



CALIFORNIA ENERGY COMMISSION

The Alternative and Renewable Fuel and Vehicle Technology Program

California Transportation Commission
Petaluma, California

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September 14, 2011



The Alternative and Renewable Fuel and Vehicle Technology Program

- Established by Assembly Bill 118 (Núñez, Chapter 750, Statutes of 2007), and administered by the Energy Commission.
- “The emphasis of this program is to develop and deploy innovative technologies that transform California’s fuels and vehicle types to help attain the state’s climate change policies.”



Key Policy Objectives

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
Alternative and Renewable Fuel Use	Increase alternative and renewable fuel use to 9% of on-road and off-road fuel demand by 2012, 11% by 2017 and 26% by 2022
In-State Biofuels Production	Produce in California 20% of biofuels used in state by 2010, 40% by 2020, and 75% by 2050



About the Investment Plan

- The Investment Plan identifies the annual priorities and opportunities for the Program.
- The Energy Commission is required to develop and adopt the Investment Plan annually.
 - Future Investment Plans will be timed with the release of the Governor's proposed budget in January, and the May revise.
- The third Investment Plan--\$100 million for FY 2011-2012 was adopted by the Energy Commission on September 7, 2011.



Funding Priorities

- Priorities in the Investment Plan are evaluated based on the short-, medium- and long-term opportunities of a portfolio of fuels and technologies.
- Market and technological barriers are identified for multiple alternative fuels and technologies.
- Existing funding and regulations for fuels and technologies help identify where additional support is needed.



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	Project/Activity	Allocation
Plug-in Electric Vehicles	Plug-in Electric Vehicle Regional Readiness Planning	\$1 Million
	Charging Infrastructure	\$7 Million
Hydrogen	Fueling Infrastructure	\$8.5 Million
Natural Gas	Fueling Infrastructure	\$8 Million
Propane	Light-Duty Vehicle Incentives	\$1 Million
	Fueling Infrastructure	\$.5 Million
Gasoline Substitutes	Advanced Ethanol and Gasoline Substitutes Production	\$8 Million
	E85 Retail	\$5 Million
Diesel Substitutes	Advanced Diesel Substitute Production Plants	\$8 Million
Biomethane	Pre-Landfill Biomethane Production	\$8 Million
Medium- and Heavy-Duty Vehicles	Deployment Incentives for Natural Gas Vehicles	\$12 Million
	Deployment Incentives for Propane Vehicles	\$3 Million
	Develop and Demo Advanced Technology Vehicles	\$8 Million
Innovative Technologies...	Innovative Tech., Adv. Fuels, and Federal Cost-Sharing	\$3 Million
Manufacturing	Manufacturing Facilities and Equipment	\$10 Million
Workforce	Workforce Training and Development Agreements	\$6.5 Million
Market and Program Development	Sustainability Studies	\$0.5 Million
	Technical Assistance and Analysis	\$2 Million



Planned PEV Infrastructure in CA

- Over \$18 million in AB 118 funds for 4,500 charge points
- Level I and II chargers
- DC Fast Charging
- Regions
 - San Francisco Bay Area
 - Los Angeles
 - San Diego
 - Sacramento



Planned PEV Charge Points





PEV Infrastructure Funding for 2011-2012: \$8 million

- Regional PEV Planning
- Residential PEV Infrastructure incentives
- Multi-Dwelling Unit PEV Infrastructure deployment (including DC fast chargers)
- Workplace and Fleet PEV Infrastructure
- DC Fast charging for corridors



Current and Upcoming Solicitations

- Plug-in Electric Vehicle Regional Readiness \$2 M
- Advanced Medium- and Heavy Duty Vehicle Technologies Pre-Commercial Demonstrations \$16.9 M
- Alternative fuel infrastructure \$30.3 M
- Hydrogen Fueling Stations \$18.5 M



Coordination and Collaboration

- California Air Resources Board
- Caltrans
- California Plug-in Electric Vehicle Collaborative
- U.C. Davis Institute of Transportation Studies and U.C. Irvine STREET model
- Regional agencies and local government