

Clean Cities

Cutting petroleum use in transportation since 1993

In 2013, the U.S. Department of Energy's Clean Cities program reaches a major milestone, celebrating 20 years of success in supporting local actions to reduce petroleum use in transportation. Cumulatively, Clean Cities has saved more than 4.5 billion gallons of petroleum, thereby helping to advance the nation's economic, environmental, and energy security.

A national network of nearly 100 Clean Cities coalitions brings together stakeholders in the public and private sectors to deploy alternative and renewable fuels, idle-reduction measures, fuel economy improvements, and new transportation technologies as they emerge.

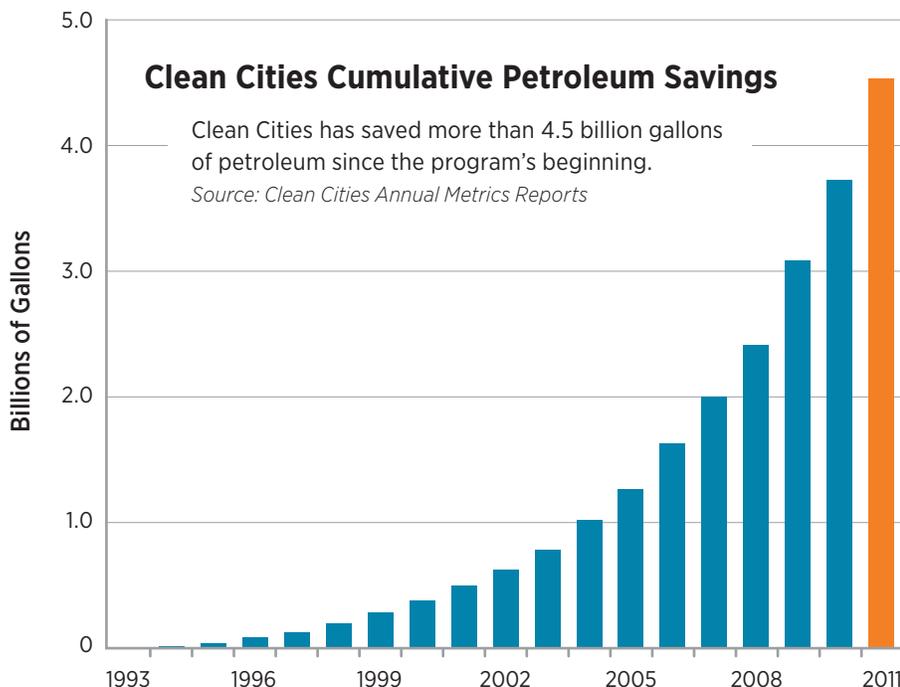
Clean Cities was established in 1993, in response to the Energy Policy Act of 1992. The program is housed within the U.S. Department of Energy's (DOE) Vehicle Technologies Office.



A hybrid electric bus powered by natural gas in downtown Denver. Clean Cities works to reduce petroleum use in the transportation sector by supporting the deployment of alternative fuels, advanced vehicles, and other strategies. *Photo by Pat Corkery, NREL 17976*



U.S. Department of Energy



Transforming Transportation for Two Decades

Clean Cities strives to reduce U.S. dependence on petroleum. The program's successes include the following:

- Clean Cities projects and activities have saved more than 4.5 billion gallons of petroleum.
- Clean Cities efforts have helped place more than 660,000 alternative fuel vehicles on the road and develop the fueling infrastructure to support them.
- In 2011 alone, Clean Cities activities helped to avert more than 5.8 million tons of greenhouse gas emissions.
- Over the program's 20-year history, the number of local Clean Cities coalitions has grown from six in 1993 to nearly 100 today, representing about three-quarters of the U.S. population.
- Nationwide, nearly 13,000 stakeholders in the public and private sectors count themselves as members in a local Clean Cities coalition.
- Through the American Recovery and Reinvestment Act of 2009, Clean Cities supported 25 local and regional transportation projects with \$300 million in federal funding, which in turn leveraged more than \$500 million in investments by public- and private-sector partners.

Clean Cities Accomplishments

Clean Cities has helped deploy hundreds of thousands of alternative fuel vehicles and the fueling stations needed to serve them, aided in the elimination of millions of hours of vehicle idling, and helped accelerate the entry of electric-drive vehicles into the marketplace.

Increasing Access to Alternative Fuels

Clean Cities supports infrastructure projects that place alternative fueling stations within communities and along major



Clean Cities supports the development of fueling infrastructure that gives fleets and consumers access to alternative fuels. *Photo by Pat Corkery, NREL 18133*

highways, enabling drivers to forego petroleum whether driving across town or traveling long distances.

Today's flex-fuel vehicle drivers have continuous access to E85 stations along I-65 from northern Indiana to southern Alabama, and along the I-95/I-64 Crescent Corridor in Maryland, Virginia, and Washington, D.C. Clean Cities projects have also helped establish natural gas corridors along heavily traveled routes in California, Utah, and New York; networks of propane fueling stations in Texas; and electric vehicle charging corridors in Oregon, Arizona, and Washington.

Partnering With Private-Sector Leaders

President Obama launched the National Clean Fleets Partnership to help private-sector leaders reduce petroleum use. Through the partnership, Clean Cities provides specialized resources and technical assistance to companies with large fleets as they implement alternative fuels, advanced vehicles, and fuel economy improvements. More than 20 partners have joined the initiative, and together, they operate more than 1 million vehicles.

Greening Our National Parks

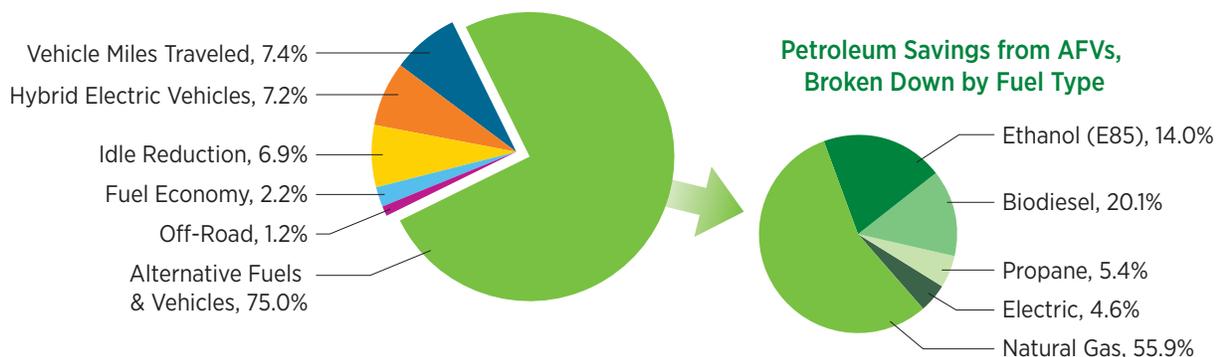
Clean Cities is working with the National Park Service to accelerate the deployment of alternative fuels and advanced vehicles in more than a dozen national parks across the country. The partnership aims to reduce petroleum use, improve air quality, cut greenhouse gas emissions, and



FedEx and UPS joined the National Clean Fleets Partnership in 2011. Both companies use alternative fuels and hybrid technologies to cut petroleum use. *Photos from Smith Electric Vehicles, NREL 22849 (top); Pat Corkery, NREL 18193 (bottom)*

educate park visitors about sustainable transportation practices. With help from Clean Cities coalitions, Mammoth Cave National Park has deployed propane buses and electric vehicles, and rangers in Grand Teton National Park are cutting fuel use with hybrid electric vehicles. Yellowstone National Park has deployed a variety of electric-drive vehicles, including a hybrid electric bus that uses biodiesel.

Clean Cities 2011 Petroleum Savings by Technology Type



Much of Clean Cities' petroleum savings comes from the deployment of alternative fuel vehicles (AFVs) that run on natural gas, E85, biodiesel, propane, or electricity. *Source: Clean Cities Annual Metrics Reports*

Accelerating Deployment of Alternative Fuel Vehicles

Clean Cities is playing a central role in the deployment of alternative fuel vehicles (AFVs) and plug-in electric vehicles (PEVs) on U.S. roadways. In 2011, Clean Cities awarded \$8.5 million to help communities in 24 states and the District of Columbia prepare for the arrival of PEVs and plan for charging infrastructure. In 2012, Clean Cities awarded \$11.1 million to help communities overcome market barriers to the adoption of AFVs and PEVs. Project awardees are providing training and safety programs for technicians and first responders, improving permitting processes for fueling infrastructure development, streamlining AFV procurement processes for fleets, and facilitating workplace charging for PEV drivers.

Clean Cities coalitions across the country are working at the state and local levels with auto-makers, utilities, state and local governments, equipment manufacturers, and other stakeholders to accelerate the adoption of PEVs and AFVs. This work supports regional efforts to improve air quality and helps insulate consumers and businesses from the financial impacts of volatile petroleum markets.



Photo by Dean Armstrong, NREL 17436

Information Resources

As the deployment arm of DOE's Vehicle Technologies Office, Clean Cities produces a comprehensive collection of information for fleets, businesses, and the general public. Take advantage of the following online resources to learn more about Clean Cities and the fuels and technologies it supports.

Clean Cities: Visit the Clean Cities website at cleancities.energy.gov to find out more about the program, its accomplishments, and its local coalitions.

Alternative Fuels Data Center (AFDC):

The AFDC, online at afdc.energy.gov, provides a wealth of information and data about alternative fuels, advanced vehicles, and other petroleum-saving technologies. The site features a number of interactive tools, calculators, and mapping applications, including the following:

- **Alternative Fueling Station Locator:** Find fueling stations and electric vehicle charging locations in your area (afdc.energy.gov/stations).

- **Incentives and Laws:** Search this database for federal and state incentives and laws pertaining to alternative fuels and vehicles, air quality, fuel efficiency, and other transportation-related topics (afdc.energy.gov/laws).

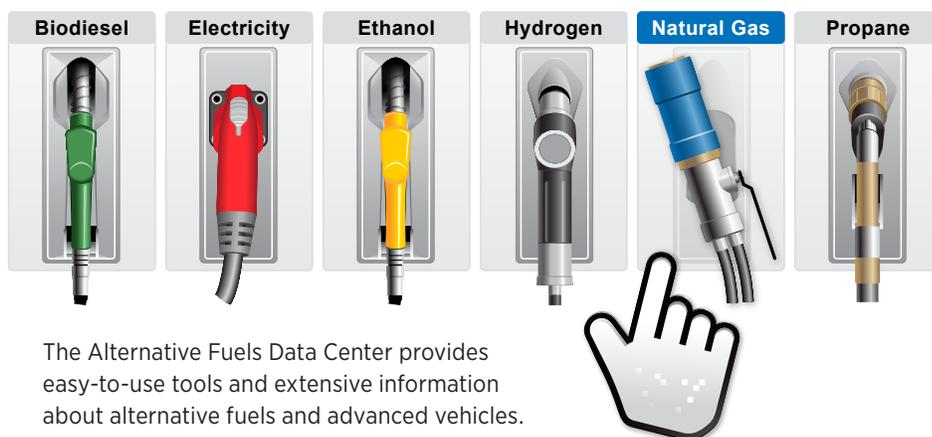
- **GREET Fleet Footprint Calculator:** Calculate a fleet's well-to-wheels petroleum use and greenhouse gas emissions (greet.es.anl.gov/carbon_footprint_calculator).

FuelEconomy.gov: This site is the official U.S. government source for fuel economy information. Use it to find and compare

vehicles, calculate your own fuel economy, and get tips to cut fuel costs.

Clean Cities YouTube Channel: Visit youtube.com/cleancitiestv to view scores of educational videos about alternative fuels, advanced vehicles, and transportation success stories from across the country.

Clean Cities Technical Response Service: Let seasoned experts help find answers to your questions about alternative fuels, advanced vehicles, fuel economy, and idle reduction (800-254-6735; technicalresponse@icfi.com).



The Alternative Fuels Data Center provides easy-to-use tools and extensive information about alternative fuels and advanced vehicles.