



Big Benefits for the Nation's Largest Self-Managed Paratransit Fleet

A pilot program reveals the long-term advantages of propane autogas.

Providing over 10.6 million rides per year, including about 1 million passenger trips through its DART paratransit service, the Delaware Transit Corporation operates the largest self-managed paratransit fleet in the nation. In addition, the transit agency runs a shared-ride program with reservations accepted for trips by people with disabilities who are unable to use regular fixed-route public transportation.

Beginning in 2014, the agency took on a two-year pilot program testing five propane autogas paratransit buses. The agency chose to pilot two different types of vehicles, dedicated (operating only on propane) and bi-fuel (operating on gasoline or propane). The agency found enough benefit to purchase 165 propane autogas shuttles, while also installing its own private fueling infrastructure, in the form of two low-cost refill stations at convenient, easily accessible locations.

FLEET PROFILE

165

2013 - 2018 FORD E-450
PARATRANSIT BUSES

3

4,000-GALLON
PROPANE STATIONS



DELAWARE TRANSIT CORPORATION PROPANE HIGHLIGHTS

296

FORD E-450 CUTAWAYS

89%

PROPANE PARATRANSIT FLEET
as of 2022

\$42,286

WEEKLY SAVINGS

15M

POUNDS
of carbon dioxide
emissions reduced



ENHANCED ENVIRONMENTAL IMPACT

Kept in operation for five years, each DART paratransit bus travels between 35,000 and 40,000 miles annually. Every paratransit bus consumes about 7,275 gallons of propane autogas annually, saving about 6,250 gallons of gasoline. Each propane autogas paratransit bus emits 91,000 fewer pounds of carbon dioxide emissions over its lifetime compared to the agency's gasoline models – or 15 million pounds for the entire propane fleet. Propane autogas is a low-carbon fuel that reduces greenhouse gases by up to 25%, with 60% less carbon monoxide and fewer particulate emissions compared to gasoline.

MEASURABLE SAVINGS

To track costs, the transit agency runs a weekly report based on the number of vehicles in service, their total mileage, and gallons of propane autogas used. Based on the current price of propane autogas and gasoline, the agency then calculates its weekly savings. In March 2018, savings averaged \$76 per bus per week. The Delaware Transit Corporation is saving about \$11,000 per week by operating a propane autogas paratransit bus fleet, equaling more than \$500,000 annually in fuel expenses alone. The agency has calculated a 36% cost per mile fuel savings, with 19 cents for its propane shuttles compared with 30 cents for its gasoline shuttles. Historically, propane autogas costs 40% less than gasoline and up to 50% less than diesel.

FOR MORE INFORMATION

To learn more about propane paratransit vehicles and the fleets that use them, visit Propane.com/Paratransit.

INFRASTRUCTURE INSTALLATION

Essential to daily operations, private fueling infrastructure was installed by the transit agency. DART worked with Sharp Energy, a local propane provider, to install two low-cost refill stations at different, convenient locations. Propane autogas fueling infrastructure costs less than any other transportation energy source – conventional or alternative. Sharp Energy provides the propane for the DART paratransit buses along with technical and maintenance support for the vehicles and fueling stations.

“We’ve seen a significant reduction in engine-related problems. Overall performance of the vehicles is greater, and we have experienced far fewer engine-related breakdowns.”

RICHARD WALTERS

Fleet And Contract Operations Director,
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 Propane Education & Research Council

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