Centralina Clean Fuels Coalition (CCFC): Clean Fuels Advanced Technology (CFAT)

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Clean Cities / 2

Clean Fuel Advanced Technology
2013-2015

“focused on reducing transportation related emissions in NC counties that have air quality concerns”

Project Education & Outreach Partners:

Kerr-Tar Regional Council Of Governments

Triangle Clean Cities Coalition

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State of North Carolina
Department of Transportation

Funded by the N.C. Department of Transportation with Congestion Mitigation Air Quality Funds.
North Carolina's Current Ozone Attainment, Nonattainment, and Maintenance Areas

24 counties do not meet national air quality standards for ozone.
Health Impacts of Emissions

Ozone & Particulates can lead to:

- Asthma Attacks
- Chest pain
- Wheezing and coughing
- Shortness of breath
- Inflammation of lungs

42% of the nation lives where pollution levels are dangerous

http://www.stateoftheair.org/2013/key-findings/

http://www.epa.gov/glo/health.html
There is no silver bullet!

- Efficiency
- Vehicle Miles Traveled (VMT) Reduction Programs
- Idle Reduction
- Alternative fuels
- Advanced technology vehicles
First Round of CFAT Funding

- Over $1.7 million awarded
- Over 275 vehicles outfitted
- 21 EV recharging stations
- 6 Alt. Fuel stations – CNG, LPG & Biodiesel
- Will remove over 60 metric tons of pollutants annually.

- CCFC Region Recipients
  - Celgard: EV charging
  - CATS: Telematics
  - CMS: LPG conversions
  - CSWS: CNG upfits
  - Duke Energy: Diesel locomotive
  - Gaston County: LPG conversions & EV charging
  - Stevens Sausage: LPG conversions
  - Waste Management: CNG station
Duke Energy – Locomotive

- Replacing 1966 EMD SD40, 3000 HP Locomotive – 15 gal/hr
- With a repowered RailServe LEAF Gen-Set Locomotive, 600 HP Tier-3, 3 gal/hr

<table>
<thead>
<tr>
<th>Per Year Emissions</th>
<th>1966 Locomotive</th>
<th>LEAF Locomotive</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nox (tons)</td>
<td>68</td>
<td>7.74</td>
</tr>
<tr>
<td>PM 2.5 (tons)</td>
<td>1.43</td>
<td>0.1</td>
</tr>
<tr>
<td>HC (tons)</td>
<td>3.675</td>
<td>0.38</td>
</tr>
<tr>
<td>CO (tons)</td>
<td>11.8</td>
<td>0.0</td>
</tr>
<tr>
<td>CO2 (tons)</td>
<td>432</td>
<td>86.6</td>
</tr>
</tbody>
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**A reduction of 80-92% emissions and 80% diesel fuel consumption**
Contact Information

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