BOARD MEETING DATE: February 5, 2016 AGENDA NO. 4

PROPOSAL: Renew SCAQMD's Membership in CaFCP for Calendar Year

2016, Provide Office Space for CaFCP, and Receive and File California Fuel Cell Partnership Executive Board Agenda and

Updates 😂

SYNOPSIS: The SCAQMD has been a member of the California Fuel Cell

Partnership (CaFCP) since March 2000. This action is to renew SCAQMD's membership in the CaFCP in an amount not to exceed

\$85,000 for calendar year 2016 and cofund 50 percent of the CaFCP Regional Coordinator position located at SCAQMD in an amount not to exceed \$50,000 from the Clean Fuels Fund (31). Further actions are to continue providing in-kind office space and utilities for CaFCP employees in 2016 in an effort to increase CaFCP's presence in Southern California. Finally, this action is to receive and file the CaFCP Executive Board Meeting Agenda for October 20, 2015, and Quarterly Updates beginning April and July

2015.

COMMITTEE: Technology, January 22, 2016; Recommended for Approval

RECOMMENDED ACTIONS:

- 1. Authorize the Chairman to execute a contract in an amount not to exceed \$135,000 from the Clean Fuels Fund (31) with Bevilacqua-Knight Inc., acting on behalf of the Partnership, to
 - a. Continue SCAQMD's membership for calendar year 2016 for a total amount not to exceed \$85,500 for common expenses of the CaFCP;
 - b. Continue support for a Regional Coordinator located at SCAQMD for a total amount not to exceed \$50,000; and
 - c. Continue to provide office space and utilities on a month-to-month basis for up to four cubicles for CaFCP staff and storage at SCAQMD headquarters.
- 2. Receive and file the attached Executive Board Agenda and Quarterly Updates.

Barry R. Wallerstein, D.Env. Executive Officer

Background

The California Fuel Cell Partnership (CaFCP) was initiated in 1999 as a means to accelerate response to the CARB Zero Emission Vehicle (ZEV) regulations. Because of the alignment of the SCAQMD and CaFCP goals for accelerated fuel cell vehicle commercialization, the SCAQMD has been a full member since March 2000. In January 2012, CARB approved Advanced Clean Car regulations, which harmonize California requirements with federal requirements from 2017 – 2025 and incorporate greenhouse gas (GHG) emission reductions. The AQMP and the Technology Advancement Office Clean Fuels Program 2015 Plan Update have identified fuel cells for on- and off-road applications as a core technology for attaining and maintaining cleaner air quality.

Initially, the CaFCP Program focused on development of vehicle, infrastructure and outreach plans for future projects, including demonstration of cars and buses using gaseous and liquid hydrogen, as well as methanol. In addition to a limited number of light duty fuel cell vehicles, the bus transit partners operated several prototype zero-emission fuel cell buses. CaFCP and members continue to demonstrate fuel cell cars and buses using gaseous hydrogen fuel at 350 bar and 700 bar pressures. Automakers started retail placement of fuel cell vehicles near hydrogen stations in a few early market communities.

With the commitment of funding under AB 8 to develop and operate about 100 hydrogen fueling stations in California through 2023, and the collaboration of California with other states to support ZEVs, automakers continue to launch fuel cell cars. Some automakers are combining efforts to share intellectual property, build component supply chains, and leverage resources; Daimler with Ford and Nissan, Toyota with BMW, and General Motors with Honda. Germany, Japan, and Korea have also committed funding to build more hydrogen stations.

At the request of SCAQMD, the CaFCP has expanded its presence in Southern California due to the increased deployment of vehicles, the largest number of fueling stations, and the need for lower emitting technologies in this region. A CaFCP Regional Coordinator is located at SCAQMD headquarters to increase support for member activities and outreach in the district and an Infrastructure Specialist facilitates hydrogen station development.

Major accomplishments during calendar year 2015 include:

• The announcements by several automakers of fuel cell vehicles for model year 2015 retail production and continued demonstration of fuel cell cars and buses in California. The Toyota Mirai is the first fuel cell vehicle offered for sale in California. Both the Toyota Mirai and Hyundai Tucson fuel cell vehicles can be leased through selected dealerships in California, and next year, Honda plans to produce Clarity FCV for Japan and then California;

- Development of a Medium- and Heavy-Duty Action Plan focusing on early markets for medium-duty delivery trucks and heavy-duty drayage trucks, to be completed in 2016;
- Provided training for emergency responders to help familiarize communities with fuel cell vehicles and fueling supported by a website focused on their needs and supported transition to national efforts through H2First and H2USA; and
- Increased the presence of the CaFCP in Southern California through coordination of ombudsman activities in early market communities with Regional Coordinator & Infrastructure Specialist staff based at SCAQMD.

The current cost for a CaFCP Full Partner is up to \$85,000 plus in-kind support for defraying the costs of the CaFCP. CaFCP's goal is to increase membership and reduce cost of membership. Current partners include:

- Seven auto manufacturers (General Motors, Toyota, Daimler, Honda, Hyundai, Nissan and Volkswagen);
- One fuel cell technology company (AFCC); and
- Five government agencies (SCAQMD, CARB, CEC, U.S. DOE and U.S. EPA).

Currently, Associate Members each pay \$15,000, and Affiliate Members contribute \$3,300 per year. There are currently 24 Associate and Affiliate Members, but 2016 is a transition year to increase membership and restructure contributions. New membership levels will provide more options with commensurate voting rights.

The CaFCP retains Bevilacqua-Knight, Inc. (BKi) to provide the needed support for the common tasks agreed to by the CaFCP, and each partner/member contracts directly with BKi acting on behalf of the CaFCP.

Proposal

Members of the CaFCP are committed to the continuation of CaFCP activities through 2016, which is considered the fourth phase "Preparing for Market Launch." The fee of up to \$85,000 per full member is proposed to support the activities planned for 2016 and beyond. The operating budget for 2016 is \$1,694,793. The tenure of the current Chair and Vice-Chair were extended by one year to provide continuity during this transition. The majority of fuel cell vehicle deployment activities are anticipated to be within the South Coast Air Basin over the next couple of years, plus the development of hydrogen stations in other early markets and the connector station in Coalinga is expected to enable travel between southern and northern California.

The proposed CaFCP activities for 2016 are to:

- 1. Develop the necessary infrastructure and processes to support early commercial launch and expanded vehicle rollout.
 - a. Support the construction and commissioning of current California hydrogen stations by participating in codes, standards and regulation processes; facilitating station commissioning processes; and supporting station openings.
 - b. Prepare for future funding through outreach and education with fueling retailers and hydrogen industry.
 - c. Work with stakeholders to identify potential future stations locations.
 - d. Develop Road Map 2.0 with strategies for a sustainable network in California.
- 2. Share and synchronize experience by providing forums and opportunities for members to advance group collaboration and progress within CaFCP and among stakeholders.
 - a. Build and expand trust among members through open communication and forums.
 - b. Communicate with stakeholders nationally and internationally to share learnings and amplify market launch efforts.
- 3. Reach target markets and communities to educate, inform and promote hydrogen and fuel cell electric vehicles (FCEVs).
 - a. Communicate the benefits of FCEVs and hydrogen through outreach materials, events, social media and media relations.
 - b. Provide education and outreach to state and local governments, and NGOs.
 - c. Conduct community training for Authorities Having Jurisdiction (AHJs) and emergency responders
 - d. Continue development of CaFCP's station map and Station Operating Status System (SOSS)
- 4. Restructure CaFCP to be more inclusive and capable of meeting the expanding commercial market needs and opportunities, broadening the member base, and being the voice of all stakeholder participants
 - a. Establish new structure and expand membership.
 - b. Support deployment of fuel cell bus Centers of Excellence and the Bus Team.
 - c. Publish and implement the Medium- and Heavy-Duty Road Map document.
 - d. Support activities outside of California, as directed by members.

This action is to execute a contract with BKi to renew SCAQMD's membership in the CaFCP for calendar year 2016 and continue to cofund the CaFCP Regional Coordinator position located at SCAQMD and reporting to the CaFCP Executive Director, as well as provide in-kind office space and utilities for CaFCP employees in

calendar year 2016. This action is also to receive and file the CaFCP Executive Board Meeting Agenda and Quarterly Updates for April-June and July-September 2015.

Sole Source Justification

Section VIII.B.2. of the Procurement Policy and Procedure identifies provisions under which a sole source award may be justified. This request for a sole source award is made under provision B.2.d.: Other circumstances exist which in the determination of the Executive Officer require such waiver in the best interest of SCAQMD. Specifically, these circumstances are B.2.d.(1): Projects involving cost sharing by multiple sponsors. The major sponsors contributing financially to the CaFCP include seven automakers, one fuel cell technology company, and five government agencies.

Benefits to SCAOMD

Membership in the CaFCP is consistent with the *Technology Advancement Office Clean Fuels 2016 Plan Update* under "Hydrogen and Mobile Fuel Cell Technologies & Infrastructure" and "Assessment and Technical Support of Advanced Technologies and Information Dissemination." SCAQMD supports the development, demonstration and commercialization of zero- and near-zero emission vehicles and strives to educate public and private organizations regarding the benefits and characteristics of these vehicles.

Resource Impacts

SCAQMD's support of the CaFCP for calendar year 2016, provided through a contract with BKi, shall not exceed \$135,000 from the Clean Fuels Fund (31), comprised of up to \$85,000 for common project costs to cover administrative, technical and program management costs and half the cost up to \$50,000 for the Regional Coordinator position located at SCAQMD Headquarters. SCAQMD is also providing additional in-kind cost-share of office space for CaFCP staff and utilities at SCAQMD headquarters, representing annual foregone rent of approximately \$10,440 for the four cubicles.

Sufficient funds are available from the Clean Fuels Fund, established as a special revenue fund resulting from the state-mandated Clean Fuels Program. The Clean Fuels Program, under Health and Safety Code Sections 40448.5 and 40512 and Vehicle Code Section 9250.11, establishes mechanisms to collect revenues from mobile sources to support projects to increase the utilization of clean fuels, including the development of the necessary advanced enabling technologies. Funds collected from motor vehicles are restricted, by statute, to be used for projects and program activities related to mobile sources that support the objectives of the Clean Fuels Program.

Attachments

- 1. California Fuel Cell Partnership Executive Board Meeting Agenda
- 2. California Fuel Cell Partnership Quarterly Update (April June 2015)
- 3. California Fuel Cell Partnership Quarterly Update (July September 2015)

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AGENDA

CaFCP Executive Board

October 20, 2015 8:30am-5:30pm

Location: Sacramento Metropolitan Air Quality Management District

777 - 12th St. 3rd Floor, Sacramento, California 95814

CaFCP Chair, Justin Ward

1. Welcome

Welcome and remarks from the CaFCP Chair Decision Item: Approve April 14, 2015 decisions & assignments

8:40am - 9:20am

First Element Fuels HydrogeNXT H2 Logic Mercedes

2. CaFCP Members

<u>Information item</u>: Presentations from new CaFCP members and current members.

9:20am - 10:00am

Anticipated Speakers:

EPA SunLine AC Transit CaFCP

3. Medium/Heavy-Duty and FCEB

<u>Information item</u>: Progress and milestones with fuel cell bus roll-out, including AC Transit's 20,000 operating hour milestone and SunLine's acquisition of additional "All-American" buses.

Decision item: Review M/HD Action Plan to approve or modify direction.

10:00am - 10:30am

BREAK

10:30am - 12:00pm

Anticipated Speakers: GO-Biz CaFCP

4. Hydrogen Stations: Aligning Progress

With the first new retail stations beginning to come online, members and staff have identified gaps in assessing and communicating progress and status. This item identifies gaps and recommends solutions for closing them. Information item: Status of California's stations, commissioning process, CaFCP website and maps.

Decision items:

- Confirm CaFCP's role of communicating status.
- Approve consensus definition for a retail station.
- Approve recommendation for station types in CaFCP outreach materials.
- Agree on approach for counting stations.

12:00pm - 1:15pm

LUNCH (on own)

1:15pm – 3:10pm Invited Speakers: ARB CEC CAEATFA H2USA First Element

CALSTART

GM

5. Hydrogen Stations: Expanding the Network

The AB8 report suggests that CEC will fund approximately seven stations in 2015, with additional funding for O&M support. Expanding the network to 100 stations in California may take additional approaches. Other states also need funding mechanisms, attracting investors and bringing players to the table.

Discussion items:

- Potential public and private funding and incentives for California hydrogen stations.
- Methods that can be shared with other states.

Decision item:

Action items for CaFCP in 2016

3:10pm – 3:30pm	BREAK
3:30pm – 4:15pm CaFCP	 6. Building the Bigger Tent In 2014, executive board directed CaFCP's executive director and steering team to modify the organization's structure to include more organization that are instrumental to a commercial market. Decision items: Proposed changes to CaFCP's membership tiers and structure Proposed changes to decision-making process Transition plan
4:15pm – 4:45pm CaFCP	 7. Business items Progress by 2015 program plan Approve 2016 program plan and budget Confirm 2016 vice-chair nomination Confirm 2016 meeting dates
4:45pm – 5:15pm Chair, Justin Ward	8. Public comment period*
5:15pm – 5:30pm Chair, Justin Ward	9. Meeting wrap up

A "no-host bar" reception will be held immediately following meeting at Blue Prynt – 815 11th St, Sacramento, CA 95814

* Public comment period

The public comment period provides an opportunity for members of the public to address the executive board on subject matters within the interest of CaFCP. Each person will be allowed a maximum of three minutes to ensure that everyone has a chance to speak.

Agenda items may be taken out of order and times may vary from those listed in the agenda. The board may choose to limit public comment at the chair's discretion.

This meeting is open to the public and will not be available by phone. This facility is accessible to persons with disabilities. Deadline for requesting ADA modification is October 14, 2015. Meeting materials will be posted at www.cafcp.org. This facility is accessible by public transit. For transit information, call (916) 321-BUSS for Sacramento Regional Transit. website: https://www.sacrt.com/schedulesfares.stm. And California Transit link: https://www.apta.com/resources/links/unitedstates/Pages/CaliforniaTransitLinks.aspx

CaFCP Quarterly Update

April – June 2015

Background

The California Fuel Cell Partnership is a unique collaborative of auto manufacturers, energy companies, fuel cell technology companies and government agencies, including SCAQMD. This report summarizes CaFCP activity in or related to Southern California for April to June 2015.

In its fourth phase, 2013-2016, CaFCP members, individually or in groups, will focus on meeting these goals to achieve market launch:

- Prepare for larger-scale manufacturing, which encompasses cost reduction, supply chain and production.
- Work on the customer channel, including identifying and training dealers and service technicians.
- Reduce costs of station equipment, increase supply of renewable hydrogen at lower cost, and develop new retail station approaches.
- Support cost reduction through incentives and targeted RD&D projects
- Continue research, development and demonstration of advanced concepts in renewable and other low-carbon hydrogen.
- Provide education and outreach to the public and community stakeholders on the role of FCVs and hydrogen in the evolution to electric drive.

CaFCP and members' activities fall within three main strategic directions:

- Support hydrogen station and vehicle deployment to enable commercial market launch in 2015 timeframe
- 2. Show feasibility and a clear value proposition to consumers, businesses and communities
- 3. Focus existing resources, engage new groups and pursue innovative concepts to overcome early market challenges

To successfully implement the vision, CaFCP activities must focus on technical, communications and business operations/strategies that require convening, collaborating and communicating.

2015 Program Plan Q2 accomplishments

Station Implementation

Barriers

1. CONVENE Convene CaFCP members and stakeholders in a common forum to discuss the challenges and opportunities, exchange experiences and knowledge, and advance group sharing and progress. Build and expand trust among members via open communication. Maintain and enable the organization to achieve its mission and goals. Completed public in-person Executive Board meeting on April 14 and phone calls 1/15 and 5/19 **Conduct CaFCP standing** Completed in-person Steering Team meeting April 15 and phone meetings calls 2/19, 3/3, 4/1, 5/18 and 6/17. Completed 2 in-person Working Group meetings March 11-12 and June 24-25 Conducted 10 OEM Advisory Group conference calls and 1 in-person OEM Advisory Group meeting; conducted 1 in-person meeting with Conduct ad-hoc topical member and industry meetings ARB/OEM Advisory Group and 3 conference calls; conducted 1 inperson meeting with OEMs, station developers, and government. Continued discussions on strategy for membership expansion First Element Fuels joined as associate member **Expand CaFCP membership** April Executive Board decision to invite HydrogeNXT and H2 Logic as CaFCP members 2. COLLABORATE Collaborate to identify and address emerging challenges and translate into comprehensive and durable solutions. Retain the flexibility to address issues quickly as they arise, in the interest of advancing all members and industry. SOSS upgrade underway from SOSS 2.0 to 3.0, moving to consistent minimum 15 minute station status data reporting interval, which improves FCEV customer satisfaction. Presented progress on SOSS 3.0 project at the US DOE Annual Merit Member data and information needs 3 stations in progress of implementing SOSS 3.0 at their site; 2 stations completed adding SOSS 3.0. OEM Advisory Group identified and published list of Priority Station Location recommendations for consideration in the next round of CEC hydrogen infrastructure funding. Participated in June US DOE Annual Merit Review as reviewers for US DOE EERE funded fuel cell and hydrogen projects. Facilitated status updates about funded stations by station Roadmap progress implementers and government during in-person June Working Group meeting, followed by a discussion on how to address challenges identified. CaFCP staff functioning in supporting and facilitating role for Roadmap 2.0 for stations 69discussions on the "69-100" strategy. Main responsibility for 100 planning lies with CARB, as part of early July AB8 reporting. 2016 NFPA 2 on schedule for publication o working with CA OSFM for Interim Code Cycle Adoption (as

with 2011 NFPA 2)

o working with NFPA on outreach and education

FCHEA Hydrogen Codes Task Force initiated activities on strategic thinking and code proposals for code cycles to the pertinent hydrogen and infrastructure C&S. Document coordination a parallel

	 activity. (NFPA 1, NFPA2, International Building, Mechanical and Fire Codes) CSA HGV 4.3 (Test Methods for Hydrogen Fueling Parameter Evaluation) in process of being updated to the Standard SAE J2601 Anticipated ballot date: December, 2015 CSA HGV 4.9 (Hydrogen Fueling Station Guidelines) comments being addressed with individual stakeholders Anticipated ballot date: December, 2015 ISO/TC 197 WG 24 (fueling stations)- final Draft as a Technical Report-comments submitted and being reviewed Ca Implementation Team for the HySTEP device active Participation in the GO-Biz Station Commissioning Checklist task force
Expand value proposition of H2 and FCEVs	 Submitted a letter with suggestions for inclusion of light-, mediumand heavy-duty FCEVs and renewable H2 in the revised ARB LCFS regulatory language under the LCFS 15-day comment period. Initiated discussion about renewable H2 and provided input on how to shape a strategy for California on this topic.
Medium- and heavy-duty vehicle and FCEB strategies	 MD/HD FCEV Action Plan drafting in progress, including input from truck manufacturers. Publication is targeted for Q1 2016. Staff organized and facilitated the Spring CaFCP Bus Team meeting at AC Transit in Oakland on May 28. Staff organized and participated in El Dorado FCEB manufacturing facility tour in Riverside on June 26. Over 30 attendees participated from legislature, industry, transit agencies and regional NGOs.

3. COMMUNICATE

Communicate, educate, inform and promote H2 & FCEVs benefits and opportunities to key outside stakeholders and general public for increased and continued support. Become readily recognized as the face of the industry for trustworthy information and assist.

Activity	Description	Picture
2 nd round - Woodside town hall meeting with HTEC, April 1, 2015	Meeting with city council, GO-Biz and CEC staff	
San Diego Go-Biz/CaFCP briefing workshop, April 2, 2015	Moderator, Panel Member, Organizer	
Green California Summit, April 7, 2015	Panel, speaker	No photo available
Yolo County Climate Change, April 9, 2015	Speaker	No photo available.

Santa Barbara Earth Day Event, April 18, 2015	Exhibitor	ENGELIORE DE LA CONTROL DE LA
Cal EPA Earth Day Event, April 22, 2015	Exhibitor	Cathodia
West Sacramento Earth Day Festival, April 25, 2015	Exhibitor	44-375- 44-30- 13-15- 15- 15- 15- 15- 15- 16- 16- 16- 16- 16- 16- 16- 16- 16- 16
Manhattan Beach Earth Day, April 25, 2015	Exhibitor	No photo available.

Governor's ZEV Summit, May 2, 2015	Member organizer	
Climate Resolve tours Cal State L.A. station, May 5, 2015	Member organizer	
The Future of the Hydrogen Economy hosted by the German American Business Association, May 21, 2015	Speaker, Panel, Member organizer, moderator	

Cal EPA ZEV Showcase, May 22, 2015	Member organizer, speaker	THUS HE CLA
GO Biz/CaFCP Briefing on H2 and FCEVs May 22, 2015	Moderator, Panel Member, Organizer	
Carthay Science Fair and Environmental Expo, May 27, 2015	Exhibitor	

Beverly Hills ER Training, June 1, 2015	Presenter	
City of Winters – City Council, June 2, 2015	Presenter	No photo available.
CleanTech OC Advanced Transportation Symposium June 18	Panel Member	No photo available.
L-NGV 2015 – San Diego June 19	Panel Speakers	No photo available.
International Infrastructure Workshop June 23-25, 2015	Participant	No photo available.
ASME Power & Energy Conference June 29-July 2	Speaker, Exhibitor	PAGE TO STATE OF THE PAGE TO S

Legislative, NGO & Policy

Conduct one-on-one meetings with California state and federal elected officials and their staff in district and capitol offices. Conduct one-on-one meetings with influential NGOs at the local, state and national levels. Emphasize California's commitment to hydrogen and provide information about progress and plans. Provide education and information to policy makers.

2015 Q2 Statistics – Meetings and encounters

Elected officials: 14 (2015 to date: 23) Legislative staff: 5 (2015 to date: 50)

NGOs: 6 (2015 to date: 55)

Event name	Meeting Date	Meeting with (Names and titles of all persons)
District		Robert Alcantar, field representative to State
meeting	4/1/2015	Senator Marty Block (D-San Diego)
Community meeting	4/2/2015	Michael Lieberman, senior field representative to Assembly Member Brian Maienschein (R-San Diego), Thomas Sepulveda, aide to Congressman Juan Vargas (D-Chula Vista), Peter Yousif, intern to Assembly Member Brian Jones (R-Sante), Samantha Maron, intern to State Senator Joel Anderson (R-El Cajon)
District meeting	4/15/2015	Frank Torres, district director and Sarah Rascon, field representative, office of Assembly Member Jimmy Gomez (D-Los Angeles)
GO- Biz/CaFCP briefing	5/21/2015	Rocky Hernandez, district director, office of State Senator Bob Wieckowski (D-Fremont), Isabel Cortes, field representative, office of State Senator Loni Hancock (D-Oakland), aide to Santa Clara County Supervisor Cindy Chavez, Charles Burress, aide to Berkeley Mayor Tom Bates
GO- Biz/CaFCP briefing Community	5/21/2015	Joseph Camacho, manager, office of Congresswoman Barbara Lee (D-Oakland)
meeting		Congresswoman Doris Matsui (D-Sacramento)
Capitol meeting	6/12/2015	Shannon Hines and Homer Carlisle, staff of U.S. Senate Committee on Banking, Housing and Urban Affairs
Community meeting	6/18/2015	Members of the board of the Santa Barbara Air Pollution Control District
Community meeting	6/26/2015	Melanie Ling, office of Congressman Mark Takano (D-Riverside) at El Dorado fuel cell bus tours

Community Relations (Station-related outreach)

Activity	Meeting Date
Woodside Town Hall meeting	April 1
International Code Council, Peninsula Chapter	April 1
San Joaquin Valley Clean Cities Coalition	April 8
Technical Advisory Committee to the Transportation Authority of Marin	April 9
Palo Alto open house	May 13
GO-Biz/CaFCP briefing for city officials, Oakland	May 21
Meeting with City of Mountain View officials	June 22

Website and Social Media

We provide outreach and education through events, materials, video, web and social media that increase awareness in the general public, build support in early market communities and support other projects' specific goals. Our online strategy is to deliver real-world information about FCEVs and hydrogen stations to early adopter audiences. We use email, blogs, Twitter, YouTube and Facebook to share messages about FCEV commercialization and technology with different audience types.

www.cafcp.org	Apr-15	May-15	Jun-15
Number of visits	10,117	9,868	7,379
Average time users spent on site	1:36	1:33	1:53
Most visited pages	Station map Home page FAQ 10 facts about hydrogen Toolkits Stations	Station map Home page FAQ 10 facts about hydrogen Toolkits Stations	Station map Home page FAQ Blog: Automakers release list station 10 facts about hydrogen
Most searched keywords on Google to land on CaFCP website	California fuel cell partnership difference between fuel cell and battery where does hydrogen come from facts about hydrogen how do fuel cells differ from batteries	difference between fuel cell and battery California fuel cell partnership hydrogen fuel stations CaFCP	CaFCP where does hydrogen come from fuel cell vs. battery California fuel cell partnership hydrogen fueling stations
Most searched keywords on cafcp.org search engine	cost of hydrogen executive board well to wheels cost electricity fuel	cost executive board 2015 hydrogen Linde Bouwkamp	Logic Career cost cost of hydrogen Fuel cost
Most referred websites	google.com Bing yahoo arb.ca.gov driveclean.ca.gov	google.com yahoo Bing best-seo-offer.com	google.com Bing yahoo sitevaluation.org dailyrank.net

FACEBOOK	Apr-15	May-15	Jun-15
New likes	17	26	26
Lifetime likes	2,571	2,583	2,597
Lifetime Post Total Reach	10,065	10,379	13,521
Lifetime Engaged Users	776	675	844

TWITTER	Apr-15	May-15	Jun-15
New Followers	54	21	52
Total Followers	2,137	2,160	2,208
Tweets for the month	95	99	84
Tweet Impressions	28,100	25,200	27,200
Total Lifetime Tweets	10,771	10,870	10,954
Mentions	191	219	264
Link Clicks	269	261	234

E-blast – Well to Wheels		
Air Benefits – Sept. 16, 2014		
Contacts:	8,564	
Opened:	15% - 1,285 contacts	
Bounced:	1.7% - 149 contacts	
No Info:	83.3% - 7,130	
Clicked:	1% - 107 contacts	
Unsubscribed:	13	

E-blast – Well to Wheels		
Water Consumption – Oct. 6, 2014		
8,506		
15.0% - 1,276 contacts		
1.4% - 120 contacts		
83.6% - 7,110 contacts		
1% - 126 contacts		
9		

E-blast – Well to Wheels		
Climate Change – Sept. 22, 2014		
Contacts:	8,530	
Opened:	13.8% - 1,173 contacts	
Bounced:	1.7% - 147 contacts	
No Info:	84.5% - 7,210 contacts	
Clicked:	1% - 95 contacts	
Unsubscribed:	6	

E-blast – Well to Wheels		
Energy Security – Oct. 13, 2014		
Contacts:	8,443	
Opened:	12.4% - 1,051 contacts	
Bounced:	1.9% - 162 contacts	
No Info:	85.6% - 7,230 contacts	
Clicked:	1% - 53 contacts	
Unsubscribed:	6	

E-blast – Well to Wheels		
Energy Efficiency – Sept. 29, 2014		
Contacts:	8,504	
Opened:	14.6% - 1,239 contacts	
Bounced:	1.7% - 145 contacts	
No Info:	83.7% - 7,120 contacts	
Clicked:	2% - 146 contacts	
Unsubscribed:	11	

CaFCP Quarterly Update

July – September 2015

Background

The California Fuel Cell Partnership is a unique collaborative of auto manufacturers, energy companies, fuel cell technology companies and government agencies, including SCAQMD. This report summarizes CaFCP activity in or related to Southern California for January to March 2015.

In its fourth phase, 2013-2016, CaFCP members, individually or in groups, will focus on meeting these goals to achieve market launch:

- Prepare for larger-scale manufacturing, which encompasses cost reduction, supply chain and production.
- Work on the customer channel, including identifying and training dealers and service technicians.
- Reduce costs of station equipment, increase supply of renewable hydrogen at lower cost, and develop new retail station approaches.
- Support cost reduction through incentives and targeted RD&D projects
- Continue research, development and demonstration of advanced concepts in renewable and other low-carbon hydrogen.
- Provide education and outreach to the public and community stakeholders on the role of FCVs and hydrogen in the evolution to electric drive.

CaFCP and members' activities fall within three main strategic directions:

- Support hydrogen station and vehicle deployment to enable commercial market launch in 2015 timeframe
- 2. Show feasibility and a clear value proposition to consumers, businesses and communities
- 3. Focus existing resources, engage new groups and pursue innovative concepts to overcome early market challenges

To successfully implement the vision, CaFCP activities must focus on technical, communications and business operations/strategies that require convening, collaborating and communicating.

2015 Program Plan

and FCEVs

2015 Program Plan				
Q3 accomplishments				
exchange experiences and knowl	akeholders in a common forum to discuss the challenges and opportunities, ledge, and advance group sharing and progress. Build and expand trust among on. Maintain and enable the organization to achieve its mission and goals.			
Conduct CaFCP standing meetings	 Sept 9-10 – completed in-person Working Group meeting Completed 3 Steering Team conference call meetings 			
Conduct ad-hoc topical member and industry meetings	No meetings for Q3 in this category.			
Expand CaFCP membership	 Continued discussions on strategy for membership expansion. Adding H2 Logic, HydrogenXT, and FirstElement Fuel as members. 			
	ess emerging challenges and translate into comprehensive and durable address issues quickly as they arise, in the interest of advancing all members			
Member data and information needs	 SOSS upgrade underway from SOSS 2.0 to 3.0, moving to consistent minimum 15 minute station status data reporting interval, which improves FCEV customer satisfaction. Submitted SOSS 3.0 update report to US DOE. Coordinated July 28 briefing on Point Of Sale challenges Successfully added the West Sacramento H2 station to SOSS 			
Roadmap progress	 Updates on status of funded stations shared by station implementers and government during in-person meeting. 			
Roadmap 2.0 for stations 69- 100	 CaFCP staff functioning in supporting and facilitating role for discussions on the "69-100" strategy. Main responsibility for planning lies with CARB, as part of AB8 reporting. Provided input to CEC & CARB during Aug 13-14 workshop on draft concepts for H2 station funding. 			
Station Implementation Barriers	 2016 NFPA 2 published and the CA Office of the State Fire Marshal to adopt with the 2015 International Fire Code during the Triennial Code Adoption process presently taking place SAE International FC Safety Task Force: J2990/1 (Gaseous Hydrogen and Fuel Cell Vehicle First and Second Responder Recommended Practice) went to 28 day ballot on Oct 2. CSA HGV 4.3 (Test Methods for Hydrogen Fueling Parameter Evaluation) out for industry review Anticipated ballot date: December, 2015 Contact JHamilton if a copy is needed CSA HGV 4.9 (Hydrogen Fueling Station Guidelines) out for industry review Anticipated ballot date: December, 2015 Contact JHamilton if a copy is needed ISO/TC 197 WG meetings and Plenary in Torrance Nov 30-Dec 4 			
Expand value proposition of H2	 Co-hosted with CHBC the July 29-30 Renewable H2 Summer Summit at SoCalGas in Downey, CA. 			

strategy for California on this topic.

Continued discussion about renewable H2 and how to shape a

Medium- and heavy-duty vehicle and FCEB strategies	 MD/HD FCEV Action Plan drafting in progress. Targeted publication for Q1 2016. Met with US DOE SuperTruck program leads to discuss lessons learned that may transfer to FC trucks. CARB released funding opportunities for zero-emission FCEBs and MD/HD FCEVs.
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3. COMMUNICATE

Communicate, educate, inform and promote H2 & FCEVs benefits and opportunities to key outside stakeholders and general public for increased and continued support. Become readily recognized as the face of the industry for trustworthy information and assist.

Activity	Description	Picture
2015 ASME Conference & Expo, June 28- July 2, Long Beach, CA	Exhibit and Speaker: Bill Elrick spoke at a hydrogen panel session	TAGE TO STATE OF THE PARTY OF T
2015 SEMICON WEST, July 13-16, San Francisco, CA	Exhibit and Speaker: Keith Malone spoke during a emerging technology panel (last minute request)	
2015 Green Living Expo, July 19, South Pasadena, CA	Exhibit	
2015 Train the Trainer for the National Hydrogen & Fuel Cell Emergency Response Program, Aug. 4, El Cerritos, CA	Presenter: Jennifer Hamilton	

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2015 Permitting workshop	Presenter: Joe	
for hydrogen fueling	Gagliano	
installations, Cerritos		
College, Cerritos, CA		
2015 Linde – Mountain	Member	A STATE OF THE PARTY OF THE PAR
View Open House, Aug. 13,	support –	A STATE OF THE STA
Mountain View, CA	display	
Continuing Challenge, Sept.	Exhibit and	
8-11, Sacramento ,CA	Presenter	
2015 Pacific Oil Conference, Sept. 8-10, Los Angeles, CA	Exhibit	Axtect PEROLE TO THE PROPERTY OF THE PROPERTY
2015 Cruz'n for Roses Hot	Exhibit	
Road And Classic Car Show,		
Sept. 20, South Pasadena		

2015 Hydrogen Fuel Cell Vehicle Refueling Summit, Sept. 22-24 Indianapolis, IN	Presenter: Joe Gagliano	
2015 Fuels Institute Annual Summit, Sept. 23-25, Indianapolis, IN	Presenter: Joe Gagliano	
Green Expo, Sept 26, Huntington Beach, CA	Exhibit	I RUN HOMOGEN
2015 International Code Council Conference & Expo, Sept. 26-29, Long Beach, CA	Exhibit and Presenter	
2015 Sierra Club Summit, Sept. 29, San Jose, CA	Exhibit and support member	

2015 League of California Cities Conference, Sept. 30 – Oct. 1, San Jose, CA	Exhibit	

Legislative, NGO & Policy

Conduct one-on-one meetings with California state and federal elected officials and their staff in district and capitol offices. Conduct one-on-one meetings with influential NGOs at the local, state and national levels. Emphasize California's commitment to hydrogen and provide information about progress and plans. Provide education and information to policy makers.

2015 Q1 Statistics – Meetings and encounter

Elected officials: 4 (2015 to date: 26) Legislative staff: 9 (2015 to date: 65)

NGOs: 2 (2015 to date: 10)

Event name	Meeting Date	Meeting with (Names and titles of all persons)
District meeting	7/6/2015	Santa Barbara County Supervisor Peter Adam and chief of staff Bob Nelson
Legislative meeting	7/7/2015	State Controller Betty Yee, chief of staff Karen Greene Ross and press secretary John Hill
Legislative meeting	7/8/2015	Sue Cately, chief consultant and Allegra Roth, Assembly Fellow, the Assembly Committee on Utilities and Commerce
District meeting	8/3/2015	Lauren Gallant, district director of State Senator Fran Pavley (D- Woodland Hills)
District meeting	8/5/2015	Assembly Member Anthony Rendon (D-South Gate), field representative Ronald Gonzales- Lawrence
Phone briefing	9/14/2015	Meghan McConnell, DC office of Congresswoman Linda Sanchez (D- Lakewood)
Phone briefing	9/14/2015	Adam Sachs, DC office of Congresswoman Lucille Roybal- Allard (D-Commerce)
Phone briefing	9/29/2015	Reed Linsky, office of Congressman Duncan Hunter (R-El Cajon)

Lindsey Horvath, mayor of West Hollywood, Sierra Club staff and members at Beyond Oil Summit in

meeting 9/29/2015 San Jose

Community

Community Relations (Station-related outreach)

Activity	Meeting Date
Interactions with multiple cities across California, League of CA Cities convention,	
San Jose, CA, including	
	September 30 and
Cupertino	October 1
Costa Mesa	
El Cerrito	
Glendale	
Grover Beach	
Laguna Niguel	
Los Angeles	
Orange	
Redwood City	
Rocklin	
Roseville	
Santa Clara	
San Diego	
San Marcos	
San Mateo	
San Jose	
Thousand Oaks	

Website and Social Media

We provide outreach and education through events, materials, video, web and social media that increase awareness in the general public, build support in early market communities and support other projects' specific goals. Our online strategy is to deliver real-world information about FCEVs and hydrogen stations to early adopter audiences. We use email, blogs, Twitter, YouTube and Facebook to share messages about FCEV commercialization and technology with different audience types.

www.cafcp.org	Jul-15	Aug-15	Sep-15
Number of visits	7,119	6,195	7,051
Average time users spent on site	2:04	2:03	1:43
Most visited pages	Station map Home page FAQ Toolkits Stations A California Road Map	Station map Home page FAQ Toolkits Stations 10 facts about hydrogen	Station map Home page FAQ 10 facts about hydrogen A California Road Map
Most searched keywords on Google to land on CaFCP website	hydrogen fueling stations hydrogen stations in california cafcp hydrogen fuel stations hydrogen fueling stations in california	cafcp hydrogen fuel stations hydrogen fueling stations california fuel cell partnership difference between fuel cell and battery	difference between cell and battery california fuel cell partnership difference between fuel cell and battery cafcp hydrogen fueling stations
Most searched keywords on cafcp.org search engine	cost of hydrogen joe gagliano price well to wheel a california road map	cost fuel cell career project webinar	cost 33 % ab 8 AB 8 ab 8 report
Most referred websites	google.com yahoo bing arb.ca.gov success-seo.com	google.com yahoo bing success-seo.com arb.ca.gov	google.com bing yahoo arb.ca.gov driveclean.ca.gov

FACEBOOK	Jul-15	Aug-15	Sep-15	
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New likes	26	22	26
Lifetime likes	2,601	2,628	2,642
Lifetime Post Total		13,772	7,725
Reach	10,607		
Lifetime Engaged	545	820	363
Users			

TWITTER	Jul-15	Aug-15	Sep-15
Total Followers	2,243	2,284	2,322
Tweets for the month	100	71	57
Link Clicks	336	319	395