Biofuels Center of North Carolina Annual Report

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The Biofuels Center of North Carolina



29 August 2013

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

From W. Steven Burke · President and CEO
Remona Callair-Simmons · Vice President, Finance and Administration

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

2012-2013 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.

2012-2013 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.

2012-2013 ACCOMPLISHMENTS

Among key accomplishments and activities to develop a new sector statewide, under five headings:

1 · Tennessee Valley Authority Settlement Funding Programs

The Center's funding programs for this year were supported by funds from the Tennessee Valley Authority (TVA) Clean Air Settlement that were directed to the Center by the North Carolina General Assembly in the 2012 legislative session.

The 2012-2013 grants program—Strengthening Feedstocks, Production and Products in Western North Carolina—made five awards totaling \$1,070,599 in January 2013.

The funded projects included:

- · Caldwell Green Commission, Crude Glycerin Refining and Purification. \$102,000
- NC State University, Woody Biomass In-Field Drying Techniques for Thermochemical Conversions. \$130,593
- Mars Hill College, Modeling Site Suitability for Biofuels. \$43,750
- NC State University, Availability of Woody Biomass for Biofuels in Western North Carolina. \$28,000
- Advantage West, Planting the Seeds for a Robust WNC Biofuels Sector.
 \$766,256

In April 2013, the Center, utilizing TVA funds, issued additional awards through a targeted biofuels funding program, entitled *Catalyzing Production in Western North Carolina*. These six project awards totaled \$684,058.

The funded projects under this program included:

- NC State University, Populus Trials for Biofuels Production in Western North Carolina. \$156,898
- NC State University, On-farm Evaluation of Perennial Biofuel Crops in WNC.
 \$143,787
- Mountain Horticultural Crops Research and Extension Center, Cold-hardy Sugarcanes for Western North Carolina. \$125,375
- Mountain Horticultural Crops Research and Extension Center, Reinventing Giant Miscanthus. \$124,628
- Carolina Land & Lakes RC&D, Feasibility Study of WNC Feedstock Depot.
 \$67,648
- Appalachian State University, Investigating the Economic Viability of a Municipal Solid Waste-to-Biofuels Facility in WNC. \$143,787

Consistent with the General Assembly language directing the use of the TVA Settlement funds by the Center, all of the awarded projects under both funding programs had direct impact in Western North Carolina.

2 · Company Assistance

Chemtex International, part of the multinational Italian Grouppo & Ghisolfi (M&G) – with engineering headquarters based in Wilmington, NC – plans to locate a nationally leading 20 million gallon biofuels production facility in Sampson County.

Much of the work of the Center over the last year was focused on moving that project from concept to reality. Some highlights of that work included:

 In the summer of 2012 Chemtex received a \$4 million award from the US Department of Agriculture (USDA) through the Biomass Crop Assistance Program (BCAP). BCAP provides incentives for farmers to plant and manage energy crops. The Center in partnership with Cooperative Extension hosted three regional meetings in Sampson, Duplin, and Bladen County to educate farmers and landowners about the opportunities through the BCAP program.

• On August 22, 2012 the USDA announced a \$99 million loan guarantee for Chemtex and its planned biofuels production facility in Sampson County. Once completed, the plant is likely to be the first commercial-scale facility in the nation producing ethanol from energy grasses. The \$170 million plant will produce 20 million gallons of biofuels annually from an unprecedented feedstock supply chain developed by the Center and the company; a combination of Giant miscanthus, switchgrass, sorghum, soft hardwoods, and other purpose-grown energy crops from a 35-mile radius will support fuel production year round.

Center staffed worked closely with Chemtex and USDA officials to meet the requirements that allowed for the final approval of the loan guarantee.

- The Center partnered with NC State University to operate and manage the Williamsdale Biofuels Farm in Duplin County. The Williamsdale Farm contains numerous research plots dedicated to energy grasses. In addition, the Williamsdale Farm has a 60 acre energy grass nursery, which will be utilized by Chemtex to catalyze its feedstock supply chain.
- Over the last year the Chemtex project has encountered regulatory challenges at both the state and federal level. Center staff worked closely with state agencies to establish the agronomic rates necessary for planting energy crops on swine waste sprayfields. Center staff also worked with the US Environmental Protection Agency to gain approval of energy crops for the Chemtex facility.

The activities outlined above represent long-term and detailed work that the Center undertakes to recruit and develop this new industry sector. 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.

3 · Feedstock Development

The Center's work over the past twelve months included a number of trial-growing and crop-related research projects. The Center has long recognized that those regions and states that can provide cost-effective feedstocks for commercial biofuels facilities will have a competitive advantage. As such, the Center has focused much of its attention on identifying those feedstocks, energy grasses and forest resources, which are well matched to North Carolina's agricultural strengths.

Representative growing projects include:

- Biofuels and New Value from Eastern Sprayfields, a project in partnership with
 the swine industry, evaluates the type of energy grasses that can be effectively
 grown on swine farm sprayfields 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.
- An intercropping project with Weyerhaeuser and Catchlight Energy is studying the growth of energy grasses between the rows of trees on pine plantations. The project holds great promise for eastern North Carolina and for maximizing land use.

4 · Civic and Small-scale Biofuels Project

Through the *Civic and Small-scale Biofuels Project*, the Center identified and strengthened community biofuels projects in every region of North Carolina so that communities can gain locally produced fuels. The Center provided financial and technical assistance to more than two dozen of these civic and small-scale projects. Some model projects include Biltmore Estate's canola growing initiative, the City of Raleigh biodiesel efforts, and fuel production and research at the Catwaba County Eco-Complex.

The *Civic and Small-scale Biofuels Project* increased awareness and understanding of the state's biofuels sector by hosting a second annual conference in Greensboro on the NC A&T campus. The December, 2012 meeting was attended by more than 130 persons, including biodiesel producers, farmers, wastewater facility managers, and state agencies.

5 · Communications, Education, and Public Outreach

Key communicational and educational activities preparing the public for NC-produced biofuels included: a comprehensive website; the email newsletter *Biofuels Headline*, reaching 6,500+ recipients nationally and internationally; varied materials for information and branding; meetings and trade shows.

Over the past year the Center public outreach work included regional meetings in Asheville and Charlotte. In an effort to coordinate and grow the biofuels communities in these areas the Center convened biofuels producers, scientists, financial representatives, and feedstock developers, to strategically plan for future projects.

SECTION 14.22.(a)(1)
PRIOR STATE FISCAL YEAR ITEMIZED EXPENDITURES AND FUND SOURCES

Fund Source:	Amount	
2012-2013 Appropriation from North Carolina		
General Assembly	\$	2,063,035
2011-2012 Carry-over	\$	679,767
2012-2013 TVA Funds	\$	2,240,000
Grant Refunds 2009 & 2011	\$	69,158
Project Income	\$	40,000
Total Fund Sources	\$	5,091,960
Expenditures:		
Targeted Projects and Accelerated Initiatives	\$	368,683
Communications and Public Information	\$	41,394
Project and Sponsored Meetings or Events	\$	22,471
Legal and Professional Fees	\$	118,220
Program and Administrative staff salaries and		
benefits	\$	1,485,948
Contractual Services	\$	117,978
Travel	\$	76,693
General and Administrative	\$	81,215
TVA Expenditures	\$	1,787,185
Total Expenditures	\$	4,099,781

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 Bernard Robinson & Company has scheduled a fiscal year 2012-2013 audit for the week of 23 September 2013.

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