U.S. DEPARTMENT OF
ENERGY

Office of
ENERGY EFFICIENCY &
RENEWABLE ENERGY

Clean Cities Coalitions: Advancing Affordable, Domestic Transportation Fuels and Technologies Across the Country

A Ruan milk transport truck fuels up at an ampCNG renewable natural gas (RNG) station in Indiana. The RNG is produced from cow manure—from the same cows that produce the milk. *Photo from ampCNG, NREL 37376*

A coordinated group of nearly 100 coalitions serve as the foundation of Clean Cities, working in communities across the country to help local decision makers and fleets understand and implement alternative and renewable fuels, idle-reduction measures, fuel economy improvements, new mobility choices, and emerging transportation technologies. The U.S. Department of Energy's (DOE) Vehicle Technologies Office (VTO) within the Office of Energy Efficiency and Renewable Energy facilitates national coordination of the coalitions through its Technology Integration Program. Together, Clean Cities coalitions and VTO focus on advancing affordable, domestic transportation fuels, energy efficient mobility systems, and other fuel-saving technologies and practices.

At the national level, VTO's Technology Integration Program offers technical assistance, information resources, online training, and an array of data and analysis tools. At the local level, coalitions leverage these resources to create networks of community stakeholders and provide hands-on technical assistance to fleets.

VTO designated the first Clean Cities coalition in 1993 in response to the Energy Policy Act of 1992, and coalitions across the country have evolved and expanded ever since. After a quarter century, coalitions have garnered the respect and trust of fleets and industry alike by providing objective data and real-world lessons learned to smooth the transition to alternative fuels and advanced vehicle technologies. Coalitions accomplish this in communities large and small, one project, one local decision, and one fleet at a time. This creates a compounding impact nationwide that advances U.S. energy independence and reduces vehicle emissions while supporting regional economic development and job growth.

Coalition Strategies

Coalitions employ multiple strategies to advance affordable, domestic transportation fuels and energy-saving technologies:

- **Evaluate transportation needs and energy choices** to determine the most impactful and cost-effective vehicle options, fuels, technologies, and best practices that make sense for specific stakeholder applications
- **Shift to domestic energy sources** through the use of alternative and renewable fuels such as natural gas, propane, hydrogen, electricity, ethanol, and biodiesel
- **Improve fuel efficiency** through state-of-the-art technologies and strategies
- **Reduce harmful emissions** through idle reduction and other fuel-saving technologies and practices.

Coalition activities, project results, and estimated energy impact are summarized in an annual report. This gives coordinators the ability to track accomplishments, inform stakeholders of their

Clean Cities Coalitions at Work

- Building partnerships with public- and private-sector transportation stakeholders
- Dispensing objective information, data-driven online tools, and a suite of resources to fleets and local decision makers
- Empowering stakeholders to evaluate and implement the best strategy to achieve their goals
- Collecting and sharing best practices, data, and lessons learned to inform local decisions and build a strong national network
- Engaging technical assistance to help fleets and end users implement alternative fuels, advanced vehicles, and fuel-saving measures
- Working with industry partners and fleets to solve problems, and identify and address technology barriers
- Leveraging people and resources to encourage private-sector investment, resulting in successful implementation of advanced transportation and fueling infrastructure development projects.

coalition's progress, and devise strategies for the future.

Moreover, access to these data allows coordinators to identify points of mutual interest with other coalitions and jointly develop a framework for larger impact. Summary information is available on the Publications page of the Clean Cities Coalition Network website (*cleancities.energy.gov/publications*).

A National Network of Local Coalitions

The strength of the national Clean Cities network lies within the nearly 100 coalitions located throughout the United States. Rooted within their local communities, the coalitions serve as experts and ambassadors, bringing to bear the collective knowledge, experience, and practical know-how of the entire network (from within DOE, its National Laboratories, and the several thousand stakeholders in the field). It's the diversity of these partnerships that make Clean Cities coalitions unique and successful.

Coalitions are comprised of businesses, fuel providers, vehicle fleets, state and local government agencies, and community organizations. These stakeholders share experiences, information and resources, educate the public, collaborate on transportation projects, and help identify research needs. Nationwide, nearly 13,000 stakeholders participate in Clean Cities coalitions, and through their collective efforts they are transforming local and regional transportation markets.

Photos (top to bottom): by Dennis Schroeder, NREL 39909; from Mark Bentley, Alabama Clean Fuels Coalition, NREL 39581; by Pat Corkery, NREL 18132

Each coalition is led by an on-the-ground coordinator who tailors projects and activities to capitalize on the unique opportunities in their region. Stakeholders gain access to a wide array of resources, including individualized technical assistance, informational publications and tools, networking opportunities with fleets and industry partners, workshops, funding opportunities, and outreach support. They may also receive public recognition, highlighting their accomplishments and success.

Furthermore, Clean Cities coalitions host events for stakeholders to share information, work with fleets to evaluate their fuel or technology options, and collaborate on projects that implement these fuels and technologies.

Clean Cities Coalition Accomplishments

For more than two decades, Clean Cities Coalition projects have helped to put hundreds of thousands of alternative fuel vehicles (AFVs) on roads and facilitated the installation of associated fueling stations that serve diverse and growing markets. Collectively, the coalitions have aided in the elimination of millions of hours of vehicle idling and helped accelerate the entry of new transportation technologies into the marketplace.

Coalition projects have resulted in a cumulative impact in energy use equal to nearly **8 billion** gasoline gallon equivalents resulting from reduced fuel use and increased fuel diversity.[1]

Enough to drive the distance to the sun and back **1,008** times

Enough liquid to fill nearly **1 million** tanker trucks

Coalition projects have helped to put more than **1.1 million alternative fuel vehicles** on the road.[2]

Vehicle miles traveled reduction projects avoided nearly **23 million hours** of driving.[4]

85 million gasoline gallon equivalents of energy were saved through fuel economy improvement projects like trailer aerodynamic packages, telematics, driver training, and outfitting fleets with idle reduction equipment.[2]

DOE VTO transportation projects are competitively awarded and cost-shared. Coalition-supported projects have historically leveraged almost **2:1** in matching funds and in-kind contributions from private and public sector partners.[3]

Clean Cities coalitions have forged partnerships with nearly **13,000 stakeholders** nationwide. Through their collective efforts, they are transforming local and regional transportation markets and offering consumers additional transportation choices.[2]

Coalitions contribute to the expansion of alternative fueling station infrastructure. More than **23,000 fueling stations** nationwide now provide at least one of these fuel types:

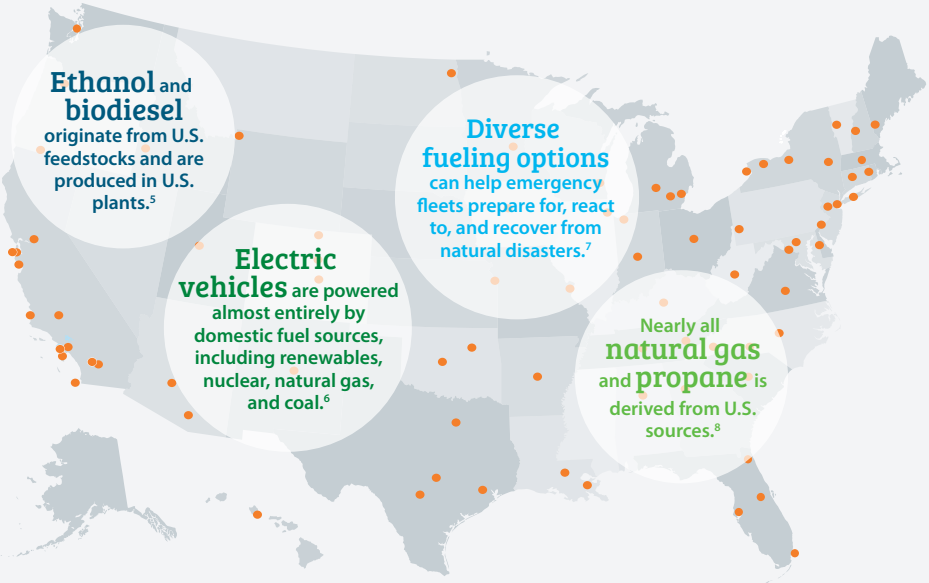
- Ethanol (E85)
- Biodiesel
- CNG Compressed Natural Gas
- Electric
- H_2 Hydrogen
- LNG Liquefied Natural Gas
- RNG Renewable Natural Gas
- LPG Propane

Find alternative fueling stations near you at *afdc.energy.gov/stations#/find/nearest*.

Alternative Fuels and Vehicles Strengthen the Nation's Energy and Economic Security

Nearly 100 Clean Cities coalitions cover more than 80% of the U.S. population.

Learn more and find sources by scanning the code or view footnotes and sources at *cleancities.energy.gov/infographic-sources*.



25th ANNIVERSARY Since 1993

Online Resources

Your local coalition can connect you with a wide array of resources and advise on the appropriate tools to determine a solution that meets your needs.

Clean Cities Coalition Network: Visit the Clean Cities Coalition Network website (*cleancities.energy.gov*) to find out more about Clean Cities coalition accomplishments and how to connect with your local coalition.

Alternative Fuels Data Center (AFDC): The AFDC (*afdc.energy.gov*) provides a wealth of information and data on alternative fuels, advanced vehicles, and other fuel-saving technologies. The site features a number of interactive tools, calculators, and mapping applications.

FuelEconomy.gov: Use the official U.S. government source for fuel economy information (*fueleconomy.gov*) to find and compare vehicles, calculate your own fuel economy, and get tips to cut fuel costs.

If you have a need or want to learn more, there is a tool or resource to help!

- **Find and compare vehicles:** The Find A Car tool* (*fueleconomy.gov/feg/findacar.shtml*) makes it easy to compare all types of light-duty vehicles, while the Alternative Fuel and Advanced Vehicle Search (*afdc.energy.gov/vehicles/search*) focuses on alternative fuel vehicles across the light- to heavy-duty spectrum.
- **Estimate electric vehicle charging needs:** The EVI-Pro Lite tool (*afdc.energy.gov/evi-pro-lite*) provides a simple way to evaluate how much electric vehicle charging you might need at a city and state level.
- **Find Laws and Incentives:** The Laws and Incentives database† (*afdc.energy.gov/laws*) contains federal and state laws and incentives pertaining to alternative fuels and vehicles, air quality, fuel efficiency, and other transportation-related topics.
- **Compare fuel prices:** The Alternative Fuel Price Report (*afdc.energy.gov/fuels/prices.html*) provides publicly available regional fuel prices for biodiesel, compressed natural gas, ethanol, hydrogen, and propane, as well as gasoline and diesel.
- **Find fueling and charging stations:** The Alternative Fueling Station Locator*† (*afdc.energy.gov/stations*) helps you find alternative fueling stations and electric vehicle charging locations throughout the United States and Canada.
- **Estimate the impact of new vehicles:** The Alternative Fuel Life-Cycle Environmental and Economic Transportation (AFLEET) Tool (*greet.es.anl.gov/afleet*) allows you to estimate petroleum use, emissions, and cost of ownership of light- and heavy-duty vehicles using simple spreadsheet inputs.
- **See projects in action:** Browse a collection of case studies (*afdc.energy.gov/case*) and videos (*youtube.com/user/CleanCitiesTV*) to learn how other fleets have implemented alternative fuels and transportation technologies.
- **Get help!** Let seasoned experts at the Technical Response Service (*technical-response@icfi.com*; 800-254-6735) find answers to your questions on alternative fuels, advanced vehicles, fuel economy, and idle reduction.

**There is also a mobile app for this tool!*

†Data source available via an API and can be used by public and private enterprises. ■

Transforming Transportation Since 1993

Clean Cities coalitions strive to improve transportation energy efficiency and advance affordable, domestic transportation fuels and fuel-saving technologies and practices. Their combined efforts have yielded impressive results, which include the following:

- Produced a cumulative impact in energy use equal to nearly 8 billion gasoline gallon equivalents through diverse transportation projects
- Placed approximately 1.1 million AFVs on the road
- Grew from six Clean Cities coalitions in 1993 to nearly 100 today, covering more than 80% of the U.S. population
- Convened nearly 13,000 public and private stakeholders to participate in local coalitions.

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For more information, visit:
cleancities.energy.gov

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