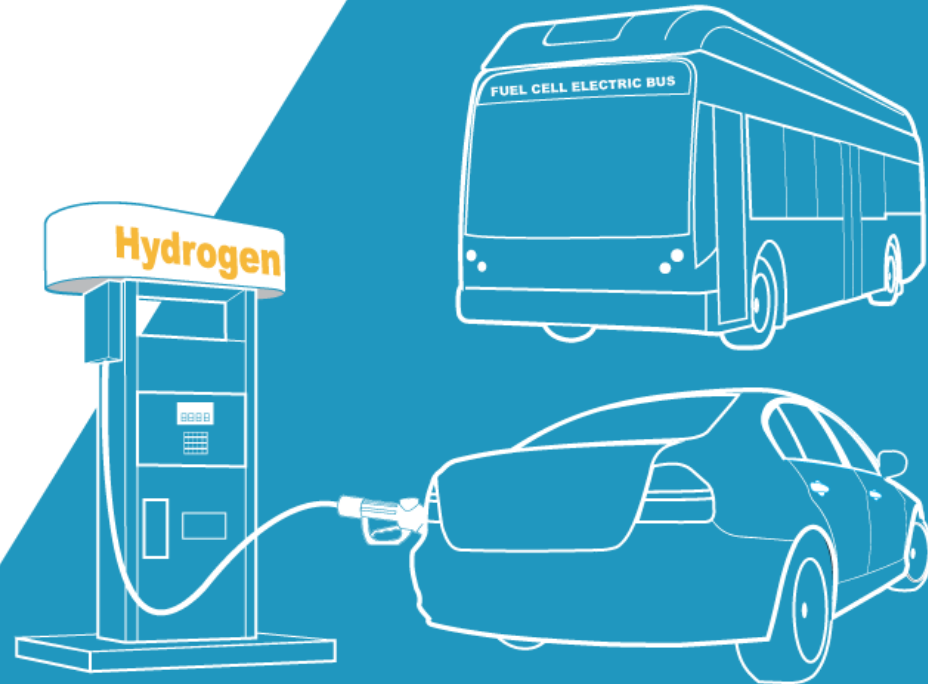


# CaFCP Public Forum

## *Accelerating Commercialization in California*

Los Angeles,  
April 25, 2017





# Agenda

- Welcome and opening remarks
- 100 Stations and Beyond  
*Break*
- Opportunities for Renewable Hydrogen  
*Lunch* (on own)
- Perspectives on Commercialization  
*Break*
- Executive Board Business Meeting

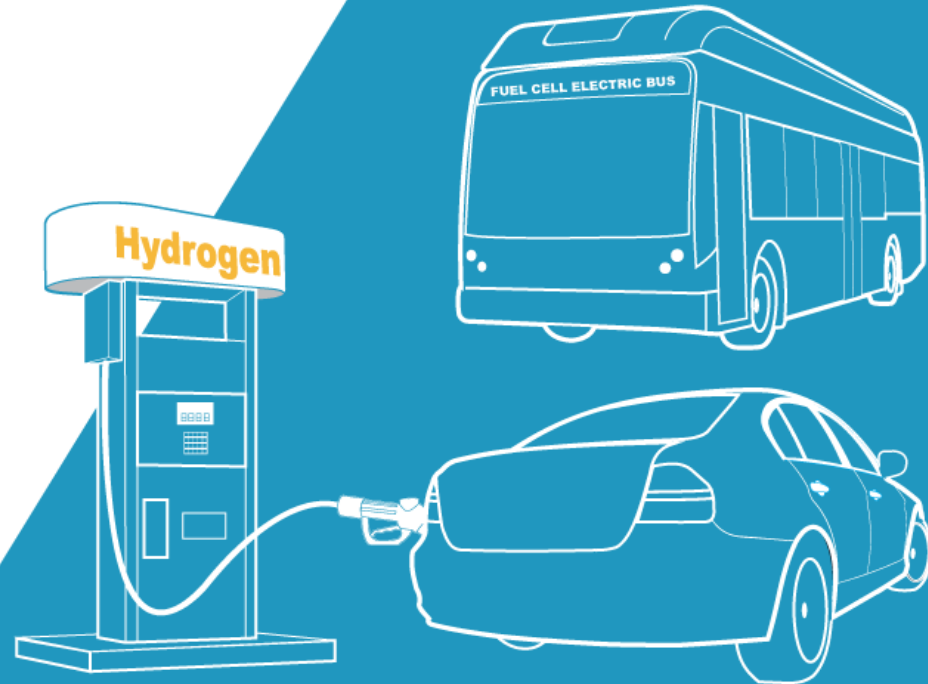


Dr. Clark Parker, 2017 CaFCP Chair

**WELCOME**

# 100 Stations and Beyond

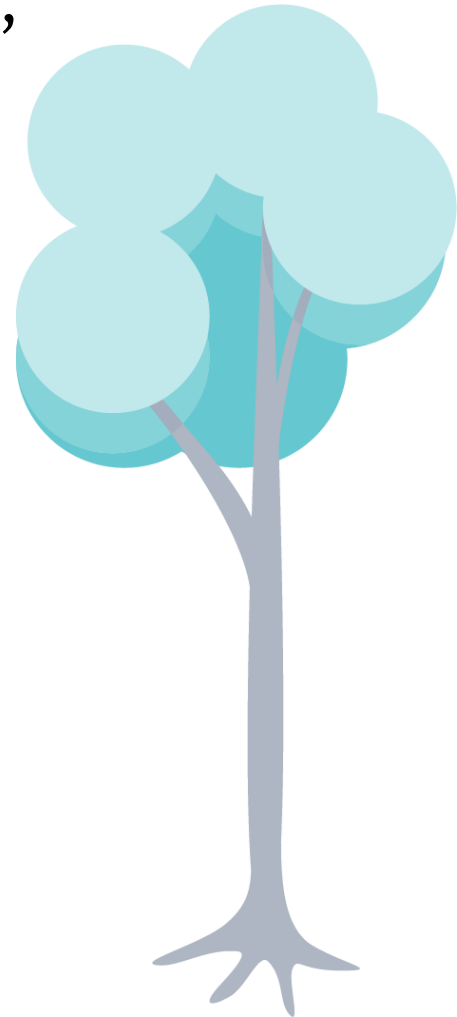
Tyson Eckerle, GO-Biz  
Bill Elrick, CaFCP





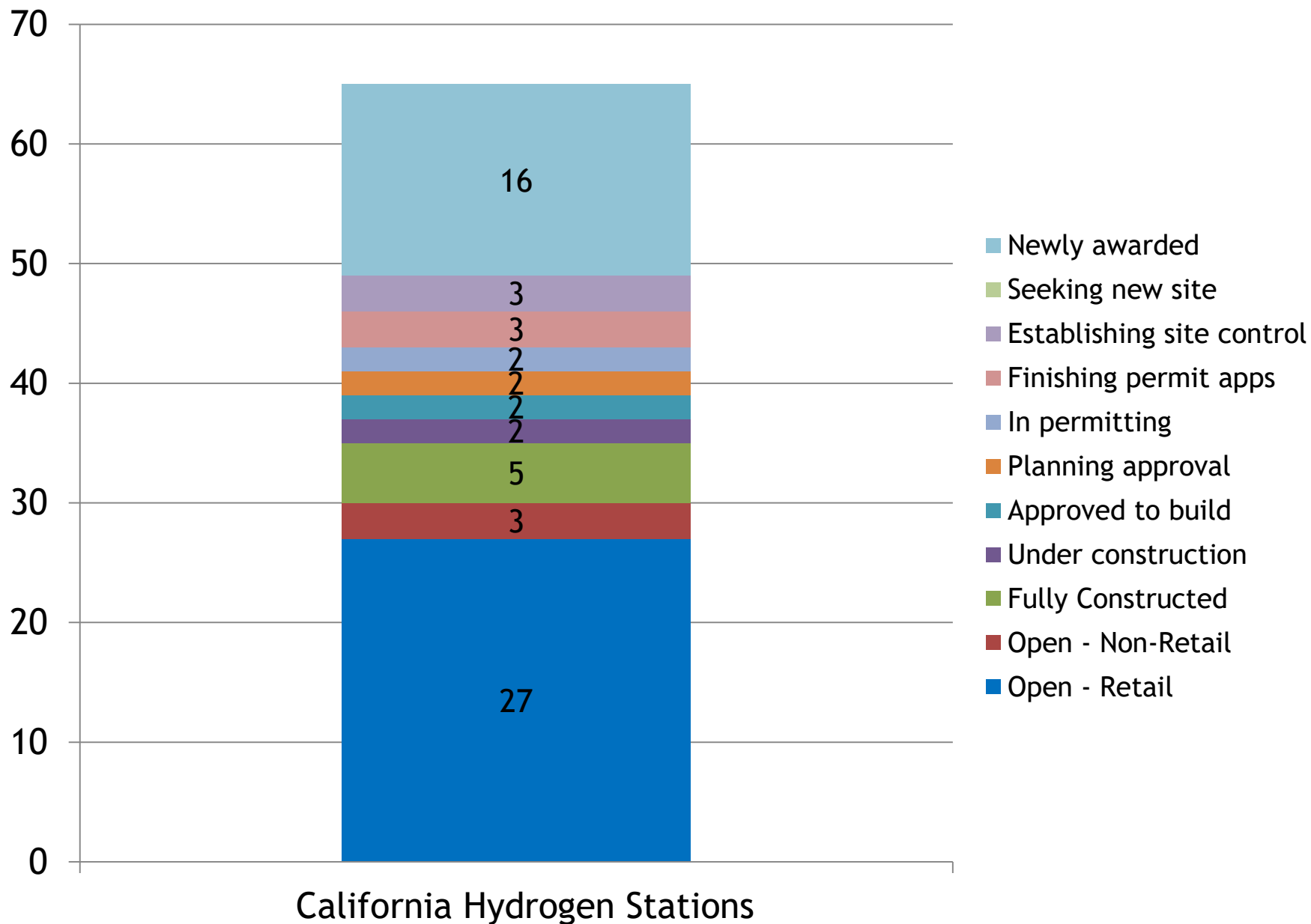
# CaFCP Charged With

1. Produce a 2017 Hydrogen Progress, Priorities, and Opportunities report
2. Develop a vision of a maturing commercial market
3. Expand outside of California

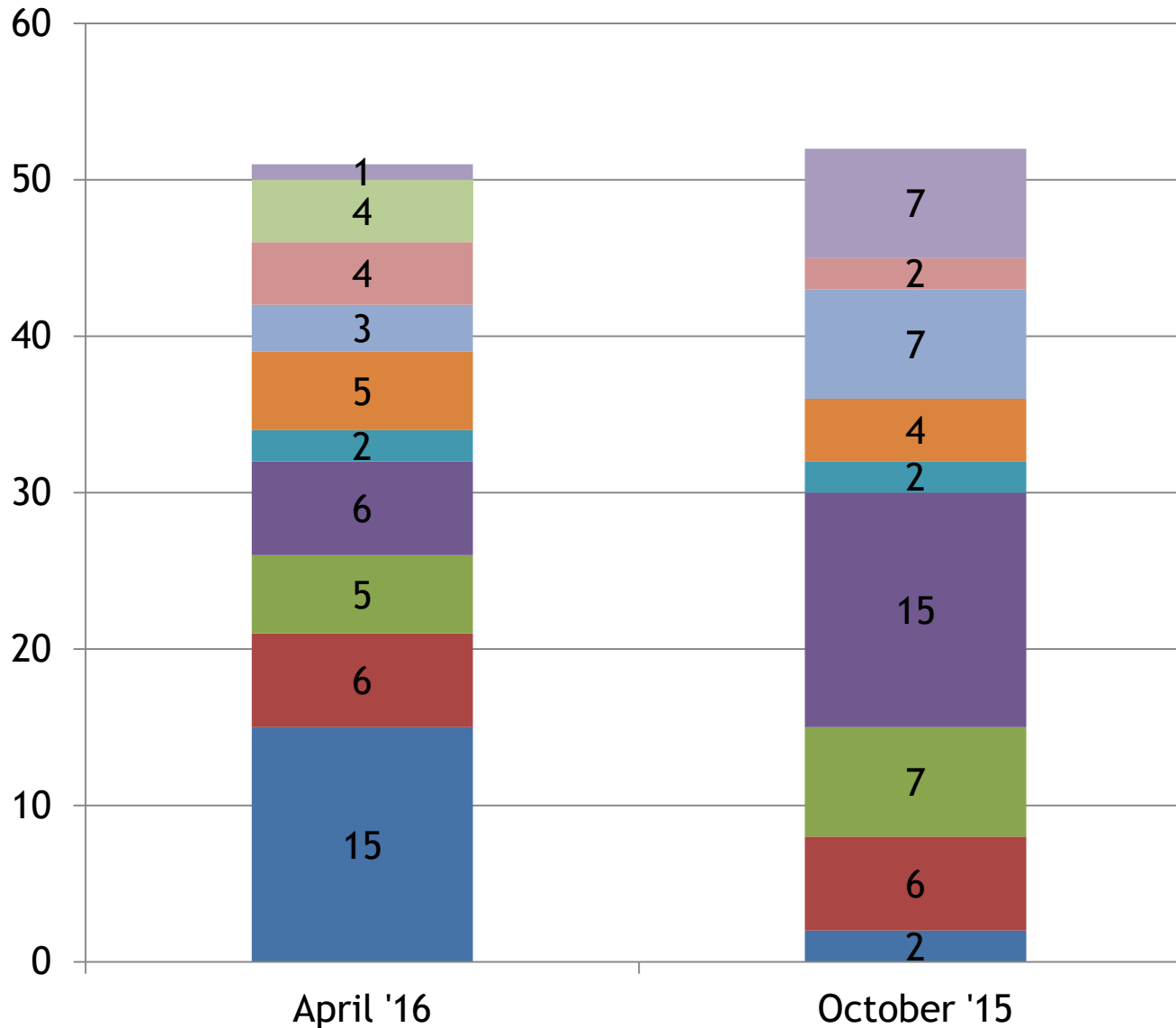




# H2 Network as of 25 April 2017



# H2 Network April 2016



- Seeking new site
- Finalizing Site Change
- Finishing permit apps
- In permitting
- Planning approval
- Approved to build
- Under construction
- Fully constructed
- Open - Non-Retail
- Open - Retail







# Southern CA Hydrogen Stations

## Retail: Open

Anaheim  
Costa Mesa  
Del Mar  
Diamond Bar  
Fairfax-LA  
Harris Ranch  
Hollywood  
La Cañada Flintridge  
Lake Forest  
Long Beach  
Playa Del Rey  
Riverside  
San Juan Capistrano  
\*Santa Barbara  
Santa Monica - Cloverfield Blvd  
UC Irvine  
West LA  
Woodland Hills

## Other: Open

Burbank  
Newport Beach  
\*Thousand Palms - SunLine Transit

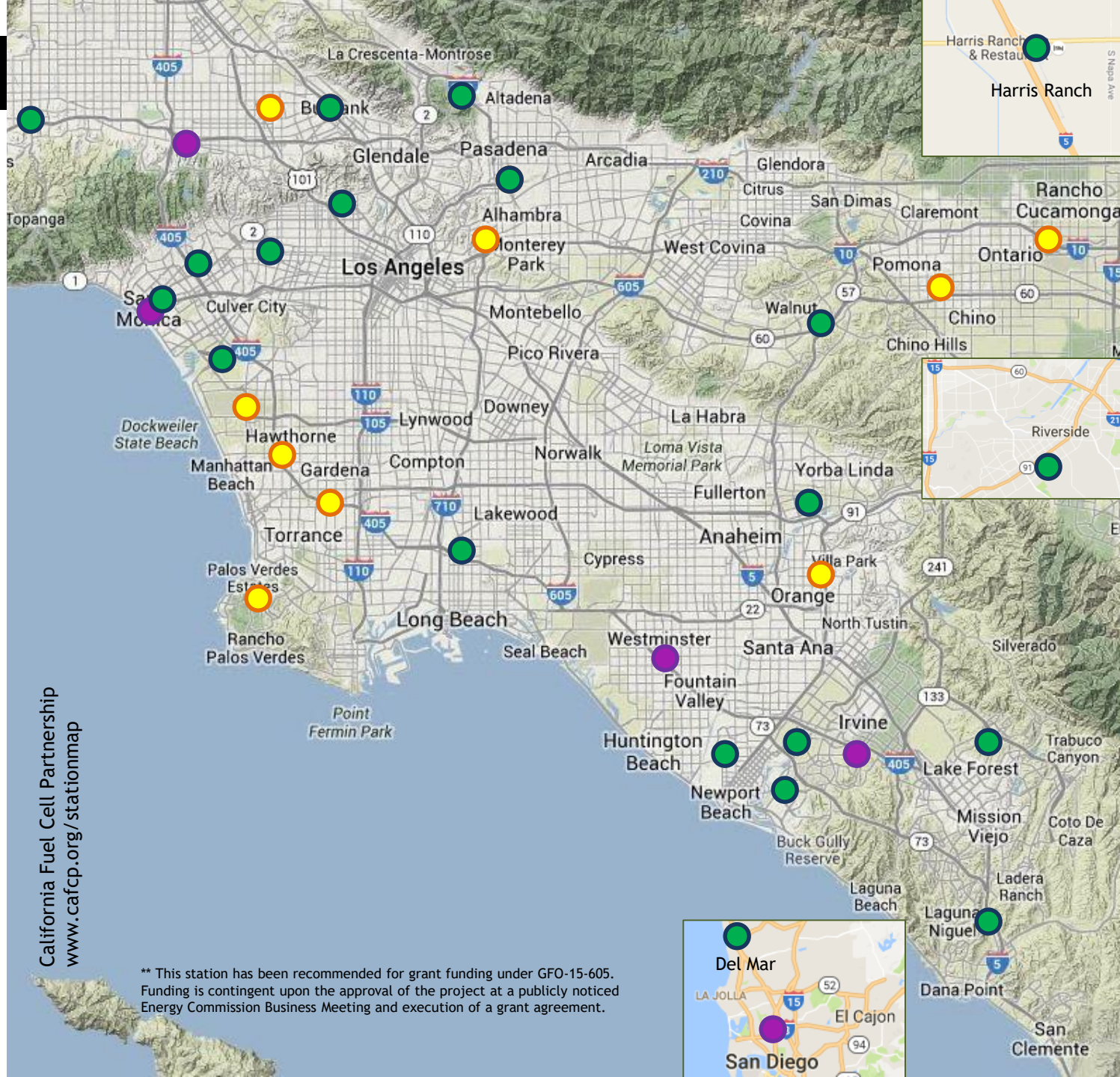
## Retail: In Development

Cal State LA  
Chino (upgrade)  
Lawndale  
LAX (upgrade)  
North Hollywood  
Ontario  
Orange  
Rancho Palos Verdes  
South Pasadena  
\*Thousand Oaks  
Torrance

*\*Not shown on map*

## Proposed\*\*

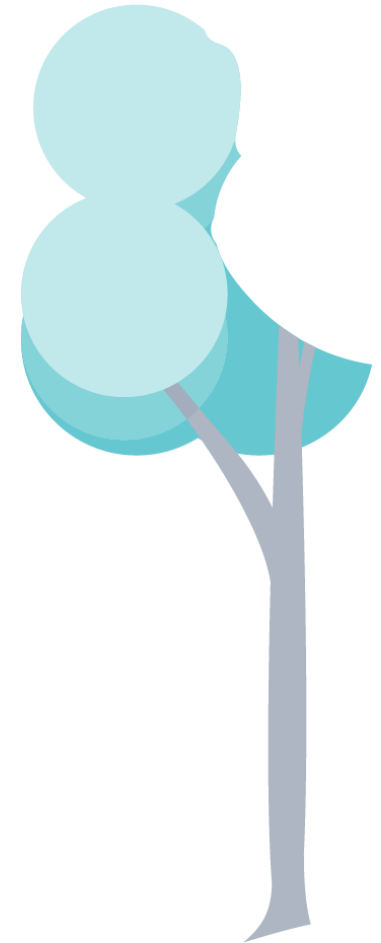
Irvine  
Huntington Beach  
San Diego  
Santa Monica - Lincoln Blvd  
Sherman Oaks



\*\* This station has been recommended for grant funding under GFO-15-605. Funding is contingent upon the approval of the project at a publicly noticed Energy Commission Business Meeting and execution of a grant agreement.

# HyPPO

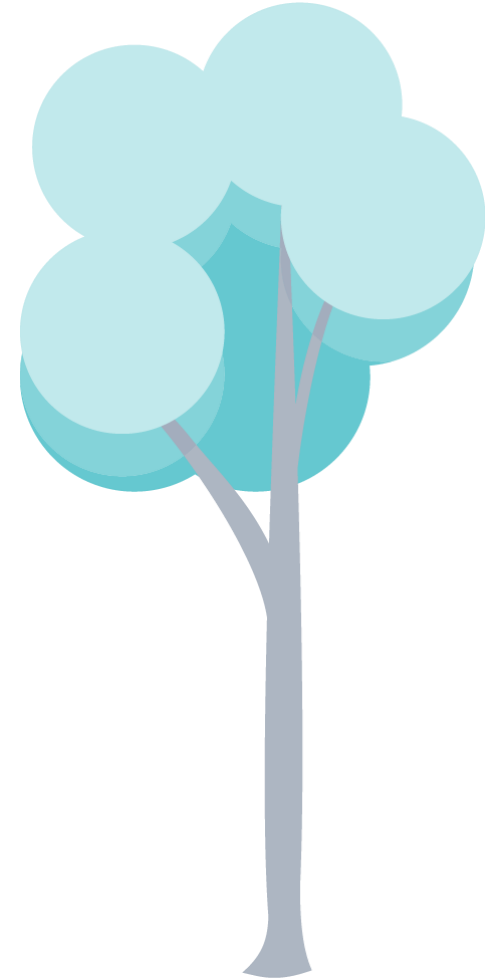
- Review progress since 2014
- Address items that we can do faster and better to deploy 100 stations
- Evaluate assumptions made in 2012 and 2014
- Share lessons learned with other locales











# Maturing Market

- Next milestones
- Deployment strategies
- Accelerators and triggers



# What do we need to pay attention to with respect to hydrogen and fuel cell vehicle commercialization?

## Today's discussions

-  Supply Chain Development
-  Other Applications
-  More Dedicated Production & Renewables
-  Expanded Infrastructure Network
-  Electricity Integration
-  Broad Customer Acceptance

### ON THE HORIZON

New ideas to be realized

## HyPPO update

-  Customer
-  Different Applications
-  Larger Stations at Less Cost
-  Improving but Still Limited Supply Chain & Station Developer Stakeholders
-  Fuel Cells Are Catching On

### EMERGING





Building momentum & acceptance

## Current focus

-  Safety
-  Retail
-  Public Funding Through 2022

### ESTABLISHED

Mainstream trends & standard practices

-  Early Demo Stations
-  Vehicle Demonstrations
-  "Can't Do" Attitudes
-  California Only

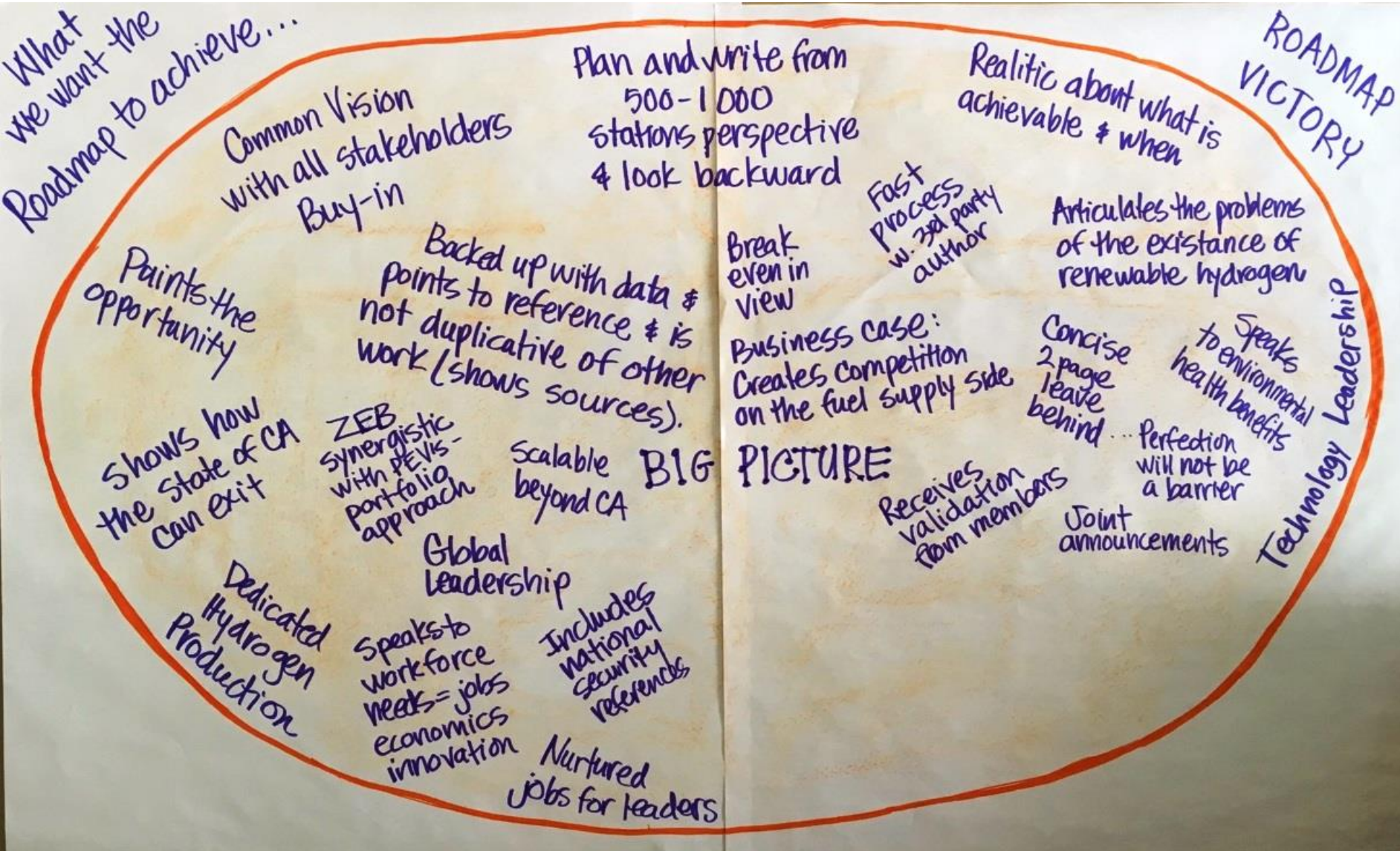
### TROUGH

Disappearing practices





# Victory Circle





# Accelerating Commercialization

1. Produce a 2017 Hydrogen Progress, Priorities, and Opportunities report
2. Develop a vision of a maturing commercial market
3. Expand outside of California

**QUESTIONS?!**

