

North Texas Air Quality Update

EPIC Earth Day Experience - Grapevine

April 6, 2013

Mindy Mize and Pamela Burns
NCTCOG



North Central Texas
Council of Governments

North Texas Air Quality Update

What is NCTCOG?

Voluntary Association Of, By and For Local Governments

Established in 1966

16-County Region Centered Around Dallas-Fort Worth (DFW)

240 Member Governments (Cities, Counties, Special Districts)

Goals Include Planning for Common Needs, Cooperating for Mutual Benefit, and Coordinating for Sound Regional Development

Metropolitan Planning Organization Designation

12-County Metropolitan Planning Area

10-County Ozone Nonattainment Area

Responsibilities Include Reducing Congestion, Enhancing Mobility, and Improving Air Quality



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Background – Criteria Pollutants

Carbon Monoxide (CO)

Lead (Pb)

Nitrogen Oxides (NO_x)

Ozone (O₃)

Particulate Matter (PM₁₀ & PM_{2.5})

Sulfur Dioxide (SO₂)

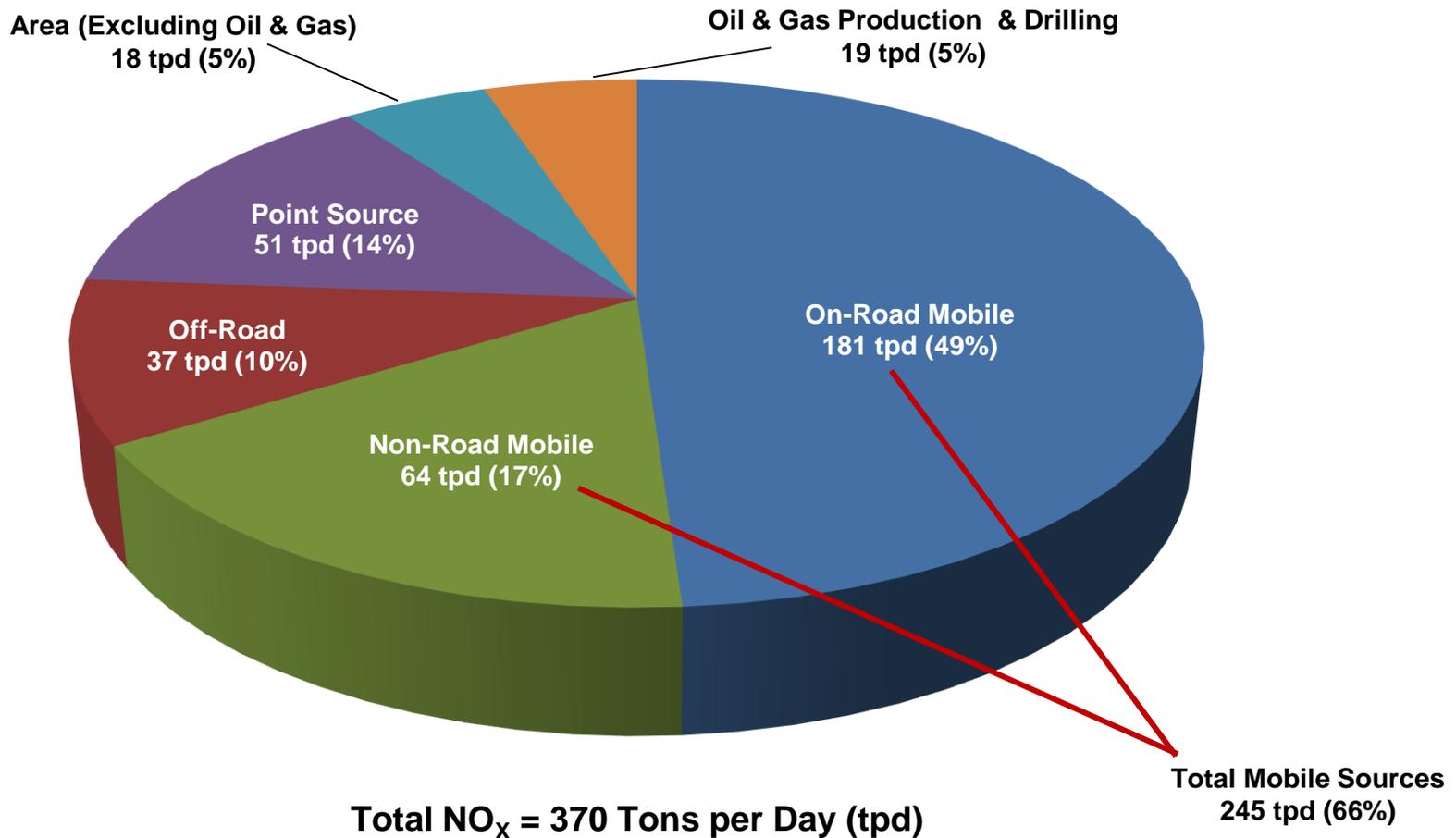
Future? CO₂, NO₂, Etc.



North Texas Air Quality Update

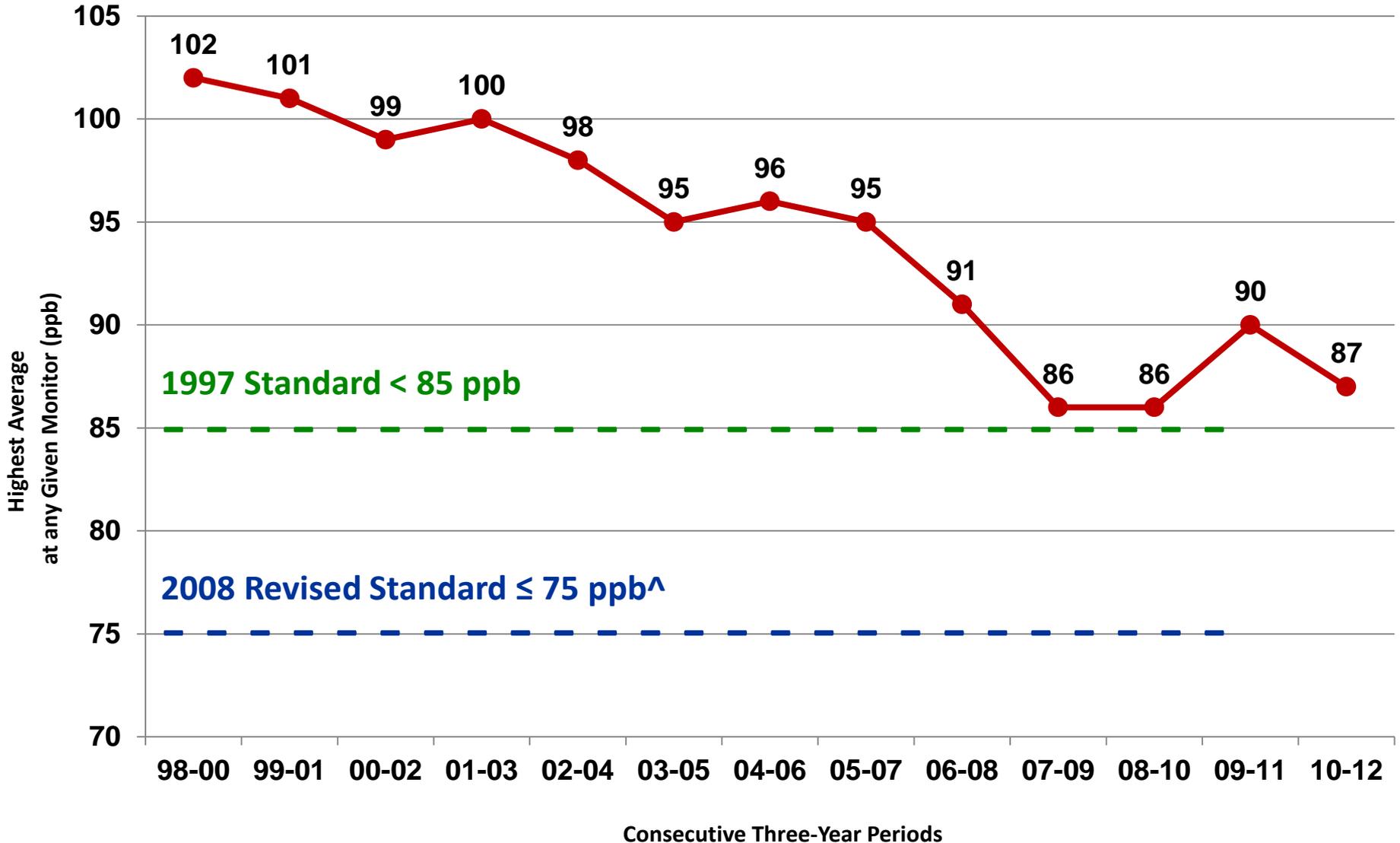
Estimated 2012 Nitrogen Oxide (NO_x) Emissions Inventory

Source Category Estimates



North Texas Air Quality Update

8-Hour Ozone Historical Trends



^Attainment Goal - According to the US EPA National Ambient Air Quality Standards, attainment is reached when, at each monitor, the three-year average of the annual fourth-highest daily maximum 8-hour average ozone concentration is equal to or less than 75 parts per billion (ppb).

North Texas Air Quality Update

Ozone Season

Ozone Season - March 1 through October 31

Be Air Aware with Air North Texas

Promote strategies that businesses, local governments, and general public can take on Air Pollution Watch Days

Theme also stresses health messages related to air pollution

Air Pollution Action (Watches) Day Alerts will now be sent in place of the traditional Air Pollution Watch and Warning emails

Air North Texas Clean Air Action Day is Friday, June 21, 2013

Promotes action by North Texans to take action between 7 am and 7 pm and do something that improves air quality that they have never done before

To learn more about Be Air Aware, Clean Air Action Day, and to receive Air Pollution Action Day Alerts please visit

<http://www.airnorthtexas.org>.

North Texas Air Quality Update

North Texas Air Quality Initiatives



northcentral.texas.clean.school.bus.program



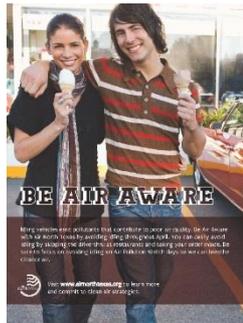
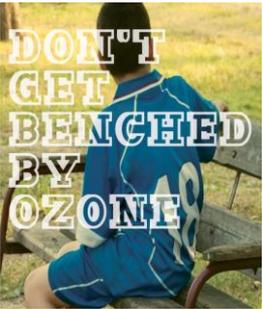
Dallas-Fort Worth
CLEAN CITIES

Don't Choke, Call #SMOKE



NCTCOG EMISSIONS DATABASE

tryparkingit.com



go green. breathe clean.



Clean Cities Mission

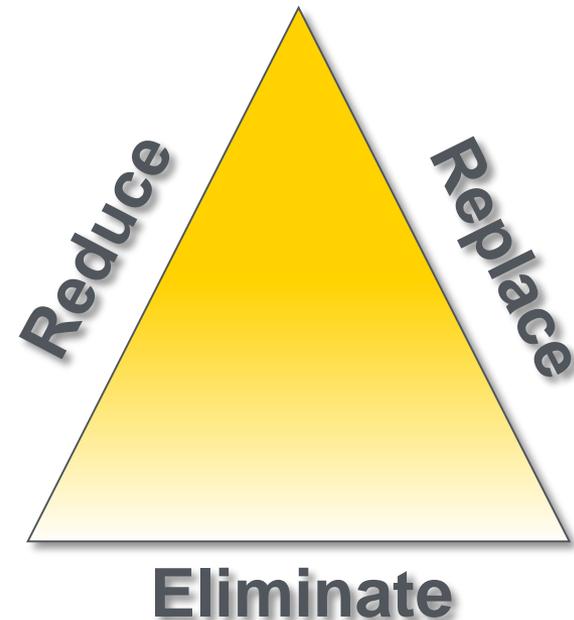
To advance the energy, economic, and environmental security of the U.S.
by supporting local decisions to reduce petroleum use in transportation.

- Energy Policy Act of 1992 (EPAAct)
- Provides a framework for businesses and government agencies to work together
- Goal: Reduce U.S. petroleum use by 2.5 billion gallons per year



**Dallas-Fort Worth
CLEAN CITIES**

- **Replace** petroleum with alternative and renewable fuels
- **Reduce** petroleum use through fuel efficiency measures, smarter driving practices, and idle reduction
- **Eliminate** petroleum use by promoting mass transit, trip elimination, and congestion mitigation



Clean Cities has saved nearly 3 billion gallons of petroleum since 1993.

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

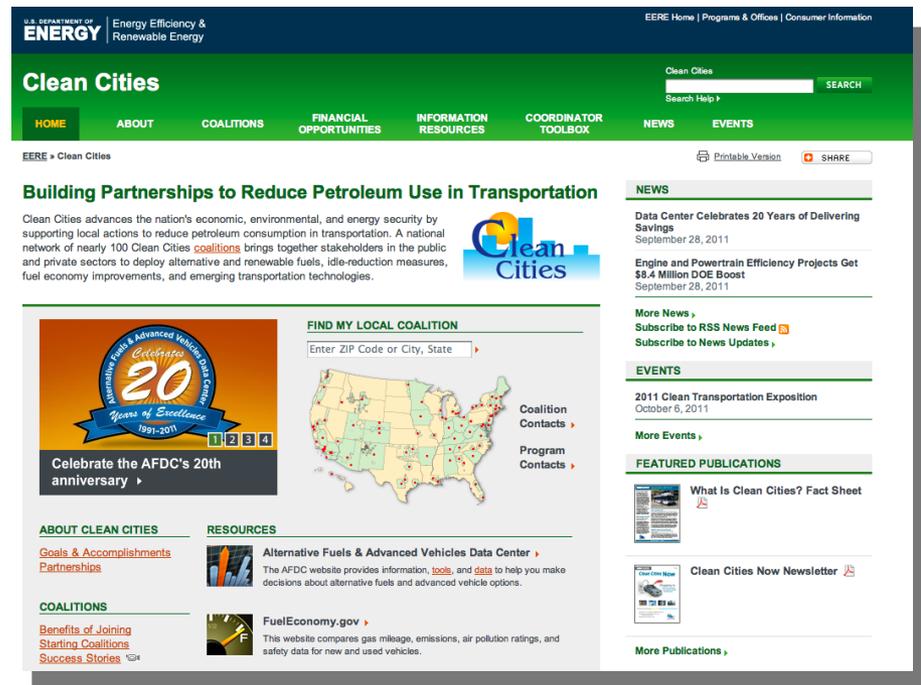
- Telecommuting
- Ridesharing

Clean Cities Website

Financial opportunities

Information resources

- ✓ Newsletters
- ✓ Technology bulletins
- ✓ Technical assistance



The screenshot shows the Clean Cities website homepage. At the top, it features the U.S. Department of Energy logo and the text "Energy Efficiency & Renewable Energy". The main navigation bar includes links for HOME, ABOUT, COALITIONS, FINANCIAL OPPORTUNITIES, INFORMATION RESOURCES, COORDINATOR TOOLBOX, NEWS, and EVENTS. A search bar is located in the top right corner. The main content area is titled "Building Partnerships to Reduce Petroleum Use in Transportation" and includes a brief description of the program's goals. Below this, there is a "FIND MY LOCAL COALITION" section with a map of the United States and a search input field. The page also features a "Celebrate the AFDC's 20th anniversary" banner, a "RESOURCES" section with links to "Alternative Fuels & Advanced Vehicles Data Center" and "FuelEconomy.gov", and a "NEWS" section with recent articles and a "FEATURED PUBLICATIONS" section with a link to "What Is Clean Cities? Fact Sheet".



Spanish Resources
Publications and Web tools
available in Spanish ▶

www.fueleconomy.gov

Encuentre y Compare | Consejos para Ahorrar Gasolina | Precios de Gasolina | Sus MPG Varían | ¿Por qué es importante ahorrar gasolina? | Sus Millas Por Galón | Híbridos, Diesel, Combustibles Alternativos, Etc.

Departamento de Energía de U.S. | Imprimir Guía Para Ahorrar Gasolina | Agencia de Protección Ambiental de U. S.

U.S. DEPARTMENT OF ENERGY | Energy Efficiency & Renewable Energy

PROGRAMA DE TECNOLOGÍAS DE VEHÍCULOS

Vehículos de combustible flexible: brindando opciones en combustible renovable

Hoy en día, circulan casi 8 millones de vehículos de combustible flexible (Flexible Fuel Vehicles, o FFV) en las autopistas del país. Estos vehículos pueden funcionar con gasolina o una mezcla de gasolina y etanol hasta E85 (85% etanol, 15% gasolina). Se produce en forma predominante en los Estados Unidos a partir de cosechas locales, y su combustión es más limpia que la de la gasolina.

¿Qué es un vehículo de combustible flexible (FFV)?

Un vehículo de combustible flexible, como su nombre lo indica, tiene la flexibilidad de funcionar con más de un tipo de combustible. Los FFV se pueden cargar con gasolina sin plomo, E85 o una combinación de ambos. De la misma manera que los vehículos de gasolina convencionales, los FFV tienen un solo tanque, sistema de combustible y motor. Y se ofrecen en una amplia gama de modelos, como sedanes, camionetas y minivans. Los vehículos FFV livianos están diseñados para funcionar con por lo menos un 15% de gasolina, fundamentalmente para poder avanzar en climas fríos.

Los FFV están equipados con componentes modificados, diseñados especialmente para ser compatibles con las propiedades químicas del etanol. Las modificaciones principales que se realizan en los FFV se ilustran al

la Junta de Recursos del Aire de California. El uso de conversiones no certificadas es ilegal y puede afectar la garantía de su vehículo.

Para obtener más información sobre el proceso de conversión de vehículos, consulte la Guía de certificación actualizada para convertidores de combustible alternativo de la EPA en su sitio web, www.epa.gov/otsq/cert/dicarmf/etsd0602.pdf.

¿El E85 afecta el desempeño del vehículo?

Los FFV que funcionan con E85 en general se comportan y desempeñan de la misma manera que cuando se los alimenta con gasolina. Los sensores del sistema de los FFV automáticamente compensan por el tipo de combustible utilizado para que las emisiones y el desempeño de potencia y aceleración no varíen significativamente



Los vehículos de combustible flexible pueden funcionar con gasolina sin plomo, E85 ó una combinación de los dos.

¿Cuánto cuesta el E85 y cuáles son sus beneficios?

Los dispositivos especiales que se deben instalar para que los vehículos funcionen con E85 pueden agregar un costo mínimo al precio de compra. Como tienen un sólido historial de desempeño, los fabricantes

¿Por qué es importante ahorrar gasolina?

Ahorre Dinero

Reduzca los Gastos de Dependencia del Petróleo

el Cambio Climático
Aumenta la
sostenibilidad energética

Le Ahorra Dinero

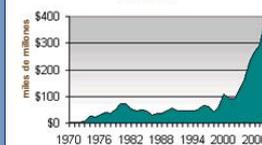
Ahorre hasta 1,400 dólares en gasolina cada año por elegir el vehículo más eficiente para sus necesidades. [¡Vea cuánto puede ahorrar!](#)



Reduzca los Gastos de Dependencia del Petróleo

Nuestra dependencia del petróleo nos hace vulnerables a la manipulación del mercado del petróleo y las crisis de precios. [¡Descubra cómo la dependencia del petróleo perjudica nuestra economía!](#)

Costo Anual de la Importación de Petróleo 1970 a 2008



Reduzca el Cambio Climático

El dióxido de carbono (CO₂) de la combustión de gasolina y diesel contribuye al cambio climático global. [¡Usted puede hacer algo para reducir el cambio climático, al reducir su huella de carbono!](#)



Aumenta la sostenibilidad energética

El petróleo es un recurso no renovable, y no podemos mantener nuestro ritmo actual de uso de forma indefinida. Si lo usamos inteligente ahora nos da tiempo para [encontrar tecnologías y combustibles alternativos que sean más sostenibles.](#)



U.S. DEPARTMENT OF **ENERGY** | Energy Efficiency & Renewable Energy

Clean Cities TV

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> Home SEARCH

Webcasts

- Upcoming Webcasts
- Archived Webcasts
- Alternative Fuels, Vehicles, and Technologies
- Training
- Events
- Content Partners

Featured Videos

-  05:38
2011 Clean Cities Stakeholder Summit Overview
-  09:05
Mammoth Cave Fuel Economy Initiative
-  04:17
First Responder Vehicle Safety Training



Clean Cities
U.S. Department of Energy

00:10 00:16

Featured Webcasts & Events

-  2011 Summit
- 
-  PROPANE
education & research
-  U.S. DEPARTMENT OF
ENERGY

This section allows you to browse and search a database of federal and state laws and incentives related to alternative fuels and vehicles, air quality, fuel efficiency, and other transportation-related topics.

Federal
Incentives and Laws

State
Incentives and Laws

Search All Incentives and Laws >
Use an advanced search to find a specific federal or state incentive or law.

View Tables of Incentives and Laws >
View tables of incentives and laws sorted by state.

Read Key Legislation >
Read selected federal legislation summaries on transportation technologies.

Federal Incentives and Laws

Listed below are federal incentives, laws and regulations, funding opportunities, and other federal initiatives related to alternative fuels and vehicles, advanced technologies, or air quality that may be available through Clean Cities [Financial Opportunities](#). For more information on a specific section or refer to:

- [Key Federal Legislation Summaries](#)
- [Recent Federal Actions](#)

Incentives, Laws, and Programs

The information in this list is updated after legislation is enacted.

Sort by: Category Agency

Incentives

- [Advanced Energy Research Project Grants](#)
- [Advanced Technology Vehicle \(ATV\) Manufacturing Incentives](#)
- [Alternative Fuel Infrastructure Tax Credit](#)
- [Alternative Fuel Tax Exemption](#)
- [Biobased Transportation Research Funding](#)
- [Biomass Research and Development Initiative](#)
- [Cellulosic Biofuel Producer Tax Credit](#)
- [Fuel Cell Motor Vehicle Tax Credit](#)
- [Hydrogen Fuel Excise Tax Credit](#)
- [Hydrogen Fuel Mixture Excise Tax Credit](#)
- [Idle Reduction Equipment Excise Tax Exemption](#)
- [Improved Energy Technology Loans](#)
- [Light-Duty Hybrid Electric Vehicle \(HEV\) and Advanced Lean Burn Vehicle Tax Credit](#)
- [Qualified Alternative Fuel Motor Vehicle \(QAFMV\) Tax Credit](#)
- [Qualified Plug-In Electric Drive Motor Vehicle Tax Credit](#)
- [Renewable Energy Systems and Energy Efficiency Improvements Grants](#)
- [Small Ethanol Producer Tax Credit](#)
- [Value-Added Producer Grants \(VAPG\)](#)
- [Volumetric Ethanol Excise Tax Credit \(VEETC\)](#)

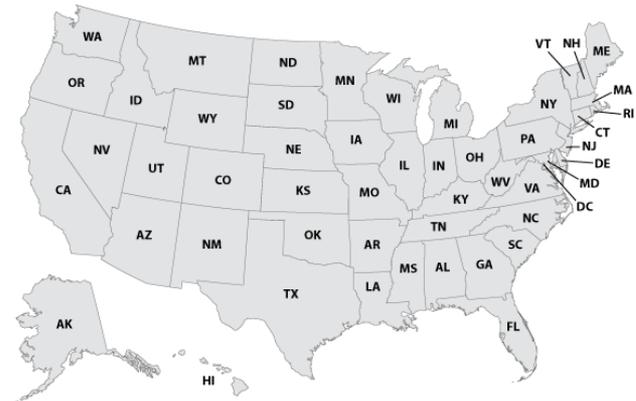
Laws and Regulations

- [Aftermarket Alternative Fuel Vehicle \(AFV\) Conversions](#)
- [Alternative Fuel Definition](#)

State Incentives and Laws

To view a state's incentives and laws related to alternative fuels and advanced vehicles, select a state from the map or menu below.

Select a State



U.S. DEPARTMENT OF **ENERGY**
Energy Efficiency & Renewable Energy

Alternative Fuels & Advanced Vehicles Data Center

About the AFDC
Fuels
Vehicles
Fleets
Incentives & Laws
Data, Analysis & Trends
Information Resources
Home

Alternative & Advanced Vehicles

- [Light-Duty Vehicle Search](#)
- [Heavy-Duty Vehicle Search](#)
- [Flexible Fuel Vehicles](#)
- [Natural Gas Vehicles](#)
- [Propane Vehicles](#)
- [Hybrid & Plug-In Electric Vehicles](#)
- [Fuel Cell Vehicles](#)
- [Diesel Vehicles](#)
- [Conversions](#)
- [Resale](#)
- [Technician Training](#)
- [Idle Reduction](#)
- [Fuel Economy](#)
- [Emissions](#)

[Printable Version](#)

Millions of light- and heavy-duty alternative fuel and advanced technology vehicles are used by state and federal agencies, private companies, and consumers. Alternative fuel and advanced vehicles come in a variety of makes and models and run on a number of different fuels.

Alternative Fuel and Advanced Technology Vehicles

An alternative fuel vehicle is a dedicated, flexible fuel, or dual-fuel vehicle designed to operate on at least one [alternative fuel](#). An advanced vehicle combines new engine, power, or drivetrain systems to significantly improve fuel economy.

- [All-Electric Vehicles](#)
- [Flexible Fuel Vehicles](#)
- [Natural Gas Vehicles](#)
- [Propane Vehicles](#)
- [Diesel Vehicles](#) (using biodiesel)

- [Fuel Cell Vehicles](#)
- [Hybrid Electric Vehicles](#)
- [Plug-In Hybrid Electric Vehicles](#)

Tools for Vehicles

🔍 [Light-Duty Vehicle Search](#): Find a hybrid or alternative fuel car or light-duty truck

🔍 [Heavy-Duty Vehicle Search](#): Find a hybrid or alternative fuel heavy-duty vehicle

🔍 [Alternative Fueling Station Locator](#): Find alternative fueling station locations

🌐 [TransAtlas](#): Explore a map of alternative fuel and vehicle data

Search

Search Help > More Search Options >

Site Map
EERE Information Center

■ PUBLICATIONS

[Model Year 2011: Alternative Fuel and Advanced Vehicles](#)

[See more years](#)

[Clean Cities 2011 Vehicle Buyer's Guide](#)

[Clean Cities Guide to Alternative Fuel and Advanced Medium- and Heavy-Duty Vehicles](#)

[More Publications](#)

Alternative Fuels & Advanced Vehicles Data Center

About the AFDC **Fuels** Vehicles Fleets Incentives & Laws Data, Analysis & Trends Information Resources Home

Basic Station Search | [Map a Route](#) | [Stations by State](#)

First: Select one or more fuels.

- Biodiesel (B20 and above)
- Compressed Natural Gas (CNG)
- Electric
- Ethanol (E85)
- Hydrogen
- Liquefied Natural Gas (LNG)
- Liquefied Petroleum Gas (Propane)

Second: Enter a complete address or zip code.

80204

Show stations within a mile radius.

[Advanced Options](#)

Alternative Fueling Station Locator

[Help >](#)

Results 1 to 10 of 15

- A** [Clean Energy - Denver](#)
Compressed Natural Gas
1123 W 3rd Ave
Denver CO 80223
Phone: 303-571-3927
Distance: 1.7 Miles
Access: Public - card key at all times
- B** [Clean Energy - Diamond Shamrock](#)
Compressed Natural Gas
1001 Broadway St
Denver CO 80204
Phone: 800-366-4602
Distance: 2.1 Miles
Access: Public - card key at all times
- C** [Clean Energy - Natural](#)
Compressed Natural Gas
5901 Sheridan Blvd
Arvada CO 80003
Phone: 800-366-4602
Distance: 4.8 Miles

1 2 >>

[Print](#) [Print All Results](#)

Map Satellite Hybrid

Map data ©2009 Tele Atlas - [Terms of Use](#)

[Learn about our data collection methodologies.](#)

AFDC Mobile Alternative Fueling Station Locator



U.S. DEPARTMENT OF **ENERGY** | Energy Efficiency & Renewable Energy

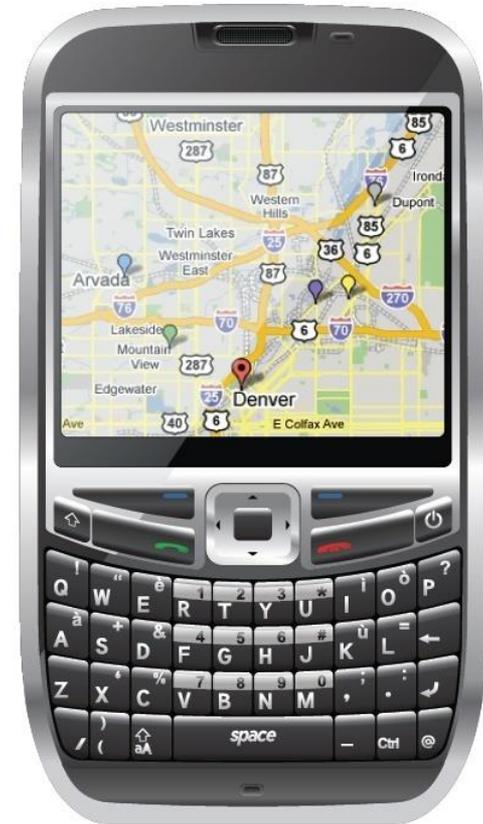
 **Alternative Fueling Station Locator**

Fuel Type
Ethanol (E85)

Location
Enter a city, postal code, or address

Include private stations
Not all stations are open to the public. Choose this option to also search private fueling stations.

Caution: The AFDC recommends that users verify that stations are open, available to the public, and have the fuel prior to making a trip to that location. Some stations in our database have addresses that could not be located by the Station Locator application. This may result in the station appearing in the center of the zip code area instead of the actual location.



Clean Cities Information Resources

http://www1.eere.energy.gov/cleancities/info_resources.html

Data, Analysis & Trends

<http://www.afdc.energy.gov/afdc/data/index.html>

Clean Cities Financial Opportunities

http://www1.eere.energy.gov/cleancities/financial_opps.html

AFDC Prep tool

<https://www.afdc.energy.gov/afdc/prep/index.php>

Fleets

<http://www.afdc.energy.gov/afdc/fleets/index.html>

Vehicle Search

http://www.afdc.energy.gov/afdc/progs/vehicles_search.php

Publications Database

<http://www.afdc.energy.gov/afdc/publications.html>

Alternative Fuel Station Locator

<http://www.afdc.energy.gov/afdc/locator/stations/>

State and Federal Incentives & Laws

http://www.afdc.energy.gov/afdc/incentives_laws.html

TransAtlas

<http://www.afdc.energy.gov/afdc/data/geographic.html>

Truck Stop Electrification Locator

http://www.afdc.energy.gov/afdc/vehicles/idle_reduction_stations.html

Conversions

<http://www.afdc.energy.gov/afdc/vehicles/conversions.html>

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www.airnorthtexas.org
www.nctcog.org/cleancities
www.nctcog.org/trans/air
www.nctcog.org/aqfunding



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Council of Governments