

THE NATIONAL BIOMASS PARTNERSHIP ACTIVITIES UPDATE

August-September 2006

Arkansas

Ron Bell, Chairman

Arkansas Energy Office, Bioenergy Services Contractor

(870) 793-4379

rbellowoa@cox-internet.com

Ozark Foothills RC&D Council: Both Arkansas biodiesel refineries continued at full production during June. The state's first petroleum distribution terminal began offering biodiesel blends at the rack for local distributors, with a second terminal scheduled to begin offering blends in early July.

As part of the Central Arkansas Biodiesel Infrastructure Project, government and private fleet managers began planning for biodiesel procurement and utilization in July. As another component of the project, local retail fuel operators began construction or renovation of facilities to offer biodiesel at the pump.

The Arkansas Bioenergy Policy Council, Technical Advisory Committee held its second meeting for the purpose of developing legislative recommendations for the 2007 Arkansas legislative session. A review of other states' Bioenergy legislation is in progress.

In late June, the Arkansas Assn of RC&D Councils was awarded a \$500 thousand USDA Conservation Innovation Grant to test and demonstrate four prototype biomass fueled medium BTU hydrocarbon fueled gas generator units. The units, manufactured by Power Reclamation Inc. of El Dorado, AR, are designed to use various forms of cellulosic biomass to produce electric power for on farm electricity needs. The power units, nicknamed NOAH, will be tested on poultry integrator farms using chicken litter as a primary fuel and producing electricity to run the complex.

California

Doug Wickizer

Forestry Division

Doug.wickizer@fire.ca.gov

California has just released its BioEnergy Action Plan to use biomass resources from forestry, urban, and agricultural wastes to produce transportation fuels, electrical energy, and biogas. The agencies of the Bioenergy Interagency Working Group will carry out the Plan's actions. The Plan is part of implementing the Governor's Executive Order.

http://www.energy.ca.gov/bioenergy_action_plan/

Georgia

Kim Cutchins

University of Georgia

(301) 884-2864

kcutchins@md.metrocast.net

The GA Bioenergy Conference was held in Tifton, GA, on August 1-3 with over 500 present. The three full days of sessions were kicked off by GA Governor Sonny Perdue followed by keynote presentations by Jim Fischer, DOE, and Gale Buchanan, USDA Under Secretary. A panel on the first day included six state senators and one state representative along with staffers from the offices of US Representatives Sanford Bishop and Jack Kingston and US Senators Saxby Chambliss and Johnny Isakson. A trade show that included numerous outdoor exhibits was part of the conference. Led by the University of Georgia, roughly 30 sponsors including the Southern States Energy Board teamed up to put on the conference. www.gabioenergy.org

Georgia

Dr. Art Ragauskas

Georgia Institute of Technology School of Chemistry and Biochemistry

(404) 894-9701

art.ragauskas@chemistry.gatech.edu

There has been development of rapid growth high energy content trees and perennials, novel environmentally friendly biomass extraction technologies, innovative catalysts for the conversion of agricultural and wood residues to bioethanol/diesel and hydrogen.

<http://www.gtresearchnews.gatech.edu/reshor/rh-ss06/Ragauskas.html>

Illinois

Norm Marek

Illinois Department of Commerce & Economic Opportunity (IL DCEO)

(217) 785-5082

norm.marek@Illinois.gov

E-85 Infrastructure and Promotional Programs: A second round of \$500,000 in funding has been provided to IL DCEO by the Illinois Clean Energy Community Foundation (ICECF) to continue to establish new E-85 infrastructure in Illinois. The “Illinois E-85 Clean Energy Infrastructure Development Program” provides grants of up to 50% (\$3,000 max per station) for converting an existing facility to E-85 operation and up to 30% (\$30,000 max per station) for new construction of an E-85 station. Additionally IL DCEO is working with the American Lung Association of the Upper Midwest to promote E-85 through an “E-85 Coupon Program” with new car dealerships selling E-85 Flexible Fuel Vehicles (FFV’s) to encourage customers purchasing these vehicles to refuel them with E-85 fuel. Finally, IL DCEO staff has been giving PowerPoint presentations on E-85 fuel at a series of Biofuels Seminars being held around the state. There are currently about 140 E-85 public refueling stations in Illinois and interest in the “Illinois E-85 Clean Energy Infrastructure Development Program” remains strong.

Indiana

Paul Cummings
Indiana State Department of Agriculture
(317) 234-4714
pcummings@isda.in.gov

A test burn was conducted for corn stover and paper fluff from 8/14/06-8/19/06. The test burn was conducted to ascertain the Btu content, ash content, and emissions associated with the gasification and subsequent oxidation of these materials. The test burn was in preparation for the installation of the gasification unit at BioTown (Reynolds, IN).

Kentucky

James Bush
Kentucky Office of Energy Policy
(502) 564-7192
james.bush@ky.gov

Grants for Energy Commercialization: Proposals are sought from firms or groups of firms having qualifications and experience to successfully commercialize energy related industrial projects in Kentucky. Such projects may include, but are not limited to, Coal to Liquids, Coal to Gas, Biofuels, Electricity Generation, as well as other projects related to the industrialization of Kentucky's energy resources. The RFP closes October 13th.
<http://www.energy.ky.gov/rfpcommercialization.htm>

Kentucky

Linda Casey
Marathon Media Relations
419.421.3262
lmcasey@marathonpetroleum.com

July 24, 2006. Marathon Oil Corporation and the Kentucky Clean Fuels Coalition, jointly announced today that Marathon will be adding storage and distribution of biodiesel fuel at the company's Kramer's Lane Terminal located in Louisville, Ky.
<http://www.kentuckycleanfuels.org/news/Biofuel%20press%20release%20071706v6%202.pdf>

Massachusetts

Jan Gudell

Massachusetts Division of Energy Resources

(617) 727-4732 ext. 40143

Jan.E.Gudell@state.ma.us

The new statewide contract for Biodiesel (blends of B5 and B20) was awarded effective August 1, 2006, with the number ENE23. Interested buyers can access the contract by going to www.comm-pass.com, clicking on “contract search” and using the contract number in the “document number” box.

The OSD Update document (Found under the *Forms and Terms* tab on Comm-PASS) provides information on contract use, vendors and pricing. Dennis K. Burke has been awarded zones 1-4 (East) and Alliance Energy has been awarded Zones 5-8 (West). Also posted is a Biodiesel Fact Sheet that provides user names and testimony, guidance on how to use the contract, product specifics and FAQs. In addition, The US Dept. of Energy publication: Biodiesel Handling and Use Guidelines are posted.

Pricing is determined by way of a formula, using a fixed differential, fluctuating market prices for the percentage of low sulfur diesel and B100 and federal tax incentives.

For an indication of cost, on 07/31/06, a B20 Blend of Bio-diesel was running at a .7-.17 cent premium over the cost of low sulfur diesel, depending on the delivery zone.

NOTE: Ultra-low sulfur diesel (ULSD) will also be made available on this contract by early September.

Michigan

Trista Gregorski

Michigan Biomass Energy Program, Energy Office, State of MI

(517) 373-7673

gregorskit@michigan.gov

Capital Area Producers Cooperative (CAPCO) completed a biodiesel infrastructure project. With the help of a grant from the MI Biomass Energy Program (MBEP), CAPCO purchased two tanker trucks to store and distribute biodiesel to its members. To ensure the success of this project CAPCO worked to promote and educate the public on biodiesel use. CAPCO also participated in the feasibility study of a biodiesel refinery, and ultimately created a Limited Liability Company to build, refine, and sell biodiesel. The plant is expected to begin operating next month.

With a MBEP grant, NextEnergy Center has selected six service stations to receive incentive funds for converting or installing new infrastructure to dispense alternative fuels. Four of these stations will sell E85 and two will sell B20. This will increase public biofuel re-fueling sites in Michigan to 66 by the end of 2006.

www.michigan.gov/biomass

Minnesota

Lise Trudeau

MN Dept of Commerce

651-297-1178

Lise.Trudeau@state.mn.us

There is 20% Ethanol Mandate Planning – University of MN has a dedicated E20 pump and is field testing vehicles.

http://www.mncorn.org/servlet/mcga/news/dailyarticleDir.iml?area_id=42&article_id=131807&display=Y&thispage=news/dailyarticleDir.iml

The Great Lakes Biomass Emissions Resource Group – MN Dept of Commerce is participating with regional states on biomass air permitting and other issues

The E85 Program has 235+ stations and 1,000,000+ gal/month

<http://www.cleanairchoice.org/outdoor/E85InCounty.asp?State=MN> & http://www.state.mn.us/mn/externalDocs/Commerce/E-85_Fuel_Use_Data_041703045254_E85FuelUse.pdf

The University of Minnesota is seeking funding for their proposed National Center for Biofuels Research to be built on the St.Paul campus. <http://www.mndaily.com/articles/2006/04/12/67981>

There are several notable projects –

- Little Falls – Primenergy - Wood Waste Gasification & Thermal Oxidation
http://www.primenergy.com/Projects_detail_LittleFalls.htm
- Benson - Chippewa Valley Ethanol - CVEC breaks ground for gasification plant
<http://www.swiftcountymonitor.com/main.asp?FromHome=1&TypeID=1&ArticleID=17858&SectionID=1&SubSectionID=1>
- Luverne - Rural energy Marketing - Farmers plan first U.S. biomass ethanol plant
<http://minnesota.publicradio.org/display/web/2006/03/23/cellulosicethanol/>
- CERTs – Case Study: “Farm of the Future: the Haubenschild Farms Anaerobic Digester”
<http://www.cleanenergyresourceteams.org/central/CS-Haubenschild%20Farms%2006%20update.pdf>
- Benson - Fibrominn - construction started on the first poultry litter fueled power plant in the US <http://www.fibrowattusa.com/US-Benson/index.html>

Missouri

Roger Korenberg

Missouri Department of Natural Resources Energy Center

573-526-1723

roger.korenberg@dnr.mo.gov

A study titled Bio-processing Input Procurement Strategies: A Non-Technical Barrier to Industry Development is underway. Biomass fuel procurement will in many instances require fuel from multiple producers to supply a single processing facility. Funded through the DOE – OBP State Regional Partnership, the study will seek to answer questions as to how to best structure

investment and ownership in necessary production, storage, transportation, harvest and processing equipment. Also, the appropriateness of exchange mechanisms such as spot markets, contracting or vertical integration may vary given different processing technologies and feedstocks. No matter how technically feasible new bio-based product production technologies prove to be, the future of these bio-industries will depend upon development of fair and dependable marketing arrangements between raw material suppliers and processing facilities. This study is a first step in developing these arrangements.

The researcher at Southern Illinois University has obtained the necessary approvals to conduct the research. A first draft of the biomass producer survey/questionnaire has been completed and is under review by Energy Center and University of Missouri, Columbia. Next steps will be to have the survey reviewed by employees of the electric cooperatives serving the area, test the survey on a small number of producers and then deliver the survey to the producers.

New Mexico

Butch Blazer
State Forester
(505) 476-3325

Western Water and Power Production will provide power from a 35 MW facility to PNM. The plant will burn wood wastes from forests and rangelands, and excess heat will warm a nearby commercial greenhouse complex. The plant's output will have the utility meet the state's renewable portfolio standard.

North Carolina

Bob Leker
State Energy Office
(919) 733-1907
bob.leker@ncmail.net

NC Biomass Council: Conducted a NC Biomass Council meeting on September 7th. Sixty-five persons attended the meeting, which focused on extracting energy from animal waste. Dr. Mike Williams presented the results and future direction of hog waste treatment efforts conducted under the agreements between the Attorney General and Smithfield Foods, Premium Standard Farms, and Frontline Farmers. Fibrowatt gave a presentation on poultry litter combustion to produce steam and electricity. Edward May from the U.S. Renewables Group discussed energy project financing. NC Biomass Council Roadmapping Committees also held short meetings.

NC Biomass Trader: Additional outreach was conducted to support the Biomass Trader – a free web listing service providing a marketplace for biobased products, residues, and feedstocks.
<http://www.ncbiomasstrader.org/home.aspx>

North Carolina

Ben Rich

NC Solar Center

(919) 515-9782

benjamin_rich@ncsu.edu

Canola Field Day: A Canola Processing Meeting is being held at North Carolina State University. Topics discussed at the meeting include: crunching plant design & operation, marketing Canola oil and meal, a Tennessee case study, and potential funding with Value Added Producer's Grant (VAPG).

Oklahoma

Debbie Anglin

405-840-4222

The OK Energy Office will be sponsoring a Biofuels Conference. The agenda includes James Woolsey, representatives from USDA and DOE, NREL, and research institutions. Attendees will be updated on the growth in the US Biofuels industry, current and emerging R&D, and OK's emerging biorefining sector.

South Carolina

Dr. Nick Rigas

Chair, South Carolina Biomass Council

(864) 656-2267

nrigas@clemson.edu

South Carolina has established a Biomass Council. The purpose of the Council is to improve, educate, and inform the general public and decision-makers about the environmental and economic benefits of biomass energy. See the web link below for more information.

www.scbiomass.org

South Dakota

Greg Josten

SD Dept. of Agriculture, Resource Conservation and Forestry Division

(605) 394-2279

Greg.Josten@state.sd.us

SD has completed feasibility studies for Black Hills' schools to use biomass to power heating systems. The studies found that converting would produce savings from \$10,600 to \$75,000 annually with the conversion paying for itself over an expected 30 year life span. The feedstock for the systems would be forest harvest residues and sawmill residues.

West Virginia

Keith Pauley

Mid-Atlantic Technology Research and Innovation Center (MATRIC)

(800) 611-2296

keith.pauley@matricresearch.com

West Virginia Biorefinery Study: “Flash pyrolysis” is a thermal process that can recover energy from biomass in the form of a combustible gas, a collectable, transportable liquid fuel and a valuable solid residue. The gas can be used to power the pyrolysis unit while the liquid fuel can be used in other stationary engines to generate electricity, provide heat or perform other work. The solid residue is also a valuable soil additive. Much West Virginia timber is destroyed when acreage is “clear-cut” to prepare land for mining. Studies are underway to determine the economic feasibility of recovering value from these, otherwise, wasted West Virginia resources using this pyrolysis technology. The use of the solid residue to help restore the land after mining operations is particularly appealing.

West Virginia Biodiesel Study: The availability of under-utilized chemical equipment and infrastructure in West Virginia, particularly in the Kanawha Valley, makes the location of a biodiesel manufacturing facility potentially attractive. However, the economics of such a facility are challenged by the lack of locally-produced oil feedstock. Soybeans, the oilseed crop favored for biodiesel manufacture in the United States, are grown on only approximately 17,000 acres in the state. A reasonably sized facility needs far more supply. Transportation costs of feedstock and biodiesel are important components of overall business economics. Fortunately, there is a one-to-one weight relationship of oil feedstock to biodiesel. Consequently, the cost of transporting soy oil into the valley should be comparable to the cost of transporting biodiesel the same distance, if the same transportation modes are used. That suggests that, using those same transportation modes, the overall transportation cost for serving the East Coast biodiesel market should be about the same for a biodiesel plant located in the Midwest and one located in West Virginia. However, if soy oil can be transported into the Kanawha Valley via barge, then local economics might even enjoy an advantage over a Midwest location. These, and other economic biodiesel manufacturing issues, continue to be explored.

Continuous Biodiesel Process Development and Construction: MATRIC, with its industrial partner BEST Energies, has developed a continuous process to produce biodiesel fuel from vegetable oils. The laboratory scale demonstration has allowed a full plant to be designed in the Mid-West with groundbreaking on construction during the second week in September. The continuous process, as opposed to the more common batch process, allows for a capital cost reduction of nearly 1/3rd or three times the production rate for a given plant.

Pyrolysis Unit Design and Testing: MATRIC, with its industrial partner BEST Energies, has design, developed and tested a pyrolysis unit which utilizes animal, agricultural and forestry wastes to produce both high quality soil additives and low cost syngas. The pyrolysis units will be used initially to solve waste disposal issues in the poultry, swine and bovine industries while producing enough fuel to power a large production farm operation. A new facility using this specific technology is currently under construction at a site in the Mid-West.

Anaerobic Digestion of Poultry Wastes: MATRIC, with its university partner West Virginia State University, is developing a new generation of anaerobic digestion process units to dispose of poultry wastes. These anaerobic digesters use enzymes to chemically treat the waste such that both methane and high value fertilizer is produced in significant quantities. A demonstration unit is currently operating at West Virginia State University.

Southern States Growth Policy Board BioEnergy Conference: Dr. George Keller and Keith Pauley attended the Southern States Growth Policy Board BioEnergy Conference in Atlanta, Georgia on September 14 and 15, 2006. Held at the Georgia Institute of Technology, this event focused a group of thought-leaders from across the 16-state southern region on the topic of promoting the bioenergy industry. Dr. Jan Fox from Marshall University and Dr. Albert Magro from Fairmont State University were also invited participants.

Development of Polymers from Biomaterials: MATRIC is working the Iowa Corn Promotion Board and the Pacific Northwest National Laboratories to create a new generation of polymers and polymeric additives from corn. This demonstration project will seek to introduce pre-market quantities into the current manufacturing processes. Further process design and scale-up may allow new plant construction in 2007.

Website: www.matricresearch.com

West Virginia

Jingxin Wang

Division of Forestry and Natural Resources

(304) 293-2941

jxwang@wvu.edu

The framework for the new Biobased Materials Center within the WVU Division of Forestry and Natural Resources has been developed. A technical report on biomass resources, uses, and opportunities in West Virginia is being finalized. A web site for the Biomaterials Center and a biomass development related survey are being developed. We are also planning to establish a West Virginia Biomass Council to provide guidance to the biomass research and development activities in West Virginia. <http://www.wdsc.caf.wvu.edu/Biomcenter/>

Great Lakes Region

Fred Kuzel

Great Lakes Biomass State and Regional Partnership

(312) 407-0177

fkuzel@cglg.org

The Great Lakes Biomass State and Regional Partnership (GLBSRP) hosted an informational/educational display at the fifth annual Illinois Renewable Energy Fair held in Oregon, Illinois. GLBSRP Director Fred Kuzel led a workshop on bioenergy in the region, and Illinois Department of Commerce and Economic Opportunity's Energy Director Hans Detweiler

made a featured presentation on biofuels in Illinois. The fair drew over 3,000 people from throughout the Midwest. In addition to workshops and exhibit booths, the Fair featured an alternative vehicle show which featured E-85 and biodiesel vehicles. The Partnership has participated in the fair since its inception. www.illinoisrenew.org/

Northeast Regional Biomass Program

Rick Handley

Northeast Regional Biomass Program

(518) 899-9572

rhandley@nycap.rr.com

CONEG Smart Energy Roundtable: The Coalition of Northeastern Governors held an invitation-only Roundtable discussion about “Smart Energy Choices” in Essex Junction, Vermont on September 13-14, 2006. The invitees included energy policy-makers from each state as well as private sector representatives. The Roundtable focused largely on biomass, with the four topics of discussion being: Biotransportation Fuels, Bioheating Fuels, Distributed Generation and Renewable Electricity.

North Country Hospital CHP Outreach: The NRBP has agreed to conduct research and develop a CHP outreach and education program for the Vermont Department of Forests, Parks and Recreation based on the successful CHP system at the North Country Hospital. The program will be aimed at other hospitals and long-term healthcare facilities in Vermont.