



Clean Transportation

**NC State University
North Carolina Solar Center**

Biodiesel Policy Review: North Carolina & Neighbors

**National Biodiesel Conference
Orlando, FL**

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This Presentation

- Who are we & what are we doing related to biodiesel?
- NC biodiesel policy/activity highlights
 - ✓ EPart Credit & Banking Program
 - ✓ State Petroleum Displacement Plan
 - ✓ Biodiesel Producer Credit
 - ✓ Biofuels Center of NC
 - ✓ NC biodiesel production
- Neighboring states
- Local & state resources





Clean Transportation Program

- **NC Solar Center** is part of the College of Engineering at NC State University
- Created in 1988 & serves as a focus for information, training, technical assistance, demonstration and applied research
- Example programs: solar, wind, biomass, sustainable building, combined heat and power, and ***clean transportation***



As government employees, we do not LOBBY!!
We EDUCATE legislators with help of private sectors partners.

- Policy Chair for Triangle Clean Cities Coalition,
- NC Biomass Council Biofuels subcommittee chair
- Serve as lead for State Energy Office in implementation of:
 - ~ EPA Act Credit Banking & Selling Program
 - ~ 20% **petroleum reduction requirement for state fleet**



Clean Fuel Advanced Technology

Three year project focused on:

- Education & Outreach
- Recognition: annual Mobile CARE awards
- \$1.4 M Funding for transportation related emission reduction projects



~ '06 & '07 awards > \$600,000 for 19 projects, incld. biodiesel infrastructure projects in Great Smokey Mt National Park, & pending biodiesel bulk storage and sequential blending at NC terminal

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Opportunities for biodiesel expansion



- **NC Distillate Fuel Use:**
1.5B gallons per year (2004),
- **NC Gasoline Stations:**
7,052 outlets (2006), or about 4.2 percent of U.S. total.
- **NC biodiesel stations:**
50 stations selling biodiesel including 6 coops (B5-B100)

Energy Information Agency <http://tonto.eia.doe.gov/oog/info/state/nc.html>

Biofuel retail locations www.nearbio.com



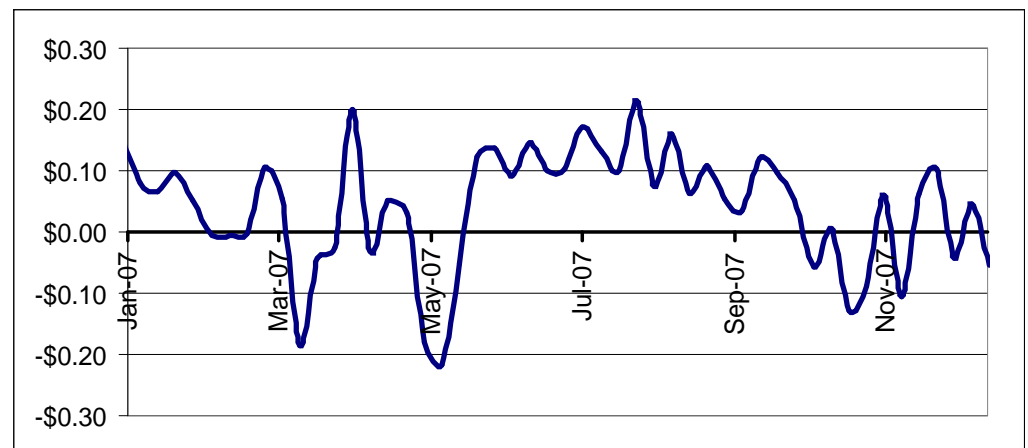
Biodiesel in NC

**NOW SELLING
BIODIESEL**



***Pour & Go technology -
no retrofits required!***

- ✓ **Majority of biodiesel used by non-taxable entities including;**
 - 12+ municipalities
 - 3 school systems
 - 2 transit
 - NC DOT- largest single user
- ✓ **Statewide purchasing contract**
 - 2007 average + 4.5 cents





Questions to answer:

- How specific NC policies work
- How they've helped
- How they came about
- Hurdles overcome
- How making laws is like making sausage (how things change through the process).

State Leadership - Lead by example



Energy Policy Act (EPAAct) Credit Banking and Selling Program

- Federal EPAAct requires state, federal & fuel providers to purchase AFVs. Biodiesel use can meet ½ of EPAAct requirements
- NC legislation allows state to sell excess EPAAct credits to expand use of alternative fuels in state fleet
- NC Dept of Admin & NC DOT have accrued several hundred credits through use of E85 and B20
- State Energy Office in process of executing multiple trades which will garner 6 figures for Alt Fuel Revolving Fund in first year
- Credits can be traded through a broker or directly with purchaser

How bill came about: brought to legislators by Clean Cities Coalition,

How its helped: opportunity to raise revenue to expand state use of alt fuel

Hurdles: 2 year rule making process before implementing program

On federal level EPAAct demonstrates of how mandates create markets

which can serve adapters & those that would rather purchase compliance



State Petroleum Displacement Plan (PDP) Requirement: Session Law 2005-276

“All State agencies, universities, and community colleges that have State-owned vehicle fleets shall develop and implement plans to improve the State's use of alternative fuels... The plans shall achieve a twenty percent (20%) reduction or displacement of the current petroleum products... by 2010”

- Total petroleum use is **26.2** million gallons for FY 2004-05 baseline year
- 39 state agencies participating
- 2010 petroleum reduction goal is **4.65** million gallons (This is an 18% reduction accounting for the 6,115 emergency/educational vehicles that only have to meet a 10% displacement)
- **Direct result of PDP - NC DOT plans to expand use of B20 to all 106 fuel sites in 2008**



State PDP (con't)

- The state's use of biodiesel (primarily as B20) has increased from 375,000 to 450,000 gallons of B100 and should reach 2 million gallons by 2010
- In addition to DOT, 18 other agencies are using B20 to meet state PDP requirements including 8 universities & 3 community colleges

How bill came about: idea for alt fuel use credit system for state fleet brought to legislators by Clean Cities, Senate leadership included concept in Budget bill as a PDP requirement

How its helped: Requirement has given state agencies a “reason” to use biodiesel (and justify the expense)

Hurdles: challenge for state agencies to track fuel use, adjust baseline to account for growth and mission development



Credit for Biodiesel Producer

2005 budget bill Section 24.8

“A biodiesel provider that produces at least 100,000 gallons of biodiesel during the taxable year is allowed a credit equal to the per gallon excise tax the producer paid... on the biodiesel. For the purposes of this section, 'biodiesel' is liquid fuel derived in whole from agricultural products, animal fats, or wastes from agricultural products or animal fats. The credit does not apply to tax paid on diesel fuel included in a biodiesel blend. The credit may not exceed five hundred thousand dollars (\$500,000)”

Effective dates Jan 1, 2008 - Jan 1, 2010

How bill came about: a suggestion for a monthly biodiesel discount allowance for distributors equivalent to state motor fuel tax was brought to legislators by Clean Cities, bill did not move but at last minute House leadership facilitated producer credit in 2005 budget

How its helped: not sure yet- just went into effect

Hurdles: Although related to motor fuels tax, this is an income tax credit and will only benefit producers that are making a profit



Strategic Plan for Biofuels Leadership

- 2005 legislation required plan development,
- A collaborative process developed holistic strategy to support research, production, distribution and use
- Primary recommendation is goal to displace 10% of petroleum use by 2012 w/ biofuels
- 2007 state budget included \$5M for Biofuels Center of NC now ramping up at old tobacco research facility in Oxford. Hired 5 staff members in late 2007

How bill came about: NC leaders recognized need for coordinated approach to developing biofuels industry, strong push from NC Biotechnology Center, NCSU, NC Rural Center, Secretary of Revenue, State Energy Office, and others

How its helped: Provided a framework and focal point for action

Hurdles: not “reinventing the wheel” and accommodating existing efforts already underway (NC Biomass Council), figuring out new roles



NC Biodiesel Production

- Small production plants rely on strong community support
- Developing local customer base/ relations with fuel distributors
- NC tax credits a plus when companies become profitable
- Producers recently formed NC Biodiesel Association to represent distributors and producers

Blue Ridge Biofuels

Asheville 1-2 MGY

Evans Biodiesel

Wilson 4 MGY

Foothills Bio-Energies

Lenoir 5 MGY

Gortman Biofuel

Lexington 100,000 GY

North Carolina Biofuels

Roanoke Rapids 1.5 MGY

Oak Biodiesel

High Point 100,000 GY

Piedmont Biofuels

Pittsboro 1 MGY

Smokey Mountain Biofuels

Cullowhee 1.5 MGY



State Snapshots - South Carolina

49 B5-B99 stations, 3 biodiesel producers + 2 more planned for 2008

- Producer tax credit
 - .20 c/p/g for soy & corn; 30 c/p/g other feedstocks
 - 25% tax credit for equipment w/ no cap
 - No carry forward provision (plan to amend in 2008 legislative session)
- Retailer Tax Credit
 - 25 c/p/g credit for B100 & 5 c/p/g for E85 (plan to amend credit in 2008 to be more user friendly)
- One Stop Shop for biofuel production permitting
 - Monthly meetings hosted with SEO to bring together potential producers with all state agencies involved with permitting

Contact: Erica Hartwig, SC State Energy Office



State Snapshot - Virginia

- 3 biodiesel plants ($< 2\text{m/g/y}$),
50 stations selling B2-B20
- Incentive for biofuel producers
- Must produce $> 2\text{ m/g/y}$ biodiesel or ethanol
- \$1 M provided by State Energy Office
- Planning underway to determine distribution



State Snapshot - Tennessee

- Gov creates interagency Alternative Fuels Working Group Feb 2006, \$4M in state budget for incentives distributed as grants for infrastructure
- Production incentive - \$0.20 c/p/g for biodiesel produced & used in TN
- 2006 TN biodiesel production & distribution was 2.6 MGY - expected to double with incentive
- 35 B20 pumps at commercial stations



State and Local Resources

Recipe for policy success:

- 1) Build awareness: education, outreach & marketing is essential for success!!!
- 2) Build bridges with public and private entities

Let local, state & private sector partners help you!

- Clean Cities Coalitions
- State Energy Office
- Biofuels Association
- National Biodiesel Board
- State Universities
- Petroleum Marketers Associations



15 by 15 inch all weather vinyl graphics available for biodiesel dispensers, tanks and vehicles through CFAT project
North Carolina Solar Center
www.cleantransportation.org