

Driving Down Costs

THE BOTTOM-LINE BENEFITS OF PROPANE AUTOGAS FOR INDUSTRY FLEETS.

What's the financial outcome when a propane autogas vehicle and diesel vehicle – nearly identical in every way except for fuel – are tracked for cost-of-ownership over their lifecycles? It's well known that propane autogas vehicles can significantly lower costs by providing fuel and maintenance savings. But a side-by-side comparison with a similar diesel fleet – running comparable routes in the same region – has never been documented until now. Data was supplied by Superior Plus Propane in Rochester, New York. Then, a detailed cost analysis was conducted comparing propane autogas Ford F-550 trucks to similar diesel vehicles.

THE STUDY

Between 2015 and 2020, the study tracked and compared two important data points: **1) how much fuel the vehicles consumed during their lifecycle,** and **2) how many miles they traveled within that timeframe.** That produced an accurate miles-per-gallon calculation for each vehicle.

In addition, records were collected on the preventative maintenance and repairs of the engines and fuel systems in order to factor maintenance costs into the equation.

THE RESULTS

Across the board, the propane autogas trucks delivered bottom-line benefits that diesel models couldn't match – specifically with maintenance and fuel costs. The numbers below represent the results of the two vehicles on each side of this comparison over their lifecycle.

COST AVERAGES

Fuel	Maintenance Cost / Mile	Fuel Cost / Mile	Total Cost / Mile
Propane Autogas	\$0.06	\$0.18	\$0.24
Diesel	\$0.24	\$0.28	\$0.53

These numbers validate the savings that propane industry fleets can achieve after switching to propane autogas. When multiplied across thousands of miles and an entire fleet of vehicles, the savings add up fast.

THE TRUCKS

To make a fair and informative evaluation, four trucks were compared that were similar in almost every way – two propane autogas models and two diesel models equipped with the same body and within just one model year of each other.

PROPANE AUTOGAS 2 x 2016 FORD F-550S



- Cylinders: 10
- Engine Size: 6.8
- Wheel Base: 189

DIESEL 2 x 2015 FORD F-550S



- Cylinders: 8
- Engine Size: 6.7
- Wheel Base: 165

See back for a more detailed analysis of the data.



PROPANE

A Closer Look at Propane Autogas Savings

While the average total cost-of-ownership data for each fuel type tells a compelling tale about propane autogas savings, a deeper dive into the four vehicles studied unveils the true propane advantage.



MAKING SENSE OF FUEL COSTS

In order to accurately account for fluctuating fuel costs from year to year and market to market, an average price per gallon was established using national five-year average fuel prices of diesel and propane autogas. While the diesel vehicles traveled more miles per gallon of fuel, the cost per mile is significantly less for both propane autogas vehicles.

FUEL COSTS							
Truck Number	Fuel	Odometer Start	Odometer Stop	Total Miles	Price / Gallon	MPG	Price Per Mile
6138	Propane Autogas	1,291	49,539	48,248	\$0.85	4.887	\$0.174
6132	Diesel	0	101,893	101,893	\$2.77	9.265	\$0.299
6139	Propane Autogas	100	61,317	61,217	\$0.85	4.371	\$0.194
6149	Diesel	101,343	150,993	49,650	\$2.77	10.485	\$0.264



TRACKING MAINTENANCE SAVINGS

To compare maintenance costs, all invoices were collected for every preventative maintenance service as well as all engine and fuel system related repairs. This included diesel particulate matter filter replacements and diesel exhaust fluid, as well as propane fuel pump replacements.

MAINTENANCE COSTS							
Truck Number	Fuel	Odometer Start	Odometer Stop	Total Miles	DEF	Total Maintenance	Price Per Mile
6138	Propane Autogas	1,291	49,539	48,248	-	\$3,191.28	\$0.07
6132	Diesel	0	101,893	101,893	\$2.55	\$9,736.87	\$0.10
6139	Propane Autogas	100	61,317	61,217	-	\$3,198.15	\$0.05
6149	Diesel	101,343	150,993	49,650	\$2.55	\$18,836.62	\$0.38

The data collected on these two nearly identical vehicles offers propane industry fleet managers a clear reason to switch to propane autogas – it's better for your bottom line, and for the industry.

FOR MORE INFORMATION

To learn more about the cost-benefits of propane autogas vehicles, visit Propane.com.

THE PROPANE EDUCATION & RESEARCH COUNCIL was authorized by the U.S. Congress with the passage of Public Law 104-284, the Propane Education and Research Act (PERA), signed into law on October 11, 1996. The mission of the Propane Education & Research Council is to promote the safe, efficient use of odorized propane gas as a preferred energy source.

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