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FALL 2010

Triangle Clean Cities Coalition

Fueling Alternative Choices Today

2011 TCC Grant Recipients

Triangle Clean Cities has awarded four organizations a total of \$45,000 in grants for implementing alternative fuel demonstration projects. Chapel Hill Transit, Heritage Propane, UNC Facilities Management and the City of Raleigh make up the four organizations. The grants will be matched with nearly \$130,000 in non-federal funds.

Chapel Hill transit received a \$9,015 grant to develop a pilot project that will study the use of biodiesel (B20) in their transit fleet. The goal of the project is to demonstrate the potential for widespread use of biodiesel in the entire transit fleet by better understanding the feasibility, benefits, and cost-effectiveness of the alternative fuel source.

Heritage Propane was awarded a \$16,485 grant to be used for reducing emissions, dependency on petroleum, and lowering the cost to operate commercial lawn equipment in the Triangle Area. The goal of the project is to convert qualified existing commercial lawn mowers to propane, an approved alternative fuel designated in the 1990 Clean Air Act. The propane conversions will reduce Greenhouse Emissions by 30% and other harmful emissions of each commercial lawn mower by 75-80%. Each conversion will reduce the cost of

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1st Annual Regional Biofuels Forum

Over 200 people came out to hear Major General Carl Jensen speak at a biofuels forum at the Jones County Civic Center on August 11th, 2010. Major General Jensen is the Marine Corps Installations East commander for an area that ranges from Florida to Virginia and that includes Cherry Point air station.

The Military Growth Task Force hosted the event to grow the biofuels industry to help the military keep land around its bases rural through farming and meet its renewable energy targets. Major General Jensen believes that locally produced biofuels could help the Marines meet the "considerable" renewable energy goals required by federal law.

Major General Jensen said that he has already had discussions about buying more biofuels with the Defense Energy Supply Center, which provides fuel to the military. He said that encouraging their production could help curb development potentially harmful to the military and encourage farming.

"It's just starting out, but I'm excited about the prospect of partnering with our farmers and the great state of North Carolina" he said.

Kathy Boyer, the Energy and Environment Program Manager from Triangle J Council of Governments, was one of the speakers who attended the forum and spoke on how to implement biofuels in fleets. TJCOG along with many other organizations will continue to partner further with the Military Growth Task Force to reach out to the agriculture industry in Eastern NC to further alternative fuels production and use.

Other keynote speakers who attended the forum were Steven Burke, President & CEO of the Biofuels Center of North Carolina, who talked about the state's goal for producing liquid biofuels; Mark Thomson, from IDEA Engineering, who spoke as a representative of Bioenergy International, an Austria-based supplier of solutions



The Military Growth Task Force hosted a regional biofuels forum to help the meet renewable energy targets and preserve farmland around bases.

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2011 TCC Grant Recipients

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operation annually by 30-40% and reduce the dependency on foreign oil/petroleum products between 1,000- 1,200 gallons per mower per year.

The UNC Facilities Management was awarded a \$16,500 grant to add a 500-gallon B20 tank to their current fueling infrastructure. Their goal is to convert most of their 53 diesel vehicles to using B20 within 6-12 months. The UNC Facilities Management will decrease their diesel fuel by 2,400 gallons per year once all of the diesel vehicles are converted to using B20.

The City of Raleigh was the final grant recipient. The City of Raleigh received \$3,000 to help convert 10 police vehicles to run on propane. The grant will help with the cost of infrastructure such as concrete pads, bollards, fencing, and trenching electrical wiring for monitoring, and reporting.

Grant funding was made possible through funding from the NC State Energy Office.



Heritage Propane was awarded \$16,485 to reduce emissions of commercial lawn equipment.

2010 NC State Fair

Triangle Clean Cities partnered with Green NC at the 2010 NC State Fair. The fair ran from October 14-24th and was open from 9:00am-10:00pm. The Triangle Clean Cities booth was located in the Green NC tent just inside Gate 11 and focused on idle reduction. Idle reduction is composed of practices aimed at preventing vehicle idling from occurring. Vehicle idling is when someone leaves their car running while it is still parked. Most drivers waste one to two tankfuls of gas each year just by idling.



The theme of this year's kiosk at the 2010 NC State Fair was "Idle Reduction"

The Triangle Clean Cities Coalition's goal this year was to let everyone know what vehicle idling is and the negative effects that it causes to the environment. TCC offered a fun interactive game that informed the participants about the effects of vehicle idling and gave them information on idle reduction strategies that would help prevent vehicle idling from occurring. Some idle reduction strategies that you can use are turning off your car (when not in traffic) if you are idling longer than 10 seconds and turning off your car when you are waiting in traffic lines at school. In addition, TCC had over 400 people sign a pledge saying that he or she would stop vehicle idling from occurring in his or her community.

Throughout the period of the fair TCC had Rich Cregar, a professor at Wake Tech Community College, give two presentations. One presentation was on Biofuels (Biodiesel and Ethanol) and the second presentation was on electric transportation.

Overall our booth at the fair was a huge success and we look forward to working at the 2011 State Fair.

Upcoming Grants

Biofuels Center of NC: <http://www.biofuelscenter.org>

Twelve Bold Innovative Projects: Accelerating Biofuels Commercialization Across North Carolina. Required pre-proposals are due 22 November 2010 and full proposals are due 30 December 2010.

United Soybean Board: <http://usb.soybiobased.org>

The United Soybean Board (USB) looks forward to another year of work with Clean Cities chapter programs on biodiesel as well as biobased products outreach.

NC Division of Air Quality: The *NC Diesel Emission Reduction Grant* is accepting applications for diesel emission reduction projects only. <http://www.ncair.org/motor/DERG/>

Funding for Auxiliary Power Unit and 2010 Compliant Truck Rebates has been extended until March 31, 2011. <http://www.ncair.org/motor/Rebates/>

1st Annual Regional Biofuels Forum

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for industrial utilization of renewable energy resources; and Daniel Burciaga, President & CEO of ThermoChem Recovery International in Durham, NC, who gave some perspective as a business owner and operator of a biofuels facility.

Over lunch, the Commissioner of the North Carolina Department of Agriculture and Consumer Service, Steven Troxler, delivered an energetic speech to the crowd. "This is a wonderful opportunity we have here today," he said. "North Carolina is a little late getting into the green game, but we have the resources here to do it. We need to seize this opportunity and seize it quickly." Furthermore, Steven Troxler continued to recognize how farming has impacted our economy for generations. "Farming is the bedrock of North Carolina's economy. You only need to take the scenic routes when you travel to see North Carolina's forestry and farming potential for biofuels."

Exhibitors from across the state set up informational booths to provide additional biofuels materials and to answer questions. Some of the exhibitors included NC Military Business Center, Biofuels Center of NC, and the ADFP Trust Fund etc. The forum also featured the Craven County AG Biofuels bus, a traditional school bus that has been converted into a mobile biodiesel plant. People were allowed to take tours of the bus and were able to see biodiesel production up close.

Overall the forum was a huge success. Many organizations are now coming together to help further the Military Growth Task Force's goal of increasing their use of renewable energy.

Duke University Fleet Maintenance

This issue's Stakeholder Spotlight is on Duke University. Duke University has been a strong supporter of Triangle Clean Cities from its inception in 1999. Triangle Clean Cities is currently working with their Fleet Maintenance Department to understand how their program utilizes alternative fuel vehicles. Joe Jackson, former chair of the Coalition and Director of Grounds, Sanitation and Recycling Services, recognizes the importance of using alternative fuels and would like to continue implementing them as much as possible.



**stakeholder
spotlight**

Currently, Duke has 20 neighborhood electric vehicles (NEV) and 25 compressed natural gas (CNG) vehicles. The vehicles are typically used by maintenance, plumbing, and electrical staff and are dispersed throughout Duke's campus.

The Fleet Maintenance has set up easily accessible charging stations for the vehicles to use around campus. The Fleet Maintenance uses 10 110/120 volt outlets for overnight charging, and one DC Fast Charge charging station that charges 80% of the battery in under 30 minutes. The charging stations have been in place for approximately 6 months and David Bryant, Superintendent of Fleet Maintenance, said they have had great success with the stations. Bryant said that the fleet maintenance made sure that all of their electric vehicles were adaptable to the charging stations, which would prevent any plug issues from arising.

David Bryant mentioned that some people are still unsure if CNG vehicles are reliable because they are worried they will run out of fuel. Bryant works to assure his employees that the vehicles are very reliable and safe and that switching to an alternative vehicle is something that is beneficial for everyone. The only issue he has seen to date is that the fuel tanks on the vehicles have almost reached their useful life of 15 years. They will begin replacing those tanks in the next year or so.

Duke is also conducting a demonstration project to install solar cells on golf carts. The solar cells can provide up to 30% more life on one charge. The Duke marine lab is currently testing two solar golf carts and has seen success to date.

Triangle Clean Cities will be continuing their work with the Duke Fleet Maintenance to further their goal of accelerating the use of alternative vehicles throughout the Triangle area.



Duke University uses multiple alternative fuel technologies in its fleet, including electric, CNG, and solar.



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Research Triangle Park, NC 27709

OUR MISSION:

The mission of the Triangle Clean Cities Coalition (TCCC) is to accelerate the use of alternative fuels and advanced transportation technologies to improve air quality and energy security. We build public-private partnerships to promote the use of alternative fuels, alternative fuel vehicles, hybrid vehicles, idle reduction technologies, and fuel economy practices.

CONTACT US:

For more information, to become a member, or to send suggestions, please contact us at:

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UPCOMING DATES

November 9, 2010:

Sustainability Day at Cardinal Gibbons High School, Cary, NC

November 11, 2010 - 10:00 am - 2:00 pm:

**Ethanol Workshop,
Middle GA Regional Commission
175 Emery Hwy
Suite-C
Macon, GA 31217**

November 23, 2010:

City of Raleigh Charging Stations Grand Opening, Raleigh, NC

500 copies of the public document were printed at a cost of 49¢ each or \$245



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