



Clean Cities Program Overview

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Lacey Jane Wolfe

Coordinator, Triangle Clean Cities Coalition

lacey@tjcog.org

Mission

To ensure America's security and prosperity by addressing its energy, environmental, and nuclear challenges through transformative science and technology solutions

- 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.

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



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



Alternative Fuels Data Center



U.S. DEPARTMENT OF
ENERGY

Energy Efficiency &
Renewable Energy

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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.

Maps & Data

- U.S. Alternative Fuel Stations by Fuel Type
- Alternative Fuel Vehicle Use
- U.S. Hybrid Electric Sales by Model

Tools

- Laws & Incentives
- Petroleum Reduction Planning Tool
- Vehicle Cost Calculator
- Light-Duty Vehicle Sales by Model
- Heavy-Duty Vehicle Sales by Model

Find State Information

Select a state >

Poll

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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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 <div>ADD ANOTHER</div>	3,265	40	\$9,876	96%
Replace 10 midsize gas cars with 5 minicompact cars (HEV) using B5 <div>edit delete</div>	3,265	40	\$9,876	96%
Use Alternative Fuel in Existing Vehicles <div>ADD TO PLAN</div>	0.00	0.00	\$0.00	0%
Reduce Idling <div>ADD TO PLAN</div>	0.00	0.00	\$0.00	0%
Reduce Mileage <div>ADD ANOTHER</div>	117	1	\$388	3%
Reduce miles traveled in 1 midsize gas car from 11,819 miles to 9,000 miles <div>edit delete</div>	117	1	\$388	3%
Drive Efficiently <div>ADD ANOTHER</div>	9	0.00	\$31	0%
Improve efficiency in 1 midsize gas car by 2% <div>edit delete</div>	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

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Current Stakeholders of Triangle Clean Cities Coalition



- Cities of Chapel Hill, Durham, Raleigh
- Counties of Chatham, Durham, Orange, and Wake
- Love's Travel Stops
- North Carolina Department of Transportation
- North Carolina Propane Gas Association
- UNC Chapel Hill and NCSU
- Waste Industries
- Triangle Transit
- BuildSense

- \$12 million federal grant from ARRA, plus \$19 million cost share
- 521 alt fuel vehicles deployed, 141 fueling stations operational
- Propane, natural gas, biodiesel, ethanol, and electric



Chatham County Biodiesel Project

- Installed or upgraded stations in Saxapahaw, Wilmington, and Pittsboro
- In 2013, dispensed 22,000 gallons of B100
- 260 tons GHG reduced



Clean Fuel Advanced Technology 2013-2015



Project Education & Outreach Partners:



P.O. Box 9 • Wilson, NC 27894
252.234.5952(Tel) 252.234.5971(Fax)



“focused on reducing transportation related emissions in NC counties with air quality concerns”

Funded by the N.C. Department of Transportation with Congestion Mitigation Air Quality Funds.



Asthma.
The #1 reason children miss school.

Clear the air at **CleanTransportation.org**

A yellow pentagon-shaped sign with a black border, depicting a solid black silhouette of an adult walking and a dashed black silhouette of a child walking, representing a pedestrian crossing.



Coordinator Bill Eaker
Represents the Asheville region

- Allbright Sanitation
- AT&T
- Biltmore Estate
- Blue Ridge Biofuels
- Cities of Asheville, Hendersonville
- Counties of Buncombe, Hendersonville
- Mission Hospital
- Mountain Mobility
- NCDOT
- PSNC Energy

- Converted 5 shuttle buses to run on compressed natural gas
- In 2013, they used about 10,000 gallons and reduced about 18 tons of GHG
- CNG fleets enjoy a cost savings of about \$1.50 per gallon of gasoline equivalent





Carolina Blue Skies Grant:

- Upgraded station
- Converted 25 vehicles to run on natural gas

- In 2013, Asheville's natural gas vehicles used about 16,000 gallons of gasoline equivalent, and reduced about 30 tons of GHG
- City of Hendersonville also converted 5 heavy-duty vehicles
- Henderson County upgraded their station, converted 3 vehicles



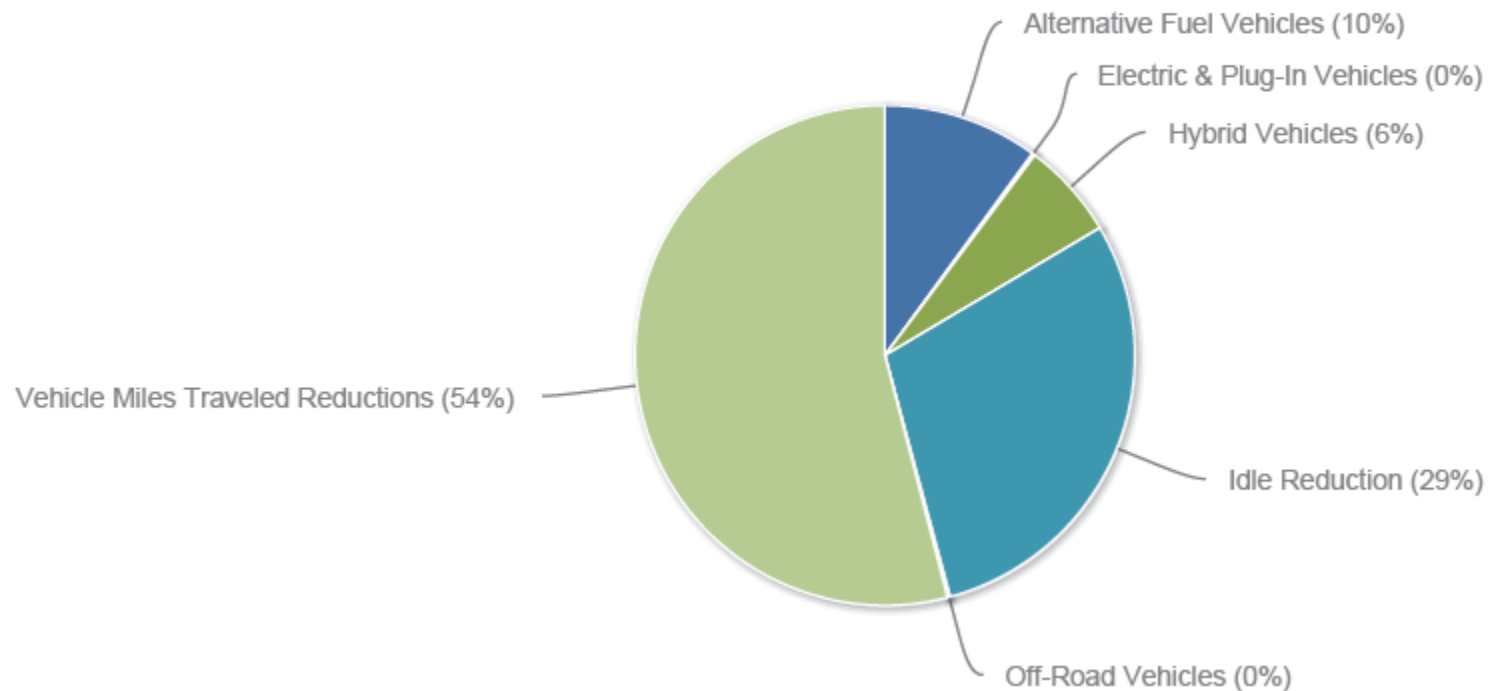
Asheville's local producer is Blue Ridge Biofuels

End users of biodiesel:

- Biltmore Estate
- Buncombe County
- City of Asheville
- City of Hendersonville
- Henderson County
- Metropolitan Sewerage District
- Mission Hospital
- North Carolina Department of Transportation

2012 Greenhouse Gas Emissions Reduced

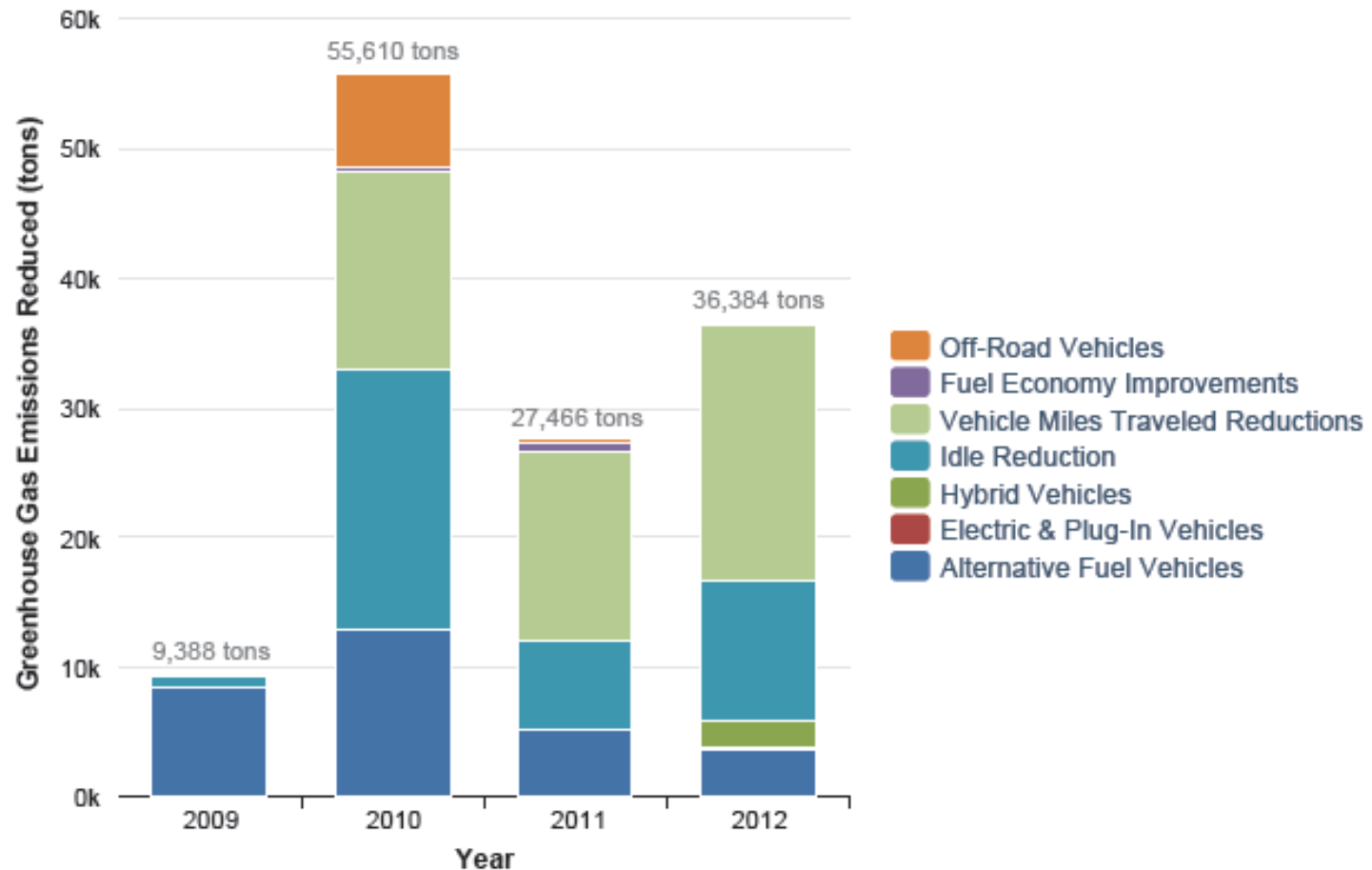
36,384 tons



Triangle Clean Cities Coalition Emissions Reduced



Historical Greenhouse Gas Emissions Reduced



Lacey Jane Wolfe
Triangle Clean Cities Coalition
lacey@tjcog.org 919-558-2705



Bill Eaker
Land-of-Sky Clean Vehicles Coalition
lacey@tjcog.org 919-558-2705

