

North Central Texas
Council of Governments



Dallas-Fort Worth CLEAN CITIES

Public Works Fleet Planning – Decision-making Tools & Funding

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Dallas-Fort Worth Clean Cities (DFWCC)

Who We Are

- North Central Texas Council of Governments (NCTCOG)
- Metropolitan Planning Organization (MPO) for DFW Region
- Dallas-Fort Worth Clean Cities Coalition (DFWCC)

DFWCC - Advance Economic, Environmental, and Energy Security

- Reduce Petroleum Consumption "Reduce, Replace, Eliminate"
- Partner with Public and Private Fleets
- Structure

Fleet & Commercial Strategies

Consumer Initiatives

Local Government Policies / Community Readiness

Fleet Support - Enable More Efficient, Greener Fleets

- Match Vehicles & Equipment to Funding
- Train on Tools and Resources
- Plan for Fleet Transition Detailed Recommendations



Today's Topics

Tools & Resources

- Funding Information
- Find Vehicles and Refueling Stations
- Estimate Simple Payback

Grants – Local Support for Grants

- Step 1: Vehicle Data Provided by Fleet
- Step 2: Grant Options Provided by DFWCC
- Step 3: Decide on Grant and Apply

DFWCC Can Assist! <u>cleancities@nctcog.org</u>



Resources - Funding

NCTCOG Funding List – All Available Funding

nctcog.org/aqfunding



Sign-Up for Email Updates

TCEQ TERP Funding – All TERP Programs terpgrants.org

TX Volkswagen Environmental Mitigation Program (TxVEMP) texasvwfund.org

Fuel Economy Website – Light-Duty Vehicle Information fueleconomy.gov



Resources – NCTCOG Funding Webpage

nctcog.org/aqfunding

Air Quality > Transportation > Quality of Life > Air Quality > Funding and Resources

Funding and Resources

Funding

Funding for projects that address air quality, such as clean vehicle projects, are available from a number of federal, state, local, and non-profit entities.







Hot Topics

Volkswagen Settlement





Resources – NCTCOG - nctcog.org/aqfunding

Funding for Fleet Vehicle Projects

Program/Incentive	Eligible Activities	Funding Amount	Deadline
AmeriGas Clean Community Grant	Grants for new purchases of propane- powered school buses	\$2,500 - \$5,000 per Purchase, Minimum Three (3)	One Application Annually
Fuel Cell Motor Vehicle Tax Credit *	Light -, medium -, and heavy – duty vehicles and fuel cell vehicles	Up to \$8,000	December 31, 2020
IC Bus Grant Program	Grants for new purchases of propane- powered CE series school buses	\$5,000 per Purchase	Until all Funds are Awarded
Plug - In Electric Drive Vehicle Credit *	EV passenger vehicles, light-duty trucks, and certain 2 and 3 wheeled vehicles	\$2,500 - \$7,500 per New passenger vehicles and light - duty trucks EVs and PHEVs purchased 10% of cost of vehicle up to \$2,500 for 2 and 3 wheeled vehicle purchased	Phases out based on manufacturer market sales
Seaport and Rail Yard Areas Emissions Reduction (SPRY) Program	On-road Vehicles, Non-road Yard Trucks, or Other Cargo Handling Equipment *Requires scrappage of old vehicle/equipment	Up to 80% of the Cost to Replace or Repower Eligible Vehicles or Equipment	February 12, 2021 by 5 P.M. CT
Texas Light-Duty Motor Vehicle Purchase or Lease Incentive Program *	Light-duty EV, PHEV, Hydrogen, CNG, or LPG vehicles purchased in Texas	Up to \$2,500 for Electric or Hydrogen Up to \$5,000 for CNG or LPG	First-come first-served until January 7, 2021 or until all funds are awarded
Texas Natural Gas Vehicle Grant Program	Natural gas or propane vehicle/engine *requires scrappage of diesel or gasoline vehicle/engine	Up to 90% of the Incremental Cost	First Come First Served Until February 26, 2021 or all Funds are Awarded
Texas Volkswagen Environmental Mitigation Program	Refuse Vehicles: Garbage, Roll-off, Dump, Sweeper, Chipper, and Grapple Trucks Class 4-8 Freight Vehicles and Class 8 Port Drayage Vehicles.	Determined by Maximum Grant Amount Tables	First Come First Served Until October 8, 2020 or all Funds Awarded First Come First Served Until January 27, 2021 or all Funds Awarded

High-Level View of All Funding

Links to Grant Programs



FUNDING FOR NEW VEHICLE PURCHASES



FUNDING FOR DIESEL VEHICLE REPLACEMENTS



FUNDING FOR NON-VEHICLE AIR QUALITY IMPROVEMENT PROJECTS



Resources - TxVEMP - Currently Available Funding

Refuse Vehicles

Eligibility: Engine Model Year 1992 – 2009, Diesel Trucks, Greater Than 26,001 Pounds

Must Be <u>Configured To Collect And Transport</u>

<u>Municipal Solid Waste;</u> Includes Garbage Trucks,
Roll-off Trucks, Dump Trucks, Sweeper Trucks,
Chipper Trucks, and Grapple Trucks

Grants Awarded on First-Come, First-Served Basis

Application Deadline: October 8, 2020

DFW Area Funds Remaining: ~\$4.7 M*

Local Freight and Port Drayage Vehicles

Eligibility: Engine Model Year 1992 – 2009, Diesel Trucks, Greater Than 14,000 Pounds

Must Be <u>Used To Deliver Cargo and Freight</u>

Grants Awarded on First-Come, First-Served Basis

Application Deadline: January 27, 2021

DFW Area Funds Remaining: ~\$2.7 M*

Government-Owned Vehicles: Up to 80%

^{*}Based on Publicly Posted Information as of 7/29/2020

Resources - TxVEMP - Currently Available Funding

Zero Emission Vehicle (ZEV) Supply Equipment Grants

Eligible Applicants: Governments, Individuals, Corporations, Organizations

Eligible Activities: Purchase and Install Level 2 Charging Stations for Light-Duty Vehicles

Up to \$2,500 per Installation Not to Exceed:

Electric Chargers Available to Public: 70%

Electric Chargers Available to Workplace or Multi-Unit Dwelling: 60%

- Level 2 charging equipment must:
 - Offer SAE J1772 Connector
 - Include a dual mount pedestal with charge connect height of < 48" and > 24"
 - Utilize Open Source Software Where Payment is Required

First-Come, First-Served; \$10.4 Million Available Statewide

Application Deadline: September 9, 2021

Resources - www.fueleconomy.gov

www.fueleconomy.gov

the official U.S. government source for fuel economy information

Find a Car | Save Money & Fuel | Benefits | My MPG | Advanced Cars & Fuels | About EPA Ratings | More | Q



2020-21 Fuel Economy Estimates Now Available!

Includes plug-in hybrid and electric vehicles
Fuel economy leaders for each vehicle class
More vehicles added weekly

Find & Compare Cars



Compare Side-by-Side

Power Search Find-a-Car App

Calculators and Other Tools

Fuel Savings Calculator
Trip Calculator
Can a Hybrid Save Me Money?
My Plug-in Hybrid Calculator
Used Car Label Tool
Developer Tools
Find a Car Widget

My MPG



Calculate or Share Your MPG
Estimates from Drivers Like You
Enter Your MPG at the Pump

New on fueleconomy.gov...

2020-21 Fuel Economy Guide 2020-21 Fuel Economy Data 2020 Best and Worst Fuel Economy 2020 Top Ten Vehicle Lists Compare Old vs. New MPG for 1984-2016 Vehicles

Save Money



Gas Mileage Tips Fuel Cost Calculator Find the Cheapest Gas

v... Quick Picks

Find a Car App for Apple and Android Top 10 - Most Efficient Vehicles, Myths and More Compare Old vs. New EPA MPG Find a SmartWay Vehicle

Extreme MPG

Motorweek Videos

Hybrids & Electrics

Mobile Español Site Map Links FAQ Videos



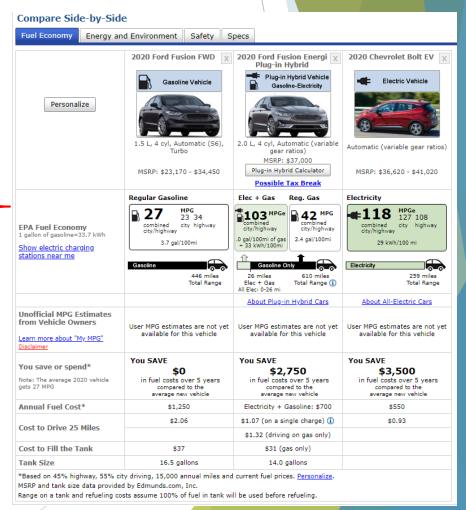
Hybrids Plug-in Hybrids All-Electric Vehicles

Related Links

VW, Bentley, Audi and Porsche MPG Estimates Revised Clean Cities Alternative Fuels Data Center Vehicle Cost Calculator Station Locator

EV Explorer

Compare Fuel Economy, Price, Safety and More



Transition to a Greener, More Efficient Fleet

Overall Efficiency Gains

Reduce Idling Fuel Savings, Less Emissions

Downsize Fleet – Eliminate Underutilized Assets

Lower Costs

Right-size Vehicles to Operational Needs

Lower Costs, Less Emissions

Light-Duty Vehicle Analysis

Analyze Daily Miles – Opportunity to Electrify?

Grants – Local Support

Step 1: Provide Us With Vehicle/Equipment Information

Template in Excel Provided

Vehicles: Description, Engine Year, Make, Model, Fuel Type, GVWR

Example:

Identifying Number	Vehicle Description	Engine Year	Chassis Make	Chassis Model	Fuel Type	GVWR
12345678901234567	Dump Truck	2000	Mack	RD590S	Diesel	34,000
23456789012345678	Box Truck	1998	Freightliner	FL70	Diesel	18,000

Equipment: Description, Engine Year, Make, Model, Fuel Type, HP Example:

Equipment Description	Engine Year	Make	Model	Fuel Type	Horsepower
Rubber Tire Loader	1999	Case	621C	Diesel	135
Excavator	2006	Caterpillar	312CL	Diesel	91



Grants – Local Support

Step 2: Grant Options Provided by DFWCC in Excel

Example:

						Emissions Reduction Incentive Grants Program Anticipated Summer 2020	Texas Clean Fleet Program Open; Deadline June 30, 2020	Texas Natural Gas Vehicle Grant Program Open; Deadline February 26, 2021	Rebate Grants Program Expected to open July 21, 2020
					Apply to:	тсеа	TCEQ	TCEQ	TCEQ
MAKE/MODEL	, FUEL 1	гуре	GVWR	ASSUMED ENGINE MODEL YEAR	Eligible Project Types: ▼	scrap for repowers, capped at \$17,500 per ton NOx reduced For new purchase or lease (i.e. no scrappage), funds will pay for the cost difference between the manufacturer's suggested retail price of a baseline vehicle certified to the current federal NOx emission standards and the actual cost of the cleaner vehicle. Program will reimburse up to 100 % of the cost difference between the baseline vehicle and the cleaner vehicle, capped at	Replace or repower at least 10 light-duty or heavy-duty diesel vehicles with hybrid or alternative fuel. Organization must have a fleet size of at least 75 vehicles (including all fuels) Funding: Up to 80% of the new replacement vehicle or engine minus \$1,000 scrap for heavy-duty vehicles and \$500 scrap for light-duty vehicles; Applications are scored competitively based pm cpst [er tpm pf MPx reduced and other factors.	Replace or repower diesel or gasoline, medium- or heavy-duty vehicle with natural gas or propane from list of eligible vehicles, engines and conversion systems Funding: Up to 90% of the new replacement vehicle or engine minus \$1,000 scrap for replacements and \$250 scrap for	Replace or repower heavy-duty diesel vehicles Funding: Up to 80% of new replacement vehicle or engine minus \$1,000 scrap for replacements and \$250 scrap for repowers, not to exceed maximum rebate amount. Values are based on the maximum rebate grant tables from the FY2019 rounds and are subject to change for the next funding round
1989 VOLVO DUMP TR	CUCK DIES	EL	28,000	1988		5-Year Activity Life: Up to \$62,000 7-Year Activity Life: Up to \$87,000	Eligible for up to \$107,200		5-Year Activity Life: Up to \$34,232 7-Year Activity Life: Up to \$47,924
1990 VOLVO DUMP TR	CUCK DIES	EL	28,000	1989		5-Year Activity Life: Up to \$61,500 7-Year Activity Life: Up to \$86,000	Eligible for up to \$107,200	\$107,192	5-Year Activity Life: Up to \$34,232 7-Year Activity Life: Up to \$47,924
1991 VOLVO DUMP TR	UCK DIES	EL	28,000	1990		5-Year Activity Life: Up to \$33,800 7-Year Activity Life: Up to \$47,300	Eligible for up to \$107,200		5-Year Activity Life: Up to \$18,988 7-Year Activity Life: Up to \$26,584
1990 VOLVO DUMP TR	UCK DIES	EL	28,000	1989		5-Year Activity Life: Up to \$61,500 7-Year Activity Life: Up to \$86,000	Eligible for up to \$107,200		5-Year Activity Life: Up to \$34,232 7-Year Activity Life: Up to \$47,924

Grants – Local Support

Step 3: Decide on Grant and Apply

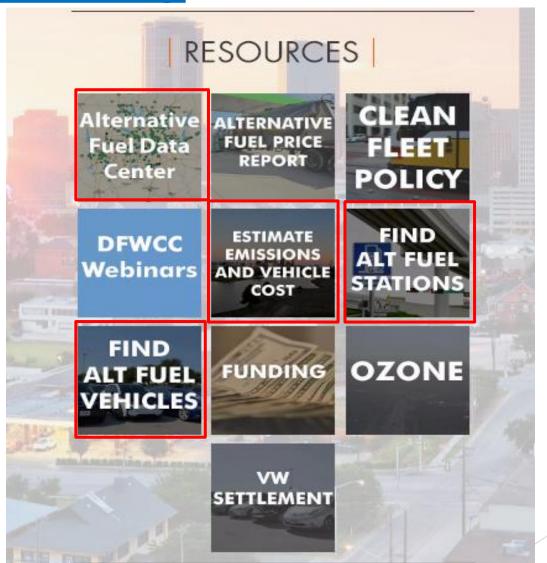
Things to Consider

- Fuel Type Required for New Vehicle Vehicle Availability for Fuel Type Refueling Availability
- Amount of Possible Grant
- Simple Payback AFLEET Online, AFLEET Tool (xls)
- Total Cost of Ownership AFLEET Tool (xls)
- DFWCC Assistance <u>cleancities@nctcog.org</u>
 Grant Applications
 Tools AFLEET Online, AFLEET Tool (xls)



Tools & Resources

DFWCC - <u>dfwcleancities.org/</u>





Tools & Resources – Alternative Fuel Information

Alternative Fuels Data Center - https://afdc.energy.gov/



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 reach their energy and economic goals through the use of alternative and renewable fuels, advanced vehicles, and other fuel-saving measures.

Tools

- · Laws & Incentives
- Electricity Sources & Emissions
- Vehicle Cost Calculator
- Vehicle Search



Find Refueling Stations



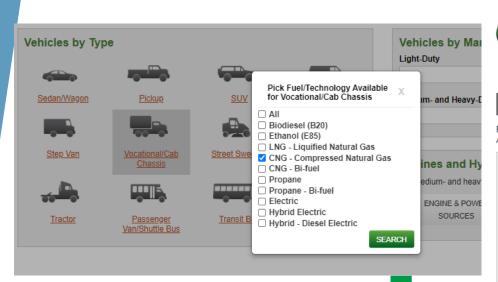
Tools & Resources – Find Alt Fuel Vehicles

Chevrolet Express 3500/4500 Cutaway

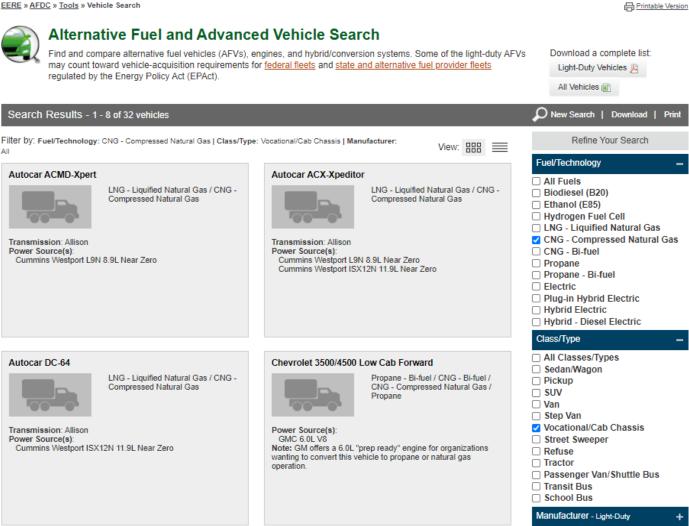
CNG - Bi-fuel / CNG - Compressed

Natural Gas / Propane / Propane -

Bi-fuel / Ethanol (E85)



Pick a Vehicle Type and Fuel for List of Vehicles



Chevrolet Silverado 3500 HD Cab Chassis

CNG - Compressed Natural Gas /

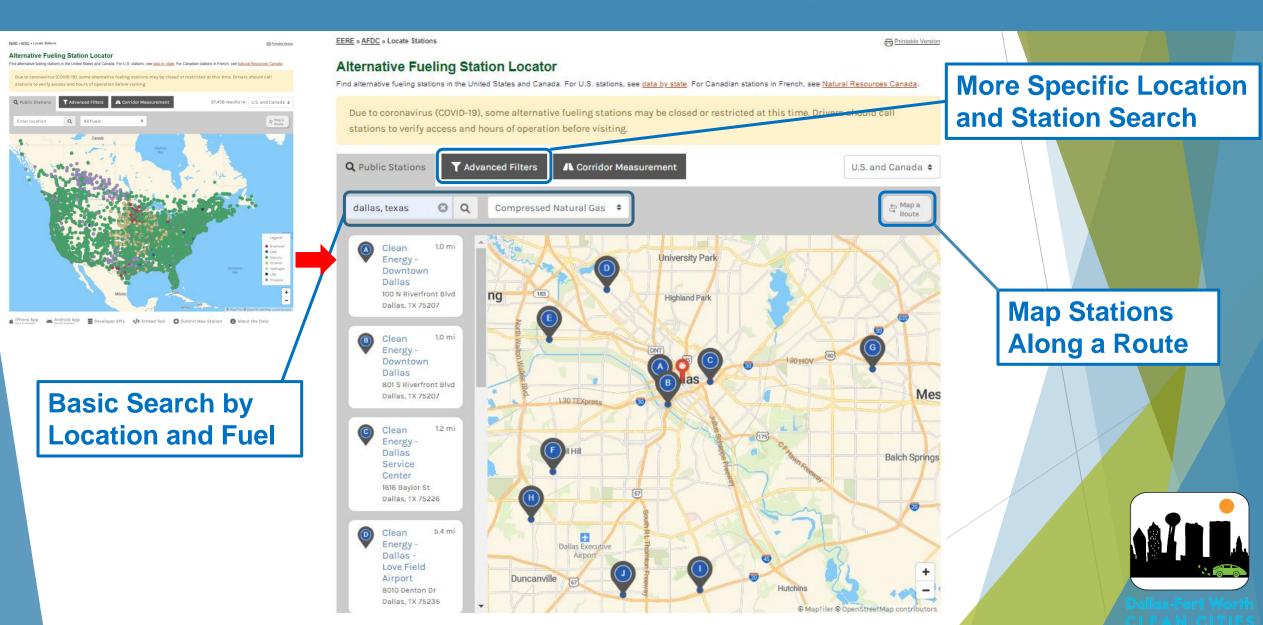
CNG - Bi-fuel

Manufacturer - Med & Heavy-Duty

19

Tools & Resources- Find Alt Fuel Stations

20

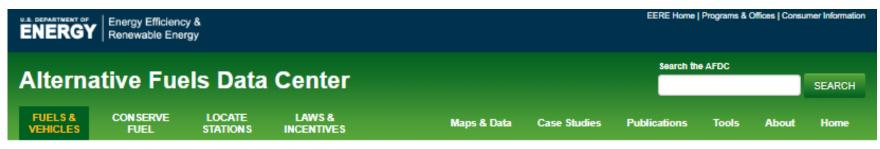


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Embed Tool

♠ Submit New Station

Developer APIs

Tools & Resources – Alternative Fuel Information



EERE » AFDC » Fuels & Vehicles » Natural Gas

Natural Gas Basics Natural Gas

Benefits & Considerations

Stations

Vehicles

Laws & Incentives

Natural Gas

Natural gas, a domestically produced gaseous fuel, is readily available through the <u>utility infrastructure</u>. Whether produced via <u>conventional</u> or <u>renewable</u> methods, this clean-burning alternative fuel must be compressed or liquefied for use in vehicles.



Basics >

Find information about natural gas, including production and distribution.



Benefits and Considerations >

Explore the benefits and considerations of using natural gas as a vehicle fuel.



Stations >

Locate natural gas fueling stations in your area and learn about natural gas fueling infrastructure.



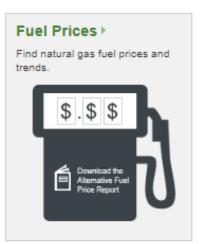
Vehicles ►

Learn about natural gas vehicles and how they work, and find information about vehicle availability, conversions, emissions, maintenance, and safety.



Laws and Incentives >

Find laws and incentives related to natural gas in your area.



Printable Version



Tools & Resources – Estimate Emissions and Vehicle Costs

https://afleet-web.es.anl.gov/home/



Welcome To AFLEET

The Department of Energy's Technology Integration Program has enlisted the expertise of Argonne to develop a tool to examine both the environmental and economic costs and benefits of alternative fuel and advanced vehicles (AFVs). Argonne developed the Alternative Fuel Life-Cycle Environmental and Economic Transportation (AFLEET) Tool to help stakeholders estimate petroleum use, greenhouse gas (GHG) emissions, air pollutant emissions, and cost of ownership of light-duty and heavyduty vehicles.

Total Cost of Ownership, Idle Reduction and More

- Excel Spreadsheet
- Customizable Inputs
- Uses 2019 Maintenance Costs



AFLEET Tool (xls)

The AFLEET spreadsheet provides detailed energy, emission, and cost data for light- and heavy-duty AFVs. It has the following 4 calculators depending on the users goals:

- Simple Payback
- . Total Cost of Ownership
- Idle Reduction
- Fleet Footprint



AFLEET Online

AFLEET Online replicates the spreadsheet's Simple Payback Calculator with a user-friendly interface and analyzes the following metrics:

- Petroleum use
- · Greenhouse gas emissions
- · Air pollutant emissions
- Simple payback

Simple Payback

- Easy Online Tool
- Useful Only When AFV Costs More Than Diesel
- Uses 2018 Maintenance Costs



HDVEC

The Heavy Duty Vehicle Emissions
Calculator (HDVEC) is an AFLEET-based
online tool that compares NOx, PM,
GHGs and funding cost-effectiveness of
environmental mitigation projects for the
following fuel types:

- Diesel
- Electric
- · Natural Gas
- Propane



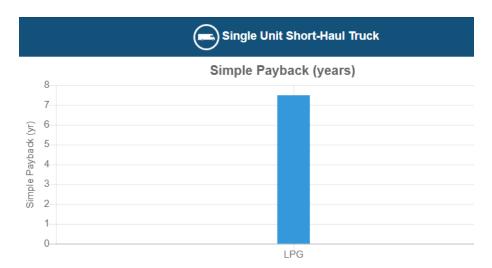
Tools & Resources – Simple Payback

Short-Haul Truck Example Comparing Diesel, Propane

- Start New Project
- Select Vehicle Type Single Unit Short-Haul Truck
- Pick Fuels to Compare to Diesel LPG
- Update if Desired:

Fuel Economy, Purchase Price, Fuel Prices, Annual Mileage

- Vehicle Options Set State to Texas
- Fuel Prices Diesel \$1.98, LPG \$0.86



Payback is 7.5 years



FOR MORE INFORMATION

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