DOCKETED			
Docket Number:	19-MISC-02		
Project Title:	Commissioner Workshop on Funding Opportunities and Improving Access to Native American Tribes		
TN #:	228331		
Document Title:	Presentation - Alternative and Renewable Fuel and Vehicle Technology Program Hydrogen Projects		
Description:	Information on hydrogen projects that was presented at the 5/14 workshop.		
Filer:	: Jessica Bonitz		
Organization:	California Energy Commission		
Submitter Role:	Commission Staff		
Submission Date:	5/21/2019 11:06:46 AM		
Docketed Date:	5/21/2019		

Alternative and Renewable Fuel and Vehicle Technology Program Hydrogen Projects

California Energy Commission

Miki Crowell

miki.crowell@energy.ca.gov

916-653-0363

Fuels and Transportation Division

May 14, 2019





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.

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 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



Past Hydrogen Solicitations

Year	Solicitation	Total Awarded Amount	# of Awarded Stations
2010	PON-09-608	\$15.7 million	10
2012	PON-12-606	\$12 million	4
2013	PON-13-607	\$47 million	26
2016	GFO-15-605	\$43 million	20



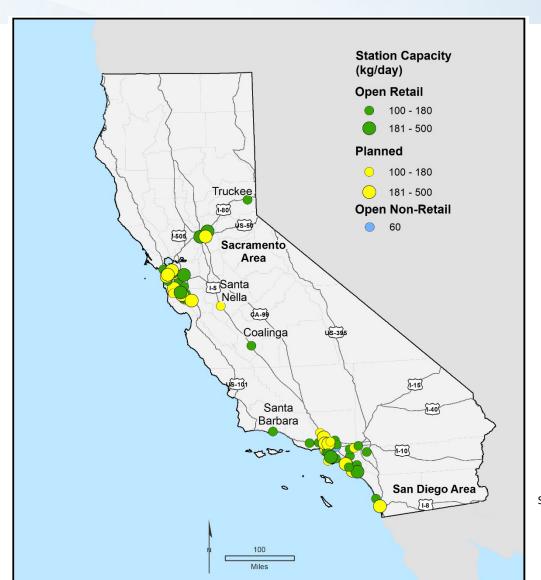
Hydrogen Refueling Infrastructure Status Update

Progress so far:

- 39 stations open to the public
 - 38 ARFVTP-funded
 - 1 privately-funded
- 26 stations in development
- Current funded network will provide 17,000 kilograms of hydrogen per day (nameplate capacity), enough to support over 24,000 vehicles
- Over 6,500 FCEVs sold or leased as of May 1, 2019



Funded Station Locations



Source: California Energy Commission



Next Solicitation

- To reach the 100-station goal set by AB 8 and set a path towards reaching the 200-station goal set by Executive Order B-48-18.
- Hydrogen Draft Solicitation Concepts released on January 23, 2019.
 - Draft Solicitation Concepts Workshop held on February 12, 2019.
 - https://www.energy.ca.gov/contracts/transportationn.html
- Proposed funding amount is up to \$110 million.



2018 Report Access

- 2018 Annual Evaluation of Fuel Cell Electric Vehicle
 Deployment and Hydrogen Fuel Station Network
 Development.
 https://www.arb.ca.gov/msprog/zevprog/ab8/ab8_repo
 - https://www.arb.ca.gov/msprog/zevprog/ab8/ab8 report
 2018 print.pdf
- Joint Agency Staff Report on Assembly Bill 8: 2018 Annual Assessment of Time and Cost Needed to Attain 100 Hydrogen Refueling Stations in California.

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