California Hydrogen Fueling Station Network Update

Joe Gagliano & Ben Xiong

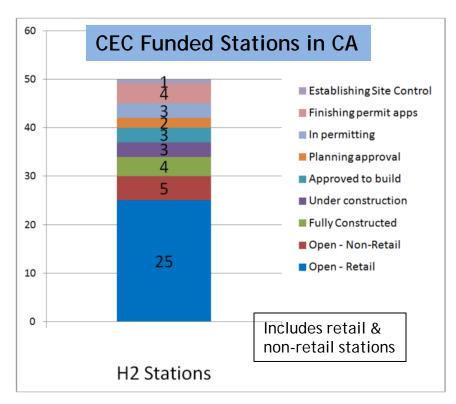
December 15, 2016

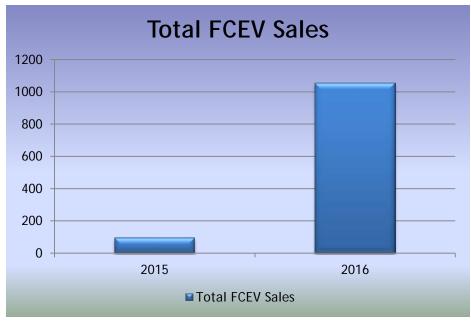






California H2 Station Network & FCEV Totals





Source: HybridCars.com

Forecast estimate 2016: ~25 stations

Forecast estimate 2017: up to ~49 stations

On-Road FCEV Estimates*

2019: 13,500

2022: 43,600

*ARB July 2016 AB 8 Report - OEM Surveys



Retail Stations Openings - Q3/Q4 2016



Playa del Rey



Woodland Hills



Hollywood



Anaheim



Del Mar



Forecast for Next Retail Stations

- Riverside
- Ontario
- Woodside
- San Ramon
- Cal State LA
- S. Pasadena
- Fremont
- Thousand Oaks
- Lawndale
- Torrance





CEC GFO 15-605 Solicitation

- Up to \$33.0 million for CapEx and O&M
- Two competitions:
 - Main station (see table)
 - I-5 Connector station (Wheeler Ridge/Lebec & Los Banos)
- Deadline to Submit Applications: August 19, 2016
- Anticipated NOPA: Q1 2017

Core Market Areas

San Francisco

Berkeley/Oakland/Walnut Creek/Pleasant Hill

Greater LA/Sherman Oaks/Glendale/Pacific Palisades

San Diego/La Mesa

Torrance/Manhattan Beach/Redondo Beach

South San Diego/Coronado

Pasadena/San Gabriel/Arcadia

Long Beach/Huntington Beach/Buena Park/Fullerton

Santa Cruz

Irvine/Tustin

San Mateo/Palo Alto/Cupertino/Campbell/San Jose

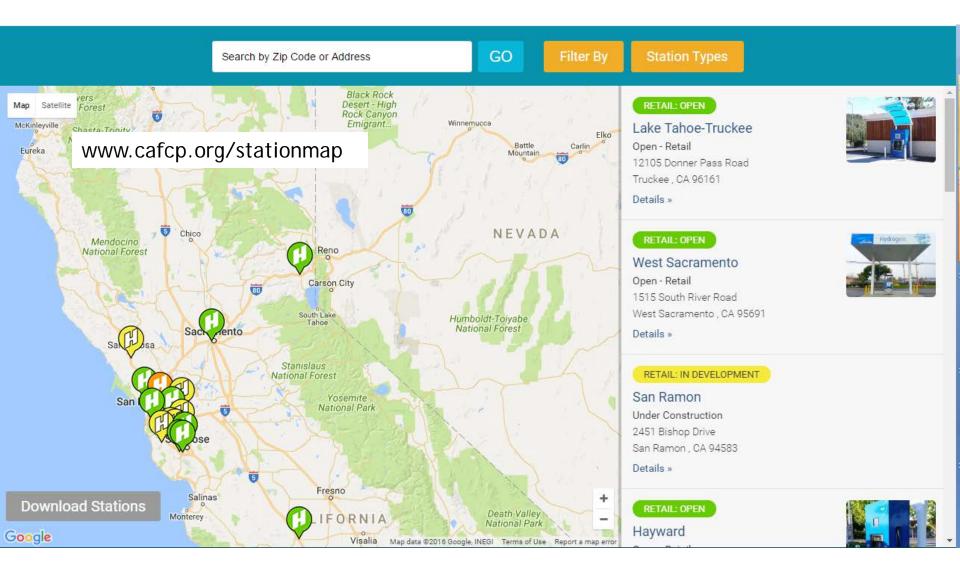
Sacramento/Carmichael

San Clemente

Laguna Beach



Tools You Can Use - Station Map





Tools You Can Use - SOSS

Station Status

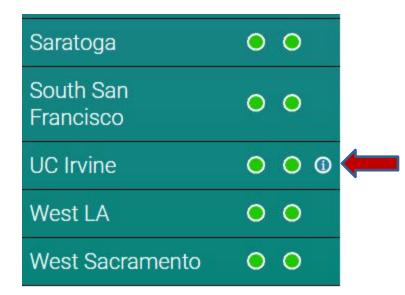


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Tools You Can Use - SOSS



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UC Irvine

Hydrogen bus refueling occurs at this station nightly between 10:00 PM and 2:00 AM. As a result, a customer may experience delays or be unable to fuel during this time period.





In Closing

- Retail hydrogen fueling station network from San Diego, LA/Orange Counties, Central Valley, Bay Area, Sacramento & Lake Tahoe
- Over 1,000 fuel cell vehicles on California roadways
- Learning/refining the process to get retail stations open
- Funding is in the pipeline and there is a government commitment to reach 100 stations
- Efforts now underway to address MD/HD FCEVs CaFCP Action Plan released















































































Questions?



Joe Gagliano 714-393-2520

jgagliano@cafcp.org