



# NC CLEAN ENERGY TECHNOLOGY CENTER

## UNC CHARLOTTE

A North Carolina Success Story

### Fleet Spotlight

UNC Charlotte is North Carolina's urban research university, and an organization that prides itself on fleet management. The university utilizes a variety of alternative fuel vehicles, leverages fuel efficient gasoline options and uses route optimization to reduce costs and achieve sustainability goals.

At UNC Charlotte, petroleum reduction efforts are enabled with top-down support. The University, emboldened by the support of the Associate Vice Chancellor, endorses green procurement options.

### By the Numbers

|                   |                 |
|-------------------|-----------------|
| Fleet Size        | 496 vehicles    |
| Total VMT         | 1,808,137 miles |
| Percent On-Road   | 57%             |
| Percent Off-Road  | 43%             |
| Vehicles > 30 MPG | 19%             |



Neighborhood Electric Vehicles (NEVs) are an important part of UNC Charlotte's fleet.

Vehicle purchases go through the Automotive Department where scope and alternative fuel usage are evaluated. Often this includes education and counseling on different clean transportation options to departments on campus that request vehicles.

To date, the University operates a fleet that includes 85 electric vehicles and 59 flex fuel vehicles.

Route optimization is also a key element of UNC Charlotte's success. Though the entire campus has only 12 miles of roads, in previous years the fleet averaged well over 2 million vehicle miles traveled (VMT) annually. By consolidating maintenance and facility operations into campus zones, the university reduced the need for staff to make trips across campus. The effects were doubled down on by encouraging employees to carpool between those newly created zones. As a result, VMT declined to just over 1.8 million miles despite an increasing operations tempo.

## Long Range Planning

UNC Charlotte has committed to E85 and electric as its two alternative fuel options, and directly informs its decisions to purchase alternative fuel vehicles through maintenance cost tracking that is specific to individual vehicles. When it is time to replace a vehicle, management bases its decision on three criteria: (1) Can the vehicle be replaced with an electric? (2) Can the vehicle be replaced with a more efficient vehicle and produce the same work? and (3) Does the utilization justify the purchase and use of this vehicle?

The result, year to year, is an optimized fleet that leverages all of the advantages of alternative fuels while also using right sizing and route optimization to meet sustainability and cost goals.



The UNCC Fleet Management Team



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***"I am honored to carry on the good work started by my predecessor and appreciate the top-down support from Associate Vice Chancellor Phil Jones."***

***Christopher Facente, Automotive Supervisor***

## Clean Fuels Advanced Technology Project 2013-2015

This project was one of over 50 supported by the 2013-2015 phase of the Clean Fuel Advanced Technology (CFAT) project funded 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 sub awards, and recognition of exemplary activities.

The N.C. Clean Energy Technology Center 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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