



MINNESOTA SCHOOL DISTRICT CUTS COSTS, WEATHERS WINTER WITH PROPANE SCHOOL BUSES

A PROPANE AUTOGAS CASE STUDY

ST. FRANCIS SCHOOL DISTRICT FINDS THAT PROPANE AUTOGAS PROVIDES A CLEAN, COMFORTABLE, AND COST-EFFECTIVE SOLUTION TO DIESEL

Independent School District 15, headquartered in St. Francis, Minnesota, is located in a rural community just north of Minneapolis. Comprised of nine surrounding schools, the school district educates more than 5,000 students; about 75 percent ride the bus to school each day.

DISPOSING OF DIRTY DIESEL

When ISD 15 researched ways to comply with new EPA guidelines for its buses, it sought a solution that wouldn't require costly diesel emissions reduction devices. After testing three propane-autogas-powered buses, ISD 15 ordered 38 Thomas Built Saf-T-Liner C2 school buses. During the 2015-2016 school year, 41 of the district's 51 buses will be powered by propane autogas. "Propane autogas provided countless benefits and at almost no cost: The buses were more efficient, easier to start, warmer in the winter, easier to maintain, and cleaner for the environment than diesel-fueled buses," said Dean Krause, ISD 15 transportation program supervisor.

CUTTING COSTS

"We've calculated that we're going to save about \$200,000 in fuel costs alone this year," said Krause. "Add those cost savings to the savings we'll see in maintenance, parts, downtime, and labor, and we'll likely see an ROI by the end of this school year."



COMPANY

Independent School District 15
St. Francis, Minnesota

CHALLENGE & SOLUTION

Tightening emissions regulations presented Independent School District 15 with two options: install costly emissions reduction devices on its diesel buses or adopt an alternative fuel. After a successful trial with propane autogas, the school district lowered its operating costs and improved driver experience.

RESULT

- Propane-autogas-powered buses crank reliably in the winter and don't require electric block heaters like diesel buses do, reducing the school district's electric bill by \$10,000.
- Propane-autogas-powered buses provide unmatched comfort for bus drivers, potentially leading to higher retention rates and job satisfaction.

ISD 15 uses 28 quarts of oil per oil change in its old diesel buses versus only 11 quarts of oil in its propane autogas buses. Additionally, diesel engines require two fuel filters while propane autogas engines require only one.

“Our old diesel buses were really starting to weigh us down with maintenance, repairs, and parts expenses,” said Krause.

“These maintenance costs may seem like small expenses, but they really add up over the life of the vehicle.”

— Dean Krause

WEATHERING WINTER

Propane autogas’ performance in cold weather was a key selling point for ISD 15. “Our electric bill for heating the diesel buses each year was around \$10,000,” said Krause. “That’s a huge cost that some fleets don’t take into account. With propane autogas, we don’t need block heaters. Propane-autogas-powered buses have no problems starting in the colder temperatures — they start right up in 30 below, every day, no questions asked.”

Propane-autogas-powered buses also warm up quickly on the inside without lengthy idle periods.

“School officials received frequent complaints from parents about the cold diesel buses,” said Krause. “So when we present them with a propane bus that would be warmer, cost less in maintenance and fuel, and that you could sit at the tailpipe and breathe the exhaust without getting sick, it was an easy sell.”

DELIVERING DRIVER SATISFACTION

ISD 15 is upgrading its refueling station to six 1,000-gallon tanks and two dispensers to service its 41 propane buses.

“Our local propane provider has been great through the whole transition,” said Krause. “They keep track of how much fuel is in the tanks through a tracking system so we never have to worry about running out of fuel like we did with diesel.”

ISD 15 school bus drivers each refuel according to his or her own schedule and route, and the propane-autogas-powered buses can be fueled in just five minutes. In the long run, Krause thinks propane autogas will help with retention of drivers.

“The drivers are absolutely thrilled with the new propane-autogas-powered buses,” said Krause. “I had a veteran driver test one of the original propane autogas buses and she told everyone, from the school board to community members, that it’s the best bus she’s ever driven.”



FOR MORE INFORMATION

To learn more about propane autogas, and the Propane Education & Research Council, visit propane.com/on-road-fleets.

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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.