

Technology Integration

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Activities

- Clean Cities – A voluntary, locally based government/ industry partnership
- Legislative and Rulemaking
- Advanced Vehicle Competitions
- Education Programs
 - Graduate Automotive Technology Education
 - Partnership with Automotive X Prize
 - Advanced Electric Drive Vehicle Education Program



Improving the speed and scale of market penetration for alternative fuel vehicles and infrastructure

Results: 3 Billion Gallons of Petroleum Fuels Displaced Since 1993

Goal: 2.5 Billion Gallons/year by 2020

~100 coalitions Serving
78% of the US population



Thousands of stakeholders from businesses, city & state governments, transportation industry, community organizations, fuel providers



**AMERICA'S FIRST
BIOFUELS CORRIDOR**



Deployment Awards:

Vehicle Deployment - More than 10,000 alt-fuel and EVs, displacing an estimated 38 million gal of petroleum fuels/year

Infrastructure - More than 1,250 new fueling and charging stations

Education and Community Readiness - Hundreds of workshops, community events, workforce training and public outreach efforts

NREL photo



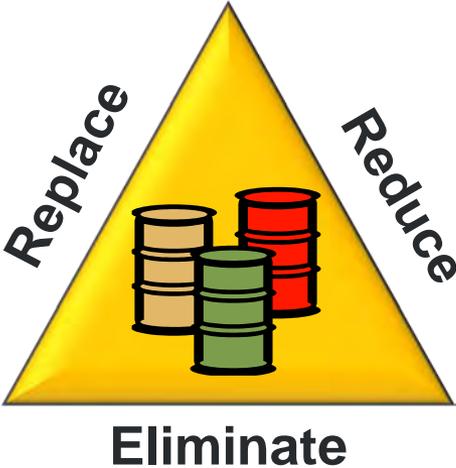
*National Clean Fleet Partners:
(deployment with hi-impact national fleets)*

Alternative Fuels

- Electric Vehicles
- Biodiesel
- Ethanol
- Hydrogen
- Propane
- Natural Gas

Idle Reduction

- Heavy-Duty Trucks
- School & Transit Buses
- Light-Duty Vehicles



Fuel Economy

More Fuel efficient vehicles, adopting smarter driving and vehicle purchasing habits

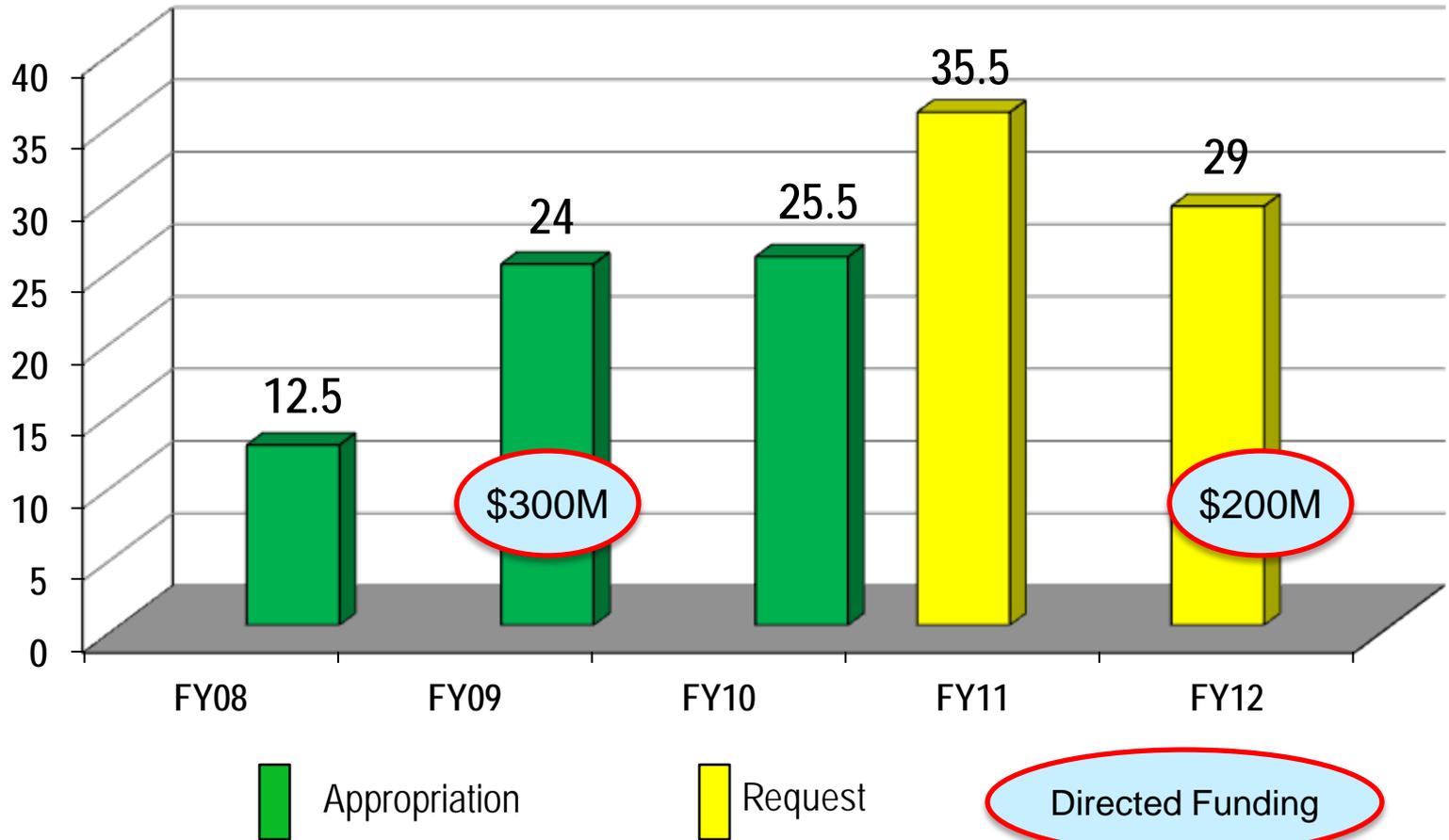


Hybrids

- Light- and heavy-duty Electric hybrids
- Plug-In hybrids
- Hydraulic hybrids

Clean Cities Budget

\$ Millions



Clean Cities Deployment Efforts include four major activities



Local Community/Coalition:

Support & Partnership Development:

Direct support for CC activities, public events, training for Clean Cities coalitions & community leaders, local project coordination, strategic planning assistance



Consumer Information, Outreach, and Education:

Fuel Economy Guide, Alternative Fuel and Advance Vehicles Data Center (AFDC), other web based consumer tools, publications, workshops, targeted workforce and end-user education



Technical & Problem Solving Assistance:

Addressing Market Barriers, Safety Issues, Technology shortfalls



Financial Assistance:

Funding to Facilitate Infrastructure Development and Vehicle Deployment projects (Competitive Awards)

Consumer Education & Outreach: Clean Cities Web Resources



U.S. DEPARTMENT OF ENERGY Energy Efficiency & Renewable Energy

Clean Cities

About the Program | Coalitions | Coordinator Toolbox | Financial Opportunities | Information Resources

Search Help | More Search Options | EERE Information Center | NEWS

Clean Cities strives to advance the nation's economic, environmental, and energy security by supporting local decisions to adopt practices that contribute to the reduction of petroleum consumption. Clean Cities has a network of approximately 90 volunteer coalitions, which develop public/private partnerships to promote alternative fuels and advanced vehicles, fuel blends, fuel economy, hybrid vehicles, and idle reduction.

Clean Cities is part of the Office of Energy Efficiency and Renewable Energy's [Vehicle Technologies Program](#).

Select Coalition-Related Information

- Starting Coalitions
- Coalition Locations
- Program Contacts
- Coordinator Contacts

What is Clean Cities? Fact Sheet (PDF 2 MB) | Download Adobe Reader | Printable Version

U.S. DEPARTMENT OF ENERGY Energy Efficiency & Renewable Energy

Alternative Fuels & Advanced Vehicles Data Center

About the AFDC | Fuels | Vehicles | Fleets | Incentives & Laws | Data, Analysis & Trends | Information Resources

Search Help | More Search Options | Site Map | EERE Information Center

The Alternative Fuels and Advanced Vehicles Data Center (AFDC, formerly known as the Alternative Fuels Data Center) provides a wide range of information and resources to enable the use of alternative fuels (as defined by the Energy Policy Act of 1992), in addition to other petroleum reduction options such as advanced vehicles, fuel blends, idle reduction, and fuel economy.

This site is sponsored by the U.S. Department of Energy's [Clean Cities](#) initiative.

Data, Analysis, and Trends
Our [Data, Analysis, and Trends](#) section provides industry trends and facts based on data analysis.

Printable Version

www.fueleconomy.gov

Links | FAQ | Site Map | Search | Contacts

United States Department of Energy Energy Efficiency and Renewable Energy | United States Environmental Protection Agency

FIND AND COMPARE CARS...

Gas mileage (MPG), greenhouse gas emissions, air pollution ratings, and safety information for new and used cars and trucks

- Compare Side-by-Side
- Advanced Search

Why is fuel economy important?
Climate Change
Strengthen National Security

Diesel Vehicles
Tax Incentives
Biodiesel

Gas Mileage Tips
Driving More Efficiently
Drive Smarter Challenge

Hybrid Vehicles
How Hybrids Work
Tax Incentives

CARS
car allowance rebate system

Trade in your old, inefficient vehicle for a new, more efficient one.

Also known as the "Cash for Clunkers" Program

YOUR MPG ...

Alternative Fuel Vehicles
Flex-Fuel Vehicles

Videos
Extreme MPG
Motorweek Videos

In the News...

Electric Cars' MPG Conundrum - BusinessWeek

More Are Hired to Speed Up the Clunker Reimbursements - The New York Times

Scion dealers say tiny iQ is coming in 2010 - AutoWeek

Disclaimer | More News

Clean Cities

Alt Fuel and Advanced Vehicle Data Center (AFDC)

FuelEconomy.gov

Graduate Automotive Technology Education

- Centers established in 1998, expanded in 2005.
- Receive DOE funding for student fellowships and curriculum development.
- Each center has established a graduate engineering education program that offers courses emphasizing that center's technology specialty.

Advanced Vehicle Competitions

- Since 1987, DOE has sponsored more than two dozen university-level advanced vehicle technology competitions.
- Provides college engineering students an opportunity to conduct hands-on research and development with leading-edge automotive propulsion, fuels, materials, and emissions control technologies.

Solicitation Closed on April 18



Provide a new generation of engineers with knowledge and skills in developing and commercializing advanced automotive technologies.

16 Teams pursuing variety of advanced vehicle technologies

- Extended Range Electric Vehicle – 7
- Plug-In Hybrid Electric Vehicles (PHEV) – 6
- Full Function Electric Vehicle (FFEV) – 1
- Fuel Cell Plug-in Hybrid Electric Vehicle (FCPHV) – 2

3 year competition series concludes in June

- Vehicle dynamic events – June 6-13
- Static presentation events – June 14 & 15
- Awards ceremony – June 16

- EcoCAR2 launched at SAE World Congress 4/12-13
- Headline Sponsored by DOE and GM, Natural Resources Canada and other North American partners
- Teams will be challenged to reduce the environmental impact of a mid-size car while maintaining the performance and consumer acceptability of the production counterpart



Chevrolet Malibu



DOE sponsored the Evaluation, Education & Outreach Program to promote student/public interest and understanding of advanced automotive technology.

- Real-time, on-line availability of competition activities
- Educational events in 16 science centers around the country
- High school aged competition to design next-generation dashboards
- Vehicles tested on the track and dynamometer using consistent methodology.
- Fuelourfuturenow.com



Mainstream
**Edison2 “Very
Light Car #98”**



Alternative
**Li-ion Motors
Corp “Wave II”**



Alternative
**X-Tracer Team
Switzerland
“E-Tracer #79”**

- Selections announced by President Obama on August 5, 2009
- 10 projects receive \$39.1 million in ARRA funding
 - National Fire Protection Association
 - Missouri University of Science and Technology
 - Wayne State University
 - West Virginia University
 - University of Michigan
 - J. Sergeant Reynolds Community College
 - Michigan Technical University
 - Purdue University
 - City College of San Francisco
 - Colorado State University

Clean Cities

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