Propane Autogas Fleet Case Study

SPOTSYLVANIA COUNTY IN VIRGINIA

Overview

Spotsylvania County is situated midway between Washington, D.C., and Richmond and is one of Virginia’s fastest growing counties. Craig Greenlaw, Director of Fleet Services for Spotsylvania County, said reducing greenhouse gas emissions and fuel costs has been a priority for the county’s 1,200-vehicle fleet. “We chose propane autogas for our fleet vehicles because of the win-win aspect: fuel savings and reduced emissions,” said Greenlaw. “Autogas burns cleaner than gasoline, and we’re saving money with every mile the autogas vehicles travel, compared to our gasoline vehicles.”

Making the Switch

In early 2011, Spotsylvania County was awarded funding assistance to convert 10 vehicles to propane autogas through the Southeast Propane Autogas Development Program (SPADP). The vehicle conversions began in October 2011 and were completed by December 2011. Greenlaw, who had been a proponent of autogas for many years and had even tried to encourage adoption of autogas in the county where he previously worked, joined Spotsylvania County as Fleet Services Director in November 2011. “I had been a supporter of autogas for a long time because of all of its benefits and the technology advancements, so it was exciting to finally be adding propane autogas vehicles to my fleet,” said Greenlaw.

Shortly after Spotsylvania County’s 10 conversions were completed, the county learned it had received funding assistance from SPADP for an additional 14 conversions. The second round of conversions was completed by August 2012. In all, the county has converted 20 sheriff’s cruisers and four school district trucks to run on autogas with a bi-fuel Prins VSI system through SPADP. Outside of SPADP, the county also has five Blue Bird school buses that run exclusively on propane autogas.

Working With Partner Vendors

Alliance AutoGas is an international network of conversion centers and fuel suppliers that offers a complete program to transition fleets to autogas. Alliance provides the autogas technology, vehicle installations, fuel supply, training and support for SPADP.

Spotsylvania County’s vehicle conversions were performed by two conversion centers: Baker Equipment in Richmond, Va., and American Alternative Fuel in West Coxsackie, N.Y. “Both conversion centers were top-notch,” said Greenlaw. “They were quick and efficient with the conversions, and they also provided thorough training to our county’s vehicle mechanics. We currently have three county mechanics certified to work on our autogas fleet, so in-house we can handle any maintenance needs that may arise.” Blossman Gas installed one fueling station in Spotsylvania County and also provides a year-round fuel supply. This fueling site is 500 gallons and is located centrally to accommodate their 24 autogas cruisers and trucks. The county school system also has a 10,000-gallon autogas tank at the vehicle service center dedicated to five propane autogas school buses.

Fleet Facts

Fleet Organization:
Spotsylvania County in Virginia
Director of Fleet Services:
Craig Greenlaw
Industry Type:
Law enforcement and school services
Began Running on Autogas:
October 2011
Autogas Vehicles in Fleet:
20 Ford Crown Victorias
2 Chevrolet 2500s
1 Ford E-250
1 GMC 2500
Estimated Annual Autogas Usage:
50,000 gallons
Est. Annual Fuel Cost Savings:
$70,000
Autogas Fueling Infrastructure:
One 500 gallon tank
“We haven’t had any problems with our drivers accessing the fueling stations, which was definitely one of the things we had to take into consideration,” said Greenlaw. “Other than that, the drivers received training on how to fuel the autogas vehicles, but there really wasn’t much to learn since the process is just like it is for a gasoline vehicle. Overall, I would say our partnerships and training from both Blossman and our conversion centers have been excellent.”

Results

Spotsylvania County is experiencing significant fuel cost savings with its autogas vehicles, and in the second quarter of 2012 alone, the county saved $1.88 per gallon on autogas compared to gasoline. With 24 autogas cruisers and trucks, Spotsylvania County will be saving approximately $70,000 in fuel costs each year, while also displacing more than 60 tons of greenhouse gas emissions.

Greenlaw says Spotsylvania County would see an ROI of 2 to 2.5 years for the parts and labor of additional autogas conversions in the future, based on gasoline and autogas price trends and the average annual mileage of county vehicles (anywhere from 20,000-30,000 miles per vehicle per year). If county funding is available, Greenlaw says he has every intention of pursuing additional vehicle conversions. “It just makes sense for our fleet, and it’s already been great for our county,” said Greenlaw. “It’s not often that you can say, the more you travel, the more you save.”

Greenlaw said officers driving the autogas vehicles have been even more supportive of the clean technology than he anticipated. While he did select drivers that were more open-minded to the alternative-fuel vehicles, Greenlaw said the vehicles ultimately spoke for themselves.

“Keep in mind our deputies spend an enormous amount of time in their vehicles – these are their offices – so we obviously need them to be comfortable with the technology and supportive of our goals for our autogas fleet,” said Greenlaw. “As it turns out, our drivers have been completely on board. The officers feel really good about the emissions reductions and the cost-savings they’re seeing from their own vehicles; but practically speaking, they like the autogas vehicles because they just perform better and run quieter. Not one of the officers with an autogas vehicle wants to fill up with gasoline.”

Greenlaw said that overall, the county has been pleased with the project, its partnerships, and with the new autogas vehicles. “I would tell any fleet interested in transitioning its fleet from gasoline, if you want a proven technology that reduces emissions and fuel costs, then propane autogas will be a great fuel for you.”

About the Southeast Propane Autogas Development Program

The Southeast Propane Autogas Development Program is comprised of public and private partnerships throughout 10 southeastern states, Denver and Pittsburgh. Over its four-year span, the Program will work with over 35 public and private fleets to put more than 1,200 clean autogas vehicles on the road and implement more than 30 autogas fueling stations (funded by the project and partner Alliance AutoGas). Supported by funding from the American Recovery and Reinvestment Act and the U.S. Department of Energy’s Clean Cities Program, it is managed and administered by the Virginia Department of Mines, Minerals and Energy and Virginia Clean Cites at James Madison University.

To learn more, visit www.usepropaneautogas.com or email info@usepropaneautogas.com. Virginia fleets interested in learning more about propane autogas should contact Jamison Walker with Virginia Clean Cities at 757-741-8435 or jwalker@vacleancities.org.