



California Energy Commission's Transportation Vision & Program Synergies

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The Intersection: Research Meets Deployment

Electric Program Investment Charge

Transportation
Research
(~\$4M/3 years)

Natural Gas Research

Transportation
Research (~\$4M/year)

**Alternative and
Renewable Fuel
and Vehicle Technology
Program**
(~\$100M/year)

Transportation
Demonstration and
Deployment



Benefits for California

- Cleaner air
- State leadership in greenhouse gas emission reductions
- Improve access to advanced, clean technology
- Grid Stabilization
- Reduce vehicle-grid connection technology costs
- In-state development of intellectual property
- Economic investment in California
- Job creation



Major Collaborations

- ZEV Action Plan Implementation
- ARFVTP Investment Plans
- EPIC Investment Plans
- Natural Gas Research Budget Plans
- Research Roadmap Development Support
- Solicitation Project Selection
- Support Select Projects from R&D to Commercial Deployment



Projects Supported from R&D to Deployment





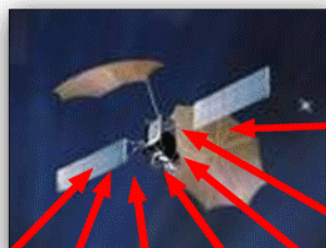
Clean World Partners Waste-to-Energy/Fuel





Biodico ARIES Biodiesel Production Facility

ARIES
Networked
Biodiesel
Production



Centralized
Training
Support



Nursery



Harvest



Oil
Extraction



Oil
Collection



Mini-MPU



MPU

Global Capacity for Distributed Production Facilities



Cummins Westport Inc. Natural Gas Engine for Heavy-Duty Vehicles





Near Zero NO_x Natural Gas Engine Development





The Path Forward

- Continued Collaboration
- Improvements in Program Access
 - Increased outreach to expand participation in programs
 - Website enhancements and increased technology transfer
 - Webinars for potential applicants
 - Targeting regions to maximize inclusiveness
 - Ensuring benefits reach all communities



Getting Connected

Energy Commission List Serves

<http://www.energy.ca.gov/listservers/index.html>

Recommended list serves: Altfuels, research, opportunity, epic, naturalgas

Alternative and Renewable Fuel and Vehicle Technology Program:

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

DRIVE website: <http://www.energy.ca.gov/drive/index.html>

Energy Commission Research (for EPIC and PIER-NG research):

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