



# CNG

# FLEET INTEGRATION

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## BLUEFIELD Area Transit

## OVERVIEW

To adapt to the changing industry and to lower our operating and maintenance expenses, Bluefield Area Transit (BAT) introduced Compressed Natural Gas (CNG) into our fleet. Our goal was to evaluate the cost effectiveness of converting to CNG. While we add numerous vehicles every year, an alternative fuel vehicle brought unique hurdles and challenges.

## MAJOR STEPS

- The City of Bluefield wanted to raise public awareness about its adoption of alternative fuels, which included the addition of a CNG bus to BAT's fleet
- Performed a needs analysis to determine how to successfully integrate the new CNG vehicle
- Addressed deficiencies in BAT's operations found during analysis to complete the implementation

## WHAT I LEARNED

As I complete this project, I have realized that though there are many technical challenges in a successful CNG implementation, the benefits outweigh its shortcomings. It is a clean burning environmentally friendly fuel. Due to its clean burn, engine life is often extended. It is cost effective and cheaper than traditional fossil fuels. Additionally, it is domestically produced in the United States.

## SCAN FOR MORE INFO



AFFILIATIONS: CITY OF BLUEFIELD, WEST VIRGINIA \* GEORGE DAMON, BLUEFIELD GAS \* ANDREW CLAWSON, ROHRER BUS \* JAMES AND DENNIS O'DONNELL, ALTERNATIVE FUEL SOLUTIONS \* MERCER COUNTY TECHNICAL EDUCATIONAL CENTER

## IMPLEMENTATION CONSIDERATIONS



### CNG FUEL PROVIDER SHORTAGES

Rural locations face supply issues due to a shortage of fill stations.



### CNG VEHICLE STORAGE REGULATIONS

Building codes to house CNG vehicles differ greatly from traditional fuel requirements. HVAC, ventilation, electrical, and detection systems are critical components in storage.



### LACK OF QUALIFIED CNG SERVICE TECHNICIANS

The fuel delivery system of CNG vehicles requires specialized skills that are difficult resource to locate in many markets..

## RESULTS

To address CNG shortages, BAT found a short-term provider and established a goal to construct a fill station on our premises.

BAT located a certified CNG vehicle inspector to advise us on storage regulations and the changes we need to make to bring our facility within regulation.

To meet the skills gap, BAT mechanics received CNG training from an organization that specializes in producing CNG conversion kits. With the help of this company, we are establishing a course for our local vocational center in hopes of addressing the technician short-

Based on this initial experience, the City of Bluefield is now planning to proceed with adoption of CNG into its other departments.