

# ZEELAND PUBLIC SCHOOL DISTRICT'S SUSTAINABLE SOLUTION

Buses fueled by propane autogas offer school district high-performing, cost-effective option to increase sustainability

## AT A GLANCE

### Industry

School bus

### Company

Zeeland Public School District  
Zeeland, Mich.

### Challenge & Solution

To reduce costs and emissions, while expanding use of alternative fuels, through the purchase of nine Blue Bird Vision school buses fueled by propane autogas.

### Benefits of Buses Fueled by Propane Autogas

- Lower emissions.
- Lower operating costs.
- Longer maintenance intervals.
- The same horsepower and torque as diesel-fueled buses.



Zeeland Public School District in western Michigan, like many school districts across the country, is finding ways to incorporate environmentally friendly practices in its operation. The district has upheld its commitment to sustainability by using alternative fuels, including propane autogas, in its school bus fleet.

"Zeeland has been on the cutting edge of green practices for a while," explains David Meeuwsen, Zeeland Public School District transportation director. "We are always looking for new ways to improve the environment."

#### Choosing buses fueled by propane autogas

Zeeland Public School District buses transport 9,000 students daily and travel 750,000 miles annually. Since 2003, the district has used biodiesel to power the majority of its school buses. District officials recently became interested in the advantages propane autogas could provide as an alternative fuel.

School officials learned that propane autogas burns cleaner than diesel, thus reducing the amount of harmful emissions released into the atmosphere and inhaled by the district's students and staff. They also found propane autogas to be more cost-effective than biodiesel and to perform better, too.

"Propane autogas is one of the cleanest burning fuels of all fossil fuels, resulting in less pollution from our buses," Meeuwsen says. "Propane vehicles emit fewer emissions than gasoline and diesel vehicles, reducing short-term and long-term health effects in passengers."

Zeeland Public School District bought nine new Blue Bird Propane-Powered Vision school buses with CleanFuel USA's liquid propane autogas injection system from Holland Bus Co. in August 2010.

Zeeland Public School District received a grant to fund half the cost of the new school buses through the Diesel Emissions Reduction Act, part of a clean air campaign launched by the U.S. Environmental Protection Agency. The district worked with AmeriGas, a partner in the grant, to supply propane autogas for the new buses. AmeriGas installed a refueling station on-site at no extra cost to the district and provided Zeeland Public School District with the option of buying the refueling system in the future.



### Getting everyone on board

The district's bus technicians were trained by CleanFuel USA at Holland Bus Co. and learned how to maintain the pressurized propane autogas system on the buses. The technicians quickly became comfortable with the new system and began to see the operational and maintenance advantages of the fuel.

"The technicians are impressed by how much longer the oil stays clean in the bus," Meeuwsen says. "Based on our oil analysis program, we anticipate the buses fueled by propane autogas will need oil changes only every 20,000 to 30,000 miles. Also, the filters won't have to be changed as frequently as the diesel-fueled buses."

After receiving refueling training from AmeriGas and spending time in the buses, the drivers quickly saw the value of the new buses fueled by propane autogas as well.

"The propane-autogas-fueled buses also warm up faster, have greater power, and are quieter than the diesel buses," Meeuwsen explains. "My drivers now enjoy the new buses so much they are disappointed when they have to drive a diesel bus for a day when their propane-autogas-fueled bus is being serviced."

### Cutting costs and harmful emissions

The district has been able to cut costs as well as emissions by adding the nine buses fueled by propane autogas. Meeuwsen says the school district averages a savings of 80 cents per gallon with propane autogas vs. biodiesel fuel. Additionally, the district is hoping to take advantage of a 50-cent-per-gallon government tax credit available for the use of propane autogas.

"Once we apply for this tax credit, we approximate fuel savings of 30 percent, contributing to a major cost reduction," Meeuwsen explains.

### Sustainable future

Meeuwsen already has had conversations about expanding the use of propane autogas in the district's fleet. His decision to use propane autogas is influenced by Zeeland Public School District's broader sustainability efforts, he says, and by the fact that 90 percent of propane autogas is domestically sourced.

"The buses fueled by propane autogas fit into the environmental standard we are trying to accomplish here at Zeeland," says Meeuwsen. The continued support and positive feedback the buses have garnered from staff, students, and the community also will influence the future of the school district's green fleet.



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