



NC CLEAN ENERGY TECHNOLOGY CENTER

CHARLOTTE AREA TRANSIT SYSTEM (CATS)

A North Carolina Success Story

Fleet Spotlight

The Charlotte Area Transit System, better known as CATS, is the largest transit system in North and South Carolina. In 2013, CATS served 26 million riders with service provided via bus, vanpool, special ADA equipped buses and rail transportation. The CATS Vanpool program provides vehicles, gas cards, insurance, and maintenance to a group of people who live and work near each other and have similar commuting schedules. The Vanpool program allows commuters with similar schedules to share a van in their daily commute; one of the passengers is the primary driver and another is the backup driver. The



One of CATS passenger vanpool vehicles

Project Details

Fleet Name	CATS
Location	Charlotte, NC
Number of Vehicles	100 vans
Emission Reduction	56 tons of CO ₂ /year
% Using Tech.	100% of vans
Tech. Type	Telematics
Funding Support	\$75,550

primary driver rides for free. The vanpool system allows groups of commuters who live outside an area usually served by the regular, fixed route system to share a vehicle, which reduces the overall number of cars on the road and their associated emissions as well as providing additional transportation options for commuters. The Vanpool fleet is made up of both 7 passenger minivans and 15 passenger vans.

CATS selected to install telematics on vanpool fleet vehicles because it was their only system that did not have a telematics system. The telematics system allows CATS to effectively manage the vanpool drivers and their driving behavior by providing alerts when drivers trigger events such as speeding, hard braking and accidents. CATS reduced the fuel used by their vans by 4578 gallons during the first year of use, about 45 gallons per vehicle.

The fuel efficiency they were achieving on their vehicles improved from an average of 16 MPG to 17 MPG. The fuel saved represents an estimated 56 tons of greenhouse gas emissions avoided per year.

The benefits of vanpool telematics include improved driver behavior, route optimization, and reduction in fuel consumption. CATS also observed safer driving behaviors after installing telematics. Speeding incidents dropped 6.9%. In addition to being a safety concern, speeding reduces fuel efficiency.

Clean Transportation Goals

CATS has purchased 28 hybrid-electric buses for its fleet of 325 buses. The CATS facility where the buses park during off-peak times has a solar canopy. This solar canopy not only provides power to the facility but also shades the buses to reduce start-ups and the heat inside the cabins. The facility also recycles the car/bus wash water and recycles the oils and fluids from the vehicles. The city of Charlotte is investigating the benefits of consolidating the citywide motor pool vehicles to better utilize the vehicles and reduce costs. If so, CATS would manage the city wide motor pool vehicles.



This van can accommodate up to seven passengers at one time.



“Telematics help us to strengthen our vanpool program by giving us the information we need to educate drivers on individual driving habits that directly affect safety, efficiency and air quality.”

***~Dietrich Brown
Asst. General Manager, Special
Transportation Service***

Clean Fuels Advanced Technology Project 2013-2015

The Clean Fuel Advanced Technology (CFAT) project is currently in a third phase of support from 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 is funded by the N.C. Department of Transportation and covers three broad areas: education and outreach, project funding, and recognition of exemplary activities.

The NC 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 Centralina Clean Fuels Coalition, 704-372-2416

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