



## **Case Study: Minnesota School District Keeps Budget in Check with Propane Buses**

**District:** St. Louis County Schools (Independent School District 2142)  
**Industry:** Education  
**Location:** Virginia, Minnesota  
**Vehicles:** (29) Blue Bird Vision Propane, Type C school buses  
**Fueling:** On-site propane autogas station

### **Challenge:**

Reduce the growing school district's operating costs by saving on fuel, repair, maintenance, and reporting requirements for its school bus fleet.

### **By the Numbers:**

- 70% reduction in per-gallon fuel costs.
- 50% savings on oil change costs.
- 50% propane-fueled fleet.

### **Significant Cost Savings**

For nearly a decade, the repairs and maintenance budget for St. Louis County Schools in Minnesota has remained unchanged — despite a growing student population and several school expansions. The district currently serves about 2,250 students. “I credit having propane buses with keeping our dollar amount low for 10 years,” said Kay Cornelius, transportation director for the district.

In addition to the bottom-line savings in the cost of maintenance and cost per mile to operate, the district has found that its 29 Blue Bird Vision Propane school buses equipped with ROUSH CleanTech propane fuel technology have a cleaner engine area and less emission issues than its diesel models. This cuts the district's compliance requirements, which leads to reduced operational costs.

Cornelius performed due diligence when it came to researching alternatives to diesel buses. “I was looking for ways to save money. With grants and fuel rebates that were available, there was an incentive for us to take the leap to alternative fuel,” she said. After consulting further with the local school bus dealer, United Truck Body, and propane supplier, Como Oil & Propane, Cornelius was set on propane.

Como Oil & Propane installed an onsite propane station. “We paid for the electrical for the pump and they did the rest,” she said.

The district is also more insulated from fluctuating gas prices, allowing them to better forecast their budget. “We are able to negotiate on a yearly basis the price per gallon.” The district’s current price per gallon of propane is \$1.52 compared with \$5 per gallon of diesel, a 70% savings on the cost of the fuel alone.

Last year, the propane buses used approximately 70,000 gallons of propane, resulting in a savings of nearly \$240,000 for the school district.

During the research phase, Cornelius also learned that maintenance on a propane bus is significantly less than diesel. Currently, the school district saves nearly 50% per oil change. For a diesel bus, an oil change costs the district about \$400 compared with about \$200 for a propane bus.

Across the nation, hundreds of school districts have reported savings of up to \$3,700 per bus per year due to lower fuel and maintenance costs compared with diesel.

### **Cleaner, Easier Operations**

Tightened standards on diesel emissions forced burdensome requirements on the district. Operating on propane autogas instead of diesel removes the complexity and cost of after-treatment measures, which can accelerate return on investment and cut operating costs.

“I found that we have a lot more mechanical issues with the diesels,” Cornelius said. “In my opinion, when they started upgrading the emissions, they created some very expensive issues. We’re finding that there are high-pressure oil rail issues, and that the engine is burning so hot that the oil will actually take on the consistency of coffee grounds. So we have to do oil changes at shorter intervals. Diesel emission fluid has created a whole new problem, as we’ve had to deal with dosing problems and freezing issues.”

Additionally, with propane, there is no need for diesel particulate filters, diesel exhaust fluids, exhaust gas recirculation or other after-treatment devices. That’s more than 15 parts that aren’t needed for the school district’s propane buses. “With propane buses, there are less items to watch for and they are much cleaner to work on,” Cornelius said.

### **New Technology, Great Feedback**

Since 2012, ROUSH CleanTech and Blue Bird have partnered to offer propane school buses, with more than 17,000 in over 1,000 school districts across North America. In 2021, ROUSH CleanTech began production of its Gen 5 propane autogas fuel system. The innovative propane autogas technology integrates Ford’s new 7.3L V8 engine.

Cornelius observed that the new engine has more power than the diesel buses, among other benefits for drivers and students. “In comparing it to a diesel, the engine is much quieter, and the clean burn of the propane is a plus for drivers because the exhaust is nearly odorless,” she added.

When compared with gasoline or diesel vehicles, school buses that run on propane autogas emit fewer greenhouse gases, smog-producing hydrocarbons, and virtually eliminate particulate

emissions. In addition, St. Louis County Schools' bus drivers report that the propane buses are much quieter, as propane buses reduce noise levels by about half compared to a diesel engine. And, the drivers appreciate that they don't have the dirty diesel exhaust, improving the air quality for them and students alike.

Currently the district runs about half of its bus fleet on propane and will continue to replace aging diesel buses with propane.

###

*About Blue Bird Corporation:* Blue Bird (NASDAQ: BLBD) is recognized as a technology leader and innovator of school buses since its founding in 1927. Our dedicated team members design, engineer and manufacture school buses with a singular focus on safety, reliability and durability. Blue Bird buses carry the most precious cargo in the world — the majority of 25 million children twice a day — making us the most trusted brand in the industry. The company is the proven leader in low- and zero-emission school buses with more than 20,000 propane-, natural gas- and electric-powered buses in operation today. Blue Bird is transforming the student transportation industry through cleaner energy solutions. For more information on Blue Bird's complete product and service portfolio, visit [www.blue-bird.com](http://www.blue-bird.com).

*About ROUSH CleanTech:* ROUSH CleanTech, an industry leader of advanced clean transportation solutions, is a division of the global engineering company Roush Enterprises. ROUSH CleanTech develops propane autogas technology for medium-duty Ford commercial vehicles and school buses. With more than 37,000 vehicles on the road, the Livonia, Michigan-based company delivers economical, emissions-reducing options for fleets across North America. Learn more at [ROUSHcleantech.com](http://ROUSHcleantech.com) or by calling 800.59.ROUSH.

*(Case study completed in 2022)*

**ROUSH CleanTech inquiries:**

Chelsea Uphaus  
Chelsea.Uphaus@roush.com  
734.466.6710

**Media inquiries:**

Tracy Ruff  
tracy@tsncommunications.com  
877.411.3243 x809

**Blue Bird inquires:**

Gabrielle Young  
Gabrielle.Young@blue-bird.com  
478.822.2016