



NC CLEAN ENERGY TECHNOLOGY CENTER

GASTON COUNTY PUBLIC WORKS

A North Carolina Success Story

Fleet Spotlight

Gaston County Public Works is focused on reducing fuel costs with propane autogas. As a result of their initial positive experiences with the low-carbon fuel, the Public Works Department decided to double-down on the use of propane auto gas in their fleet by arranging for additional vehicle conversions.

Gaston County's first round of vehicle conversions included sixteen existing and new vehicles. Like the majority of fleets, Gaston County opted for a bi-fuel system meaning that their vehicles would be able to switch between gasoline and propane- even while driving.

Organization Details

Fleet Name	Gaston County Public Works
Location	Gastonia, NC
Number of vehicles	31
Emissions Reduction	19 Metric Tons
% Using Tech	7%
Type of Technology	LPG



LPG station used by Gaston County Public Works

This procurement was supported with grant funding from the NC Clean Energy Technology Center's CFAT program which was able to reduce the incremental or added cost of the conversion systems. Because propane autogas is already significantly less costly than gasoline, grant funding accelerated the fleet's return on investment and provided an opportunity for the fleet to demonstrate Total Cost of Ownership (TCO) savings.

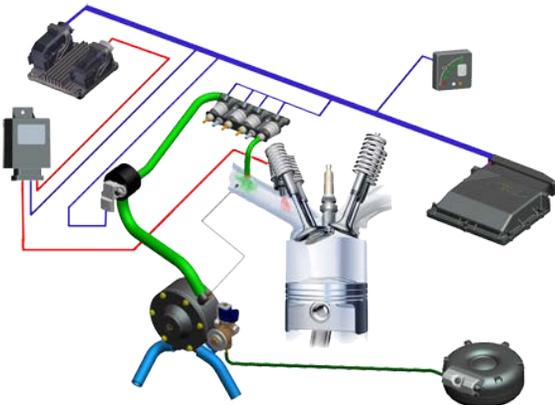
These sixteen vehicles included one for Public Works, one for Parks and Recreation, four for the Sheriff Office's prisoner transportation operations, three for the Sheriff Office's administration office and seven for Gaston County Access Transportation System vehicles. Based on the success of this conversion project, Gaston County Public Works applied for and was awarded additional funding for eight additional LPG vehicle conversions in a subsequent round of CFAT funding.

Combined, these two rounds of procurement converted 31 vehicles or 7% of Gaston County Public Works' fleet to propane autogas.

Outlook

Michael Lee, Project Coordinator, agreed that there have been many environmental benefits as well as ancillary benefits stemming from the adoption of propane. What has been appreciated the most by Gaston County is that propane technology is solid and reliable. LPG burns cleaner in their vehicles and has less wear and tear on engines, which in turn reduces the maintenance needed for internal parts. Along with the reduction of emissions and improving air quality, one of the other leading motivators for the selection of this clean transportation was the high cost savings.

Conversion systems used in these two rounds of vehicles will likely outlive the vehicles they have been paired with. At the end of each vehicle's useful life, Lee plans to move the propane auto gas system to a new vehicle. Gaston County plans for the systems to be in service through two full vehicle lifespans.



Main Components of a Vapor Injection System



“The PRINS system technology has proven sound and reliable and delivers as advertised. Not only are we helping to reduce vehicle emissions in the EPA non-attainment area, but we are saving Gaston County citizens thousands of dollars a year”

~Michael Lee

Contracts/Projects Coordinator, Gaston County Public Works

Clean Fuels Advanced Technology Project 2013-2015

This project is one of over 50 supported by the 2013-2015 phase of the Clean Fuel Advanced Technology (CFAT) project funded by the N.C. Department of Transportation with \$6.2 million in federal Congestion Mitigation Air Quality (CMAQ) funding.

CFAT is focused on reducing transportation related emissions in the 24 North Carolina counties that have air quality concerns and are listed as non-attainment or maintenance status for national air quality standards. The 2013 to 2015 project covers three broad areas: education and outreach, emission reduction technology sub award funding, and recognition of exemplary activities.

The N.C. Clean Energy Technology Center teamed up with the Centralina Clean Fuels Coalition, the Triangle Clean Cities Coalition, Piedmont Triad Regional Council, Upper Coastal Plain Council of Governments and Kerr-Tar Council of Governments on education and outreach activities throughout the state. These partners are available to speak about clean transportation technologies and practices at local events.

Contact

For more information about this project, please contact Centralina Clean Fuels Coalition, 704-372-2416

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