

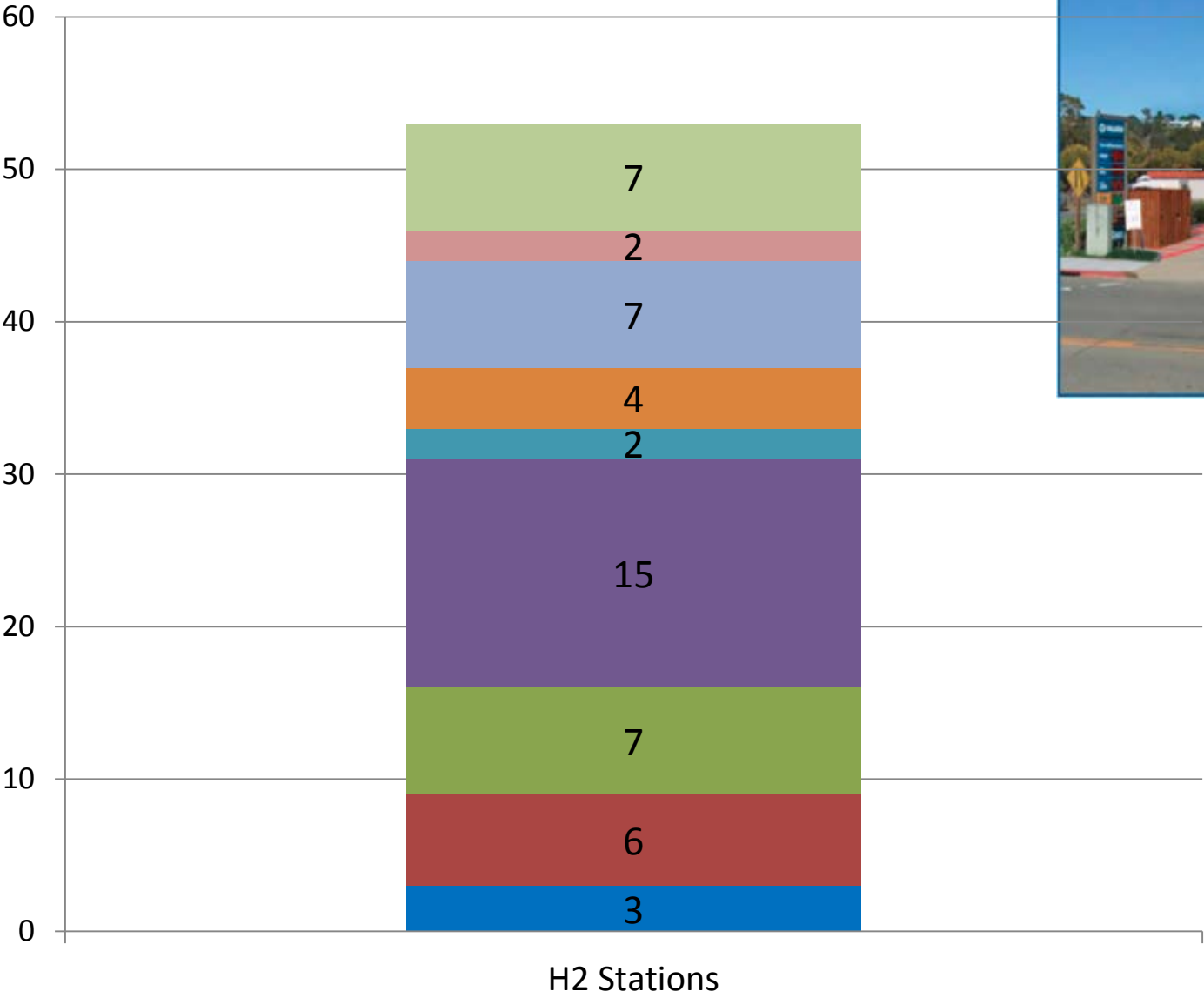
California H2 Network Update

DOE HTAC Meeting

October 27, 2015



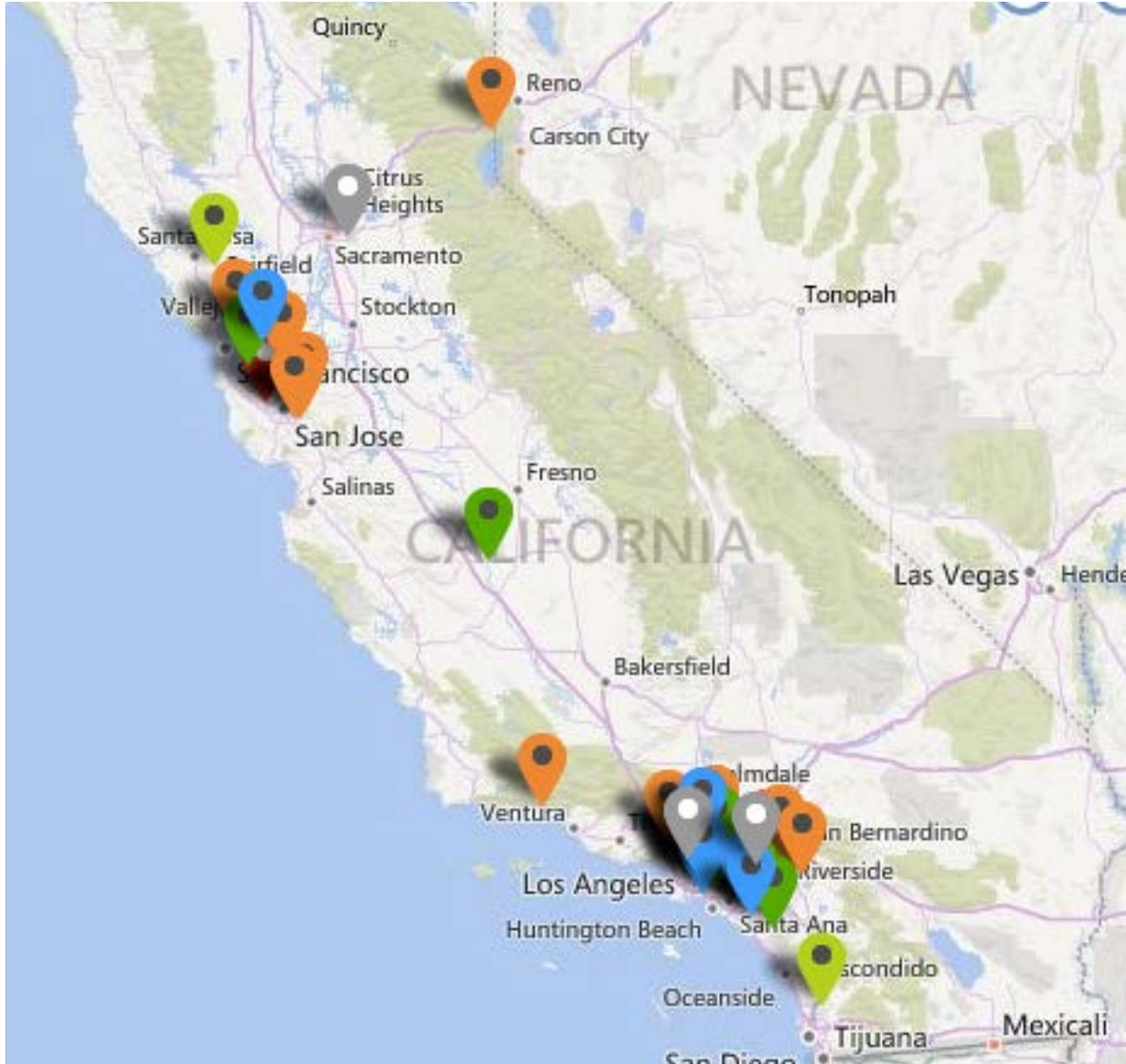
California's Hydrogen Network Snapshot*:



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

* As of 10/26/2015

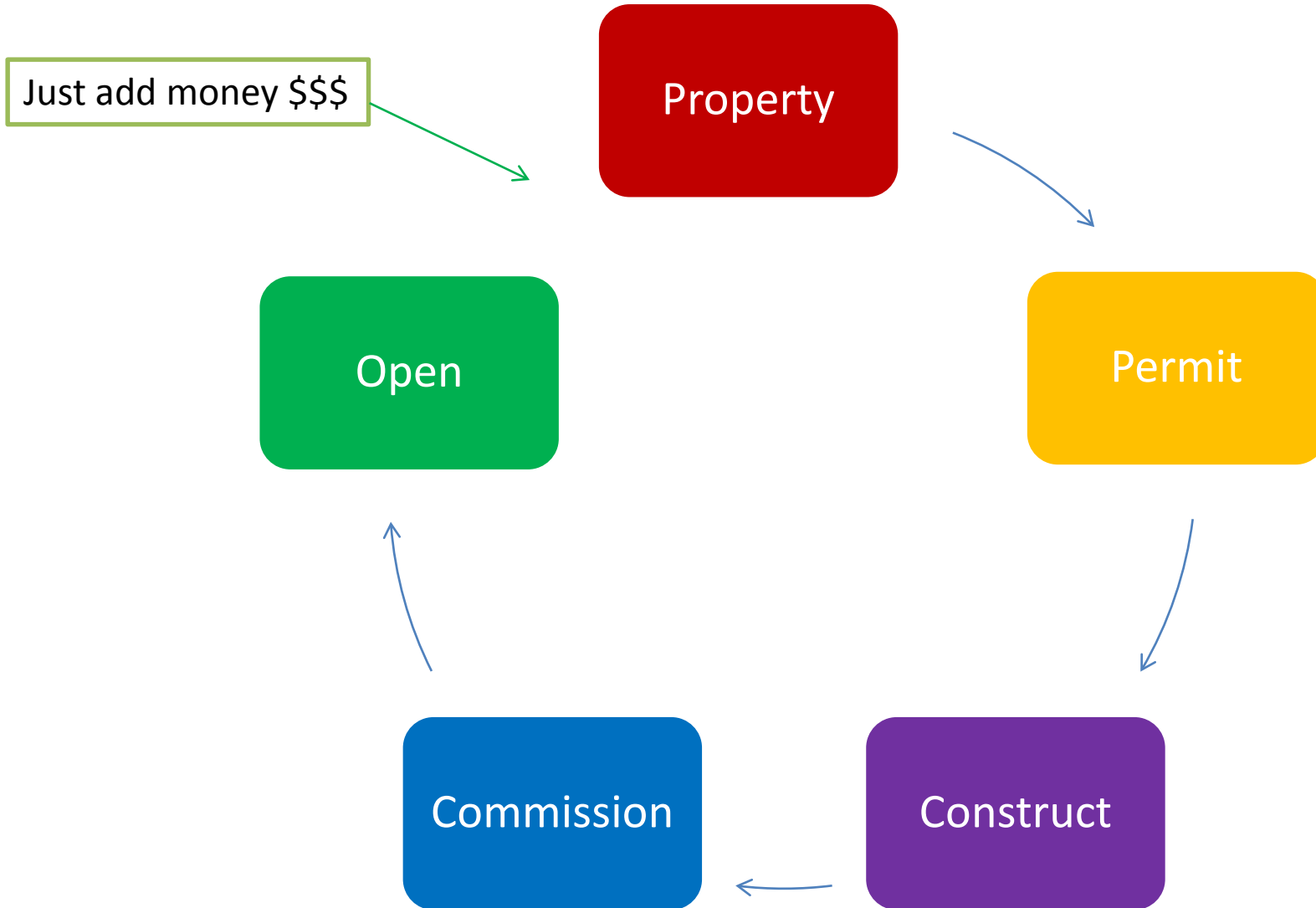
CA's Currently Funded Hydrogen Network*:



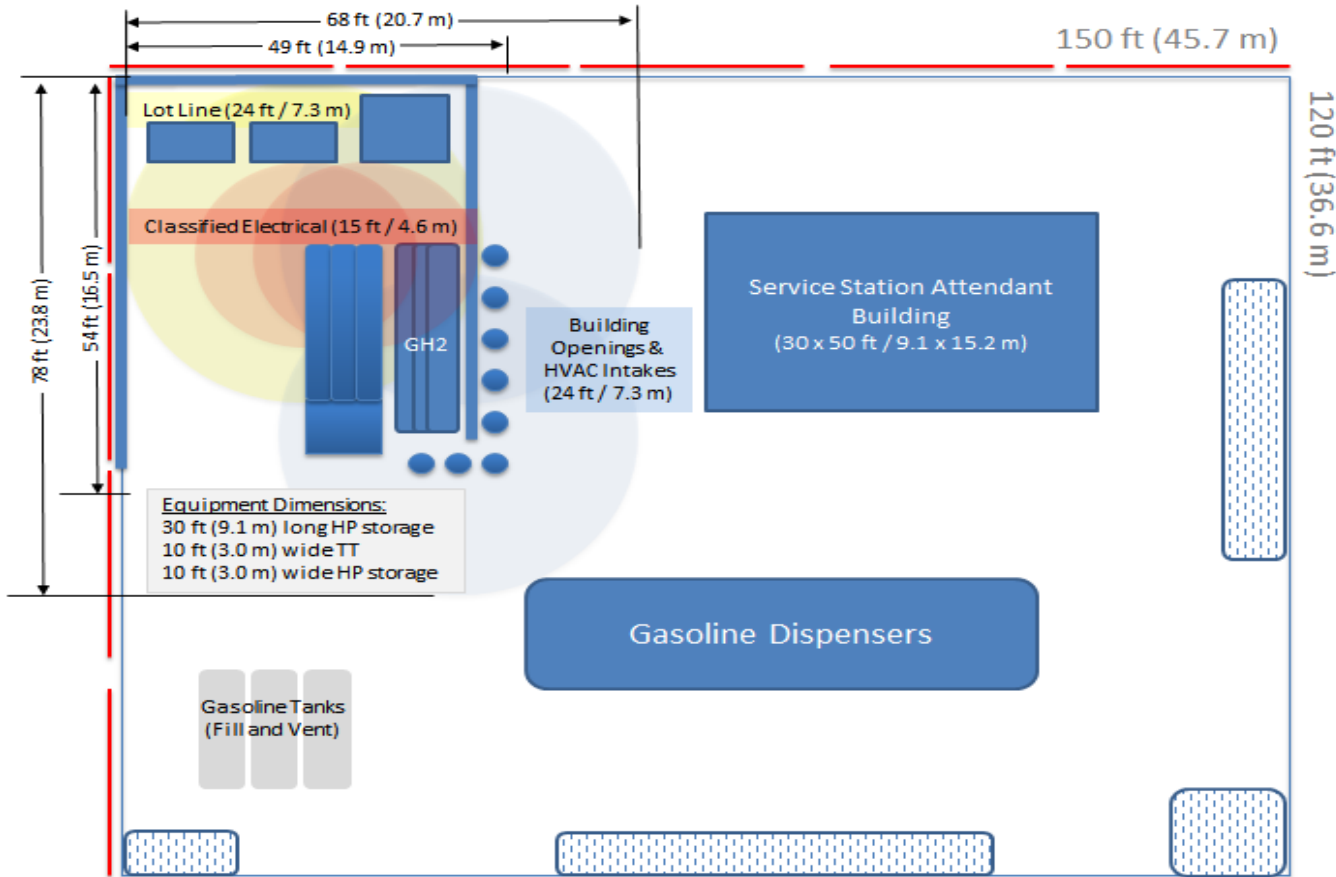
- 1. Open - Retail (3)
- 1.1 Open - Non-Retail (6)
- 2. Commissioning (7)
- 3. Under Construction (15)
- 4.1. Approval to Build (2)
- 4.2 Planning Approval (4)
- 4.3. Permit In-Process (7)
- 4.4. Pre-Permitting (2)
- 4.5. Site Acquisition (7)
- Upgrade (4)

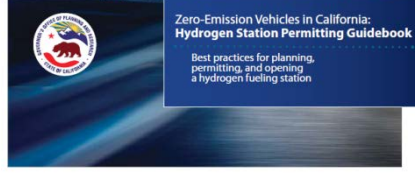
* As of 10/26/2015

H2 Station Development

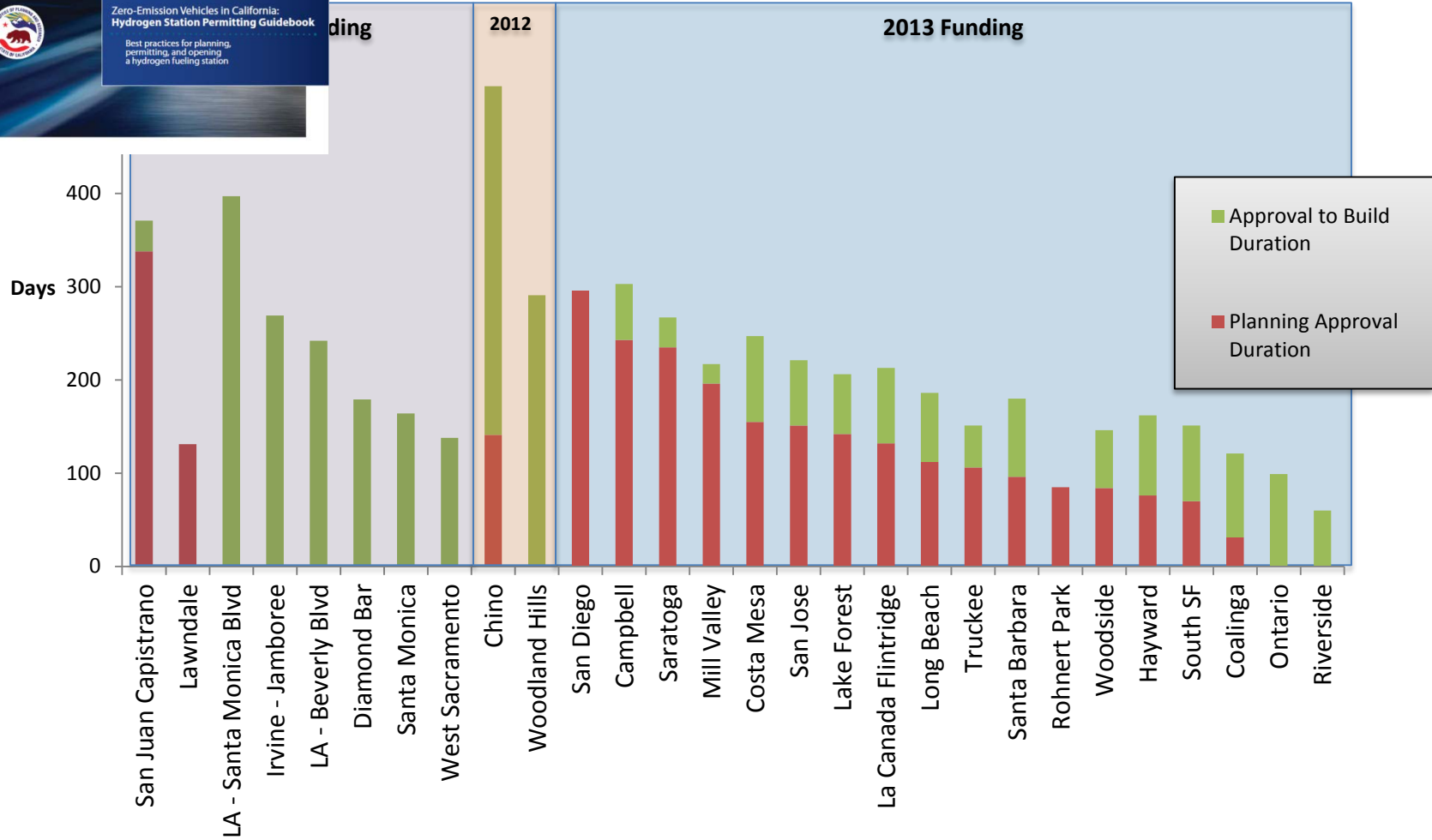


Property





H₂ Station Permit Timelines



Under Construction (15)

Construct



Santa Monica



Long Beach



South San Francisco



Riverside

AHJ
Permit

Station Developer
Ready for Customers

ZEV PM documents that all
Components are met →
CaFCP Communicates
“open” to Stakeholders

Metrology Sticker

Fill Protocol
Confirmation

Stations in Commissioning (7)



LA/Santa Monica Blvd.



San Juan Capistrano



Coalinga

3 “Open: Retail” Stations

Open



Diamond Bar

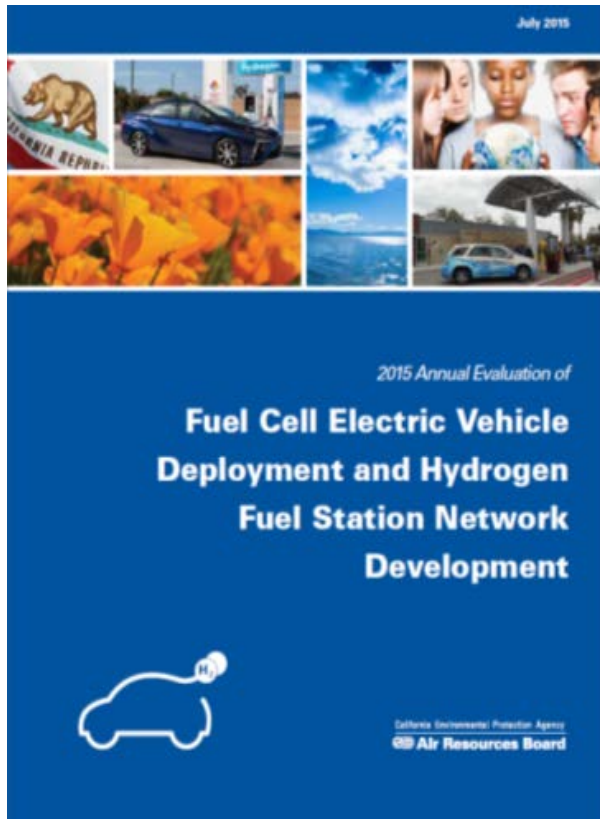


West Sacramento

Retail definition:

- Meets applicable codes, regulations and approved interface standards (fueling protocol, fuel quality, DMS certification, permits)
- Retail POS system that accepts major credit, debit and fleet cards
- Unrestricted access

Need for Continued Hydrogen Station Investments



- **Current network development is largely on track**
- **Post-2018, FCEV deployment will accelerate faster than previously projected**
- **86 stations projected by 2021 will be insufficient to meet fuel demand**
- **Need larger stations and innovative funding mechanisms**

http://www.arb.ca.gov/msprog/zevprog/ab8/ab8_report_2015.pdf

DOE Engagement = Direct Benefit



Hydrogen Station Equipment Performance Device(HySTEP)
– improve station commissioning

DOE Engagement = Direct Benefit



Hydrogen Fueling Standard = retail sales of H₂

Top Level Needs for DOE to consider

- Economical on-site H₂ Quality Monitoring
- LH2 Setback distance reduction
- Commercial Large Scale Renewable H₂ Production
- Replication in other States



Thank You

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916-322-0563