



NC CLEAN ENERGY TECHNOLOGY CENTER

Clean Transportation Success Story

WASTE MANAGEMENT

A North Carolina Success Story

Company Spotlight

In 2003, Waste Management committed to reducing GHG emissions through increased recycling, alternative transportation fuels, and the beneficial use of renewable (landfill) natural gas. The natural gas fleet is part of the company's environmental sustainability initiative to direct capital spending of up to \$500 million per year over a 10-year period with the goal of reducing fleet emissions by 15% and increasing fleet fuel efficiency by 15% by 2020. With more than 2,200 natural gas vehicles deployed nationwide, their efforts have made them a local and national leader in the deployment of clean-fueled solid waste collection vehicles. Waste Management's long-term vision is to use natural gas across all of its operations, preferably utilizing renewable natural gas from its landfills.

Project Details

Fleet WM of the Carolinas

Location: Gastonia, NC

Annual Fuel Use 243,000 DGE

Emission Reductions: 187.4 Tons CO₂/Annually

Type of Technology: CNG Fueling Station



The new public access retail CNG dispensers, a new CNG fueled collection vehicle and the Waste

Waste Management of the Carolina's (WMC) operations in Gastonia NC consist of 34 CNG powered refuse vehicles and 20 light duty CNG service vehicles, with plans to increase the refuse fleet to 37 compressed natural gas (CNG) by 2020. In 2014, this Greater Charlotte CNG Project opened a CNG fueling station to add reliable onsite fueling to support their CNG fleet with 54 time-fill fueling stalls. This allows the vehicles to be filled overnight and be ready to roll at the start of the morning shift. The station also supports additional fleet customers and members of the public through two retail fast-fill dispensers.

Drivers and managers like the CNG trucks, because they are quieter and have lower fuel costs. In addition, drivers also say that the vehicles operate more like gasoline fueled cars instead of diesel trucks. Mechanics have found that it is easier to keep their hands clean because the CNG engines are cleaner. By 2020, the amount of CNG fuel that will have been used at the Waste Management Gastonia facility is estimated to be 1,462,000 DGE.

Outlook

Waste Management's Gastonia facility received \$200,000 in CFAT funds from the NC Clean Energy Technology Center towards its 3S2-Fleet Fueller Twin Compressor Skid. The total cost for the entire fueling station was approximately \$2.5 million. The Gastonia facility is reaching out to interested potential fleet customers and members of the public to increase awareness of the air quality benefits of CNG and to encourage them to make use of the retail dispensers. Waste Management of the Carolinas participates in the NC Clean Energy Technology Center's Smart Fleet Program which measures progress in displacing petroleum based fuels and use of alternatives to petroleum based fuels. Overall, the Waste Management Gastonia facility reduces the air pollutants and emissions caused by its own fleet, which has an impact on the surrounding neighborhoods, contributing to improving local air quality and public health.



The new Waste Management CNG vehicle fueling using time-fill

“Waste Management is excited about our compressed natural gas fleets which bring benefits to the local community and also make our operations more cost effective!”

***-Amanda Fairley, Sustainability Manager,
Waste Management of Carolinas, Inc.,
Gastonia, NC***

Clean Fuels Advanced Technology Project 2013-2015

The third phase of the Clean Fuel Advanced Technology (CFAT) project is supported 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 grants, and recognition of exemplary activities.

The N.C. Clean Energy Technology Center has 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
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