



Alternative and Renewable Fuel and Vehicle Technology Program: EVSE Funding

**Electric Vehicle Supply Equipment Workshop
California Department of General Services
February 18, 2014**

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Alternative and Renewable Fuel and Vehicle Technology Program (AB118)

Purpose

To transform California's transportation market into a diverse collection of alternative fuels and technologies and reduce California's dependence on petroleum.

“...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))

Up to \$150 Million in Annual State Funding Through 2023

The Energy Commission will receive **\$100 million/year** to implement the ARFVT Program: Fuel production, Infrastructure, Trucks

California Air Resources Board will receive **\$40 million/year** for *Enhanced Fleet Modernization* and *Air Quality Improvement*: Light Duty Vehicle, Buses and Trucks.



California Policy Goals and Objectives

Policy Objectives	Goals and Milestones
GHG Reduction	Reduce GHG emissions to 1990 levels by 2020 and 80% below 1990 levels by 2050
Petroleum Reduction	Reduce petroleum fuel use to 15% below 2003 levels by 2020
In-State Biofuels Production	Produce in California 20% of biofuels used in state by 2010, 40% by 2020, and 75% by 2050
Low Carbon Fuel Standard	10% reduction in carbon intensity of transportation fuels in California by 2020
RFS2	36 Billion Gallons of renewable fuel by 2022
Air Quality	80% reduction in NO _x by 2023
ZEV Mandate	Accommodate 1M EVs by 2020 and 1.5 M by 2025



2013 ZEV Action Plan

2013

ZEV Action Plan

A roadmap toward 1.5 million zero-emission vehicles
on California roadways by 2025



Governor's Interagency Working Group on
Zero-emission Vehicles

Governor Edmund G. Brown Jr.
February 2013

- **Partnership of 15 state agencies/entities, including the Energy Commission**
- **Driven by the Governor's Office**
- **123 specific actions (with responsible agencies and timelines)**
- **Energy Commission funding supports many Action Items**
 - **Regional Planning Support**
 - **Public Agency EVSE Funding**
 - **Statewide Infrastructure Plan**



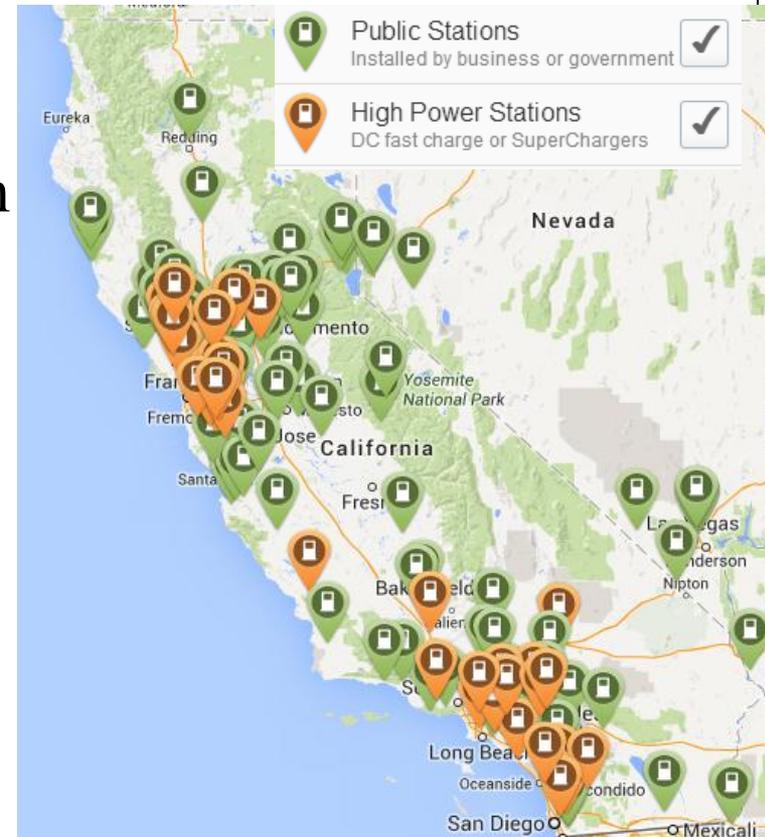
Public Charging Infrastructure

Existing Public Infrastructure

- Close to 1,000 Level 2 stations with over 2,800 connectors and 67 quick chargers

Development Activities

- CEC recent awards – \$2.5M for 39 quick chargers in So Cal
- NRG settlement: \$100 million
 - 200 combo fast charge/Level 2 station (“Freedom Stations”)
 - Infrastructure for 10,000 level 2 EVSEs for multi-family housing, workplace, schools and hospitals.



Map courtesy of [plugshare.com](https://www.plugshare.com)

~60,000 EVs

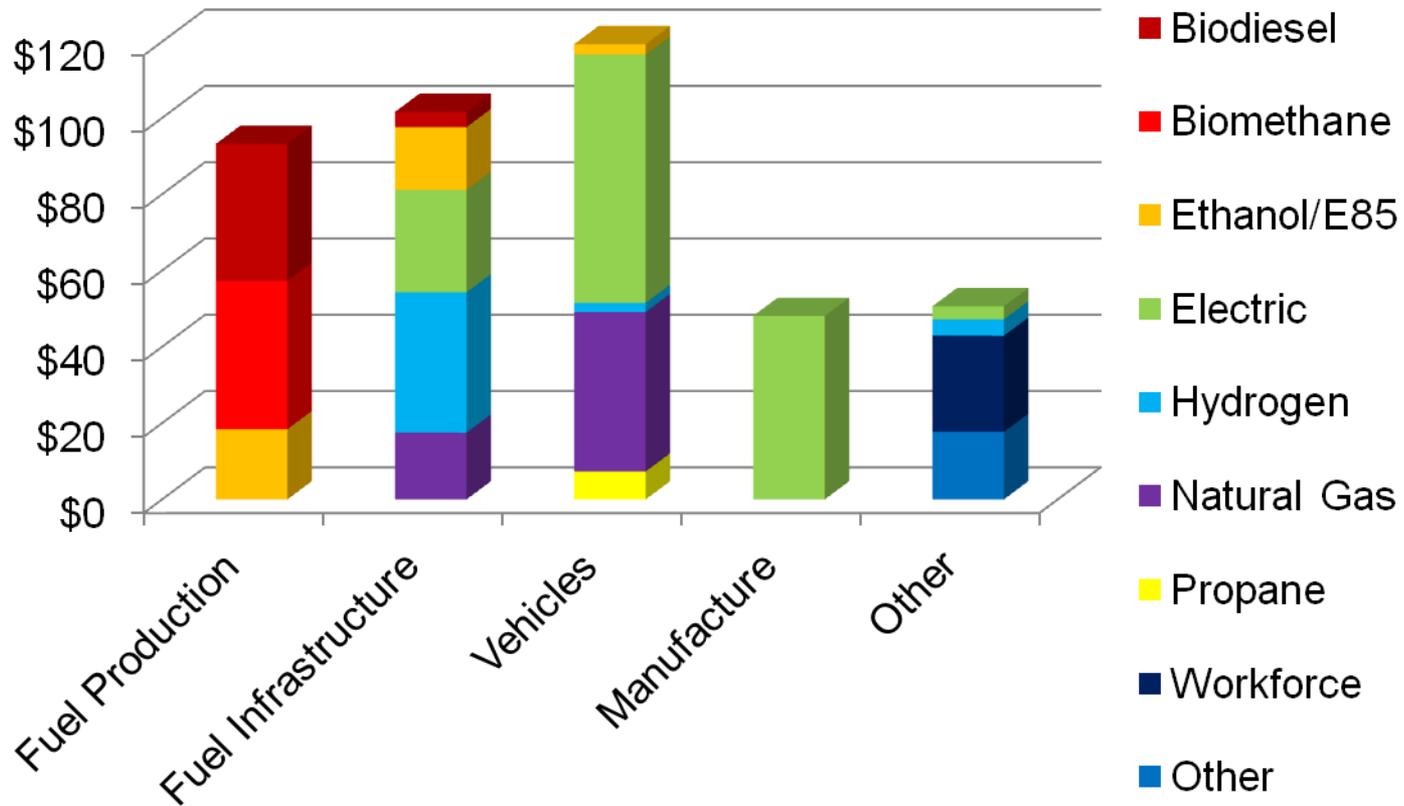


ARFVTP Funding Summary 2009-2013

Investment Areas	Funding Amount (millions)	Percent of Total (%)	Number of Awards
Biofuels	\$118.5	28	45
Electric Drive	\$143.5	35	87
Natural Gas/Propane	\$66.6	16	56
Hydrogen	\$43.6	11	11
Workforce Development	\$25.2	6	39
Market and Program Development	\$15.6	4	26
Total	\$413.0	100	264



Existing Agreements





Recent Investment Plan Allocations (millions)

Category	Funded Activity	2012-2013	2013-2014	2014-2015 (Proposed)
Alternative Fuel Production	Biofuel Production and Supply	\$18.0	\$23	\$20
Alternative Fuel Infrastructure	Electric Charging Infrastructure	\$6.75	\$7	\$15
	Hydrogen Fueling Infrastructure	\$9.9	\$20	\$20
	E85 Fueling Infrastructure	\$1.35	-	-
	Natural Gas Fueling Infrastructure	\$1.35	\$1.5	\$1.5
Alternative Fuel and Advanced Technology Vehicles	Natural Gas Vehicle Incentives	\$10.8	\$12	\$9
	Propane Vehicle Incentives	\$0.8	-	-
	Light-Duty Electric Vehicle Deployment	\$12.5	\$5	\$5
	Medium- and Heavy-Duty Advanced Vehicle Technology Demonstration	\$5.4	\$15	\$15
Related Needs and Opportunities	Emerging Opportunities	\$2.5	\$4	\$7
	Manufacturing	\$14.66	\$5	\$5
	Workforce Training and Development Agreements	\$1.19	\$2	\$2.5
	Regional Alternative Fuel Readiness and Planning	\$2.1	\$3.5	-
	Centers for Alternative Fuels and Advanced Vehicle Technology	\$2.7	\$2	-
Total		\$90	\$100	\$100



EV Charger Support

EVSE Funding to Date = \$26.8 million



Total Funded = 7,798 charge points

Commercial = 3,096

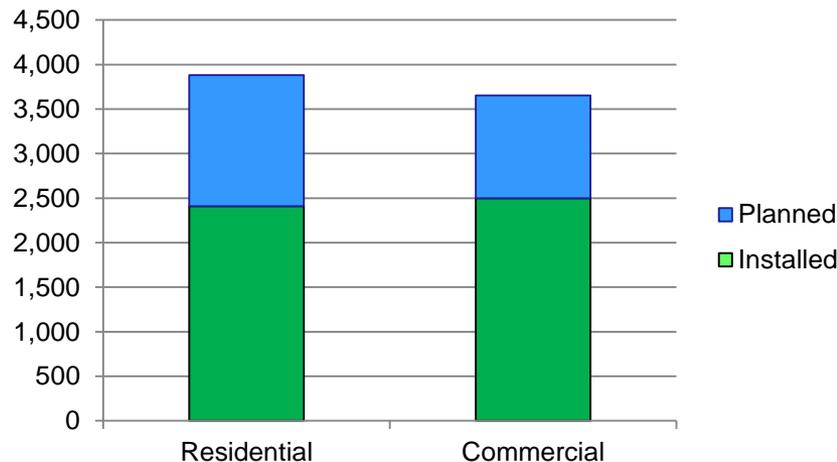
Residential = 3,882

Workplace = 743

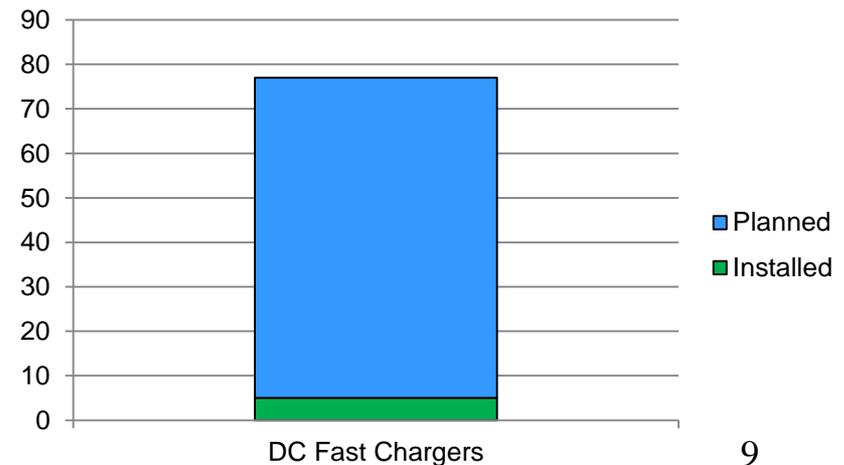
DC Fast = 77

Plus 10 Regional Readiness
Planning Grants = \$2.0 M

Level 1 & 2



77 DC Fast Chargers





ARFVTP EVSE Awards

28 Projects Totaling \$26.8 Million

Major Equipment Suppliers

ChargePoint

Clipper Creek

Blink

AeroVironment

Alternative Energy Systems

Green Charge Networks

13 Public Agency Awards

ABAG

DGS

City of Reedley

UC Irvine

SMUD

LADWP

US GSA

USAF

South Coast AQMD

So Cal Regional Collaborative



Current EVSE Funding: \$33.6 M

2012-13 IP Funding = \$6 million

- PON-13-606 (closed February 2014)
- Destination, Workplace, Commercial & MUDs

Regional Readiness
Planning and
Implementation = \$5.6 M

2013-14 IP Funding = \$7 million

- Support ZEV Action Plan, State Garages

2014-15 IP Proposed Funding = \$15 million

- 2nd Advisory Committee Meeting – February 10, 2014
- Business Meeting Approval – April 2014
- Destination, Workplace, MUDs, Fast Charging, Commercial Truck Charging



Upcoming Solicitations (Online)

Upcoming Solicitations

Investment Plan Category	Upcoming Funding Opportunities	Anticipated Funding Amount*	Proposed Release Date (Calendar Quarter)
Alternative Fuel Production	Pilot-Scale and Commercial-Scale Advanced Biofuels Production Facilities	\$24 million	Open - PON-13-609 (see application deadline below)
	Early Stage Biofuel Production and Supply	\$3 million	Q2 - 2014
Alternative Fuel Infrastructure	Electric Vehicle Charging Infrastructure	\$3 million	Open - PON-13-606 (see application deadline below)
	Regional Alternative Fuel Readiness Planning	\$2.1 million	Open - PON-13-603 (see application deadline below)
	Hydrogen Refueling Infrastructure	\$29.9 million	Open - PON-13-607 (see application deadline below)
Alternative Fuel and Advanced Technology Vehicles	Natural Gas Vehicle Incentives	\$10.8 million	Open - PON-13-610 (see application deadline below)
	Medium and Heavy Duty Advanced Vehicle Technology Demonstrations	\$9.8 million	TBD
Related Needs and Opportunities	Manufacturing Facilities and Equipment	\$5 million	TBD

Additional upcoming funding opportunities will be posted periodically.

*The Energy Commission reserves the right to adjust funding amounts noted for individual solicitations.

Available at: <http://www.energy.ca.gov/contracts/transportation.html>



Additional CEC Information

DRIVE Website

<http://www.energy.ca.gov/drive/>

Alternative and Renewable Fuel and Vehicle Technologies Program:

FY 2014-15 Investment Plan

<http://www.energy.ca.gov/2013-ALT-02/>

Funding Opportunities

<http://www.energy.ca.gov/contracts/>