

# MESA PUBLIC SCHOOLS

## The Challenge

To remain fiscally and environmentally responsible while meeting federal emissions requirements.

## The Vehicles

Dedicated liquid propane autogas vehicles in Mesa Public Schools' fleet.



Blue Bird Propane-Powered  
Vision Type C school bus

Blue Bird Micro Bird G5  
Type A school bus



Ford F-250 pick-up truck

## The Numbers

**\$2.06 savings**

per gallon for propane autogas.

**\$5,667 savings**

per bus, per year.

**60% savings**

per gallon of fuel when compared to diesel.

**7,200 pounds**

of carbon dioxide per bus, per year eliminated from Mesa Public Schools' footprint.

**2 on-site**

refueling stations installed, a 2,000-gallon and an 18,000-gallon storage tank.

**28**

number of propane autogas vehicles in the fleet

“We’re saving a total of 32.6 cents per mile with propane autogas.”

— Ron Latko,  
director of transportation  
and vehicle maintenance

# Mesa Public Schools,

prompted by changes in federal emissions requirements, began considering alternatives to diesel in their fleet. The school system operates the largest school bus fleet in Arizona with more than 500 buses.

Ron Latko, Mesa's director of transportation and vehicle maintenance, started researching. He learned of and used ThyssenKrupp Elevator's "Five C's" approach to identifying viable fuels based on "clean," "conserve," "cost-effective," "common sense" and "commit."

Starting in 2011, Mesa began purchasing Blue Bird school buses featuring ROUSH CleanTech's dedicated liquid propane autogas fuel system. Mesa now runs 27 propane autogas school buses, traveling 15,506 route miles per school year and transporting thousands of students daily.

## Reduced Emissions

With significantly fewer emissions leaving the tailpipe, fueling with propane autogas reduces nitrogen oxide, carbon monoxide and total hydrocarbons while virtually eliminating particulate matter. As a result, Mesa's use of propane autogas has reduced the school district's greenhouse gas emissions by 802 tons annually.

## Increased Savings

In addition to environmental benefits, Mesa experiences cost savings of more than \$61,000 annually due to reduced fuel expenses. Mesa pays 60 percent less per gallon for propane autogas than for diesel. They also save \$4,000 over the lifetime of each bus after factoring in lower maintenance costs, potential for longer engine life, and elimination of fuel pilfering or spillage. Mesa keeps each school bus an average of 13 years, driving about 200,000 miles over the course of its operating life. Latko expects the district to get three additional years from their propane autogas buses due to cleaner-burning properties of the fuel through the engine.

## Easy Transition

Mesa made the switch easy for employees by installing on-site private refueling stations at two separate sites. Propane autogas refueling consists of a closed system, which eliminates fuel spillage and groundwater contamination risks, and makes on-site refueling much easier to integrate than other fuels. In fact, the cost of installing propane autogas infrastructure is less expensive than any other fuel, and the speed and ease of propane autogas refueling is comparable to that of gasoline and diesel.

Latko reports that the mechanics and drivers have been "especially impressed with the power of the buses," and appreciate the 50 percent noise reduction over the former diesel models.

Besides their "yellow" bus fleet, Mesa runs a Ford pickup truck fueled with propane autogas. The district plans to add more propane autogas vehicles to both their "yellow" and "white" fleet vehicles, used for maintenance, custodial and information services.

## Bragging Rights

Mesa, recently recognized by the state of Arizona as a Clean Air Energy recipient, has attracted the attention of parents, local and national media, and industry peers.

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*"We needed these buses to perform without issue from the moment we got them, and they did. They've been reliable and inexpensive to operate."*

— Ron Latko

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"We want to show parents and residents in our community that we are doing everything we can to be fiscally and environmentally responsible," said Latko.

Latko feels that all fleet managers should consider domestic alternative fuels. "In the bus world, emissions will always be a factor, and budgets will never be easy," says Latko. "Blue Bird and ROUSH CleanTech have been professional and accommodating to ensure we had a positive experience."



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