

Clean Fuel Advanced Technology Success Story: Union County Public Schools and Town of Stallings

NC STATE UNIVERSITY



Project

A total of \$2M in funding was provided to the NC Solar Center at NC State University by the NC Department of Transportation, State Energy Office and Division of Air Quality for the Clean Fuel Advanced Technology Project to reduce transportation-related emission in NC counties that do not meet national air quality standards. Union County Public Schools was awarded \$100,000 to install 20 Diesel Multi-Stage Filters (DMF) with Spiracle Crankcase Filtration Systems (CFS) on Freightliner school buses. DMFs are mufflers that use a two-stage, maintenance-free filter to trap and reduce emissions. The Spiracle CFS eliminates crankcase emissions, and is especially effective in reducing emissions caused by idling. The Town of Stallings was awarded \$6,393 to purchase a Neighborhood Electric Vehicle (NEV). NEVs are a low-speed vehicle that run on electricity and can be recharged using a 110-volt outlet.

CFAT Impact by the numbers

Emissions Reductions

3,069 kg CO₂/yr
57 kg VOC/yr
245 kg CO/yr
28 kg PM/yr
1 kg NO_x/yr

On the Road to Success:

- UCPS installed the 20 mufflers and filtration systems on 2005 and 2006 model school buses in order to maximize use of the technology.
- As part of the NC Clean Diesel Campaign, Union County Public Schools worked with the Carolina Clean Air Coalition on education and outreach, as well as other emissions reduction strategies.
- UCPS operates 391 buses, transporting 25,000 students to and from school and driving 22,000 miles a day.
- The NEV is used by the Town maintenance crew to haul equipment and materials to and from the Stallings Town Park and around the downtown area. The Town estimates that it saves at least \$100 a month by using the electric vehicle instead of a 3.0L 6 cylinder gasoline-powered pick-up truck.



Additional Accomplishments

- Prior to the CFAT program, Union County Public Schools already had pollution control devices on 26 school buses.

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For more information about Clean Transportation projects at the North Carolina Solar Center visit

www.cleantransportation.org

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