

BOARD MEETING DATE: July 11, 2014

AGENDA NO. 36

PROPOSAL: California Fuel Cell Partnership Executive Board Meeting Notes and Quarterly Updates

SYNOPSIS: This report summarizes the California Fuel Cell Partnership Executive Board meeting held April 15, 2014, and provides updates for quarters beginning October 2013 and January 2014.

COMMITTEE: Technology, June 20, 2014; Recommended for Approval

**RECOMMENDED ACTION:**

Receive and file the attached Executive Board meeting notes and quarterly updates.

Clark E. Parker, Ph.D.  
SCAQMD Representative to CaFCP

MMM:LHM

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The next California Fuel Cell Partnership (CaFCP) Executive Board meeting is scheduled for October 21, 2014, in Sacramento.

Additional information about the CaFCP can be found at  
<http://www.fuelcellpartnership.org>.

**Attachments**

- 1) California Fuel Cell Partnership Executive Board April 15, 2014 Meeting Notes
- 2) California Fuel Cell Partnership Quarterly Update (October–December 2013)
- 3) California Fuel Cell Partnership Quarterly Update (January–March 2014)

# MEETING NOTES

## CaFCP Executive Board

April 15, 2014

8:00am – 5:30pm

LOCATION: SCAQMD Headquarters, 21865 East Copley Drive, Diamond Bar, CA 91765, GB Conference Room

### Executive Board Attendees

Robert Bienenfeld, <b>Honda (Chair)</b>	Ronald Grassman, <b>Mercedes</b>
Bob Babik, <b>GM</b>	Reg Modlin, <b>Chrysler</b>
Gil Castillo, <b>Hyundai</b>	Kenzo Oshihara, <b>Nissan</b>
Justin Ward, <b>Toyota</b>	Joerg Launer, <b>Volkswagen</b>
Mary Nichols, <b>CARB</b>	Janea Scott, <b>CEC</b>
Clark Parker, <b>SCAQMD</b>	Francisco Donez, <b>US EPA</b>

Executive Board representatives from AFCC or US DOE were not present.

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### 8:30am – 8:40am

Robert Bienenfeld, Chair

### 1. Welcome

Welcome and remarks from the CaFCP Chair

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### 8:40am – 9:00am

Honda  
Hyundai  
Mercedes  
Toyota

### 2. Automaker briefing

Presentations from four automakers.

- Toyota discussed styling decisions for future vehicle
- Hyundai highlighted 10 vehicles deployed in Europe
- Honda highlighted that the FC stack in its new vehicles fits in engine compartment and will be an improvement of +35% in weight output density and +60% volume density since 2008 FCX Clarity.
- Mercedes said global activity is ~200 B Class and 30 Citaro bus. Have 69 B Class in CA now, over 1.2M miles and extending the lease program for two more years
- Infrastructure remains important for all OEMs

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### 9:00am – 9:45am

Tyson Eckerle, GO-Biz (lead)  
CEC  
CARB  
Air Liquide  
Air Products  
Linde

### 3. Hydrogen station briefing

- Current update on stations in construction and permitting; all 2010 funded stations must be operational by fall 2014.
  - 2012-funded stations must be operational by 2017
  - New fire code changes some setback distances that negatively impacts some station locations. Reviewing possible solutions.
  - Recap of GO-Biz event held the previous day; good attendance and interest. Following up with permitting workshops and Northern CA events
  - Current stations:  
In February 2014 Emeryville station conducted 51 fills 93 kg;  
Burbank 97 fills 157 kg; Harbor City 73 fills 153 kg; Fountain Valley 174 fills 507 kg.
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**9:45am – 10:15am**

Randall Winston, Governor's Office

**4. Briefing on Governor's Office ZEV Summit and next steps**

Participants in the March 7, 2014 ZEV Summit identified progress and new challenges in launching FCEVs and hydrogen into the early market.

Important next steps include:

- Issue a H2 permitting guidebook. Build upon 2013 ZEV guidebook, but more detailed.
  - Assuring network of stations in 2015-17.
  - Develop a FCV and H2 Roadmap. Including priority locations, raise awareness and metrics for success. Build off CaFCP RM and will be a state inter-agency plan.
  - As 8-state MOU moves forward, ensure that other state action plans include fuel cells and hydrogen.
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**10:15am – 11:45am**

Alex Keros, General Motors (lead)  
Gerhard Achtelik, CARB (co-lead)  
CaFCP staff

**5. CaFCP Roadmap progress report**

In 2012 CaFCP published *A California Roadmap*. The CaFCP Roadmap Progress Report will document significant actions taken to meet the Roadmap goals and identify priorities for further action. Team leads will provide an overview of the project, current status and timeline for publication in late May-Early June

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**1:00pm – 2:30pm**

Matt Miyasato, SCAQMD (lead)  
CARB  
CEC  
USEPA  
DOE

**6. Strategies to reduce air quality impacts of medium- and heavy-duty vehicles**

Californians suffer the worst air quality in the nation. Medium- and heavy-duty vehicles are some of the biggest contributors to poor air quality, especially in disadvantaged communities and near freight centers. Speakers highlighted the current situation as well as actions and incentives to address these challenges in the medium- and heavy-duty vehicle sectors.

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**3:00pm – 4:30pm**

Fred Silver, CALSTART (lead)  
CTE  
Hydrogenics  
Sandia National Labs  
US Hybrid

**7. Getting to zero: Fuel cells in medium- and heavy-duty vehicles and port applications**

Companies and developers have made significant advancements using fuel cells for medium- and heavy-duty applications. These advancements provide new opportunities in dual platform cutaway chassis, delivery and drayage trucks, refueling vehicles and portside auxiliary power. Speakers will present their latest advancements, product demonstrations and new offerings for these market sectors.

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**4:30pm – 5:00pm**

CaFCP staff

**8. Business items**

- Highlighted 2013 accomplishments included the fuel cell bus roadmap and legislative outreach activities.
  - Reviewed 2013 financials
  - Reported that FTA is no longer a CaFCP member
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**Antitrust Guidelines**

*It is the express intent of the CaFCP and its members that none of the organization's activities will violate or be in conflict with any federal, state or local antitrust law, rule or policy (collectively, the antitrust laws). Each member will conduct its affairs in conformity with this intent. Each member is aware that there are significant civil and criminal penalties for violating antitrust laws. To the extent possible, the CaFCP and the members will act in a manner substantially in compliance with the policy entitled "Antitrust Guidelines for Collaboration Among Competitors" issued by the Federal Trade Commission and the Department of Justice and dated April 2000. This document is available for reference on CaFCP's member resources website.*

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**CaFCP Quarterly Update**  
October-December 2013**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 July to September 2013.

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:

1. Proving that hydrogen and fuel cell vehicles are undeniable and necessary
2. Convincing the public
3. Adapting to new realities

To successfully implement the vision, CaFCP activities must focus on technical, communications and business operations/strategies that require collaboration and coordination. A detailed CaFCP implementation plan is available as a separate document.

**2013 CaFCP Program Plan**

Goal	Description	Milestones	Q4 Status
<b>1. Facilitate member collaboration</b>			
The California Fuel Cell Partnership (CaFCP) facilitates members and stakeholder coordination on projects and activities of common interest in order to leverage resources, communicate progress, bring together new players, and overcome challenges more quickly than could be accomplished by individual action.			
1a. Operate and decommission WSS	Operate the WSS to support Sacramento area FCEVs and decommission after nine months	Q3: Develop decommissioning plan Q4: Finalize contract for decommissioning Q4: Station closed (Nov 30) Q4: Facilities restored to original	Decommissioning completed
1c. Gain support for California fuel cell bus roadmap	Complete the California fuel cell bus roll out plan through 2017 and in 2013 will work to gain support for implementing the plan.	Q1: Present draft "FCEB in CA" to ST for review & approval Q1: Support execution of National FCEB workshop Q2: Execute Spring Bus Team meeting Q4: Support execution of International FCEB workshop Q4: Execute Fall Bus Team meeting	Completed with Fuel Cell Bus Roadmap, two CA Bus Team meetings, one national (online) and one international (in-person) fuel cell bus workshop.  Conducted outreach to brief planning agencies, select transit agencies and local-level elected officials about road map.
1d. Support Gov's ZEV Action plan	Support implementation by providing a forum and pathway for coordinated action among H2 FCV stakeholders	tbd (based on action plan)	Completed by submitting hydrogen station section to the ZEV Guidebook and paying for printing. Working closely with Governor's office to implement.
1e. Develop innovative funding mechanisms for H2 infrastructure	Raise \$65M in additional incentive support for stations, and develop and analyze innovative funding mechanisms that may be more effective and efficient than current grant process	Q1: Phase II analysis by EIN Q2: Steering Team approves option(s) 2014: implement new mechanism(s)	Completed. Hydrogen Network Investment Plan available at <a href="http://www.einow.org/images/stories/factsheets/h2nip_full_paper_final.pdf">www.einow.org/images/stories/factsheets/h2nip_full_paper_final.pdf</a>

**2. Support Station implementation**

*CaFCP will monitor, coordinate and execute the activities to deploy stations for commercialization as outlined in the roadmap document.*

2a. Transition ER training to a national program	Begin implementation of the national program to extend the reach of CaFCP's approach. The new focus will include as much on stations as on vehicles.	Q1: Execute/participate in Firehouse World Q2: National ER program plan complete Q2: Participate in DOE AMR Q3: Implementation of plan begins	Plan completed in Q4
2b. Improve station performance	To improve station performance, CaFCP conducts projects related to fill performance (e.g. to SAE J2601 and J2601/2), metering and dispenser certification, H2 quality, HVAS and station commissioning. In 2013, member teams will continue to work towards specific tasks in these areas.	Q1: Engage contractor to do fuel modeling Q1: Present HVAS nozzle design to SAE project team Q2: J2601 published as a standard Q2: J2601/2 final draft guidelines available Q4: J2601/2 publish draft guideline for FCEB Q4: DMS finalizes their method for dispenser validation	Presented HVAS antenna to project team, handed off the design to WEH J2601 to be balloted with J2579 as they reference each other Draft v6 J2601-2 posted on SAE web site for review (to ballot in Feb '14) J1766 Posted for review and comment DMS Proposed changes to flow meter tolerance Created fact sheets and station summaries. Conducted initial meetings with retailers. Participated at Pacific Oil Conference in September in Los Angeles
2c. Integrate hydrogen into existing retail fuel market	Continue building relationships with fuel retailers and further reaching out into this supply chain and insurance companies to ensure that they are engaged and involved and hydrogen stations are deployed in early market communities.	Q1: Participate in WMPA National conference Q2: Complete and publish "Guide to Building Hydrogen Station" Q2: Conduct 1st Fueling the Future workgroup meeting; Q2: Participate in SIGMA Spring Convention Q3: Develop outreach materials & participate in POC Annual conference Q4: Develop outreach materials & participate in SIGMA Annual conference Q4: Conduct 2nd Fueling the Future workgroup meeting	Created fact sheets and station profiles. Conducted initial meetings with retailers. Participated in three industry events Obtained database of 8,000+ CA retail locations for future outreach Joined CIOMA, WMPA and Fuels Institute


2d. Accelerate station implementation	Identify and address key barriers and prepare recommendations to improve timeline to 68 stations.	Q1: Complete stakeholder meetings on SI Lessons Learned Q2: Develop draft Station Implementation Lessons Learned Q3: Develop draft Station Implementation improvements doc Q4: Implement identified actions	Regularly updating timelines with funder/builder info. Recommended implementation of station progress tracking tool for CEC funded stations. Developed high level station implementation status overview tool.
<b>3. Implement hydrogen readiness</b> <i>CaFCP will focus outreach in early market communities with a goal of easing station implementation, including community acceptance and accessibility of funding. The ultimate goal is to increase awareness and understanding of hydrogen and fuel cells, especially regarding progress and next steps in California, with government officials in Sacramento and Washington, D.C.</i>			
3a. Conduct focused outreach in early market communities to prepare them for coming hydrogen stations	Build community readiness programs, deliver ER training and Permit workshops in early market communities, strengthen relationships with Clean Cities Coordinators, identify influencers and enroll them in Vehicle Loan Program (VLP).	Q2: Have 50 participants in the vehicle loan program Q2: First H2 readiness council in place Q1-Q4: Conduct 10 ER training and permitting workshops; begin transition to train the trainer Q1-Q4: Participate in 60 community events and meetings	Participated in predevelopment meetings for six station development projects Developed overall action plan and specific plans for communities with stations in development Participated in Firehouse World, Corona Auto-X, Continuing Challenge Haz Mat events
3b. Create Road Map follow-up on materials (parallel white papers)	Working with project teams, write, publish and disseminate materials that support the messages of the road map.	Create and publish one Road Map related document per quarter	Drafting roadmap progress report for 2014
3c. Expand and extend CaFCP applications	In 2013 we will further expand the capabilities improving the functionality and usability of the station map, SOSS and CRM capabilities	Q2: Expand functionality of CRM Q3: Improve interactive map applications on CaFCP website Q4: Extend capabilities of SOSS to support station performance and implementation projects	CRM implemented and in use Updated online station map Updated SOSS to allow manual station online/offline settings

3d. Build support in Sacramento and Washington DC	Continue working with a consultant, Political Solutions, at the state level and with FCHEA in Washington DC to provide education and information at state and federal level to elected officials represent early market areas.	Q1: Complete strategy for reaching all newly elected officials Q2: Provide education and information to targeted officials Q2: Host or participate in two briefing sessions Q3: Revise legislative outreach plan	Attended two briefings in Washington DC for federal government Participating on H2USA steering committee and two working groups
3e. Conduct high-value marketing and outreach	Participate in and sponsor conferences and expos primarily in California that reach our target audiences and further the message of the roadmap. Conduct a marketing campaign using social media to continue to build interest in FCVs and hydrogen	Q1-Q3: Speaking opportunities at 3-4 transportation conferences in US and overseas Q1-Q4: Conduct one social media campaign per quarter; post weekly blogs Q1-Q4: Participate in 10 targeted outreach events	Participated in DOE Solar Decathlon Participated in a variety of events in Northern California



# Outreach Activities

## Outreach Activities

Activity	Target Audience	Picture
DOE Solar Decathlon	Early adopters, residents and stakeholders in early market communities, engineering students, local government	

## Government Outreach and Education

Because CaFCP includes government members, as a group we do not lobby or advocate for legislation or regulation. Throughout the year, we did provide outreach and education to members of the California Senate and Assembly, and their staff so that they had accurate and up-to-date information about hydrogen, fuel cell electric vehicles, including buses. We brought vehicles to their district offices and conducted outreach at the State Capitol, too. During the year, CaFCP directly contacted 44 legislators and 202 staff, as well as seven NOGs.

In October, Governor Brown signed Assembly Bill 8 into law. AB 8 (Perea, Chapter 401, Statutes of 2013) re-authorizes the ARFVTP through January 1, 2024, and specifies that the Energy Commission allocate up to \$20 million per year (or up to 20 percent of each fiscal year's funds) in funding for hydrogen station development until at least 100 stations are operational.

The following is a list of all meetings with legislators, legislative staff and NGOs in Q4 2013.

Meeting type	Date	CaFCP	Met with
Community Meeting	10/16/13	Jennifer Hamilton	Invitation from Linde to meeting with CEC and Governor's office and the City of Cupertino re: proposed H2 fueling station. Provide support with fire/permitting information, Road Map, etc.
Community Meeting	10/17/13	Jennifer Hamilton	Invitation from Linde to meet with CEC and Governor's office with city of Mountain View re: proposed H2 fueling station. Provide support with fire/permitting information, Road Map, etc.
District meeting	10/17/2013	Keith Malone	Senator Richard Roth and staff member Tyler Madary
Capitol meeting	10/28/2013	Catherine Dunwoody	Chuck Dalldorf, office of Senator Richard Roth
District meeting	11/21/2013	Keith Malone	Raquel Maden, senior field representative to State Senator Ben Hueso.
District meeting	11/22/2013	Keith Malone	Jason Weisz, senior field representative to Assembly Member Toni Atkins
District meeting	11/22/2013	Keith Malone	Assembly Member Lorena Gonzales and Paul Ochoa, field representative
District meeting	12/2/2013	Keith Malone and Arjun Sarkar, UCSB sustainable transportation specialist	Assembly Member Das Williams (D-Santa Barbara) and Josh Molina, Communications Director
Capitol meeting	12/4/2013	Keith Malone and Teresa Cooke, Political Solutions	Jesse Cuevas, legislator director for Assembly Member Henry Perea (D-Fresno), author of AB 8
Capitol meeting	12/4/2013	Keith Malone and Teresa Cooke, Political Solutions	Dave Titus, chief of staff to Assembly Member Beth Gaines (R-Rocklin)
Capitol meeting	12/4/2013	Keith Malone and Teresa Cooke, Political Solutions	Assembly Member Richard Pan (D-Sacramento) and legislative aide Bernardette Lawrence
Capitol meeting	12/4/2013	Keith Malone and Teresa Cooke, Political Solutions	Assembly Member Rudy Salas (D-Bakersfield) and Yolanda Sandoval, chief of staff
Capitol meeting	12/4/2013	Keith Malone and Teresa Cooke, Political Solutions	Sharon Gonsalves, legislative director to State Senator Anthony Cannella (R-Ceres)
Capitol meeting	12/4/2013	Keith Malone and Teresa Cooke, Political Solutions	Assembly Member Ken Cooley (D-Rancho Cordova) and Brendan Repicky, legislative aide
Capitol meeting	12/4/2013	Keith Malone and Teresa Cooke, Political Solutions	Todd Moffitt, legislative director for State Senator Jean Fuller (R-Bakersfield)
Capitol	12/5/2013	Keith Malone and Holly	Taylor Woolfork, Legislative Aide to Senator

meeting		Langbein, Political Solutions	Cathleen (D-Stockton)
Capitol meeting	12/5/2013	Keith Malone, Chris White and Holly Langbein, Political Solutions	Dawn Isbell, legislative aide, and, later, Assembly Member Roger Dickenson (D-Sacramento)
Capitol meeting	12/5/2013	Keith Malone and Holly Langbein, Political Solutions	Matt Theis, capitol director for Assembly Member Kristen Olsen (R-Modesto)
Capitol meeting	12/5/2013	Keith Malone and Holly Langbein, Political Solutions	Erika Bustamante, Senior Leg Assistant for Assembly Member Luis Alejo (D-Salinas)
Capitol meeting	12/5/2013	Keith Malone, and Holly Langbein and Teresa Cooke, Political Solutions	Kip Lipper, legislative aide to President Pro Tempore of the Senate Darrell Steinberg (D-Sacramento). Lipper is an advisor on energy, environmental, and natural resources matters.
District meeting	12/6/2013	Keith Malone	Assembly Member Anthony Rendon, Ronald Gonzales-Lawrence and other district staff for Assembly Member Rendon
District meeting	12/11/2013	Keith Malone	State Senator Jerry Hill (D-San Mateo)
District meeting	12/11/2013	Keith Malone	Marc Hershman, district director and Lisa Chung, senior district representative to State Senator Jerry Hill. Also in contact with Cory Wolbach, field representative and Marina Gonzalez, scheduler.
District meeting	12/12/2013	Keith Malone	Nadia Conrad-Huayta, field representative for Assembly Member Tom Ammiano
Community meeting	12/17/2013	Keith Malone	Ryan Wiggins, cap and trade campaign manager for TRANSFORM California
Community meeting	12/18/2013	Keith Malone	Patricia Ochoa, deputy policy director for the Coalition for Clean Air
Community meeting	12/22/2013	Keith Malone	State Senator Carol Liu, Vickere Murphy, aide to Senator Liu

## Website and social media metrics

www.cafcp.org Q4, 2013	
<b>Number of visits</b>	17,723
<b>Average time spent on site</b>	1:53
<b>Most visited pages</b>	Station map Home page FAQ 10 Facts About H2 Blog
<b>Most searched keywords on Google to land on CaFCP website</b>	where does hydrogen come from california fuel cell partnership facts about hydrogen hydrogen facts interesting facts about hydrogen
<b>Most searched keywords on cafcfp.org search engine</b>	cost hydrogen careers biodiesel ethanol
<b>Most referred websites</b>	google.com newsletter t.co yahoo bing

FACEBOOK Q4, 2013	
<b>New likes</b>	76
<b>Lifetime likes</b>	2,399
<b>Post Views*</b>	28,673
<b>Top Page Posts*</b>	Eight-state MOU... (16,056) Did you make it out... (6460) Sperling described... (357) Excerpt: Like the... (319) Don't want to read... (276)
TWITTER Q3, 2013	
<b>Followers</b>	1313
<b>Tweets</b>	7553

# Station Implementation

CaFCP will monitor, coordinate and execute the activities to deploy stations for commercialization as outlined in the roadmap document.

## Infrastructure Status

At the end of Q4 2013, California had nine public hydrogen stations open and 19 in some stage of development. The open stations had technical challenges throughout the year and two are still closed at the writing of this report (Torrance and Newport Beach). Status of the 28 open and funded stations is:

#	Station Location	Operational Date	Current Status	Notes
1	Burbank	2006	350 bar – Open 700 bar – Closed for repair until week of Jan. 20.	700 bar dispenser expected back online week of Jan. 20.
2	Emeryville	2012	Open	
3	Fountain Valley	2011	Closed for repair	Defective circuit breaker on OCSD fuel cell prohibiting H2 production being fixed Expect refill of H2 storage tubes to begin Jan. 10. Station expected back to full pressure by Jan. 13 3-year operational requirement ends mid-2014 – looking at options to extend
4	Harbor City	2013	Open	
5	Irvine - UCI	2007 (3 <sup>rd</sup> gen.)	Open	Will be upgraded in 2014
6	Newport Beach	2012	Closed for repair	H2 compressor being repaired. Expected back online in early January 2014
7	Thousand Palms	2006	Open	
8	Torrance	2011	Open	
9	West LA	2008	Open	
10	Beverly Hills	Q4 2014	Design/Permitting	Beverly Blvd. Pre-appl. mtg Jan. 2014
11	Diamond Bar (upgrade)	Q3 2014	Design/Permitting	Permits submitted Nov. 13 Construction est. done by July 1, 2014 Commissioning after July 2014

12	Hawthorne	Q4 2014	Contracting	Possible site change
13	Hermosa Beach	Q4 2014	Contracting	Possible site change
14	Irvine (UCI upgrade)	Q3 2014	Design/Permitting	Q2 2014: construction
15	Irvine North	Q4 2014	Contracting	New site chosen by APCI – not public yet Construction: est. Sep. 2014
16	San Juan Capistrano	Sep. 2014	Design/Permitting	Ready to submit permit application in Q1 2014 Public hearing Spring 2014
17	Los Angeles	May 2014	Commissioning	CSULA
18	Santa Monica	Q3 2014	Design/Permitting	Cloverfield location. Permit filing – Jan. 2014 Construction – est. Q2 2014
19	West LA 2	Sep. 2014	Design/Permitting	Santa Monica Blvd. Construction: Q2 2014. Commissioning: Aug. 2014
20	West Sacramento	Sep. 2014	Contracting	Permit package est. complete Jan. 2014
21	Westwood	unknown	Funding	Project dormant
22	Anaheim	Oct. 2014	Design/Permitting	
23	Chino	Oct. 2014	Design/Permitting	Planning Commission approved project Jan. 2014. Permitted by May 2014 (est.)
24	Cupertino	Q1 2015	Contracting	
25	Foster City	Q1 2015	Contracting	
26	Mission Viejo	Oct. 2014	Design/Permitting	Equipment ordered, MOU with station owner complete, permit appl in Jan. 2014
27	Mountain View	Q1 2015	Contracting	
28	Woodland Hills (LA)	Q4 2014 (est.)	Design/Permitting	Permit appl. to City of LA in Jan. 2014

## 2013 Funding

In November, South Coast AQMD issued an RFP for upgrading existing hydrogen fueling infrastructure and conducting site evaluations for hydrogen station certification. SCAQMD is making \$6.6 million available through this grant, with most of it designated for station upgrades to eligible stations. Proposals were due on December 4, 2013 with awards anticipated in January, 2014.

In December, CEC issued a Program Opportunity Notice (PON) for \$29.9 million in co-funding for hydrogen stations in California. The solicitation has five separate funding categories:

1. O&M Support Grants
2. 100% Renewable Hydrogen Refueling Station
3. Mobile Refueler
4. Station Location Area
5. Unassigned Station

Applications for funding are due on February 14 and anticipated Notice of Proposed Award posting date is March 28, 2014. The PON includes, for the first time, an incentive for opening stations on or before October 31, 2015 and a penalty for opening after October 31, 2016.

## HVAS

The Hydrogen Vehicle Authorization System (HVAS) project was initiated in 2009, and assigned by the SAE Fuel Cell Interface Working Group to CaFCP to explore as a concept. The concept uses HVAS to identify and allow a hydrogen vehicle as an OEM-qualified vehicle to fuel at a station, thereby improving fueling safety by using an identification system that is integrated in the vehicle. The 2013 HVAS project goal was to present an optimized and rugged HVAS antenna design to the project team.

In 2013, under CaFCP management, we achieved this goal when Thinkify (RFID company) completed their contracted work on the HVAS antenna design for the 70 MPa WEH nozzle and presented the results to project team. As a final step, Thinkify handed off the developed antenna to the nozzle manufacturer WEH for integration in their commercially available nozzle. Please find more details about the HVAS project at [www.cafcp.org/hvas](http://www.cafcp.org/hvas).

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**CaFCP Quarterly Update**  
January-March 2014**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 2014.

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:

1. 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 collaboration and coordination. A detailed CaFCP implementation plan is available as a separate document.







**2014 Program Plan**  
**Q1 accomplishments**

<b>1. Facilitate member collaboration</b> The California Fuel Cell Partnership facilitates members and stakeholder coordination on projects and activities of common interest in order to leverage resources, communicate progress, bring together new players, and overcome challenges more quickly than could be accomplished by individual action.	
Heavy duty Fuel Cell Program	<ul style="list-style-type: none"> <li>• CALSTART "FCEB US Transit Study" surveys sent to US transit agencies</li> <li>• Draft strategy for heavy duty vehicles presented at March WG</li> </ul>
Strategic Initiatives	<ul style="list-style-type: none"> <li>• Participated in two H2USA meetings</li> </ul>
<b>2. Support Station implementation</b> CaFCP will monitor, coordinate and execute the activities to deploy stations for commercialization as outlined in the roadmap document.	
National ER Program	<ul style="list-style-type: none"> <li>• Working with NFPA and DOE on updates to online training program</li> </ul>
Station Performance Codes & Standards	<ul style="list-style-type: none"> <li>• J2601 went through re-ballot and is being prepared for final publication</li> </ul>
Fuel retailers	<ul style="list-style-type: none"> <li>• Attended WPMA meeting in Las Vegas, planning for SIGMA ride &amp; drive</li> </ul>
Station implementation	<ul style="list-style-type: none"> <li>• Participated in DOE/NREL Workshop on H2 Transmission and Generation</li> </ul>
Workforce development	<ul style="list-style-type: none"> <li>• Participated in Firehouse World</li> <li>• Conducted workshop in Sacramento on Permitting and H2 Fueling Practices</li> </ul>

**3. Implement hydrogen readiness**

CaFCP will focus outreach in early market communities with a goal of easing station implementation, including community acceptance and accessibility of funding. The ultimate goal is to increase awareness and understanding of hydrogen and fuel cells, especially regarding progress and next steps in California, with government officials in Sacramento and Washington, D.C.

Activity	Description	Picture
Firehouse World, Feb 18-20	Exhibitor	
National Fuel Cell Symposium, Feb 27	Presenter	
South Bay Cities COG General Assembly, Feb 28	Sponsor	
Chino Corn Feed Run, March 22	Exhibitor w. SCAQMD	

Climatepalooza, March 28	Exhibitor	
Clean Air Partnership Luncheon, March 28	Presenter	

### Legislative Outreach

Title	Meeting Date	Meeting With
District Meeting	1/7/2014	Cine Ivery, chief of staff and Samahndi Cunningham, office of State Senator Rod Wright (D-Inglewood)
District Meeting	1/8/2014	Briefing with Rachel Zaiden, casework manager and Lisa Pinto, district director, office of Congressman Henry Waxman (D-Los Angeles). Ride...
District Meeting	1/9/2014	Carlos Urquiza, field representative, office of Congresswoman Loretta Sanchez (D-Garden Grove). Showed car to Gus Castellanos, district director
District Meeting	1/10/2014	Assembly Member Richard Bloom (D-Santa Monica) and Andrea Kune, district director.
District Meeting	1/13/2014	Ben Cardenas, district director, office of Congresswoman Grace Napolitano (D-El Monte)
District Meeting	1/14/2014	Rafel Elizalde, senior field representative to Congressman Mark Takano (D-Riverside). Ride and drive included Marisela Magana.
District Meeting	1/15/2014	Elison Swanson, district director, and Eric Boyd, deputy district director to Congresswoman Janice Hahn (D-San Pedro). Ride and drive with Eric....
District Meeting	1/15/2014	Hamilton Cloud, special projects director to Congresswoman Maxine Waters (D-South Los Angeles)
District Meeting	1/23/2014	Jesus Diaz, field representative for State Senator Ricardo Lara (D-Long Beach)
Capitol Meeting	1/27/2014	Henry Stern, office of State Senator Fran Pavley (D-Woodland Hills)
Capitol meeting	1/28/2014	Ryan Hanretty, office of Assembly Member Travis Allen (R-Huntington Beach). Briefly met Emanuel Patrascu, district director.
Capitol meeting	1/28/2014	Lawrence Cooper, legislative analyst for State Senator Ricardo Lara (D-Long Beach)

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Capitol meeting	1/28/2014	Khaim Morton, legislative director for Assemblymember Sebastian Ridley-Thomas
Capitol meeting	1/28/2014	Juan Torres, chief of staff, and Roy Sianez, legislative director for State Senator Norma Torres (D-Chino)
Capitol meeting	1/28/2014	Matthew Powers, special assistant to Assembly Member Matt Dababneh (D-Van Nuys) and Assembly Member Dababneh
NGO meeting	1/31/2014	Anup Bandivadekar and Ben Sharpe with the International Center for Clean Transportation (ICCT)
NGO meeting	2/7/2014	Bill Magavern, public policy director for the Coalition for Clean Air
NGO meeting	2/13/2014	Jonathan Parfrey, Climate Resolve (Los Angeles)
Capitol meeting	2/24/2014	Assembly Member Anthony Rendon (D-South Gate) and Alf Brandt, legislative director
Capitol meeting	2/24/2014	Nidia Bautista, legislative aide to State Senator Kevin De Leon (D-Echo Park)
District Meeting	2/26/2014	Mike Auilera, district representative to Congressman Adam Schiff (D-Burbank) and Connor L, intern
NGO meeting	3/17/2014	Ryan Young, legal counsel and Roman Partida, legal fellow, The Greenlining Institute, and Max Baumhefner, Natural Resources Defense Counsel
District meeting	3/19/2014	Dan Bernal, chief of staff, Congresswoman Nancy Pelosi
Capitol meeting	3/20/2014	Shanna Ezzell, legislative aide to Assembly Member Freddie Rodriguez (D-Chino)
Capitol meeting	3/20/2014	Kelsy Castillo, legislative consultant to Assembly Ian Calderon (D-Industry)
Capitol meeting	3/20/2014	Katerina Robinson, senior legislative aide to Assembly Member Mike Gatto (D-Burbank)
Community meeting	3/21/2014	Steve Shea, office of Senate President Pro Tem Darrell Steinberg
District meeting	3/27/2014	John Alford, aide to Congressman Brad Sherman (D-Sherman Oaks)
District meeting	3/27/2014	Becky Chang, district director, four other district staff and interns to Congresswoman Judy Chu (D-Pasadena)

### Community Relations Outreach

Title	Meeting Date
LA Region, League of California Cities General Membership Meeting	1/2/2014
LAEDC E-Mobility Task Force	1/9/2014
Meeting with district staff for LA City Councilmember Bob Blumenfield (CD 3)	1/22/2014
Meeting with Rick Teebay, Office of Sustainability, LA County	1/22/2014
Conrado Terrazas, district director for Los Angeles City Council Member Gil Cedillo	1/24/2014
US-Vehicle Incentive Program Kick-off Meeting	1/28/2014
LAEDC Economic Forecast	2/19/2014
Meeting with Los Angeles City Council Member Felipe Fuentes	2/22/2014
Presentation to San Juan Capistrano City Council	3/4/2014

## Website and social media metrics

<b>PUBLIC WEBSITE</b>	<b>Jan-14</b>	<b>Feb-14</b>	<b>Mar-14</b>
<b>Number of unique visits</b>	9,518	7,524	8,210
<b>Visits (Cpanel)</b>	55,670	50,348	58,442
<b>Average time spent on site</b>	2:01	1:47	1:50
<b>Most visited pages</b>	Station map Home page FAQ 10 facts about hydrogen 2013 FC Progress Update Infographic	Station map Home page FAQ 10 facts about hydrogen A California Road Map	Station map Home page FAQ 10 facts about hydrogen Members
<b>Most searched keywords on Google to land on CaFCP website</b>	where does hydrogen come from california fuel cell partnership facts about hydrogen h2usa where is hydrogen found	where does hydrogen come from california fuel cell partnership difference between fuel cell and battery hydrogen facts facts about hydrogen	where does hydrogen come from california fuel cell partnership cafcp.org hydrogen facts difference between fuel cell and battery
<b>Most searched keywords on cafcp.org search engine</b>	Hydrogenics biodiesel cost cost of hydrogen electric	Hydrogenics 1/3 ab 8 EIN Ford	ab 8 DOE hydrogen highway jobs plug power
<b>Most referred websites</b>	google.com stumbleupon.com wired.com teslamotors.com t.co	google.com stumbleupon.com arb.ca.gov bing facebook.com	google.com bing arb.ca.gov stocktwits.com t.co
<b>FACEBOOK</b>			
<b>New likes</b>	38	35	27
<b>Lifetime likes</b>	2,428	2,448	2,469
<b>Lifetime Post Total Reach</b>	19,855	3,565	21,917
<b>Lifetime Engaged Users</b>	558	356	406
<b>TWITTER</b>			
<b>Total Followers</b>	1390	1458	1512
<b>Total Lifetime Tweets</b>	7786	7916	8213
<b>Link Clicks</b>	305	257	298