



The 2<sup>nd</sup> Annual  
**NC Mobile CARE Awards**  
May 6, 2008

### Judges

**Shelley Winters**

*Information Communications  
Specialist  
Dept of Transportation*

**Anne Galamb**

*Environmental Specialist  
Division of Air Quality*

**Cynthia Mosley**

*Program Manager  
State Energy Office*

### Award Winners

Individual:

**CHRIS FREY**

Special Citizen:

**RANDY DODD**

Private Fleet:

**ORANGE  
RECYCLING**

Public Fleet:

**CITY OF ASHEVILLE**

Product Provider:

**POTTER OIL**

Policy/Organization:

**SEN. MARC  
BASNIIGHT**

### Background:

The NC Mobile Clean Air Renewable Energy (CARE) Awards were created to recognize outstanding individual and organizational efforts to reduce transportation related emissions. Through the Mobile CARE initiative, three state agencies with overlapping interests in air quality and energy have come together to honor the achievements of those who are making a difference in North Carolina. The NC Department of Transportation, NC Department of Environment and Natural Resources Division of Air Quality, and the NC Department of Administration State Energy Office have joined together to sponsor these awards to demonstrate the importance of actions taken to improve air quality.

This year candidates were sought in four broad categories including Individual, Product Provider, Policy/Organization, and Fleet. After evaluating more than 25 nominations, the judges narrowed the honorees to an impressive group of six. Some of the criterion the judges used to make their decision included:

- expanding educational opportunities
- conducting outreach
- changing policies
- length of involvement in fuel/vehicle activities

### 2008 Awardees

#### SPECIAL CITIZEN: Randy Dodd

In his professional role as an Environmental Planner for the Town of Carrboro, Mr. Dodd works to improve a host of environmental concerns. However, on his own accord as an individual citizen, he displays exemplary use of alternative fuels and multiple modes of transportation that help reduce emissions and support fuel diversity. As part of his daily life Randy:

- ✓ runs an electric scooter powered by solar energy generated at his home
- ✓ drives a fuel efficient compact diesel vehicle, which he fills with biodiesel provided by Piedmont Biofuels Cooperative
- ✓ takes advantage of walking, biking, and taking the Chapel Hill Transit bus for his day to day commute.

## INDIVIDUAL: Chris Frey



Dr. Chris Frey, Civil, Construction, and Environmental Engineering Professor

Dr. Chris Frey is a professor at NC State University in the Civil, Construction and Environmental Engineering Department. There he teaches and leads research to characterize and evaluate fuels, technologies, and strategies for reducing vehicle fuel consumption and emissions in the real world. He has developed a systematic methodology for study design, field data collection, quality assurance, and data analysis and applies this methodology to policy-related research questions of local, national, and international importance. His work includes life cycle assessment of energy use and emissions for the entire fuel cycle, not just for the vehicle. Results of this research provides insight into priorities for choices among fuels, technologies, traffic management strategies and improvements to duty cycles in order to reduce fuel use and emissions.

In 1997, Dr. Frey identified the emerging technology of Portable Emission Measurement Systems (PEMS) as the key to obtaining trip-based real-world data, which has been sorely lacking, to accurately inform decision making. This was an important step as emissions data is most often collected in simulated environments. Dr. Frey's comparison of soy-based biodiesel (B20) and petroleum diesel for 35 in-use vehicles is the largest such dataset globally. Contrary to conventional wisdom, his work shows consistent reductions in tailpipe nitrogen oxide emissions (a precursor for our ground level ozone problem) from B20. Since Dr. Frey's research is based in the real-world, rather than a lab, it is relative easy to convince stakeholders that the results are representative and useful. Dr. Frey has advised over 30 graduate research assistants and teaches air pollution control, air quality, and environmental exposure and risk assessment. He integrates results of research into his classes, and involves his class in field measurement and analysis of PEMS data. Consequently, now many of his graduates are emerging leaders in the field mobile source energy and emissions.

### FLEET (Private): Orange Recycling Services, Inc.

As the Triangle's largest commercial recycling company, Orange Recycling Services is committed to achieving environmental feats. Besides keeping tons of trash out of landfills, they decided to make their fleet of nineteen trucks more environmentally friendly as well by using biodiesel. In 2007, they utilized over 100,000 gallons of biodiesel (B99) to run their fleet. Although they have encountered some difficulties using this high of a biodiesel blend, the dedication of Kurt Uphoff, one of the founding partners, has kept them from swerving off the renewable fuel path. The company has also installed a solar powered 1,000 gal distribution tank and pump, and helped Carolina Biodiesel, a distributor and soon to be biodiesel producer, get started in the old Green Oil Terminal site in east Durham. Orange Recycling trucks fill daily from the site and head out starting early in the morning to pick up and deliver recyclables



in the Triangle and up and down the east coast. Orange Recycling has educated their drivers and mechanics about biodiesel including the management of any filter issues. In addition they have lent vital support, education and outreach services to local non profits, Carolina Biodiesel and the Forest Foundation. The belief of Orange Recycling in hosting a 'green fleet' to do 'green work' is a model example for other businesses to follow.

## **FLEET (Public): City of Asheville**

The City of Asheville is a leader in the use of alternative fuels and advanced technology vehicles in Western North Carolina and fleet manager Chris Dobbins has been the driving force in this green fleet initiative. With the help of grant monies, the City constructed the region's first public compressed natural gas (CNG) refueling station in downtown Asheville and will gradually convert most of their fleet to CNG, a clean burning, low carbon fuel. The City already operates two CNG pickup trucks and six Honda Civic GXs, a dedicated natural gas vehicle.



The City of Asheville's public CNG station

Demonstrating their interest and willingness to develop community partnerships, nearby Mission Hospital uses the Asheville station to fuel their eight Honda GXs. In fact, the station is open to any motorists that can pay with a credit card. In addition, through Chris's initiative Asheville's local Honda dealer was encouraged to get into GX sales and service. The City also has a fleet of GEM electric vehicles – the first in the region. Now many other entities have followed their lead with advice and assistance from the City. Increasing use of renewable fuels – the City currently is using B5 (5% biodiesel) and E10 (10% ethanol) - is on the horizon.

Chris Dobbins is very active in the Land of Sky Clean Vehicles Coalition and also serves on the Regional Clean Air Campaign committee. Getting other staff and managers to move toward alternative fuels is not easy accomplishment but Chris has been well informed and persistent. To help address climate change and be more accountable for its fleet emissions, the City joined ICLEI - the International Council for Local Environmental Initiatives. Chris uses ICLEI's software to calculate the City's greenhouse gas emission and assisted in setting an annual reduction goal of 2%. The City of Asheville is an excellent example of incorporating multiple clean technologies into the fleet mix for cleaner air results.

## PRODUCT PROVIDER: Potter Oil Company



Potter Oil Company, a family owned fuel and lubricant distributor, was the first NC company to get into wholesale distribution of biodiesel. Beginning in Feb 2003, Potter Oil Co (working with NC Soy Producers Association) was the first NC company to make biodiesel broadly available by bringing in rail cars of the soy-based fuel. At the time this business decision came with significant financial risk as the first rail car took six months to sell! With the growing interest in clean burning renewable fuels, now four to eight rail cars per month are distributed by Potter Oil into the NC market. Based in Aurora NC, Brian Potter and his father Curtis have spent a considerable amount of time educating other fuel distributors, retailers, fleet managers and farmers about biodiesel. For the past five years they have traveled across the state to speak at meetings and events about the benefits of biodiesel and the practicalities of integrating into existing fuel systems. They also take the time to share their expertise by answering several calls per week at their Aurora offices from other fuel marketers looking to learn more about the biodiesel distribution business.

## POLICY : Senator Marc Basnight



Senator Marc Basnight, President Pro Tempore

NC Senator and President Pro Tempore of the NC Senate, Marc Basnight recognizes the importance of having the State "lead by example". A special provision, the petroleum displacement plan (PDP) requirement whereby our state fleet must reduce petroleum use 20% by 2010, was included in the 2005 state budget through the leadership of Sen. Basnight. Making the state more accountable for its petroleum use has opened the door to more widespread use of biofuels (E10, B20, and E85) and fuel efficiency measures such as right sizing vehicles and idle reduction policies. The State Energy Office, NC Solar Center and 39 state agencies (including universities and community colleges) developed a fuel use baseline for FY2004-

2005. Then individual agencies developed plans to reduce that petroleum fuel use through conservation methods and alternative fuels. From the estimated 26.2 million gallons of petroleum used in 2004-2005, already 2 million gallons of petroleum (a 7.5% reduction) has been achieved. Through the leadership of Senator Basnight, North Carolina is taking an important step forward for the environment and our well being, one that has already been adopted by a neighboring state, Tennessee. By laying out a clear roadmap for the state fleet the PDP requirement can also be adopted by local governments around North Carolina.

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