



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.



CALIFORNIA ENERGY COMMISSION

| | 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