Clean Cities Overview

*CNG4Kansas*

September 17, 2013
Clean Cities
A voluntary, locally-based government-industry partnership

Clean Cities Mission: To advance the energy, economic, and environmental security of the U.S. by supporting local decisions to reduce petroleum use in transportation.

• Established in 1993; Energy Policy Act (EPAct) of 1992
• Provides a framework for businesses and government agencies to work together
• Reduce U.S. petroleum use by 2.5 billion gallons per year
Clean Cities Coalitions

- Nearly 100 coalitions throughout the United States
- 660,000 AFVs using alternative fuels

* Total includes more than 16,000 electric charging sites.
Coalitions are made up of local and national stakeholders.

- Almost 18,000 stakeholders nationwide
- 48% private-sector stakeholders
- 52% public-sector stakeholders
- In KC Regional Clean Cities, about 700 stakeholder companies and government agencies
U.S. Energy Consumption

Liquid fuels consumption by sector, 2010-2040 (in quadrillion BTU)

U.S. Petroleum Trends

Petroleum Consumption, Production, and Import Trends (in quadrillion BTU)

U.S. Petroleum Trends

Net Imports and Domestic Petroleum as Shares of U.S. Demand

U.S. Petroleum 51%
Net Imports 49%

Sources of Net Crude Oil and Petroleum Products Imports:
- Canada (25%)
- Saudi Arabia (12%)
- Nigeria (11%)
- Venezuela (10%)
- Mexico (9%)

Clean Cities Strategies

- **Replace** petroleum with alternative and renewable fuels
- **Reduce** petroleum use through fuel efficiency measures, smarter driving practices
- **Eliminate** petroleum use through idle-reduction and other fuel-saving technologies and practices

Clean Cities has saved nearly 4.5 billion gallons of petroleum since 1993.
Clean Cities Portfolio of Technologies

Alternative and Renewable Fuels
- Biodiesel
- Electricity
- Ethanol (E85)
- Hydrogen
- Natural gas
- Propane

Fuel Economy
- Fuel efficient vehicles
- Driving habits
- Vehicle maintenance

Idle Reduction
- Technologies
- Behavioral changes

Trip Elimination
- Telecommuting
- Ridesharing
Clean Cities Strengthens Markets

- Connecting fleets with fuel providers and industry partners
- Training and information
- Technical assistance
- Funding
- Education and outreach to decision makers, fleets, and the public
Midwest Region Alternative Fuels Project

Mid-America Collaborative for Alternative Fuels Implementation
Midwest CNG Coalition

Co-Chair: Aaron Brown
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To assemble and coordinate resources throughout Kansas, Missouri, Iowa and Nebraska that will promote the use of and help establish an infrastructure for natural gas vehicles.

To serve as a resource for the industry to provide information on grants, vehicles, infrastructure, incentives, and more.

To promote legislation at the federal, state, and local levels that support CNG implementation.
Propane Autogas Task Force

Contact: Aaron Brown
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816-531-7283

• To assemble and coordinate resources throughout Missouri and Kansas that will promote the use of and help establish an infrastructure for propane autogas vehicles.

• To promote legislation at the federal, state, and local levels that support autogas implementation.
Electrify Heartland EV Coalition

Acting Chair: Ace Allen
VA Hospital
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- Planning for state and local governments, educators and trainers, fleets and equipment vendors.
- Electrify Heartland EV Coalition initiatives:
  - Public Relations – increase overall awareness through public outreach and events, such as Electric Avenue exhibits
  - Community Outreach – meetings with local mayors, city councils, State/Federal congressmen and other politicians
  - Funding Pursuit – getting ready for EPA, DOE, DHS and other funding opportunities
  - Developing Financial Incentives – developing and coordinating deployment of creative financing options
Three core components

- Working with fleet managers to develop a Green Fleet Policy tailored to their specific operational needs.
- Hands-on support and assistance in implementing the policy.
- Uniform regional rating system recognizing those fleets that have made measurable progress toward their goals.

Founding Sponsors
Midwest Region Alternative Fuels Project

**Timeline**
Dec 28, 2009 - Dec 27, 2013

**Budget**
Project: $32,707,137
- $15.0M DOE
- $17.7M Contractor
Budget expended 06/2013
- $13.9M DOE
- $21.1M Contractor

**Partners**
19 public and private deployment partners

**Results**
363 of 373 alternative fuel vehicles deployed
26 of 34 alternative fuel stations deployed
1.6 million GGE reduced to date
1. **Policy Initiatives:**
   A. Air Quality Benefits Analysis of Alternative Fuels and a pilot study of the St. Louis metropolitan area
   B. Codes Officials Exchange Conference
   C. Procurement Best Practices Webinars

2. **Barrier Reduction Initiatives:**
   A. Survey of Fleet Managers
   B. Market Survey of Perceived Barriers

3. **Safety and Training Initiatives:**
   A. First Responder Safety Trainings
   B. Technical Trainer Education
   C. End-user Training

4. **Market Development / Outreach:**
   A. Corridor Study
   B. 4-State Best Practices Exchange
   C. 4-State Conference and Expo

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Mid-America Collaborative for Alternative Fuels Implementation

www.metroenergy.org Metropolitan Energy Center 816-531-7283

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CNG Fleet Deployments

- **Kansas City Kansas Public Schools**
  - Largest CNG school bus fleet in Midwest: 47 buses
- **Parkway School District**
  - 30 buses
- **Lee’s Summit R-7 Schools**
  - 140 buses and support trucks
- **AT&T**
  - Service vans in Topeka and Overland Park
- **Johnson County**
  - Work trucks and vans
- **Johnson County Transit**
  - Transit shuttles
- **Custom Limousine**
  - 2 trolleys out of Bonner Springs
- **City of Lawrence, KS**
  - CNG pilot project
- **City of Kansas City, MO**
  - 300+ sedans, pickups, work trucks, vans
- **City of Springfield, MO**
  - Work trucks
- **Town and Country Medical**
  - Delivery vans
Regional and National Initiatives for CNG Fueling

- **Frito-Lay**
  - Strategic locations throughout the nation

- **America’s Natural Gas Highway by Clean Energy Fuels**
  - LNG development for Class 8 heavy truck traffic

- **Midwest Region Alternative Fuels Project**
  - Kansas: Topeka and Overland Park.
  - Nebraska: 4 locations in Omaha and Lincoln
  - Various private projects already mentioned in fleet deployment

- **Other**
  - MGE in St. Joseph MO
  - CNG Services, a partnership focusing on Wichita area
  - Clean Energy in Lee’s Summit, Kansas City, and Columbia, MO
Coalition Activities

2013

• March 6-10: Electric Avenue at the Auto Show

• April 25: CNG workshop in St. Joseph, MO.

• August 4-8: Transit Midwest exhibit and presentation.

• September 17: CNG4Kansas Workshop

• Sept 19: MEC’s 30th Anniversary Celebration
Coalition Activities

• September 28: Concert for the Climate

• **October 1: Kansas Energy Conference**

• October 8: Getting the Most out of Mid-America Green Fleets

• **November tk: Clean Cities Annual Reception**

• As needed – Technician trainings for gaseous fuels
Contact Information & Important Links

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Kansas City Regional Clean Cities Website:  www.kcenergy.org/transportation.aspx

U.S. DOE Clean Cities Website:  www.cleancities.energy.gov

Alternative Fuels Data Center:  www.afdc.energy.gov

Fuel Economy Guide and Website:  www.FuelEconomy.gov

DOE National Idling Reduction Network:  
http://www1.eere.energy.gov/vehiclesandfuels/resources/fcvt_national_idling.html