



Autogas and Your Fleet

HAPPY FOX, ALLIANCE
AUTOGAS

AUTOGAS ANSWERS
DECEMBER 13, 2018

Let's Clear the Air...

Propane autogas reduces NOx
emissions by over 30%

Who We Are



Founded in 2009, Alliance AutoGas offers the only complete program to convert, maintain, and support autogas fleets.

Alliance AutoGas:

- Provides the vehicle conversion technology and has certified installers do the installations
- Builds the autogas refueling infrastructure and aligns the customer with surrounding refueling sites, if applicable
- Seamlessly integrates your autogas station with your fuel management system, or provides you with our fuel management technology
- Provides training on your autogas system, maintenance, proper refueling and safety for your fleet, and more



Our Systems



- Alliance AutoGas offers a bifuel system, giving fleet vehicles the flexibility to run on either autogas or gasoline, eliminating range anxiety
- All of our systems have undergone rigorous testing and are **EPA certified**
- Our innovative Plug-and-Play system requires no permanent vehicle modifications and comes with an industry leading 5-year, 100,000-mile warranty
- Alliance offers several tank configurations to fit the customer's needs

Supported Vehicles





Why is Autogas Green?

- On average, using autogas reduces carbon monoxide emissions by 60%, carbon dioxide emissions by 12%, and smog and particulate matter by 80% when compared to diesel.
- Autogas school buses have up to 31% fewer NOx emissions, 79% fewer SOx emissions, and 27% less greenhouse gas emissions when compared to diesel.
- For bobtail trucks, greenhouse gas emissions were reduced by 13% and NOx emissions by 4% when compared to diesel.

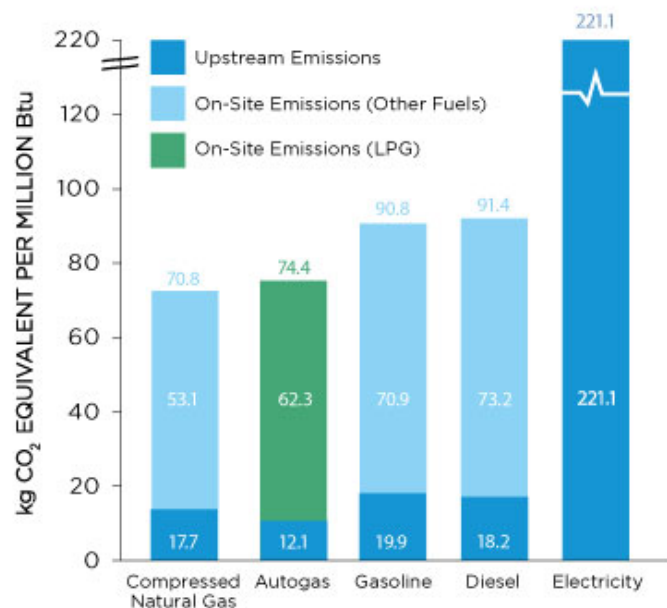




Fewer GHG Emissions

TOTAL CARBON EMISSIONS FOR VARIOUS FUELS

2009 PERC Study sourcing 2009 EPA and GREET Model



PROpane-AutoGas-POWERED VEHICLES

Vehicle Type	Emission Reduction
LIGHT DUTY TRUCKS + UTILITY CARGO VANS SHUTTLE BUSES + TYPE A PARATRANSIT VANS	EMIT 11%
TYPE C BUSES	EMIT 18%

FEWER GREENHOUSE GAS EMISSIONS THAN GASOLINE

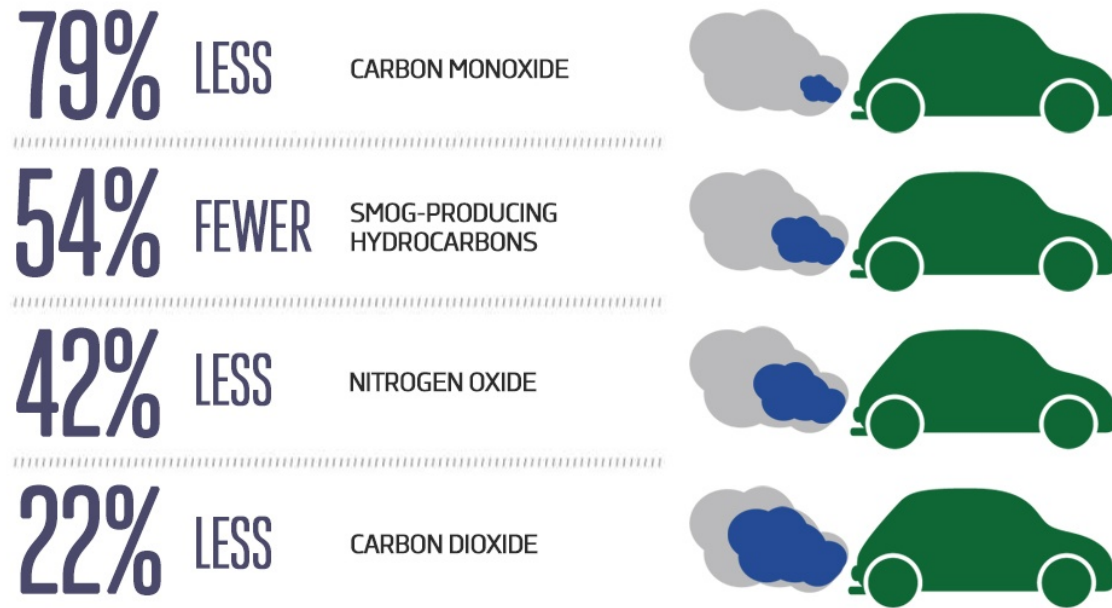
PROpane EDUCATION & RESEARCH COUNCIL

Nexight Group and Energetics Inc., "A Comparative Analysis of Greenhouse Gas Emissions from Propane and Competing Energy Options," 2014.

Less Is More

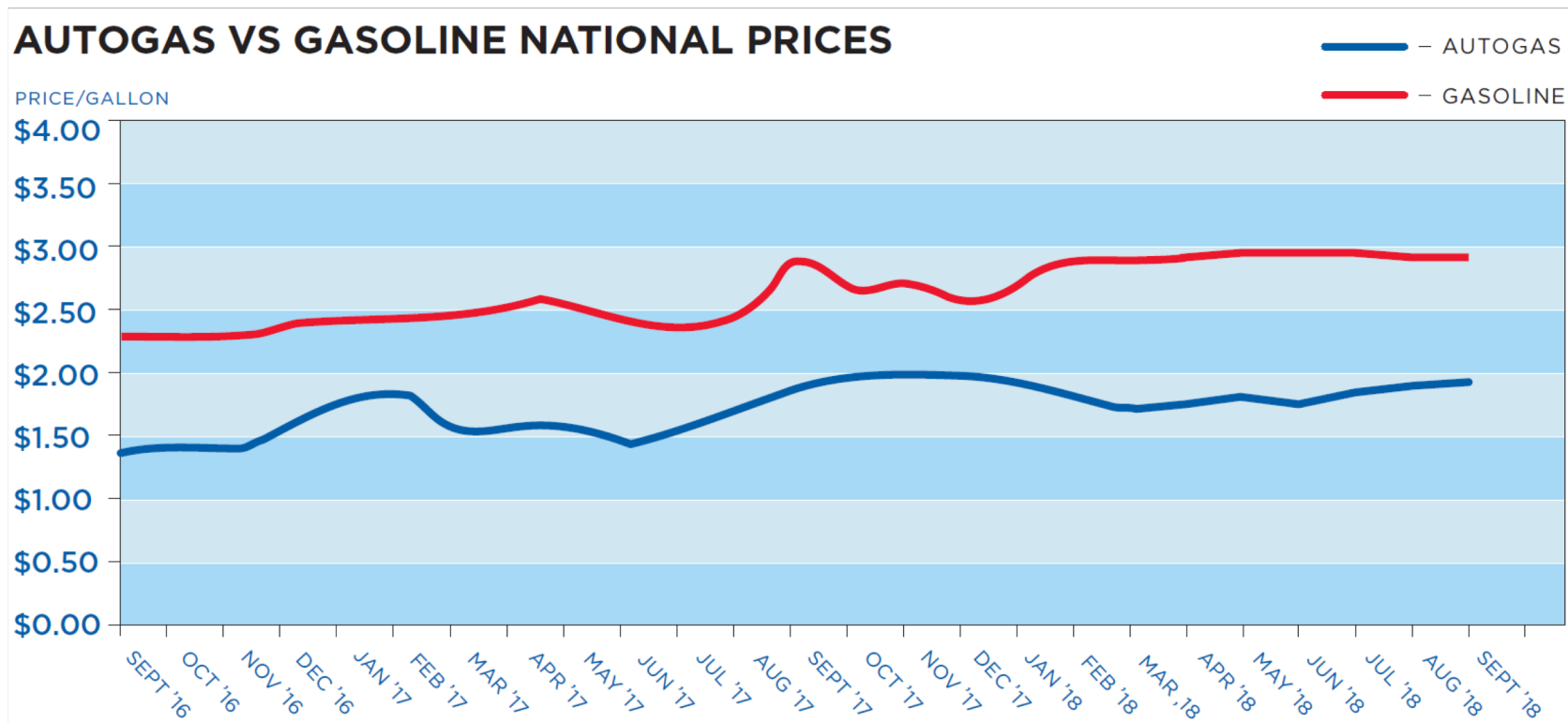


Gasoline-fueled vehicle emissions
Propane-autogas-fueled vehicle emissions





Cost Savings



- Less vehicle down time
- Less maintenance
- Save upwards of **60%** when compared to Diesel
- Save upwards of **40%** when compared to Gasoline

Top Benefits of Autogas

1. **Domestic:** Over 99% of the propane autogas used in the US is produced in North America
2. **Performance:** 90% of the distance range of traditional gasoline vehicles and no compromise on the horsepower, torque or towing capacity
3. **Lowest TCO:** When taking vehicle maintenance into account, autogas vehicles have the lowest Total Cost of Ownership of any alternative fuel
4. **Reliable Emergency Fuel:** Autogas does not spoil, and domestic production and storage ensure that there's plenty of propane autogas available, even in an emergency
5. **Safe:** Autogas tanks are 20 times more puncture resistant than gasoline tanks, and autogas has an enviable safety record when compared to conventional fuels



Refueling

- On Site fueling at your facility
- Alliance handles all project management, permitting, and operational training.
- Cost to fleet is electrical connection and crash protection
- Complete data integration with fleet and/or leasing company

Customers can choose private, on-site refueling infrastructure scaled for their needs, or take advantage of existing public or private refueling networks.





Simple Dispensing

- Exclusive “Quick Connect” Nozzle
 - Safe
 - Faster fill than gasoline





Propane Buses

Lower Emissions:

- No more black smoke

Quieter:

- Propane buses are noticeably quieter while operating than diesel, letting the driver pay better attention to every child on the bus – and the road ahead

Uncompromised Safety:

- FMVSS- Federal Motor vehicle Safety Standards

More savings:

- Propane autogas is typically 30-50% less per gallon than diesel fuel



Real Customers



“The argument for more propane autogas vehicles had to start with quantifiable savings... Fortunately, it was an easy story to tell.” – **Steve Hightower, City of Kingsport TN**

“It’s turned out really, really good for us.” — **Marty Byers, Iredell County Sherriff**

“Alliance has really taken our autogas program to the next level.” – **Asst. Chief Robert Abraham, La Crosse Police Department**

“This program is running effectively, saving our County money, supporting our efforts to be a “clean fleet’ and helping us to be excellent stewards of our environment.” – **Jeff Jeter, Chesterfield County, VA**

“Should power go out, we can still fuel vehicles and do what we need to do. Our on-site fueling stations are filled by our local Blossman Gas branch with fleet vehicles that also operate on autogas, so we can count on them to keep getting fuel to us when we need it.” – **Jimmy Riley, Spartanburg Regional Health Systems**

Q&A



Happy Fox
Alliance AutoGas
Alternative Fuel Consultant
828-575-8024
jfox@allianceautogas.com