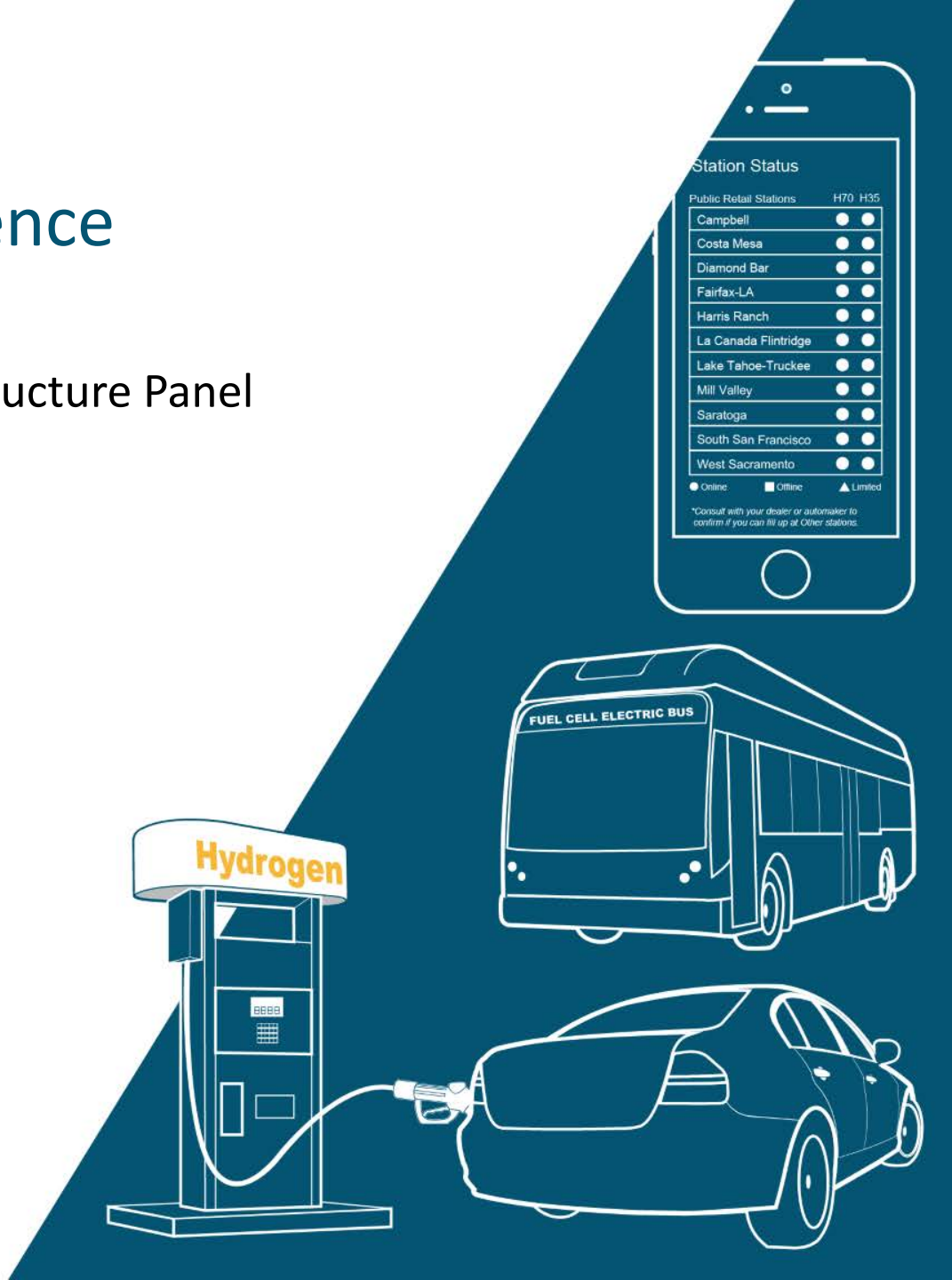
The California Experience

IA013 Regional Hydrogen Infrastructure Panel

DOE Merit Review 2018

6/14/2018



California FUEL CELL PARTNERSHIP

DRIVING FOR THE FUTURE

Numbers as of June 6, 2018	Total
Fuel cell cars sold and leased	4,819
Fuel cell buses in operation in California	21
Retail hydrogen stations open in California	35
Fuel cell buses & shuttles in development in California	36
Fuel cell trucks in development in California	35+
Retail hydrogen stations in development in California	29

California's First Big Steps

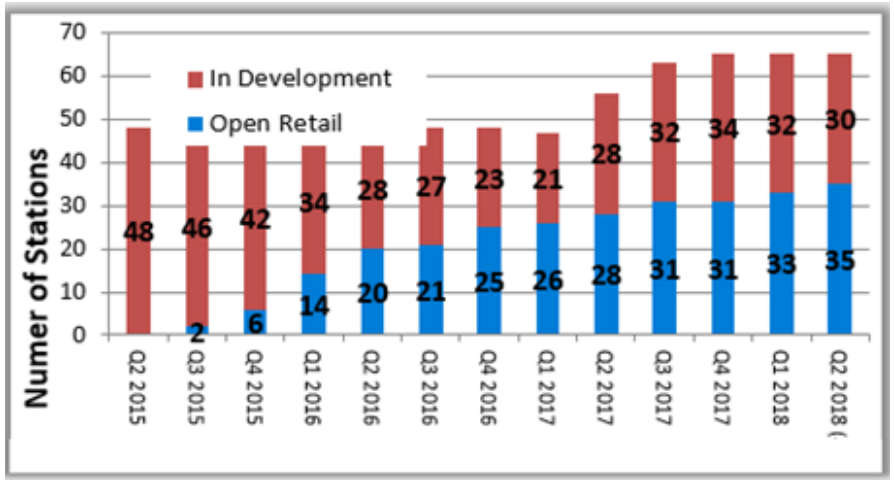
2012 *California Roadmap*

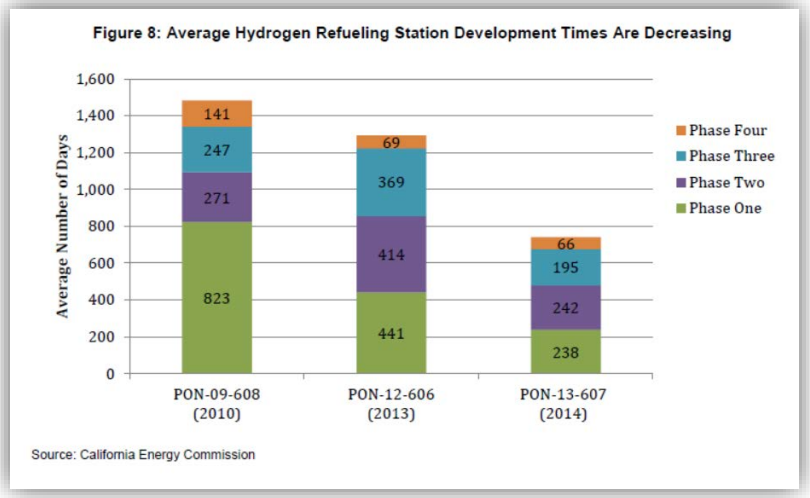
- Establish initial network coverage
- Clusters in big cities
- "Connectors" and "destination" stations across the state

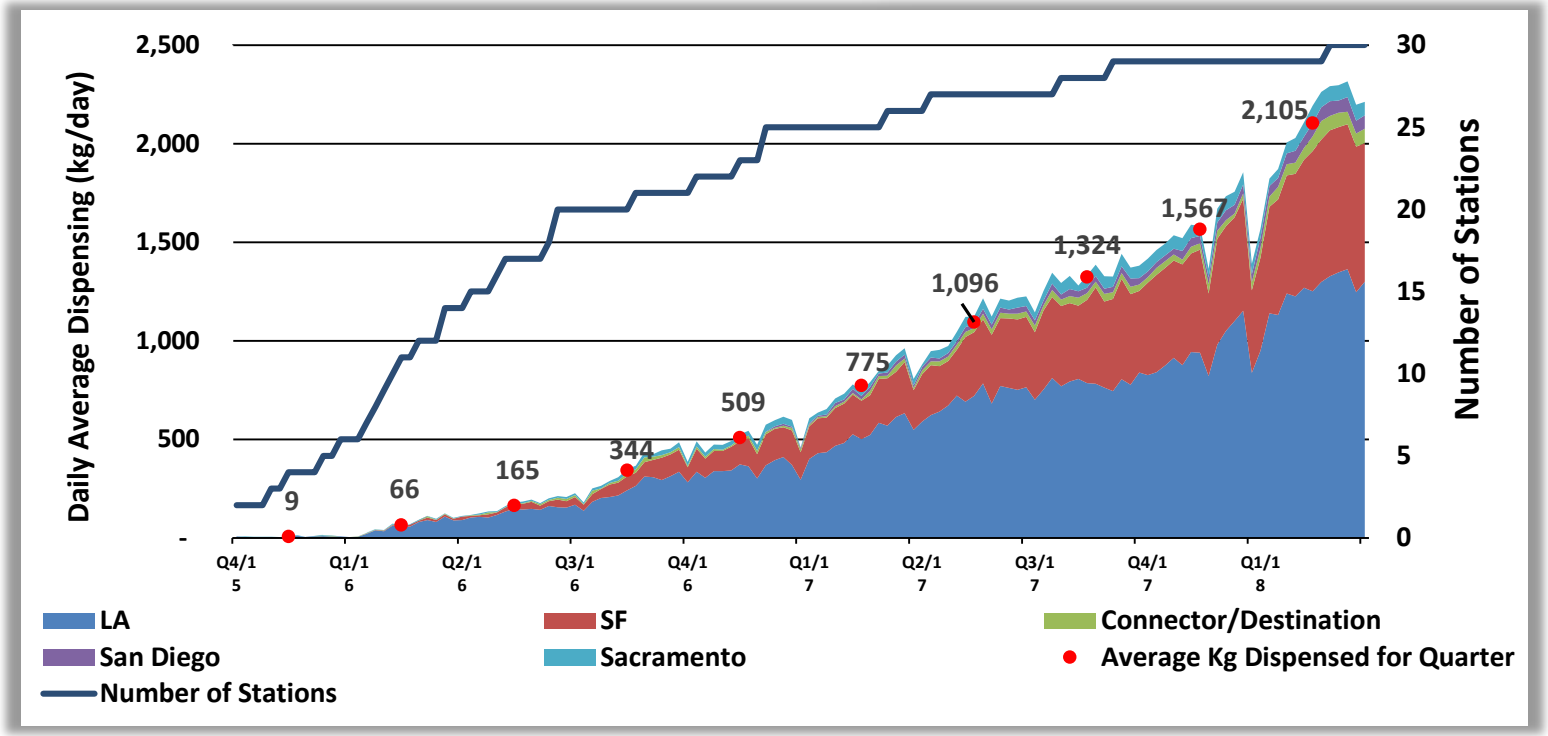
2013 AB8 – ARFVTP Support

- $20M annually through 2023
- Co-funding for first 100 stations
- Annual survey, evaluation and reporting
- Government responsibility & leadership

California Progress = National Progress







Expanding Leadership and Opportunity

ENSURE
charging and hydrogen fueling are affordable and more accessible to all drivers.

RECOMMEND
actions strengthen the economy and create jobs in California and expand infrastructure.

UPDATE
2016 ZEV Action Plan to expand private investment in ZEV infrastructure, particularly in low income and disadvantaged communities.

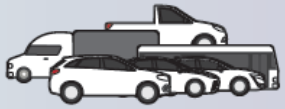
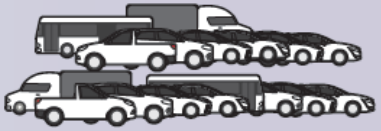
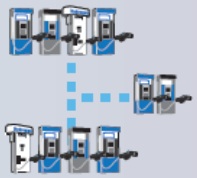
H2

200
spur the construction and installation of 200 hydrogen fueling stations.

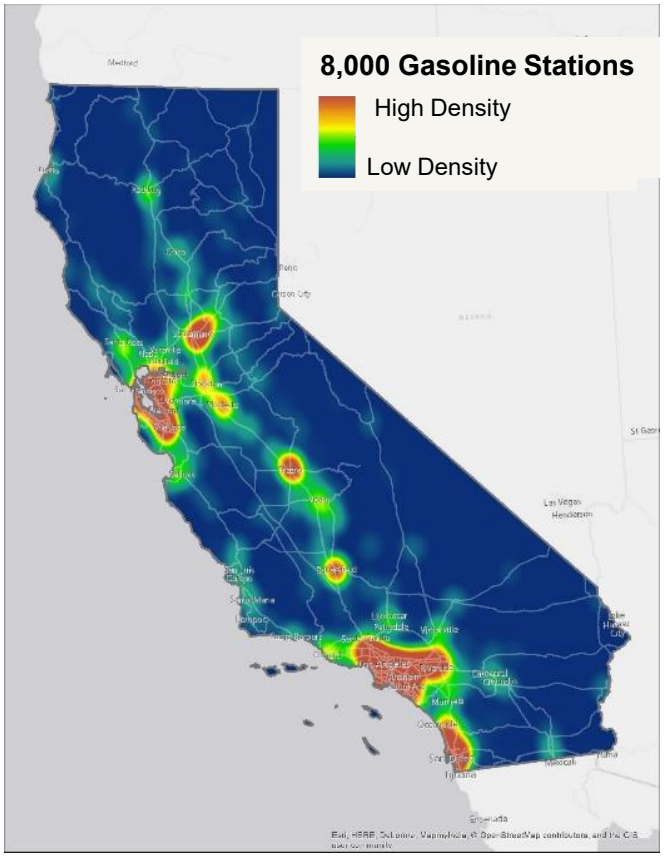
E

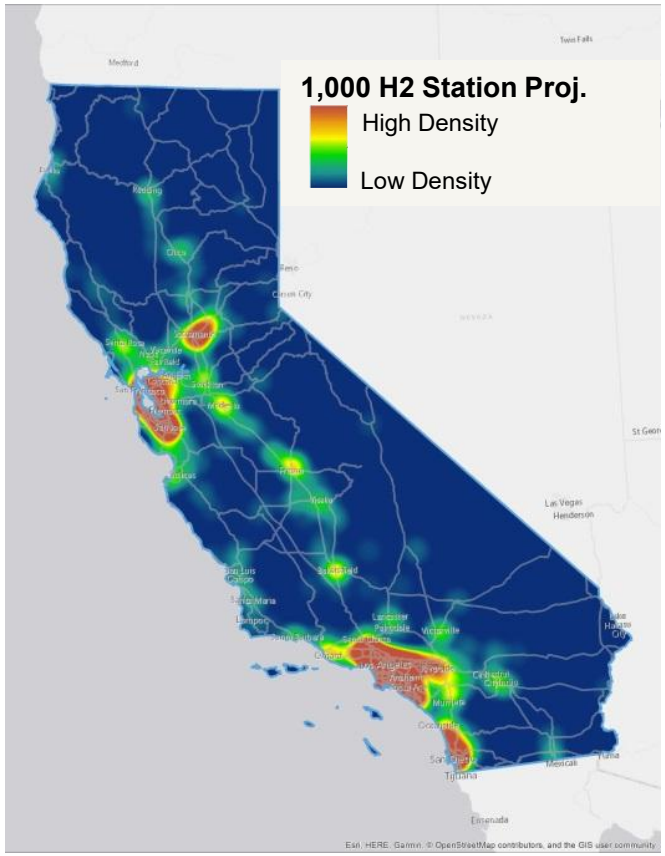
250,000
spur the construction and installation of 250,000 chargers.

California's 2030 Vision

	California Today	Enable the market	Establish the market	Expand the market	Self-sustaining
Fuel Cell Vehicle Deployment		10,000s	 100,000s	 **1,000,000**	Consumer choice + demand
Hydrogen Station Growth		*1 Station = 740 Cars* 200 Stations	*1 Station = 1,200 Cars* 500 Stations	*1 Station = 2,500+ Cars* **1,000 Stations**	Cost-competitive statewide access
Hydrogen Station Network Planning		Increase coverage, reduce costs	 Increase capacity, reduce costs	Convenience similar to gasoline, business case	Private capital-driven market

8,000 Gas Stations vs 1,000 H2 Stations





Top 10 Insights

10. The transition is too big for any one entity.
9. Partnership between industry and government.
8. Shared vision/roadmap is fundamental.
7. You need a network to launch the market.
6. Investments are needed to de-risk the market.
5. Build a house you can grow into.
4. Multiple policies can help.
3. State leadership is crucial.
2. No state needs to do this alone.
1. Drivers love the cars.

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