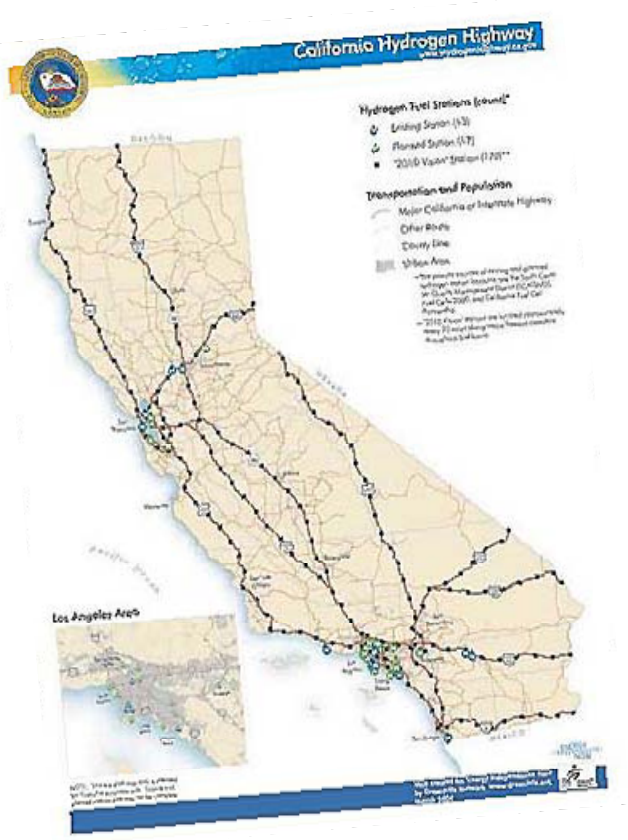
Race to 100 – California's Next Steps

Vision for 100 Hydrogen Stations



Assembly Bill 118 (Nunez, 2007)

→ *Alternative fuels and technologies*

Executive Order B-16-12 (2012)

→ *1.5 million ZEVs and infrastructure to support them by 2025*

A California Roadmap (CaFCP, 2012)

→ *68 initial stations by 2016*

ZEV Action Plans

→ *2013: at least 68 stations*

→ *2016: at least 100 stations*

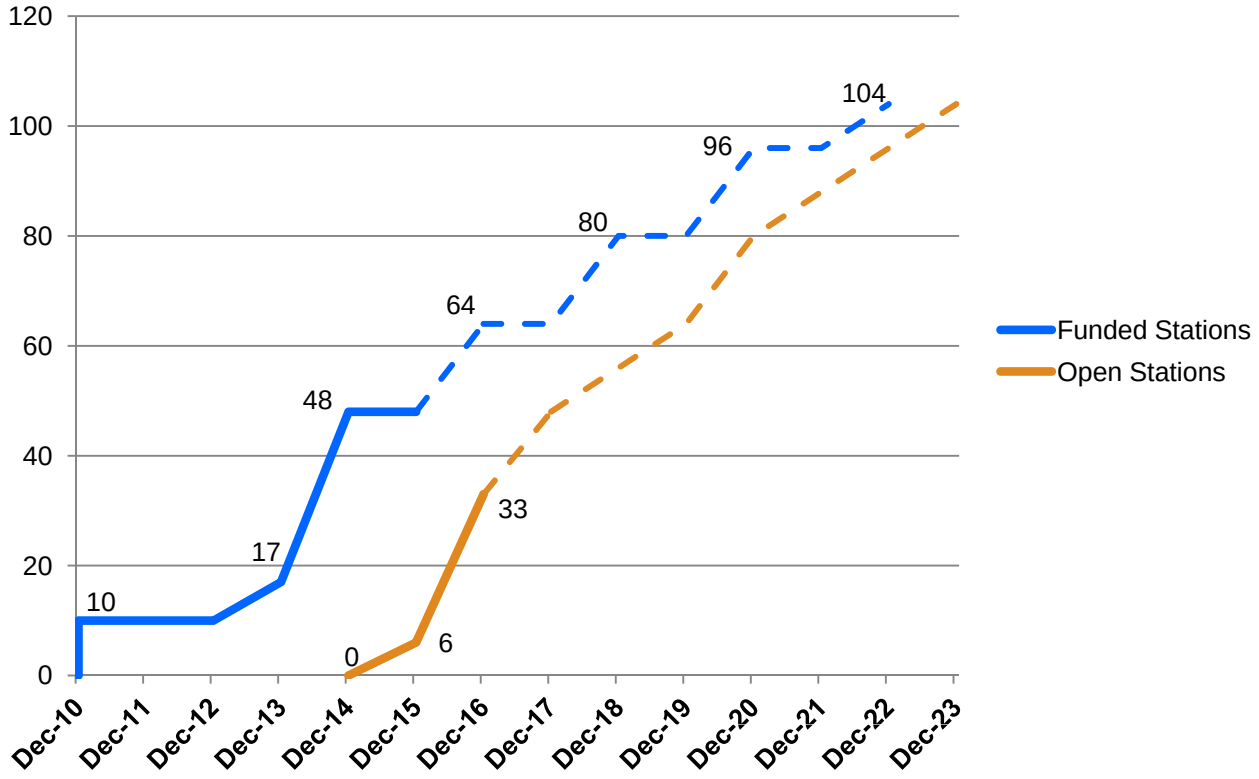
Assembly Bill 8 (Perea, 2013)

→ *$20 million per year for station development*

→ *Report the cost and time to reach 100 stations*

Retail Hydrogen Station Funding

45 Funded Stations = $72.7 million
3 SCAQMD Upgrades = $6.7 million
?? Stations from GFO = $33 million
?? Funded Stations $112.4 million



Observations

- Average station development time has decreased from 48 months to 23 months
- Location changes cause significant delays
- Financial incentives
- Planning is important for efficient station deployment

Energy Commission's Role

Mitigate market risk via financial support

- Capital Expense
- Operation & Maintenance

Permitting support

Workshops

Collaboration with other Agencies

Time and Cost to 100 Hydrogen Stations

Joint Agency Staff Report -

December 2016

- → Planned and open stations meet demand through 2019
- → Deficit in fueling capacity possible in 2021
- → Less FCEVs in 2016-2018; but higher for 2020-2022
- → Significant cost reductions not expected for first 100 stations
- → Rent and utilities are a significant amount of operational costs