2018 Joint Agency Staff Report on Assembly Bill 8

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California Fuel Cell Partnership
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Alternative and Renewable Fuel and Vehicle Technology Program

Assembly Bill No. 8

CHAPTER 401

An act to amend Sections 41081, 44060.5, 44125, 44225, 44229, 44270.3, 44271, 44272, 44273, 44274, 44275, 44280, 44281, 44282, 44283, 44287, 44299.1, and 44299.2 of, to add and repeal Section 43018.9 of, and to repeal Section 44299 of, the Health and Safety Code, to amend Sections 42885 and 42889 of the Public Resources Code, and to amend Sections 9250.1, 9250.2, 9261.1, and 9853.6 of the Vehicle Code, relating to vehicular air pollution, and declaring the urgency thereof, to take effect immediately.

[Approved by Governor September 28, 2013. Filed with Secretary of State September 28, 2013.]

LEGISLATIVE COUNSEL'S DIGEST

AB 8, Perea. Alternative fuel and vehicle technologies: funding programs.

(1) Existing law establishes the Alternative and Renewable Fuel and Vehicle Technology Program, administered by the State Energy Resources Conservation and Development Commission, to provide to specified entities, upon appropriation by the Legislature, grants, loans, loan guarantees, revolving loans, or other appropriate measures, for the development and deployment of innovative technologies that would transform California's fuel and vehicle types to help attain the state's climate change goals. Existing law specifies that only certain projects or programs are eligible for funding, including block grants administered by public entities or not-for-profit technology entities for multiple projects, education and program promotion within California, and development of alternative and renewable fuel and vehicle technology centers. Existing law requires the commission to develop and adopt an investment plan to determine priorities and opportunities for the program. Existing law also creates the Air Quality Improvement Program, administered by the State Air Resources Board, to fund air quality improvement projects related to fuel and vehicle technologies.

This bill would provide that the state board has no authority to enforce any element of its existing clean fuels outlet regulation or other regulation that requires or has the effect of requiring any supplier, as defined, to construct, operate, or provide funding for the construction or operation of any publicly available hydrogen-fueling station. The bill would require the state board to aggregate and make available to the public, no later than June 30, 2014, and every year thereafter, the number of hydrogen-fueled vehicles that motor vehicle manufacturers project to be sold or leased over the next 3 years, as reported to the state board, and the number of hydrogen-fueled vehicles registered with the Department of Motor Vehicles through April 30. The bill would require the commission to allocate $20 million annually, as specified, until there are at least 100 publicly available hydrogen-fueling

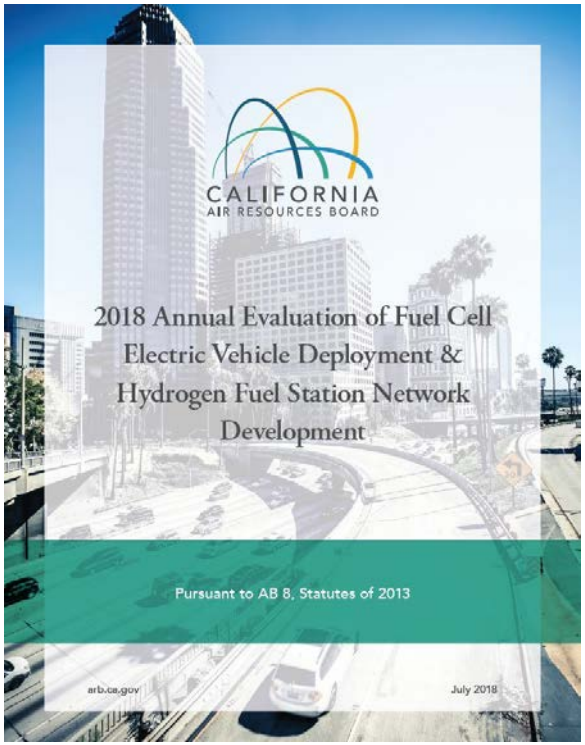
Assembly Bill 8 (2013) extended the ARFVTP through January 1, 2024 to:

"… develop and deploy innovative technologies that transform California's fuel and vehicle types to help attain the state's climate change policies."
(Health and Safety Code Section 44272(a))

Directs Energy Commission to allocate $20 million annually to hydrogen refueling station development to establish at least 100 stations

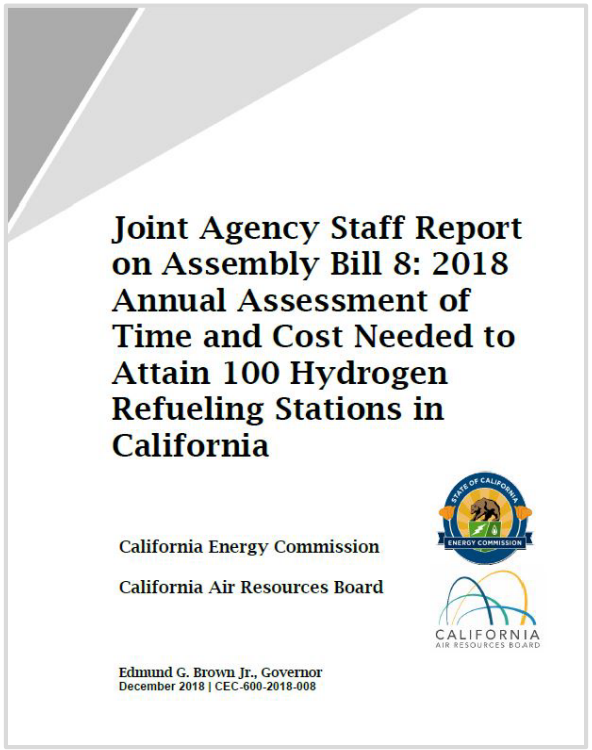
AB 8 Reporting Requirements

The “Annual Evaluation” prepared by the California Air Resources Board (CARB) each summer



https://www.arb.ca.gov/msprog/zevprog/ab8/ab8_report_2018_print.pdf

The “Joint Report” prepared by the Energy Commission and CARB each winter

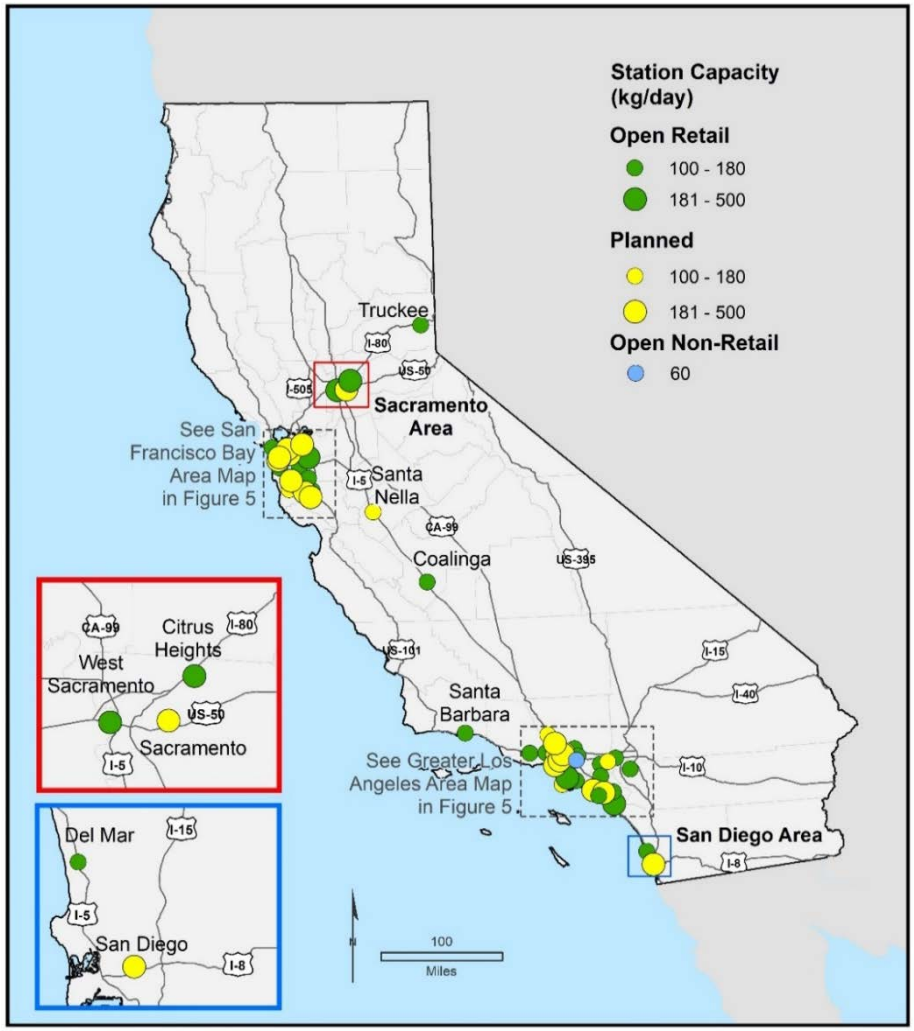


https://www.energy.ca.gov/2018publications/CEC-600-2018-008/CEC-600-2018-008.pdf

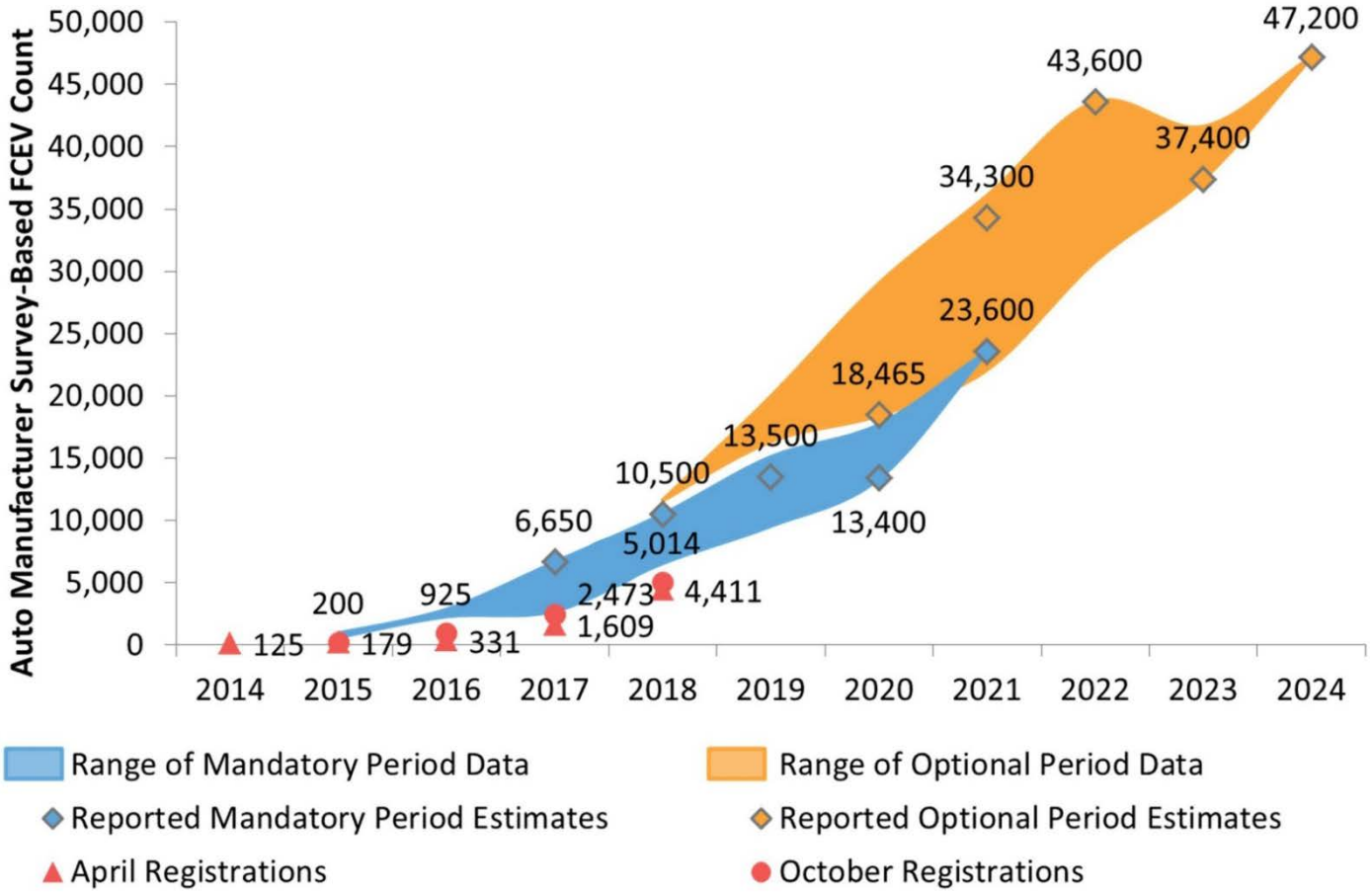
Hydrogen Refueling Infrastructure Status Update

Progress through end of 2018:

- 39 stations open to the public
  - 38 ARFVTP-funded
  - 1 privately-funded
- 26 stations in development
- Funded network will provide 17,000 kilograms per day of nameplate capacity



Fuel Cell Electric Vehicle Deployment

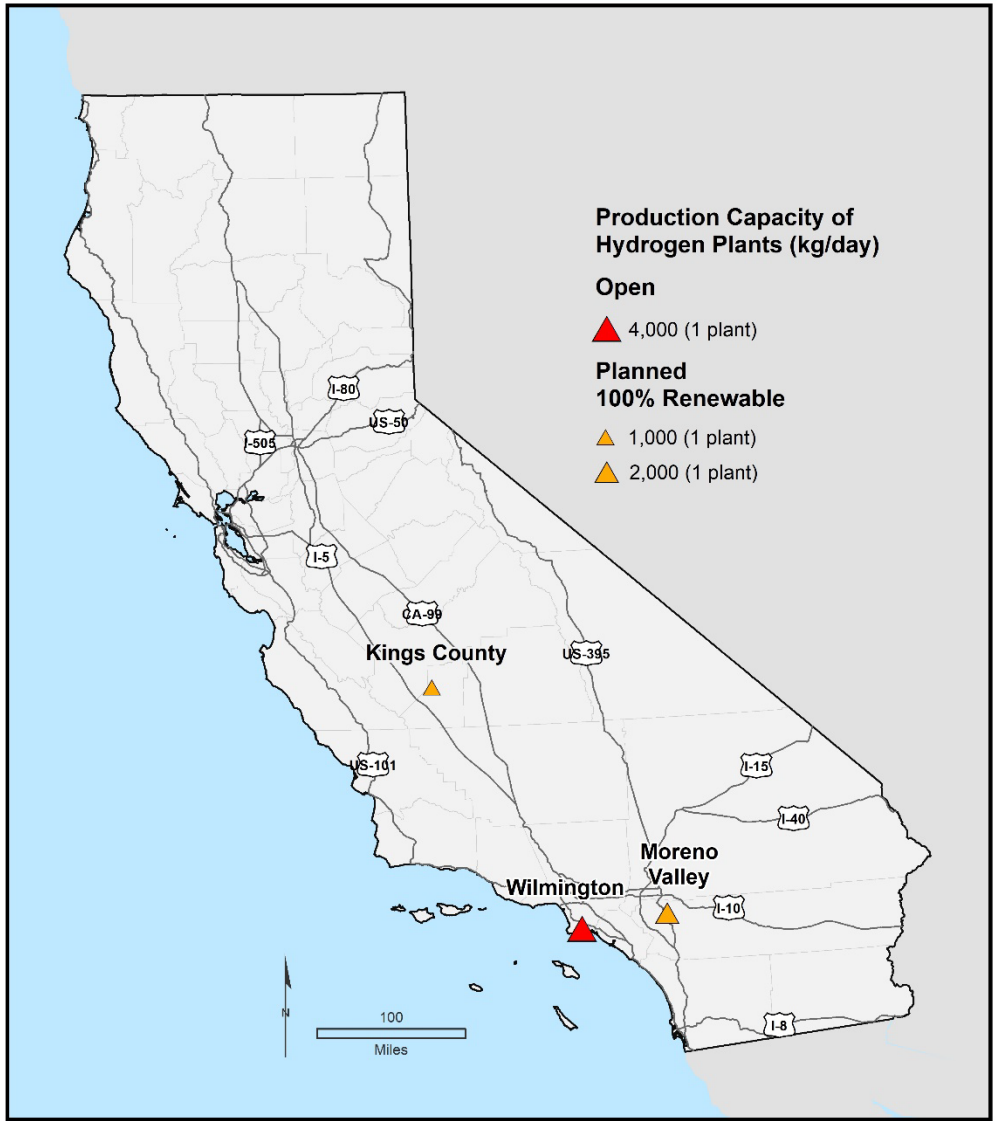


5,658 FCEVs sold or leased as of December 1, 2018

https://cafcp.org/by_the_numbers

Renewable Hydrogen Production

- Two new renewable hydrogen production facilities dedicated to transportation funded by GFO-17-602
- Moreno Valley – StratosFuel
- Kings County – H2B2 USA

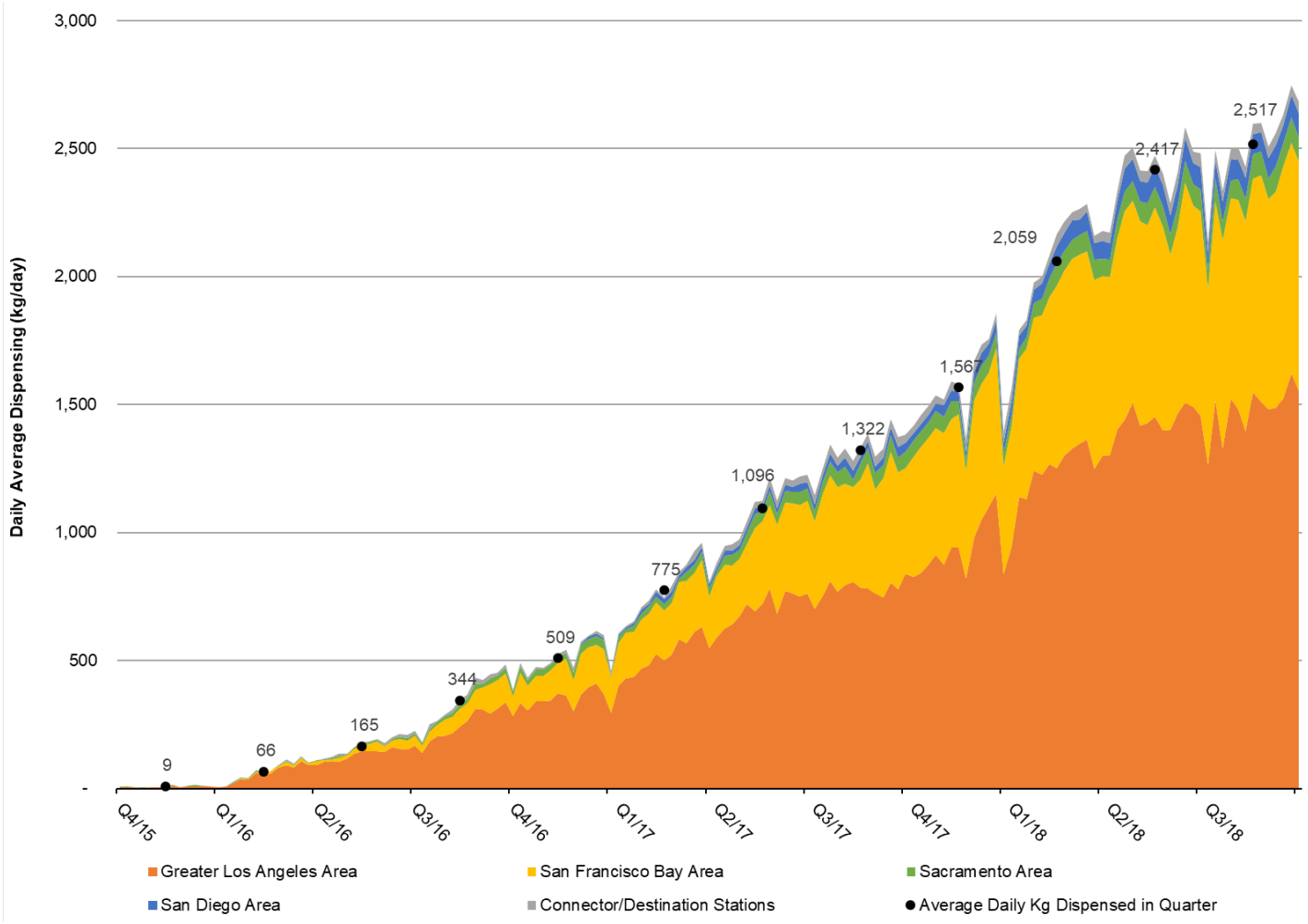


Low Carbon Fuel Standard (LCFS)

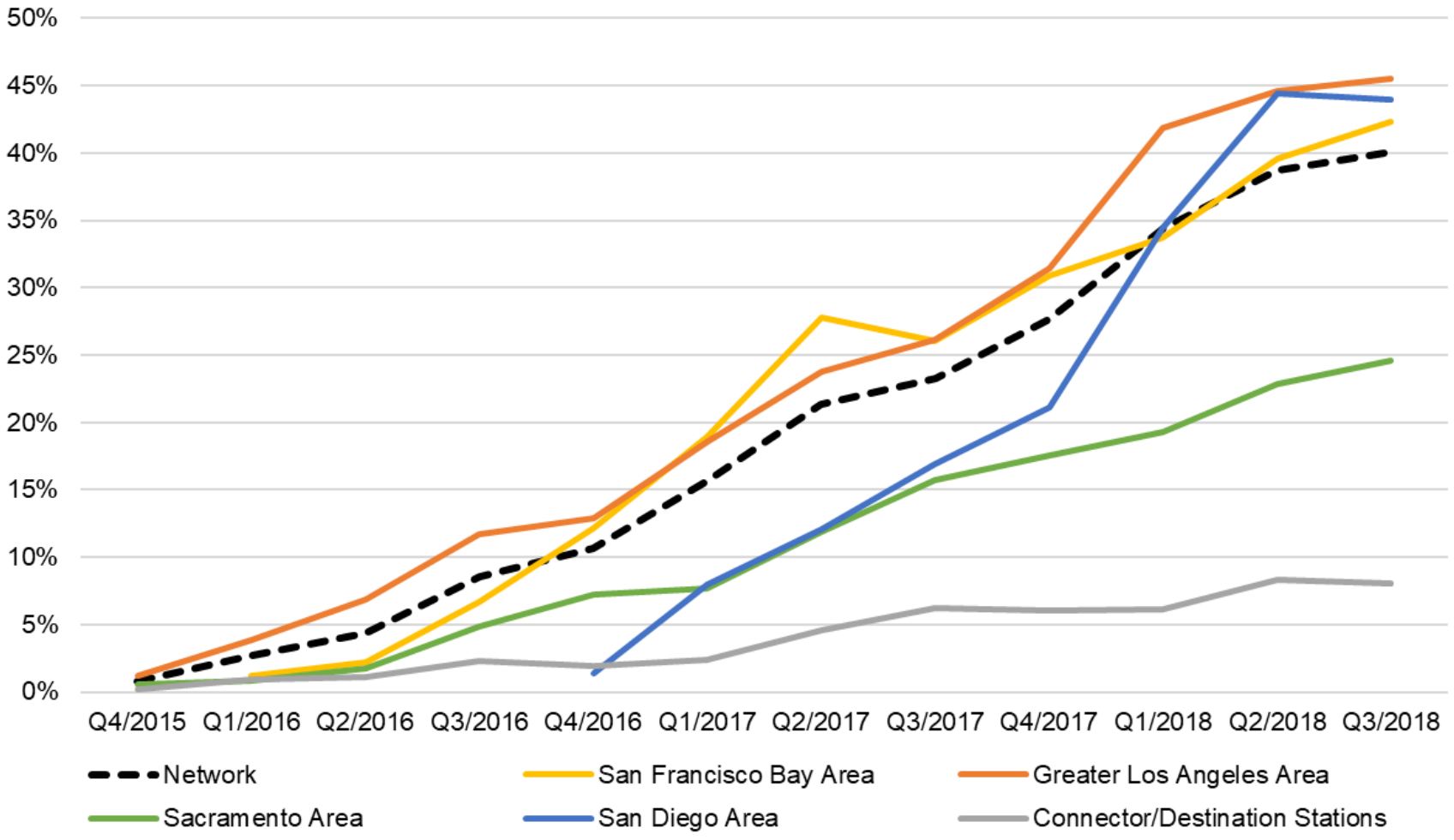
California Air Resources Board

- Updated LCFS regulation introduces Hydrogen Refueling Infrastructure (HRI) credits
- Hydrogen station owners may earn credits for dispensed hydrogen *and* remaining station capacity
- The 2018 Joint Report outlines the HRI application process and provides sample analyses of potential credit revenue
- Potential benefits:
  - More certain return on investment in hydrogen stations
  - Attracts more private investment
  - Accelerates the rate of station development

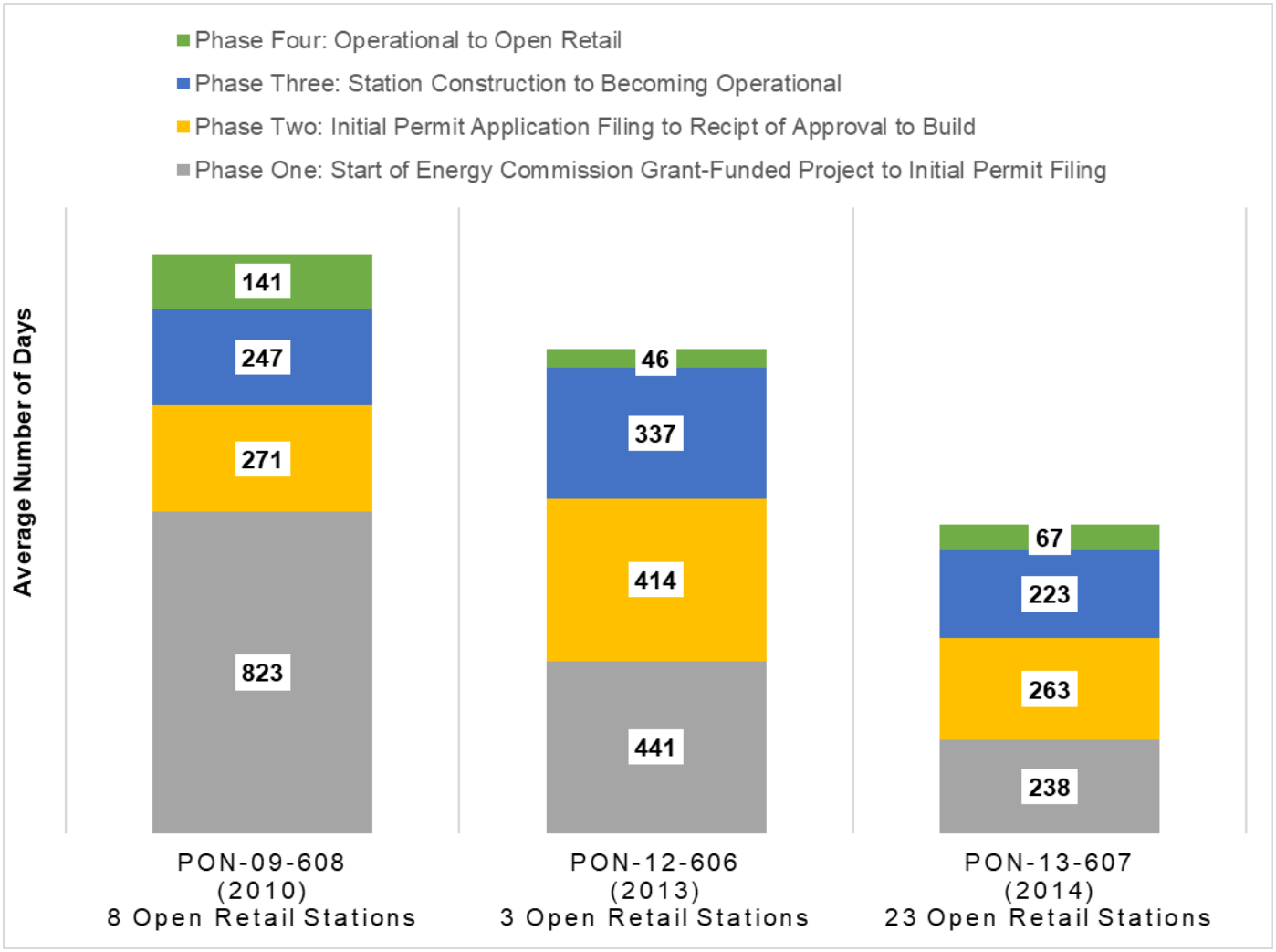
Daily Average Hydrogen Dispensing by Region, 2015 - 2018



Station Utilization by Region 2015-2018



Average Time Required to Permit and Construct Stations



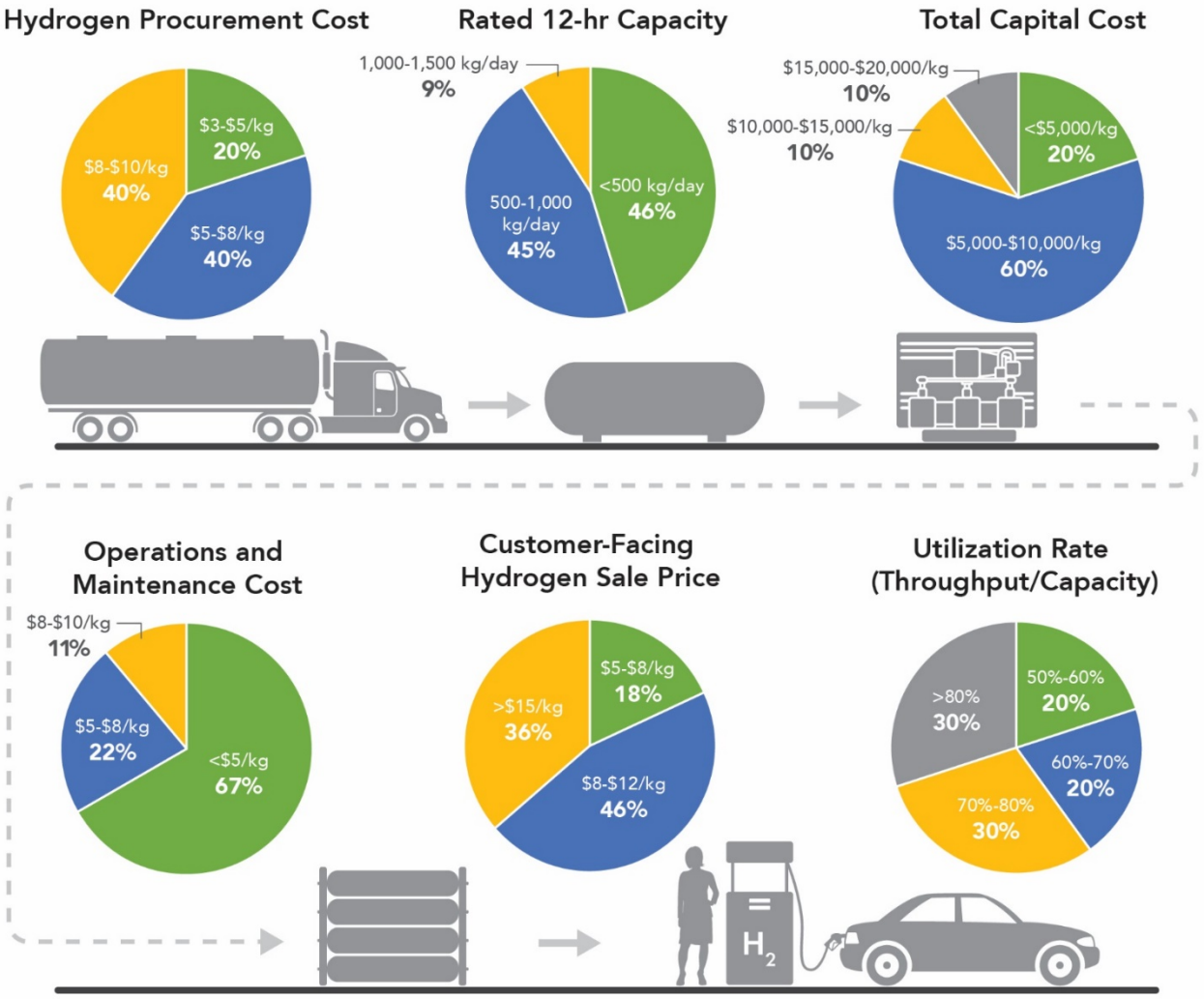
Note: As explained in the Joint Report, not every funded station is included in this figure.

Projected FCEVs and Needed Capacity by Region by 2024

Region	80% of Funded Capacity (kg/day)	Projected FCEVs by 2024	Nameplate Capacity Needed by 2024 (kg/day)	Additional Needed Capacity for Projected Demand by 2024 (kg/day)
Greater Los Angeles Area	6,400	23,400	16,400	10,000
San Francisco Bay Area	5,100	13,100	9,200	4,100
San Diego Area	500	2,900	2,000	1,500
Sacramento Area	900	3,200	2,200	1,300

Self-Sufficiency Evaluation

Survey Responses on Hypothetical Profitable Stations



2018 End of Year Summary

- $120 million in ARFVTP funds allocated to hydrogen stations
- 64 stations funded
- Public funding remains necessary to achieve the 100-station goal, as well as the 200-station goal of Governor's Executive Order B-48-18
- CARB and the Energy Commission continue to evaluate station self-sufficiency
- Hydrogen Draft Solicitation Concepts, released in January 2019, reflect strategies to reduce the time and cost to build stations
  - Available at: https://www.energy.ca.gov/contracts/transportation.html