



Overview

In 2010, Scott Appalachian Industries (SAI) built a public CNG station in Scott County, Tennessee. Quickly after construction on the fueling station began, the company converted seven shuttle buses to bi-fuel; two were converted through BAF, two through Altech-Eco, and three in-house. SAI is converting another Ford F350 to bi-fuel CNG.

Program Participation

The station and vehicle conversions were funded by SAI.

Project Motivation and Implementation

SAI's enthusiasm for this project started with their executive director, Larry West. He stated, "We should demonstrate how to save money using CNG. We should show that we're willing to do it ourselves." West had prior experience working with CNG from using two NGVs in the mid 80s. He likes the fuel and decided to take the opportunity to help it grow.

West led the effort in building Scott County's first CNG fueling station. The county decided to build a public station instead of a private station to assure that all citizens have access to CNG. The build and design of the CNG fueling station began in 2010 and took about a year to complete.

SAI converted their first two vehicles to dedicated natural gas through BAF in 2010 shortly after the fueling station was built. They converted their next two vehicles through Altech-Eco in the same year. All subsequent conversions have been completed in-house and all future conversions will continue to be converted in-house.

SAI encountered a few barriers with this project. The costs associated with vehicle maintenance were higher than expected, and the demand for CNG fuel was lower than expected. EPA rules and regulations were also unclear, which made the process of converting the vehicles more difficult.

Fleet Facts

Organization:

Scott Appalachian Industries (TN)

Executive Director:

Larry West

Industry Type:

Healthcare Service Agency
Government

Conversions Began:

2010

Vehicles Converted:

Seven CNG Ford F250/350s

CNG Fueling Infrastructure:

Scott County CNG Station



Results

Executive Director Larry West is very satisfied with the payback on SAI's shuttle buses. He estimates that by the end of the buses' lifetime, SAI will have saved \$5,000 - \$10,000 on each vehicle. If they run the buses longer than 200,000 miles (which they anticipate), the savings may be \$5,000 higher.

Despite the overall success with the vehicles, the CNG fueling station has not been as successful as West had hoped. There have been a few other conversions around the Scott County area by the local residents, which has helped the station, however, the number of customers is not enough. West anticipates he will have to raise the price of the natural gas to offset the cost of running the station. Although the station is not doing as well as hoped, SAI and residents are still saving money by purchasing CNG over petroleum.

SAI still sees much support and enthusiasm from the local people. The amount of petroleum being reduced grows each year, and West expects the station to achieve greater success in the future.

Lessons Learned and Next Steps

SAI will be doing all future conversions in-house. Both BAF and Altech-Eco require all maintenance to be done in their facilities, which is an issue as BAF is located in Dallas and Altech-Eco is located in Asheville. West learned throughout the process that converting fleet vehicles in-house cut the overall project cost in half, with the only downside being that these conversions are not EPA certified. SAI acquired four minivans from DOT, and West notes that the conversion kit they require must be EPA-approved. However, SAI has F250s and F350s and plans on converting all of them.

As for the station, West stated, "To build a station, you need to have a big demand. The bigger the demand the more practical it is to build the station." SAI expects to see more success at the station as soon as gas prices go up again. West says, "As the need for CNG grows, we'll have to expand the station and invest more money to make it stronger. When gas prices jump again, we're sitting with a cheaper, more reliable fuel."



For more information on this and other alternative fuel and advanced technology vehicle programs contact: Kristy Keel-Blackmon, Project Facilitator at the East Tennessee Clean Fuels Coalition, by phone: 865.974.9665 or via email at kristy@etcleanfuels.org. The East Tennessee Clean Fuels Coalition is a designated Clean Cities Coalition by the U.S. Department of Energy.

For specific information regarding the SAI project, contact: Larry West, Executive Director. Phone: 423.663.9300