

KANSAS CITY REGIONAL CLEAN CITIES COALITION



Clean Cities Overview

CNG4Kansas

September 17, 2013



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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

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

Clean Cities Coalitions



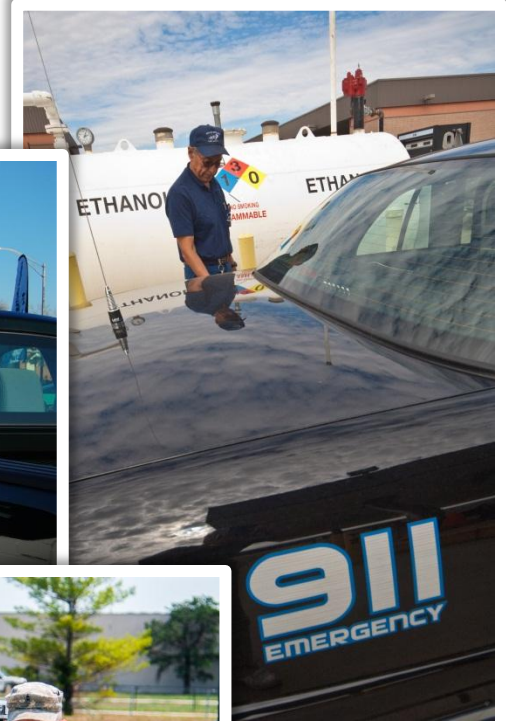
* Total includes more than 16,000 electric charging sites.

Clean Cities Stakeholders

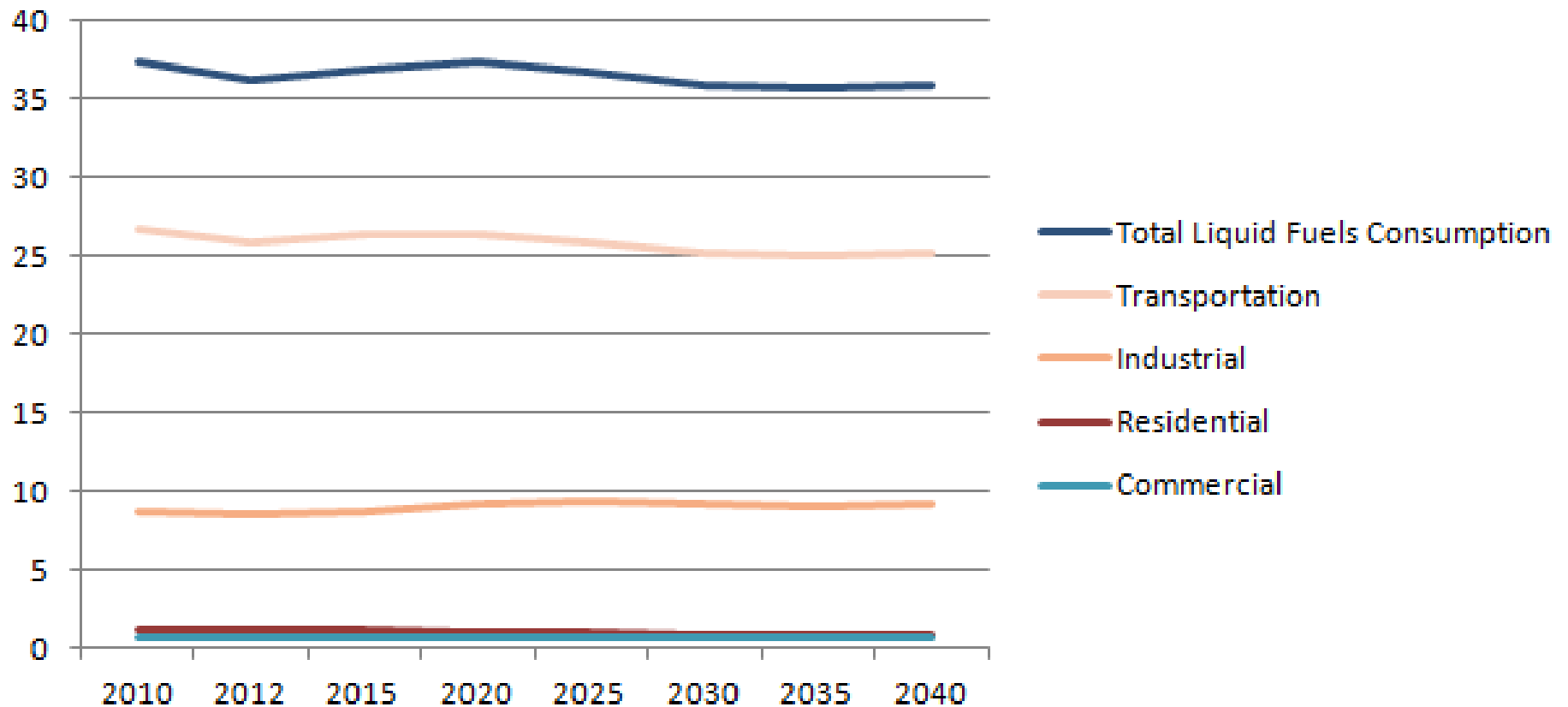
Coalitions are made up of local and national stakeholders.

- 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

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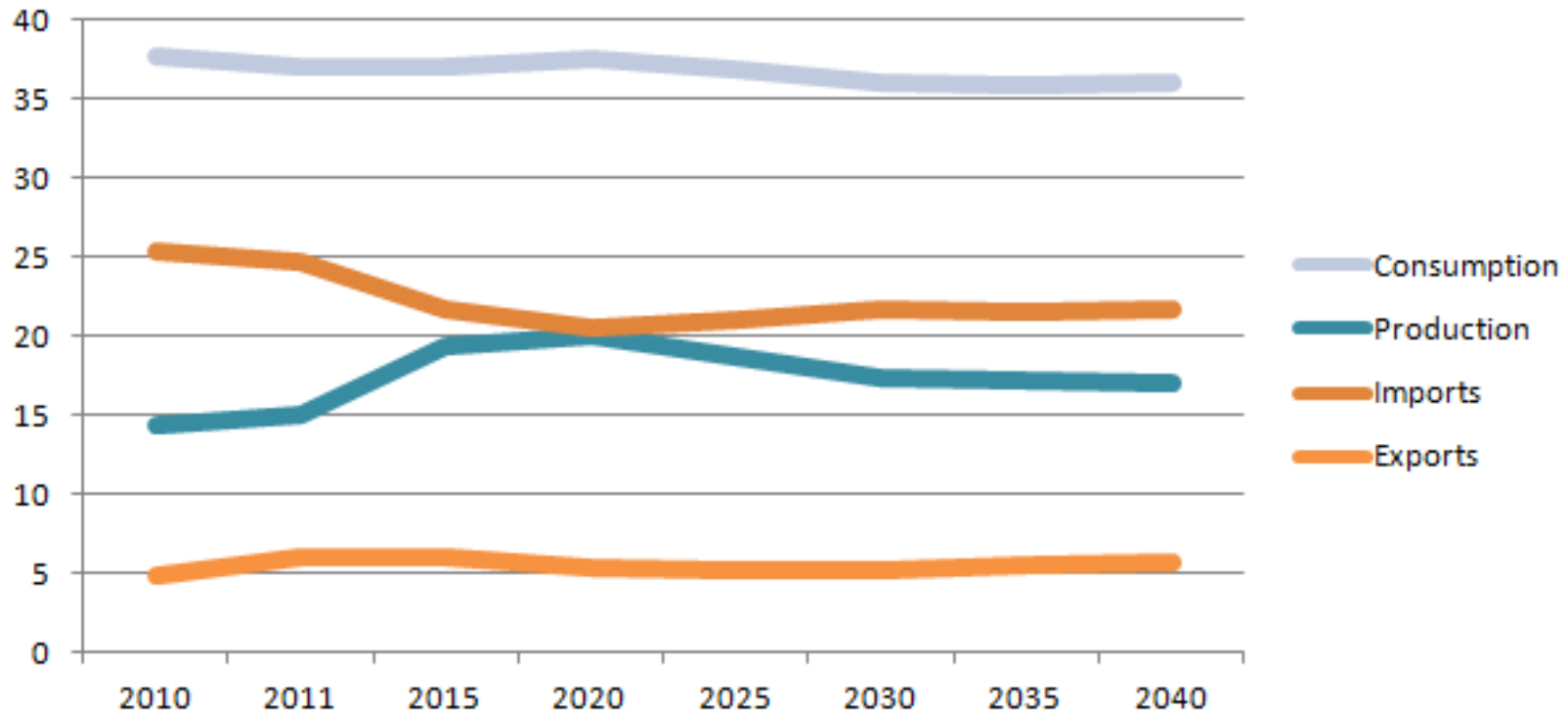


U.S. Energy Consumption



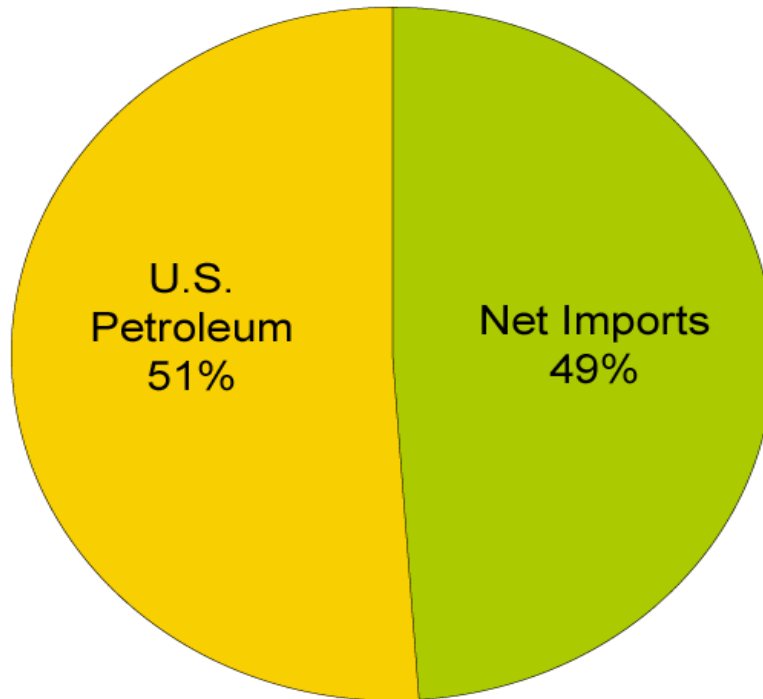
Liquid fuels consumption by sector, 2010-2040 (in quadrillion BTU)

Source: [Annual Energy Outlook 2013](#). Energy Information Administration.



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

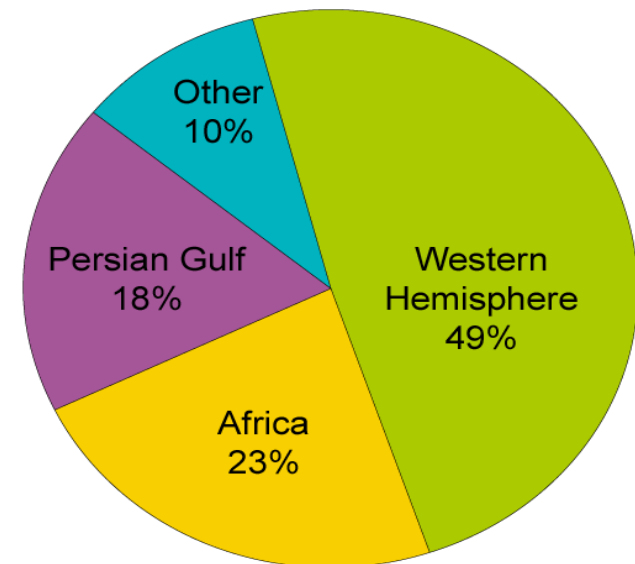
Source: [Annual Energy Outlook 2013](#). Energy Information Administration.



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

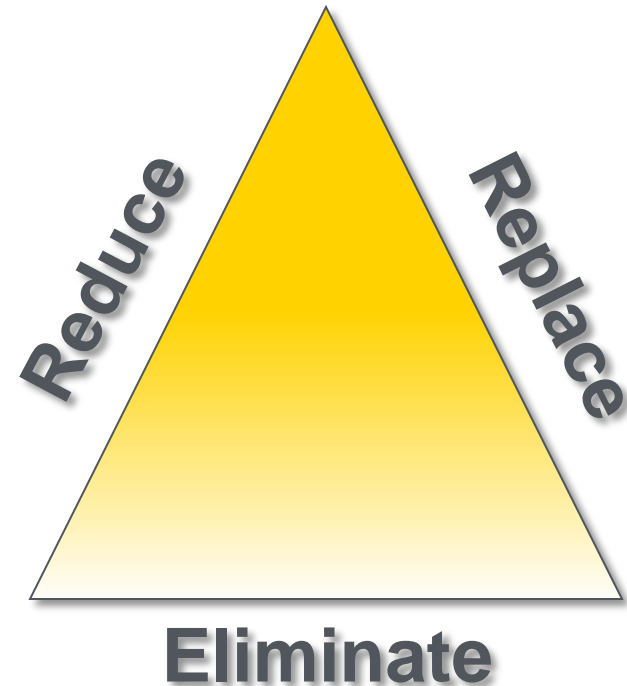
Sources of Net Crude Oil and Petroleum Products Imports:

- Canada (25%)
- Saudi Arabia (12%)
- Nigeria (11%)
- Venezuela (10%)
- Mexico (9%)



Sources: [Monthly Energy Review \(April 2011\)](#). [Petroleum Supply Monthly \(February 2011\)](#). EIA

- **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



Co-Chair: Aaron Brown

Metropolitan Energy Center
KC Clean Cities

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(816) 531-7283

Co-Chair: Mike Corrigan

Metropolitan Utilities District

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(402) 504-7185

CNG

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.

CNG

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

CNG

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



Contact: Aaron Brown
aaron@kcenergy.org
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.



ElectrifyHeartland.org

Acting Chair: Ace Allen
VA Hospital
Ace.Allen@me.com

- **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.

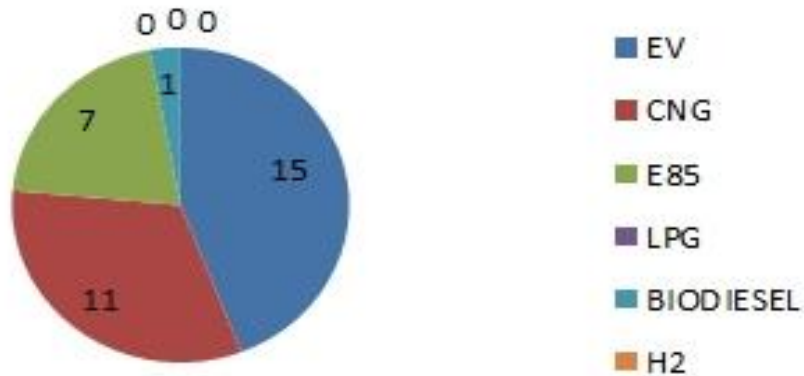
Hands-on support and assistance in implementing the policy.

Uniform regional rating system recognizing those fleets that have made measurable progress toward their goals.

Founding Sponsors



Total Stations - Type



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

Timeline

Dec 28, 2009 - Dec 27, 2013

Budget

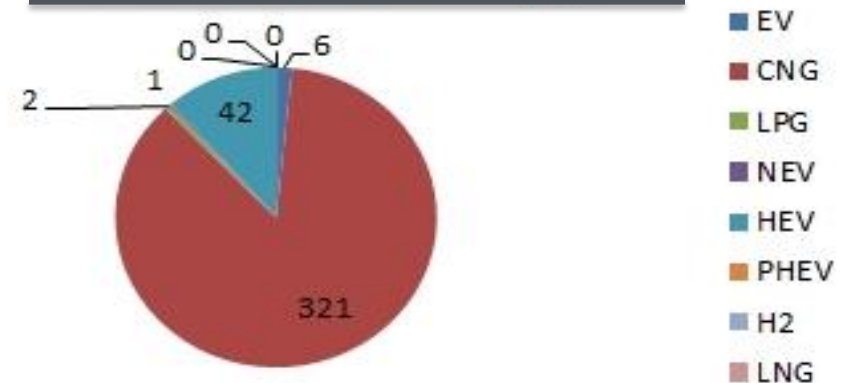
Project: \$32,707,137

- \$15.0M DOE
- \$17.7M Contractor

Budget expended 06/2013

- \$13.9M DOE
- \$21.1M Contractor

Total Vehicles - Type



Mid-America Collaborative for Alternative Fuels Implementation



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

Mid-America Collaborative for Alternative Fuels Implementation



www.metroenergy.org

Metropolitan Energy Center

816-531-7283

Supported by funds from U.S. Dept. of Energy Award No. DE-EE0006009.

- **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

- **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



Alternative Fuels Data Center

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Biodiesel

Electricity

Ethanol


Hydrogen

Natural Gas

Propane


Turn off the engine.
Turn up the heat.

Discover how truck stop electrification is helping truckers enjoy creature comforts while cutting emissions and fuel costs.




The Information Source for Alternative Fuels and Advanced Vehicles

The Alternative Fuels Data Center (AFDC) provides information, data, and tools to help fleets and other transportation decision makers find ways to reduce petroleum consumption through the use of alternative and renewable fuels, advanced vehicles, and other fuel-saving measures.



The AFDC is a resource of the U.S. Department of Energy's Clean Cities program.



EERE » AFDC » Tools

Printable Version

Share

Petroleum Reduction Planning Tool

This planning tool helps your vehicle fleet reduce petroleum consumption and greenhouse gas (GHG) emissions. Create a comprehensive plan for your fleet by using several savings methods. If your fleet includes multiple vehicle types, add more vehicles to each method.

ASSUMPTIONS

LOG IN TO SAVE/VIEW PLANS

START NEW PLAN

My Current Plan

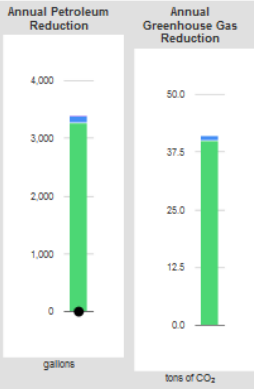
SET GOAL

CLEAR PLAN

Savings Methods	Petroleum Reduction gal/yr	GHG Reduction tons CO ₂ /yr	Fuel Cost Savings \$/yr	Impact on Plan percent	
Replace Vehicles ADD ANOTHER	3,265	40	\$9,876	96%	
Replace 10 midsize gas cars with 5 minicompact cars (HEV) using B5	edit delete	3,265	40	\$9,876	96%
Use Alternative Fuel in Existing Vehicles ADD TO PLAN	0.00	0.00	\$0.00	0%	
Reduce Idling ADD TO PLAN	0.00	0.00	\$0.00	0%	
Reduce Mileage ADD ANOTHER	117	1	\$388	3%	
Reduce miles traveled in 1 midsize gas car from 11,919 miles to 9,000 miles	edit delete	117	1	\$388	3%
Drive Efficiently ADD ANOTHER	9	0.00	\$31	0%	
Improve efficiency in 1 midsize gas car by 2%	edit delete	9	0	\$31	0%
Total savings from plan per year	3,391 gallons	41 tons of CO ₂	\$10,293	100%	

Annual Petroleum Reduction

Annual Greenhouse Gas Reduction



Petroleum reduction goal

Find State Information

Select a state

Tools

• Laws & Incentives

• Petroleum Reduction Planning Tool

• Vehicle Cost Calculator

• Light-Duty Vehicle Sales by Model

• Heavy-Duty Vehicle Sales by Model

Our fleet tries to increase fuel efficiency by:

☐ Requiring driver training

☐ Providing recognition

☐ Providing onboard coaching

☐ Using route optimization

☐ Reducing vehicle loads

☐ Other

☐ None

View Results

VOTE

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www.fueleconomy.gov
the official U.S. government source for fuel economy information

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Estimates from Drivers Like You

Enter your MPG at the pump

Save Money


Gas Mileage Tips

Fuel Cost Calculator

Find the Cheapest Gas

In the news...

2013 Dodge Dart Limited: Gas-Mileage Drive Report - Green Car Reports

2013 Mercedes-Benz GLK250 Bluetec gets 33 mpg, priced from \$38,950* - Autoblog

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Registered User Login*

User Name:

Password:

[I forgot my password](#)

*User name and password are case sensitive.

[Alternative Fuels Station Locator](#)

Contact Information & Important Links



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Director of Transportation

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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