staff support. The SAGs lead their own market activities and provide input to the Advocacy Committee:



Program Areas

Advocacy Program

In 2018, CHBC Advocacy Committee, flanked by the government affairs representatives, will lead the CHBC's legislative and regulatory efforts in coordination with the Board and Executive Committee and proactively work on the CHBC's behalf. The CHBC Advocacy Committee will lead the discussion of energy strategies and technology deployment through face-to- face meetings, briefings, written positions, and briefings and presentations before

agency and legislative staff. A subset of the Committee, the Advocacy Core Committee, will be tasked with the weekly changing legislative and regulatory environment. The Advocacy Core Committee is comprised of representatives of the Board, committee chairs and SAG chairs. Increased member engagement and information sharing will be assisted by quarterly member advocacy briefing/webinars. CHBC staff will be responsible for management and oversight of the government affairs representative and appearances on behalf of CHBC. The activities identified below may be amended by the Committee throughout the year:

1. Ahead of the legislative session, work with SAGs on **defining legislative positions** and coordinate outreach to potential partners and other associations to support mutual causes and avoid last minute surprises.
2. Identify and seek **commitments** from **Legislative Champions** that can carry the torch for hydrogen and fuel cell technology and sponsor bills.
3. **Monitor legislative, regulatory activity** and investment plans, and identify and prioritize policy and regulatory areas in which the CHBC and its members have an interest.
4. Keep a **current calendar for key deadlines** and milestones for these items, communicate them to the membership, and advocate where needed. This includes **tracking bills**, weighing in where appropriate, and alerting members and staff of key developments and opportunities to shape policy. Consolidate communication of these advocacy activities to members in a quarterly webinar or briefing, inviting comments and recommendations from individual members.
5. Conduct a **CHBC Hydrogen and Fuel Cell Policy Summit** with **legislative briefings and Fly-in** in February or March in Sacramento to educate new and existing members of the legislature on hydrogen and fuel cells in coordination with the CaFCP, CSFCC and other key stakeholders. The focus will be on creating the information for policy decision makers necessary to include hydrogen and fuel cell technology in active bills, and to work with regulatory agencies on supportive regulation and funding. The Advocacy Committee will determine the exact format, but could include a fly-in and briefings.
6. Continuously identify and refine understanding of high priority areas and the people that the CHBC needs to **engage with to achieve CHBC objectives**, along with **developing communication materials** tailored to various groups and creating meetings with key decision makers, in coordination with SAGs, with a clear agenda and desired outcomes. Implementation includes drafting position statements and correspondence, letters, legislative language, CHBC executive communications to key government people, and personal visits by CHBC representatives. Support this effort by continuing to develop a list of key individuals and proceedings, tracking interaction history and action items, and ensuring the Advocacy Committee has access to this information.
7. Host a **lobbying reception in January** for members and their lobbyists to discuss CHBC priorities and plans. To be sure this best reflects what is best for CHBC membership, conduct an annual policy assessment of member policy needs and emerging policy issues to identify areas that could benefit from proactive CHBC action.
8. Continue to **build relationships with key legislators and regulatory commissioners** and their staffs, focusing on areas identified in the member policy assessment. This is to allow CHBC to be proactive during the year and identify issues likely to affect the CHBC and its members, before policy positions and actions become drafted.

Hydrogen Energy Storage, Power-to-Gas and Renewable Hydrogen Program

Despite the significant CHBC efforts undertaken in 2017, hydrogen energy storage and Power-to-Gas continue to fight an uphill battle with the CPUC, CEC and CAISO, although there has been some success in communicating the CHBC issues. The activities identified below may be amended by the SAG throughout the year:

1. Advocate for **hydrogen pipeline projects** and continue to **advocate for P2G** (natural gas injection) projects.
2. Continue to advocate for **LCFS to support various pathways.**
3. Complete the development of member and industry consensus on the **definition of renewable hydrogen** as well as develop a **certification model** to accurately capture renewable hydrogen properties and production.
4. Ask for funding from **DOE for Commercial Demonstration** in CA – not just R&D funds.
5. Advocate for **renewable hydrogen from waste** (solid and gaseous feedstocks) as a production pathway

6. Secure **California funding for RH2 production** to help the deficit CA is predicting for renewable hydrogen production for vehicle fuel (26t/day by 2023)
7. Break down **silos** between state agencies for hydrogen
8. Follow and **comment on relevant proceedings** identified by the SAG, including **Integrated Resource Planning, Distributed Energy Storage, and Integrated Energy Policy Report Update**.
9. Make sure the **Resolve model** has the data needed to **evaluate power-to-gas**.
10. Continue efforts to **engage E3**, Electric Power Research Institute, Southern California Edison, and San Diego Gas & Electric, to broaden member input to our HES and P2G work, and provide them with necessary data to develop more accurate hydrogen-related models.
11. Support the **passage of a 100% renewable energy bill** with roles for renewable hydrogen.
12. Advocate for dedicated **funding for large-scale renewable hydrogen production facilities** in California to improve economies of scale and meet renewable hydrogen demand from fueling stations.
13. Support efforts to **inject hydrogen into the natural gas grid** and advocate for pipelines as an energy storage component.
14. Continue to **advocate to ISO & PUC for wholesale and low "duck belly" pricing** for energy related to hydrogen production. CHBC and members will engage in agency activities to shift ongoing discussion in favor of a supportive hydrogen and fuel cell environment.
15. Work with key agencies to require using a **percentage of renewable hydrogen** in **oil refining**, e.g. with ARB on LCFS changes.
16. Advocate for **large-scale hydrogen users to use renewable hydrogen** to create stronger demand for large-scale renewable hydrogen production facilities.
17. Build **bridges** to other players in the **energy storage community, community choice aggregators, IOUs and IPPs** to allow for alignment in policy activities.
18. Develop an understanding of the **future increase of renewable hydrogen** (mandated or otherwise) to compete with renewable electricity messaging.
19. Develop a formal working group (e.g. a **Multiagency Stakeholder Group**) with the Governor and key agencies on advancing renewable hydrogen production in California.
20. Ensure that **hydrogen-based products** remain part of the implementation of **SB 1383**, in which the legislature explicitly directed the Energy Commission to look at "renewable gas" to include agency consideration of electrolyzer-produced renewable hydrogen.
21. Influence the CPUC to ensure that **P2G facilities** are **eligible** for wholesale or low rate retail **electricity rates**, as well as **low T&D rates** for hydrogen fuel production and industrial process applications.
22. Push for the creation of a framework that allows **gas utilities** to be allowed to **purchase renewable gas**, including hydrogen, along with associated renewable attributes, and work with stakeholders to develop in-state markets of hydrogen and other renewable gases through procurement policies.
23. Push for allowing the **gas utilities that procure renewable hydrogen** and the corresponding green attributes to monetize (**sell**) the **attributes** and return the value of them to their ratepayers, similar to the model authorized by the CARB and CPUC for electric utilities to provide electricity to EV customers and monetize the LCFS for the benefit of the customer via rebates. By allowing the gas utilities to purchase renewable hydrogen for transportation end users, it dramatically opens up the renewable gas market, facilitates the scalability of the fuel development, and can provide the mechanism to benefit individual customers who may not have the opportunity to participate in the LCFS.
24. Have the state look for opportunities to support **gas utility involvement in the fueling station infrastructure**, as well as to support in-state renewable hydrogen production. This can include working with electric generation or electric system managers to coordinate access to low-cost renewable electricity for full capacity electrolyzer hydrogen production, as well as grid management opportunities. Studies show that the higher the electrolyzer capacity factor, the lower the cost of fuel produced, particularly in times where wholesale or negative priced electricity is available.

25. When qualifying renewable hydrogen to participate in a **new renewable gas market**, the state ought to **utilize an emission based metric**, similar to that used for electric vehicles in transportation sector or electric batteries in the energy storage markets. Hydrogen produced by splitting water with electricity has significantly lower GHG emission profile than conventional hydrogen. The state should consider the carbon intensity or similar GHG lifecycle metric.
26. With the new increased renewable energy mandates and a shift in the way electric generation contracts are structured, there is an opportunity to **expand electricity storage and re-evaluate the existing CAISO ancillary services market**. While doing so, opportunities should be created for **renewable hydrogen** to provide grid balancing services, storage and new, long-term seasonal storage. Today, the storage market excludes P2G, and the CAISO ancillary services market is limited in scope, as well as short-term (day ahead), which is not a market structure that can be used to finance new hydrogen investments.
27. The state ought to adopt a **method for testing compliance of power to gas with advancing state energy and climate goals**. An appropriate test would be along the lines of that which is applied to energy storage in AB 2514: An "energy storage system" shall be cost effective and either reduce emissions of greenhouse gases, reduce demand for peak electrical generation, defer or substitute for an investment in generation, transmission, or distribution assets, or improve the reliable operation of the electrical transmission or distribution grid. When an electrolyzer serves a power to gas function, it would not only be cost effective and reduce greenhouse gas emissions, it would also serve as a grid asset.
28. Pursue that State agencies become more closely **aligned** w**ith federal agencies on advancing renewable hydrogen**. For example, state energy agencies could more formally cooperate and coordinate with the US DOE and its National Renewable Energy Laboratory (NREL) on their programs such as H2@Scale and the P2G pilot project at the NREL campus in Golden, CO.

Non-Policy Activities and Goals

29. Work with battery energy storage groups as hybrid partner and not as competitor.
30. Support the publication of findings from the Roadmap to Renewable Hydrogen, and support outreach activities to key California agencies to communicate the findings and recommendations. Host a webinar on the subject, led by EIN.
31. Host a workshop on both HES/P2G and/or RH2 to engage with legislators early in the legislative session. Staff and contractors will work diligently to identify key influencers to attend.
32. Work with environmental organizations to increase their understanding of the key roles renewable hydrogen can play in California's energy future.
33. Develop a roadmap on renewable hydrogen, based on the EIN work and the CHBC HES P2G White Paper.

Heavy Duty Transportation, Goods Movement and Clean Ports Program

This SAG will continue to build on the important groundwork laid in 2017, following the roadmaps developed by key agencies, developing member-driven actions to carve out ways for hydrogen and fuel cells to meet state and agency goals in this sector. The activities identified below may be amended by the SAG throughout the year:

1. Advocate for **funding to go toward Class 7 & 8 ZE trucks** by advocating at CARB Board meetings in coordination with other stakeholders, including the **Sustainable Freight Action Plan**, and developing strategy papers with relevant agencies. Interact with existing initiatives, e.g. electrification of ports programs. Provide input to California ports in the development of their **Clean Port Action Plans**.
2. Advocate for **funding of additional Class 8 trucks** and **infrastructure** deployment to show scalability.
3. Advocate for **funding for conversion of freight rail to hydrogen**. SMAQMD has expressed interest in utilizing fuel cells for rail applications.

Non-Policy Activities and Goals

4. Provide input to California Ports in the development of their Clean Port Action Plans.
5. Assess the cross-sector value of hydrogen in ports for trucking, refrigerated cargo, equipment, and stationary power with a potential white paper or opportunity paper, based on data gathered from Ports and Freight Workshops and address ports needs.
6. Develop a whitepaper on ports that provides a moderate, neutral case for hydrogen for heavy-duty and ports applications, including a comparison sheet for different low-and zero carbon technology options
7. CHBC to participate in NGO and agency events to communicate the industry potential in these areas.
8. Support the development U.S. EPA West Coast Collaborative Medium & Heavy-Duty Alternative Fuel Infrastructure Corridor Coalition.
9. In coordination with efforts taking place at the CaFCP, host a workshop in support of the above activities.

Public Transport Program

The main goal for the Public Transport SAG is to advocate and support deployment of hydrogen fueled public transport vehicles in California.

The key objectives of the Public Transport SAG are:

- Increase FCEB awareness and education towards Transit agencies
- Hydrogen infrastructure de-mystification (scalability, business options...)
- Secure funding over next 3 years => CARB/CEC/Air Districts (HVIP, H2 infrastructure funding)

The long term vision for Public Transit is to:

- Have at least 150 fuel cell electric buses (FCEB) on the road in California by 2025 with fueling stations
- Have at least 5 transit agencies operating more than 20 FCEBs with one fueling station each in California by 2025
- Have at least one transit agency with more than 50 FCEBs in service by 2025
- Have more than 25 additional transit agencies informed of FCEBs progress, performance, cost, and infrastructure

The activities identified below may be amended by the SAG throughout the year. Proposed activities include:

1. Seek to secure over next 2-3 years **funding for buses and other transit vehicles** (like HVIP program) and hydrogen fueling infrastructure via key agencies, including ARB, CEC and Air Management Districts. Coordinate efforts with Advocacy Committee.
2. Participate and **comment in agency workshops** and rulemakings affecting hydrogen **transit**, including **dedicated funding** and/or **mandates** for zero emission transit.
3. Analyze and comment on the **CARB Innovative Clean Transit** (ICT) ruling: Transit Agencies have not expressed concern over 2040 Zero Emission Mandate but there is concern over lack of funding associated with mandate and timescale.
4. Provide input and updates to **CARB** regarding **hydrogen transit solutions** including performance and cost
5. Advocate for **conversion of rail to hydrogen**, at railyards or rail lines not using catenary electricity supply as a means to reduce emissions from Diesel locomotives.

Non-Policy Activities and Goals:

6. Educate NGOs about the experience and benefits of hydrogen in zero emission transit.
7. Increase awareness and education to get more transit agencies on board and more fuel cell buses deployed by developing materials that share experiences and case studies of transit agencies to educate others, develop more champions in transit agencies, and influence decision makers at transit agencies board of directors.

8. Develop materials highlighting the scalability of H2 infrastructure versus BEB infrastructure.
9. Work with Zero Emission Bus Resource Advocacy (ZEBRA) group to gather transit needs for hydrogen infrastructure: type of business model; hydrogen consumption, desire for renewable hydrogen, length of contract.
10. Host a hydrogen public transport workshop in support of the above goals.

Infrastructure and Vehicle Deployment Program

The CHBC will continue to work with the California Fuel Cell Partnership in areas of infrastructure development and deployment planning for light duty vehicles. CHBC will provide its independent, broader industry voice for fueling station deployment, including opportunities to bridge functionality across LDV fueling, Power-to-Gas, and other market sectors. The activities identified below may be amended by the SAG throughout the year:

1. Provide **input** in agency reports and planning on **transportation electrification to be inclusive of hydrogen and fuel cell technology** and products.
2. Advocate for additional station funding and support industry activities to develop station funding beyond the initial 100 stations in California and additional 100 stations envisioned under the Governors Executive Order.
3. Follow the changes to the **LCFS program** and provide input where needed to establish additional LCFS pathways. Since ARB can be presented with a pathway, this activity would lead to broader ARB acceptance of hydrogen from biogas, biofuel and electrolysis to be formally accepted as pathways.
4. Provide guidance to ARB and key agencies, VW and CHBC members on the dis**bursement of future funds from the VW settlement,** with a goal of allocating at **least 10% to hydrogen and fuel cell projects**, including infrastructure expansion and vehicle deployment.
5. Ensure any **electric vehicle bills are inclusive of fuel cell electric vehicles** and treat them equal to other EVs, e.g. AB 1184 (Vehicular Air Pollution)

Non-Policy Activities and Goals

6. Following the 101st Station Workshop in 2016, CHBC will offer to host a meeting to develop potential private financing approaches in the context of current experience, cross sector opportunities and vehicle deployment plans that might be able to attract private capital from interested parties.

Business Expansion & Membership Services and Development Program

This combined committee would be created from the Membership & Business Expansion Committee and Strategic Communications committee. This committee would support event planning, membership services & communications to expand business opportunities. The activities identified below may be amended by the Committee throughout the year:

1. Secure **funding for public outreach** addressing hydrogen and fuel cells.

Non-Policy Activities and Goals

2. Provide support to Advocacy Committee in developing 2018 Hydrogen and Fuel Cell Policy Summit.
3. Develop the CHBC California Hydrogen and Fuel Cell Business Summit at SPI in combination with Hannover Fair USA Expo.
4. Host side events at other energy conferences for members and non-members to build relations to hydrogen-related sectors, with a focus on supply chain development.
5. Host Technology Tours around Summits and workshops, attempting to serve all market sectors and important agency leadership.
6. Host quarterly workshops at relevant venues for topics developed by each SAG. Each workshop will plan to raise between $15,000 to $25,000 in registration and sponsorship. The workshop proceedings and results will

be compiled in reports and publicized widely, including a follow-up webinar to increase exposure and impact of the findings. This approached proved to be successful in 2017.

7. Continue efforts to lead new members to join at higher levels and to lead existing members to upgrade to higher levels, to continue the 2018 growth of CHBC services. The Board will undertake an effort to upgrade existing silver members to higher levels.
8. Continue to obtain important new members. CHBC will expand staff efforts already begun to lead international companies, air districts, supply chain companies and utility companies to see the CHBC as an important tool for information, advocacy and business expansion.
9. Develop a printed Member Directory Handbook, which can be shared at meetings and workshop, outlining key products and services of members available in California.
10. Update and expand CHBC's database of key journalists and media contacts in order to better message hydrogen and fuel cell content and activities. However, education of the public will not be an area of activity for this Committee due to the efforts undertaken by other organizations in the same area and limited CHBC resources.
11. Compile and promote CHBC's event and conferences calendar to keep the membership informed about workshops, proceedings and other activities of interest.

Management

CHBC's technical and management services contractor will continue to expand staffing in California with a group of part time consultants, in different regions and with special advocacy, policy, market and technical expertise, to provide participation in agency and legislative activities and strategies, and industry activities and events. Staffing will be augmented by member participation where members can represent the broad CHBC interests. Staff will allocate additional resources to represent the CHBC in frequent in face-to-face meetings and calls to affect policy positions, identify policy issues, and act upon strategic information gathered through regular meetings and calls with SCAQMD, BAAQMD, ARB, CaFCP, FCHEA, CEC, CASIO, and CPUC.

The increased 2018 **funding strategy** and will rely heavily on membership increases with additional membership growth and upgrades, particularly for the higher membership categories. That additional budget will provide necessary funding for year-round lobbying and advocacy support for separate government affairs representatives, which will be directed by the Advocacy Committee and managed by CHBC management. Recognizing the way some member and other organizations budget, staff will invite **sponsor and membership upgrade discussions** in December 2017 and early 2018, including a letter to the membership. CHBC staffing is currently:

Position	Individual
Executive Director	Jeff Serfass
Assistant Director	Emanuel Wagner
Government Affairs	V. John White (in Sacramento, Lobbyist)
Senior Advisor	Bud Beebe (in Sacramento, utilities, utility regulation and renewables)
Advisor	Diane Moss (in Los Angeles, advocacy)
Development Specialist	Cory Shumaker (Clean freight, ports and transit)
Events Coordinator	Vera Medici
Project Assistant	Peter Thompson
Finance Coordinator	Cordelia Pearson

Budget

The **funding strategy, identified above relies on** increases in dues amounts for all membership categories.

Current membership level	2017	Increase	2018
Innovator (3 or less staff in North America)	$500	20%	$600

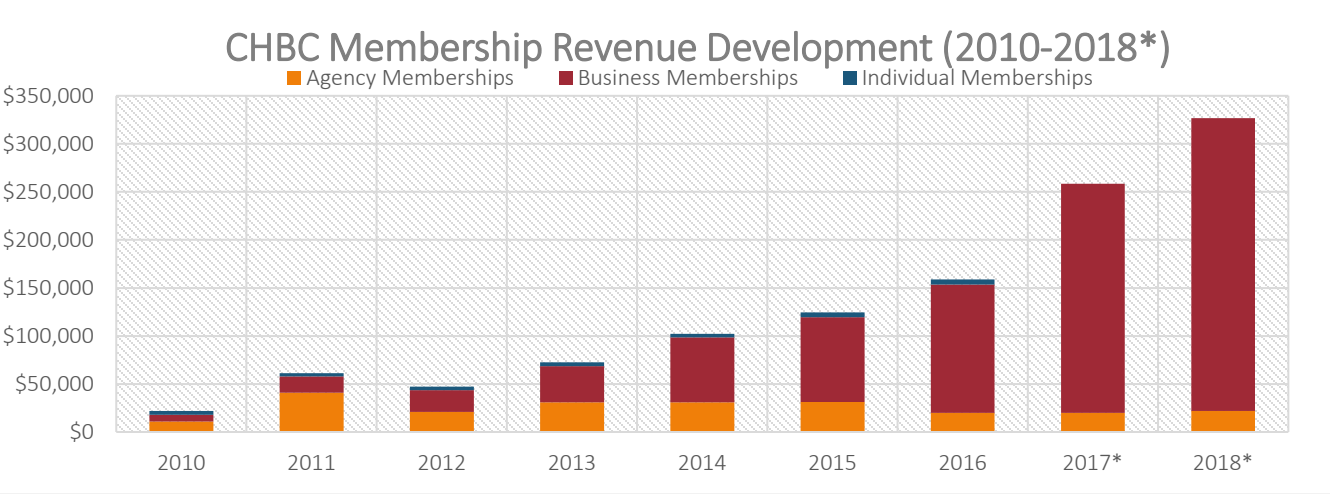
Silver	$1,500	20%	$1,800
Gold	$4,000	25%	$5,000
Platinum	$10,000	20%	$12,000
Platinum (Executive) - Directed Funding ($5,000+)	$15,000+	13%	$17,000+

Registration fees for Summits and workshops are derived from a set of variables, including venue cost, location, time of year, associated events, etc. The overall baseline for event registration will see slight increases by $20 to $50. The policy-focused events will continue to offer free registrations for government employees and a limited amount of free registrations may be offered to critical target audiences for other events. Onsite registration will cost an additional $75 to encourage online registration and reduce administrative cost. The following table is representative of the strategy, with the above variables driving the end registration cost decisions.

Fees	Early Bird Member rate	Member rate	Early Bird Regular rate	Regular rate
Summit:	$249	$299	$399	$499
Workshops:	$139	$179	$239	$279

The **total revenue**, including events, is $537,600, of which dues revenue is $349,600. The anticipated sponsorship and registration revenue for events is $188,000. The **total expenses** amount to $343,105, of which expenses for events add up to $170,909. The **net revenue** for 2018 is projected to yield a small surplus, exclusively generated by net positive events.

As last year, the Board's objective of planning for a surplus and a strategy to yield, over a period of several years, 6 to 12 months of operating reserves is not addressed in this budget. A review of the 2017 year-end surplus and net asset value should be considered in early 2018 to determine the extent of the 2017 surplus's ability to support the creation of the operating reserve.



CHBC Membership Revenue Development (2005-2018)*

Proposed 2018 Budget

CHBC BUDGET FOR 2018	2014	2015	2016	2017 Projected	2018 Proposed Budget	Notes (bold % means change from 2017 to 2018)
Revenue						
Membership Dues						
Organiz. Memberships - Innovator ($500 2018:$600 +20%	12,300	14,190	20,250	19,500	24,000	40 Innovators (+1)
Organiz. Memberships - Silver ($1,500) 2018:$1,800 +20%	26,000	36,300	42,500	60,000	75,600	42 Silver (+2)
Organiz. Memberships - Gold ($4,000) 2018:$5000 +25%	10,000	11,000	12,000	36,000	60,000	12 Gold (+3)
Organiz. Memberships - Platinum ($10,000) 2018: $12,000 +20%	55,000	63,000	84,000	110,000	156,000	13 Platinum (+2)
Organiz. Memberships - Platinum Executive ($15,000+) 2018: 17K +13%				30,000	34,000	2 Platinum Executive (0)
Total Membership Dues	**103,300**	**124,490**	**158,750**	**255,500**	**349,600**	**37%**
Event and Project Revenue						
Technology Tours	500	500	500	0	0	
VIP Events	1,000	1000	1,000	0	0	
Additional Advocacy Support		10,000	5,000	0	0	
Total CHBC Events	**1,500**	**11,500**	**6,500**	**0**	**0**	
Events & Projects (Revenue from Sponsorship & Registration)						
CHFC Policy Summit	11,000		62,500	78,801	55,000	Sponsorship and Registration
H2+FC Conference and Expo North America (SPI)	36,000	12,000			65,000	Sponsorship and Registration
Workshop #1		15,000	12,934	22,374	23,000	Sponsorship and Registration
Workshop #2		24,500	25,000		15,000	Sponsorship and Registration
Workshop #3			6,500	3,500	15,000	Sponsorship and Registration
Workshop #4			30,671	12,825	15,000	Sponsorship and Registration
Ports Briefing		4,000	650	13,000		Sponsorship and Registration
EIN Roadmap to Renewable Hydrogen Study Support + Meeting			10,000	8,250		
Total CHBC Events	**47,000**	**55,500**	**148,255**	**138,750**	**188,000**	**35%**
Total Revenue	**151,800**	**191,490**	**313,505**	**394,250**	**537,600**	**36%**
Expenses						
Program Activities						
Lobbying/Regulatory Support			34,000	102,000	144,540	**101%**
Advocacy	5,000		7,000		60,200	
Hydrogen Energy Storage	2,500	8,500	11,000	24,000	12,000	**-50%**
Public Transit		20,000	11,000	20,000	17,500	**-13%**
Goods Movement		6,500	11,000	20,000	17,700	**-12%**
Infrastructure + Vehicles					15,500	
Membership Development & Business Expansion	8,500	19,500	17,900	11,000	27,000	**-30%**
Education and Outreach, VIPs, Tech Tours	11,000	20,500	22,500	27,500		
Brochures / Presentation Folders/Printing	1,000	2,000	750	750	1,265	
Website Update, Website Hosting and license fees	1,183	1,183	183	7,200	2,700	**-63%**
Phone and Conferene Line, Email Service					2,500	
Management & Finance	17,000	22,500	17,500	17,500	33,100	**89%**
Liability Ins & D&O	2,050	2,050	2,800	2,800	3,700	
Accounting	115	500		1,255		
Memberships/Sponsorship					3,000	
Tax Preparation	900	900	750	862	1,000	
Board / Meeting Expenses	41,000	1,141	36,984	1,000	1,400	
Total Programs and Expenses	**90,248**	**105,274**	**173,367**	**235,867**	**343,105**	**45%**
Direct Expenses to CHBC						
Credit Card Fees & Cybersource Fees	2,000	2,700	4,000	4,500	6,000	
Tax Return Fee	35	35	35	25	25	
Direct CHBC Account Expenses	**2,035**	**2,735**	**4,035**	**4,525**	**6,025**	**33%**
Events & Projects						
CHFC Policy Summit		35,000	20,000	71,172	50,000	previously CHBC Fall Summit
H2+FC Conference and Expo North America (SPI)	25,000			0	59,091	Incl. Labor and Expenses
Workshop #1		18,000	18,441	22,794	20,909	Incl. Labor and Expenses
Workshop #2		17,000	25,000	0	13,636	Incl. Labor and Expenses
Workshop #3			6,500	5,764	13,636	Incl. Labor and Expenses
Workshop #4			30,671	8,662	13,636	Incl. Labor and Expenses
Ports Briefing				10,000		Incl. Labor and Expenses
EIN Roadmap to Renewable Hydrogen Study Support + Meeting			10,000	3,247		
Total Events	**25000**	**70,000**	**110,612**	**121,638**	**170,909**	**41%**
Total Expenses	**117,283**	**178,009**	**288,014**	**362,030**	**520,039**	**44%**
Total Operations Net Revenue	**11,017**	**16,481**	**(18,652)**	**15,108**	**470**	**-97%**
Totel Net Revenue from events	**22,000**	**(14,500)**	**37,643**	**17,111**	**17,091**	**0%**
Net Income	**34,517**	**13,481**	**25,491**	**32,219**	**17,561**	**-45%**