MISSION

The Carolina Blue Skies Initiative aims to expand the availability of alternative fuels in the Carolinas, to deploy hundreds of alternative fuel vehicles, and to promote the green economy.

Over four years, the Carolina Blue Skies initiative will expand alternative fuel infrastructure in North Carolina by nearly 30% and will increase the number of alternative fueling stations by 20% in South Carolina. It will also improve air quality in both states. Through sub-grants geared at installing alternative fuel infrastructure and promoting green-tech development, the initiative benefits both states by lowering harmful emissions while creating & retaining local jobs.

In 2012, North Carolina was #2 in the U.S. for creating jobs in clean energy (report by Environmental Entrepreneurs, March 6, 2013).

Percent of Gasoline Displacement by Fuel Type: Total

- 25% Natural Gas
- 21% Hybrids
- 22% Propane
- 1% Electric
- 27% Biodiesel
- 4% E85

Over three years of activity, Carolina Blue Skies has been responsible for the displacement of over 1 million gallons of petroleum

GRANT INFORMATION

Carolina Blue Skies and Green Jobs Initiative is a project led by Triangle J Council of Governments (TJCOG), with $12 million in American Recovery and Reinvestment Act (ARRA) funding from the U.S. Department of Energy. The Initiative will provide for major expansion of alternative fuel vehicles and refueling infrastructure through the collaboration of Triangle Clean Cities Coalition, NC Solar Center, Centralina Clean Fuels Coalition, Land-Of-Sky Clean Vehicle Coalition, and Palmetto State Clean Fuels Coalition.

This material is based upon work supported by the Department of Energy under Award Number DE-EE0002491
OVERVIEW
The North Carolina Solar Center (NCSC), at North Carolina State University, advances a sustainable energy economy by educating, demonstrating and providing support for clean energy technologies, practices, and policies. The NCSC’s Clean Transportation Program supports this goal by focusing on alternative fuels and advanced transportation technologies. To that end the Clean Transportation Program participated as a prime partner in the Carolina Blue Skies & Green Jobs Initiative. As a prime partner, the Clean Transportation Program administered sub-grants for purchase and installation of alternative fuels infrastructure, and purchase and deployment of alternative fuel vehicles.

MISSION
The mission of the NCSC’s Clean Transportation Program is to increase the use of alternative fuels and advanced transportation technologies throughout the State of North Carolina. The end result is cleaner air and increased energy security.

Through the Carolina Blue Skies and Green Jobs Initiative, the NCSC’s Clean Transportation Program has worked with partners to promote the expansion of alternative fuel vehicles and alternative fuel infrastructure, which has driven increased alternative fuel usage.

HIGHLIGHTED ACCOMPLISHMENTS*

- Construction and commissioning of two CNG stations (City of Greensboro and City of Rocky Mount). The vehicles fueling at these stations combine to displace more than 18,000 gallons of petroleum annually. Fuel savings are estimated at more than $40,000 per year.

- Construction and commissioning of an E85 tank and pump at a public station (Magnolia—Mainor Legacy). The station on average dispenses 4,300 gallons of E85 each quarter, which translates into a displacement of nearly 14,000 gallons of petroleum per year.

- Deployment of 10 HEV vehicles (City of Greensboro and Guilford County). These vehicles combined to travel more than 110,000 miles per year. Due to increased fuel economy with the hybrid models, fuel consumption was reduced by more than 35%, displacing approximately 2,000 gallons of petroleum annually.

*This list is only a small sampling of the many achievements made possible through the Carolina Blue Skies program.

Percent of Gasoline Displacement by Fuel Type: NCSC’s Clean Transportation Program

<table>
<thead>
<tr>
<th>Fuel Type</th>
<th>Percent Displacement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Natural Gas</td>
<td>39.7%</td>
</tr>
<tr>
<td>Hybrids</td>
<td>52.3%</td>
</tr>
<tr>
<td>Electric</td>
<td>0.3%</td>
</tr>
<tr>
<td>E85</td>
<td>7.7%</td>
</tr>
</tbody>
</table>

Through the Carolina Blue Skies grant, the NCSC’s Clean Transportation Program displaces approximately 35,000 gallons of petroleum annually.

CONTACT
Rick Sapienza, Extension Specialist
resapienza@ncsu.edu
Phone: 919-515-2788