Policies, People, Partnerships

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Transportation is a Large Part of our Energy Economy

**Annually**

- **11 billion** Tons goods
- **Over 3 Trillion Miles**

**Transportation**

- Transportation is the 2nd largest expense for U.S. households

**70%** of total U.S. petroleum usage is for transportation

On-road vehicles account for **85%** of transportation petroleum usage
Alternative Fuels Legislative History

- Energy Policy and Conservation Act of 1975
- Alternative Motor Fuels Act of 1988
- Clean Air Act Amendments of 1990

- Alternative Fuels Data Center (AFDC)
- Clean Cities
U.S. Department of Energy Priorities
Alternative “American-Domestic” Fuels a Fit

National Security

Economic Growth

Affordability for Businesses and Consumers

Reliability/Resiliency
How Do Clean Cities Coalitions Fit Within DOE?

Vehicle Technologies Office

- Electrification
- Advanced Combustion Systems and Fuels
- Materials Technology
- Energy Efficient Mobility Systems
- Technology Integration

VTO develops advanced transportation technologies to:

- Improve energy efficiency
- Increase domestic energy security
- Reduce operating cost for consumers & business
- Improve global competitiveness of US economy
Alternative “American-Domestic” Fuels

EPAct Established 1992

• Alternative Fuels
  - Natural Gas
  - Propane
  - Electricity
  - Ethanol
  - Biodiesel
  - Hydrogen

• Policy Intent
  - ✔ Reduce petroleum usage in transportation
  - ✔ Increase Energy & Economic Security
  - ✔ Reduce emissions
Clean Cities Technical Portfolio

Light-, medium-, and heavy-duty vehicles

Alternative Fuel Infrastructure

Energy Efficient Mobility Systems and Technologies
Locally-based Public-Private Partnerships

Nearly 100 Clean Cities coalitions with thousands of stakeholders, representing ~80% of U.S. population

15,000 stakeholders nationwide
52% from private sector
48% from public sector

cleancities.energy.gov
Clean Cities In The House!

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<table>
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<tbody>
<tr>
<td>GGEs Reduced (Gallons)</td>
<td>970,000,000</td>
</tr>
<tr>
<td>Alternative Fuel Vehicles (#)</td>
<td>1,489,238</td>
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<tr>
<td>Greenhouse Gas Reduction (tons)</td>
<td>2,771,000</td>
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Locally-Based Public-Private Partnerships

Clean Cities Coalitions:

- Locally based decision-making, community private and public partnerships
- Alternative fuel advocates.
- Leaders and connectors in new transportation technologies to stimulate local alternative fuel markets
- Public and private funding network and resources
- Alternative fuel educators and outreach leaders
- Connector to National laboratories, expertise data collection, analysis & troubleshooting
- Coordinator with other Federal agencies and State/Regional/Local governments
Local Partnerships: Stakeholders

- 15,000 stakeholders nationwide
- 52% from private sector
- 48% from public sector
Clean Cities Complementary Framework

Local & National Partnerships
Information & Education
Competitively Awarded Financial Assistance
Technical & Problem Solving Assistance

Clean Cities coalitions are locally based with the ability to tap national resources.
Local Partnerships: Stakeholders

Coalitions are made up of local and national stakeholders:

• **Fleets:**
  - Private companies
  - Federal, state, and municipal
  - School districts, universities
  - Airports, transit agencies
  - Taxi companies, ride share services.

• **Product and Service Providers:**
  - Vehicle and engine manufacturing
  - Conversion companies
  - Vehicle dealerships
  - Fueling equipment suppliers, installers, and providers.

• **Others:**
  - Environmental and energy agencies
  - Alternative fuel and clean air advocacy organizations
  - General public.
For Example: Palmetto Clean Fuels Coalition

**Stakeholder benefits:**

- Using fleet-specific data, the Transportation Action Tool can help to inform decisions surrounding the acquisition of new vehicles.
  - Fleet Audit
  - Fleet & Motivation Analysis
  - Final Evaluation
Example Coalition Activity: TNCleanFuels

The Tennessee Green Fleets (TGF) Certification Program is an opportunity for fleets that are based or operate in Tennessee to receive certification for their efforts to reduce petroleum consumption, use alternative fuels or advanced vehicle technologies, and reduce emissions.

- **Stakeholder benefits:**
  - Green Fleet Analysis & Review
  - Petroleum Reduction Score & Recommendations
  - Certification for High Scoring Green Fleets

http://tncleanfuels.org/resources/tennessee-green-fleets/
Example Coalition: Triangle Clean Cities

Triangle Transportation Demand Management Program

Transportation Demand Management (TDM) aims to reduce reliance on single-occupancy vehicles (SOV) for travel, by encouraging options such as carpooling, vanpooling, public transit, biking, walking, teleworking, and flexible work weeks. The Triangle TDM Program Impacts Report calculates the reductions in vehicle trips, vehicle miles traveled, and vehicle emissions resulting from programs funded by the Triangle TDM Grant Program.

IMPACTS OF TDM IN FY2016:

- **4.6 million** vehicle trips avoided
- **2.6 million** gallons of gas saved
- **61 million** commute miles reduced
- **31,921** alternative transportation users supported
- **28 million** kilograms of Carbon dioxide (CO2) release prevented

That's equivalent to over 5,500 people not driving a car in 2016.

It would take almost 4 Olympic swimming pools to hold that much gas.

That's roughly 129 trips to the moon and back.

If all those users drove single-file, the traffic jam would stretch 89 miles.

To sequester that much carbon naturally would require 1.3 million trees.
Information & Tools: FuelEconomy.gov

- Find and compare cars
- Get driving and vehicle maintenance tips
- Calculate fuel costs
- Track your MPG
- Explore advanced vehicle information
- Learn about the ratings

FuelEconomy.gov
Information & Tools: Alternative Fuels Data Center

- Specific information on fuels, vehicles, technologies, and strategies
- Tools
- Publications
- State-specific information

afdc.energy.gov
Information & Education

• AFDC Publications Database (~1,000 items)
  • Technology Bulletins
  • Price Reports
  • Case Studies (Over 280)
  • Clean Cities NOW

• FuelsFix.com
  • Coalition Led Publication

http://www.afdc.energy.gov/publications/
FuelsFix.com
@fuelsfix – Instagram, Twitter

• Clean Cities Stories & Alternative Fuel News
• Coalition Led Publication
• Over 10,000 email subscribers
• 1,500 Unique Visits per Month
• 2,700 Pageviews per Month
Information & Tools: MotorWeek and CleanCitiesTV

✓ Program overview
✓ MotorWeek segments
✓ Coalition videos
✓ Event recordings
✓ Topic-specific categories
✓ Playlists by Fuel Type/Activity
✓ Over 500 Videos

youtube.com/user/CleanCitiesTV
Information & Education

Clean Cities University

AFV Maintenance Garage Training
CNG, Propane, Hydrogen

AFV Workplace Safety Training

Training for First Responders
NFPA training available at www.evsafetytraining.org
Technical Assistance

• Capture lessons learned and best practices
• Technical Forums and User Groups
• Address unforeseen permitting & safety issues
• Identify chronic vehicle or infrastructure field problems
• Incident investigations

Technical Response Service
TechnicalResponse@icfi.com
800-254-6735
Clean Cities Partnerships

• Connect With Clean Cities.

• Tap into unbiased, unbeatable source of transportation know-how and networking.
  • Workshops, technical assistance, funding opportunities, training, and public recognition.

• Become a Coalition Stakeholder and join the Clean Cities conversation.

• Let us help tell your story.

• Get involved with Clean Cities events, activities and team building.

• Succeed with the Clean Cities Effect!
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