

Biofuels Center of North Carolina Annual Report

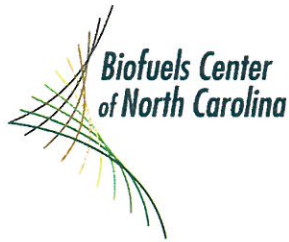
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The Biofuels Center of North Carolina



30 August 2011

To *Joint Legislative Commission on Governmental Operations and
the Fiscal Research Division*

From *W. Steven Burke · President and CEO*

*Report on prior State fiscal year program activities, objectives, and accomplishments,
and prior State fiscal year itemized expenditures and fund sources, as per STATE-AID
REPORTING REQUIREMENTS, SECTION 14.22.(a) of Session Law 2009-451.*

SECTION 14.22.(a)(1)

PRIOR STATE FISCAL YEAR PROGRAM ACTIVITIES, OBJECTIVES, AND ACCOMPLISHMENTS

2010-2011 PROGRAM ACTIVITIES

The Biofuels Center of North Carolina undertakes activities and funds projects supporting its legislatively mandated mission, implementation of *North Carolina's Strategic Plan for Biofuels Leadership* (S.L. 2006-206) and that accelerate development of a statewide biofuels industry. To achieve the goal of the *Plan* and the policy goal of the state – that 10% of North Carolina's liquid transportation fuels come from biofuels grown, produced, and sold in-state by 2017 – the Center identifies annually areas of greatest need to move science, research, and feedstocks to commercialization, production, and consumer acceptance.

Center programs and activities are designed comprehensively to identify and bridge gaps in knowledge and information, speed the development of technology to industry, create a seamless continuum from agriculture to transportation fuels, and assist the activities of a growing biofuels community. Activities in total work over time to create a new technology, agricultural sector, and economic benefit statewide.

2010-2011 OBJECTIVE

As conveyed to the North Carolina Department of Agriculture and Consumer Services Budget and Finance Division: Grantee's Scope of Work – Attachment C on 11 December 2007.

Continue to assist universities, companies and agencies to implement the legislatively mandated (S.L. 2006-206) *Strategic Plan for Biofuels Leadership* by varied dovetailed activities: encourage and fund research; identify, verify, and conduct growth trials on new crops; encourage growth and production of biomass and feedstocks in rural areas; seek supplemental funding for research, development, and facilities; bring both entrepreneurial and national companies to the state; and ensure unified state approaches to incentives, agriculture and manufacturing production, job creation, distribution, economic analyses, public education, environmental issues, and workforce development.

2010-2011 ACCOMPLISHMENTS

Among key accomplishments and activities to develop a new sector statewide:

1 · Grants Awarded

Fifteen grants totaling \$1,607,842 were awarded to nonprofit organizations and academic institutions across the state, following a widely distributed program announcement and a disciplined peer-review evaluation process.

Funded projects to North Carolina universities and non-profit entities addressed four main areas of determined need and emphasis:

- *County or Regional Woody Biomass Analyses.* Four projects, each to a regional economic development partnership.
- *Conversion of Municipal Solid Waste into Biofuels.* Two projects.
- *Growing of Energy Grasses in the North Carolina Piedmont Region.* Three projects.
- *Innovative Approaches for Development of Production Capabilities.* Six projects addressed ideas and resources statewide, including: *Environmental Protection and Biofuels Production on Waste Application Fields*, *Pilot Scale Continuous Flow Microwave Pretreatment of Grasses*, and *Sorghum Biofuels: A Route to Commercialization in North Carolina*.

In addition, staff necessarily administered and oversaw the 33 awards, totaling \$5,298,218, made in the preceding 2007-08 and 2008-2009 grants programs. Descriptions of all 48 funded projects are available on the Center's web site home page under the heading of *Grants*: <http://www.biofuelscenter.org/index.php/grants>.

2 · Accelerated Initiatives

Accelerated Initiatives projects and activities incisively target needs, immediate opportunity, or resource strengthening within a statewide biofuels endeavor. Fourteen projects totaling \$1,022,501 addressed:

- New feedstocks trials and learning, including Tropical Sugar Beets, intercropping of Miscanthus grass with pine trees, and Populus trees species.
- Small scale biodiesel production capabilities, with the NC Department of Agriculture and Consumer Services, on North Carolina's Biofuels Campus.
- Matching of US Department of Energy funds to upfit the Center's second floor laboratories for company project use and acceleration.
- Developmental analyses and master planning for North Carolina's Biofuels Campus, a project with the Department of Agriculture and Consumer Services.
- The nationally unique project to verify and trial grow energy grasses on North Carolina's 203,000 acres of hog lagoon sprayfields, largely in Sampson, Duplin, and Wayne counties.

3 · Project Administration and Staff

Sixteen staff members oversaw and administered key projects, activities, and service responses for the biofuels community statewide in five main areas: administration and finance; policy and environmental issues; agriculture and forestry; company and production development; and communications. Technology requirements, meetings, and the Center's headquarters on North Carolina's Biofuels Campus were supported.

Among key activities developed and administered:

REGIONAL PROJECTS MERGING NEW FEEDSTOCKS AND PRODUCTION

The project *Eastern Gain: Biofuels Enrich Our Communities, Economy, and Security* brings military bases, state agencies, growers, and communities together in a five-year effort to gain in Eastern NC up to 50 million gallons of jet fuel annually. In partnership with North Carolina's Eastern Region, the project will protect working agricultural lands, strengthen county economies, and serve national military goals.

The project *Biofuels and New Value from Eastern Sprayfields* will trial plant energy grasses in Sampson, Wayne, and Duplin counties. Currently growing low-yield and low value coastal Bermuda grass, the fields can yield 10-20 tons per acre of high-yield and high value energy grasses, supporting multi-million gallon production facilities. The Center is working with companies prepared to locate in the region as a result.

JOBS CENSUS AND INITIAL SECTOR VERIFICATION

A survey and study of current and expected biofuels jobs in 128 organizations statewide was gained from an external firm. Data from respondents reveal that 443 direct biofuels employees are already seen statewide – an encouraging sign that biofuels is already yielding jobs sooner than expected from a newly developing sector.

COMPANY PARTNERSHIPS, RECRUITMENT, AND PRODUCTION FACILITIES

A large biofuels sector cannot grow without development, support, or recruitment of varied companies – engaged in support, feedstock growing, technology, and production. Some work within the State already; others must be recruited to projects and eventual facilities. Bringing North Carolina's resources to the attention of national production and technology companies is a targeted Center activity; until recently, the state was not seen as a lead place for biofuels development within an increasingly competitive national biofuels industry.

For projects, data analysis, growing, site evaluation, or production facility establishment the Center worked with: Chemtex International, Clean Burn Fuels, DuPont, DuPont Danisco Cellulosic Ethanol, ThermoChem Recovery International, Novozymes, Syngenta, GrassRoots Biotechnology, Mendel Biotechnology, Mendel Bioenergy Seeds, Agrivida, Domtar, Weyerhaeuser, ArborGen, HCL CleanTech, Rentech Inc., Catchlight Energy, IDEA Engineering, Piedmont Biofuels, Triangle Biofuels, Blue Ridge Biofuels, Alganomics, Paradigm Bioaviation, Coskata, Enerkem, Murphy-Brown, Prestage Farms, Goldsboro Milling, and the North Carolina Pork Council.

Certain projects have already yielded significant outcomes. The decision of Chemtex to locate in North Carolina a nationally leading facility for conversion of energy grasses to ethanol is manifest sign of growing state competitiveness; the Center has worked extensively with varied state agencies to assist the company with feedstock analysis,

access to sprayfields, access to partner NC banks, a framework for environmental responses, and assistance with a necessary US Department of Agriculture loan guarantee. HCL CleanTech, based in Israel, chose NC and the Biofuels Campus as US headquarters for very promising technology; its work with Domtar in Plymouth can increase jobs and return from that facility.

DEVELOPMENT OF NORTH CAROLINA'S BIOFUELS CAMPUS, OXFORD

The Center is located in Oxford on a former federal tobacco research station turned over to the NC Department of Agriculture and Consumer Services in 2006. With the NCDA, the Center this year developed a necessary 10-year Master Plan for the 426-acre site. The nation's only large acreage site for biofuels development, the Campus can over time yield an enormous competitive resource and focal point for North Carolina's biofuels endeavor as a site for trial growing, pilot production, public education, and varied company research, partnerships, and development.

4 · Communications, Education and Public Information

Key communicational and educational activities preparing the public for NC-produced biofuels included: three websites, targeting the Center, public information, and industry information; the email newsletter *Biofuels Headline*, reaching 6,500+ recipients nationally and internationally; varied materials for information and branding; meetings and trade shows. The Advancing Public Education project, funded by the US Department of Energy, placed 30-second public spots on television statewide 3,184 times from January until mid-March. Gained from videotaped statements of North Carolinians at the 2010 State Fair, the spots reveal a widely diverse public widely supportive of new biofuels and sustainable energy.

SECTION 14.22.(a)(1)

PRIOR STATE FISCAL YEAR ITEMIZED EXPENDITURES AND FUND SOURCES

Fund Source:	Amount
2010-2011 Appropriation from North Carolina General Assembly (minus 3.5% reversion)	\$ 4,825,000
2009-2010 Carry-over	\$ 427,748
Total Fund Sources	\$ 5,252,748
Expenditures:	
Accelerated Initiatives & Key Strategic Projects	\$ 1,062,501
Grant Program	\$ 1,607,842
Communications and Public Information Programs	\$ 26,401
Project and Sponsored Meetings or Events	\$ 16,475
Legal and Professional Fees	\$ 98,869
Program & Admin. Staff Salaries and Benefits	\$ 1,496,877
Contractual Services	\$ 82,343
Travel	\$ 65,195
General and Administrative	\$ 189,321
Total Expenditures	\$ 4,645,824

SECTION 14.22.(a)(2)

COPY OF THE ORGANIZATION'S ANNUAL AUDITED FINANCIAL STATEMENT

The Biofuels Center of North Carolina will provide to the Fiscal Research Division a copy of the organization's annual audited financial statement within 30 days of issuance of the statement. The auditing firm of Boyce Furr and Company has scheduled a fiscal year 2010-2011 audit for the week of 26 September 2011.

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