

## CASE STUDY: MOUNTAIN MOBILITY

### BACKGROUND

Mountain Mobility is a transportation services provider for the general public and a wide range of organizations just outside Asheville, North Carolina. Established by Buncombe County in 1989 to provide for a few core human service agencies, the fleet has now grown to 37 vans and five small buses, with a mission not only to provide transportation services, but also to “assume a leadership role in developing public and private partnerships within the community to address the increasing demand for transportation throughout the region.”

Forward thinking transportation agencies are always searching for ways to control costs and demonstrate environmental stewardship. This desire for innovation led Mountain Mobility to team with Alliance AutoGas for the launch of their propane autogas clean-vehicle program.

### THE PROGRAM

“Making the switch to a propane autogas system was an easy decision for the Buncombe County Commissioners to make, after learning about the environmental benefits, fuel savings and lower-maintenance advantages of propane autogas,” says Lori Hembree, Director of Mountain Mobility.

### WORKING WITH ALLIANCE AUTOGAS

Alliance AutoGas was a natural fit for Mountain Mobility because it provides vehicle conversion, fueling infrastructure and the fuel itself in one integrated process. The project’s vehicle conversions were performed by German Motor Werks of Asheville, N.C., and the fueling is supplied by Blossman Gas, Inc. of Ocean Springs, Miss., both Alliance AutoGas partners.

In addition to converting the vehicles, German Motor Werks trained the Mountain Mobility maintenance personnel on the new systems and also houses a fueling station the drivers (and public) can use, making this clean-burning and economical fuel more widely available.

Blossman installed an onsite fueling station at Mountain Mobility to increase the ease of use for drivers and overall convenience for the fleet. The 1,000 gallon fueling infrastructure, which Blossman provided at no upfront cost to Mountain Mobility, will be a “major plus for the program,” according to Hembree.

Mountain Mobility’s 10 autogas-powered vans operate on the bi-fuel Prins VSI system provided by Alliance AutoGas equipment provider, American Alternative Fuel. The bi-fuel systems allow Mountain Mobility’s drivers a reserve capacity in the event that an autogas fueling station is not accessible.

The transferability of the Alliance conversion system particularly impressed Mountain Mobility. When vehicles are retired from the fleet, the conversion system can be transferred to any vehicle with the same number of engine cylinders, for which American Alternative Fuel can provide an EPA certification; then the retired vehicle can be re-sold in its original configuration.



Lori Hembree, Director  
Asheville, North Carolina

### FLEET STATISTICS

#### FLEET TYPE:

Public Transportation

**PERCENT OF FLEET RUNNING  
ON AUTOGAS: 25%**

**AUTOGAS VEHICLES IN FLEET:  
10** (Ford E-350 paratransit vans)

**TOTAL ESTIMATED ANNUAL  
SAVINGS: \$53,096** for 10  
vehicles

**ADDITIONAL VEHICLES SLATED  
FOR AUTOGAS CONVERSION:  
Pending additional funding**

**ANNUAL MILEAGE (per vehicle):  
71,428**

**AUTOGAS FUELING:**  
Onsite autogas fueling infrastruc-  
ture, including 1,000-gallon autogas  
tank; access to public autogas  
fueling station at German Motor  
Werks in Asheville.

**TIME OPERATING ON AUTOGAS:  
6 months**

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### RESULTS AND AUTOGAS BENEFITS

Mountain Mobility benefited immediately from savings with autogas. Now, with the local public autogas station charging significantly less per gallon than gasoline, estimated annual savings are accelerating. Mountain Mobility also expects an annual maintenance cost reduction with the autogas-powered vans, due to fewer oil changes, lower filter costs and other related vehicle maintenance savings. If current fuel prices hold, Mountain Mobility will save an estimated \$53,096, this year alone, with just 10 vehicles. If fuel prices rise, savings will increase.

The reduction of toxic vehicle emissions tops Mountain Mobility's priority list, and with autogas, they will experience an average 20 percent reduction in harmful greenhouse gas emissions. In addition to its clean-burning properties, 90 percent of autogas is made in America, so using autogas reduces U.S. dependence on foreign oil and enhances national energy security.

Hembree considers "total driver buy-in" to be a significant merit of the program. She notes that because of the amount of time Mountain Mobility drivers spend behind the wheel, they are especially aware of even the slightest variance in vehicle performance. She was pleased to hear drivers cite "better performance" with the autogas vehicles. Drivers have experienced greater acceleration with the propane-powered systems, especially when merging onto the interstate and climbing hills.

### MOVING FORWARD

Mountain Mobility is impressed with the changes that have accompanied the decision of the Buncombe County Commissioners to convert these fleet vehicles to propane autogas and is eager to increase use of autogas-powered vehicles in the future. Hembree says, funds permitting, "Mountain Mobility would absolutely convert other fleet vehicles to propane autogas." She hopes to see state-level adoption and support of these systems among similar organizations throughout North Carolina.

Mountain Mobility will continue to track the benefits they are receiving from using propane autogas. "Since we have only had the vehicles for six months," Hembree explains, "we have not begun to see the benefits of lower maintenance and longer engine life that we know will come with using propane autogas."

Hembree is positive about the future of their autogas program: "We believe these vehicles will save us a lot of money and a lot of emissions over the course of their lives."

