

NRBP Monthly Report
May 21, 2002

Pennsylvania Farm Bureau Hosts Meeting on Regional Ethanol Plant Activity

The NRBP participated in a meeting hosted by the Pennsylvania Farm Bureau to review the status of in-state and regional biofuels development activities. Presentations were made by: Garden State Ethanol; York County; Butler County; and Mercer County. The NRBP director gave a review of biofuels development activity in New York, Maine, Ohio and Maryland. The Group heard a presentation by PACMA, a grain feed broker in the Northeast. According to PACMA, the market for DDGs in the Northeast is very strong. Dairy cow numbers are very important to ethanol profitability, but potential markets for hogs and layers could provide a significant increase in demand. PACMA representatives were very upbeat on the market for DDGs in the Northeast. The meeting also included a review of funding opportunities by USDA, and the Task Force for 21st Century Energy Policy for Pennsylvania.

Upcoming Meetings, Workshops, and Conferences

Massachusetts will hold a working group meeting on May 28. Contact Howard Bernstein (howard.bernstein@state.ma.us).

Bioenergy 2002 Planning Committee Meeting June 11 & 12, Whitefish, MT. Contact John Crockett (www.bioenergy2002.org).

Joint New England and New York Green-e biomass advisors meeting June 13, Albany, NY. Contact Stacie Edick (stacie.edick@ny.usda.gov).

Pennsylvania Biomass Working Group meeting June 20. Contact David Bingaman (dbingaman@state.pa.us).

New England and New York Green-e Biomass Standards to be Reviewed

A June 13, 2002 meeting is planned in Albany, New York, for members of the New York and New England Green-e biomass advisory committees. The joint meeting is being held to discuss the advisability of adopting a single biomass standard for both New York and New England. New York does not currently have a biomass standard for Green-e and will consider if a joint standard with New England is best or if a separate New York standard is preferable.

The New York advisory committee may decide to:

- a) have New York accept the current New England standard for biomass;
- b) have New York create a separate standard for biomass; or
- c) create a new standard that will be accepted by both NY and New England.

The following is the New England Green-e biomass guideline for New England:

For the purposes of Green-e certification, biomass includes conventional wood-based biomass, (including construction debris that does not contain painted, treated, or pressurized wood), wood waste, agricultural crops or waste, animal and other organic waste and landfill gas. Landfill gas used to co-fire a gas unit (which may include units permitted to burn oil no more than 60 days out of the year) is a qualifying biomass source, whether piped directly to the gas unit or co-mingled with natural gas before reaching the unit. In either case, the landfill gas must be separately metered and must conform to the emissions limits for landfill gas facilities. Municipal solid waste is excluded from the list of qualifying biomass resources.

Any biomass resources used to satisfy the minimum renewable portion of a Green-e product must meet the following emissions criteria. All emissions criteria are based on a weighted average of the emissions from the resource supply mix.

Landfill Gas

The NO_x emissions of landfill gas facilities that contribute power toward a specific Green-e product shall not exceed 3.5 lb./MWH, based on a weighted average of the resource supply mix. Landfills not otherwise required to flare may be exempted from the Landfill gas NO_x emissions cap at a later date.

All Other Qualifying Biomass (as defined above)

The average, weighted NO_x emissions of all facilities using qualifying biomass other than landfill gas that contribute power toward a specific Green-e product shall not exceed:

- (i) 2.9 lb./MWH of NO_x emissions in the first, second and third year.

Standard(s) for subsequent years are adopted here, but will be reviewed based on the evolution of state-of-the art control technologies two years before they are to go into effect and adjusted if appropriate.

- (ii) 2.63 lb./MWH in the fourth, fifth and sixth years.

- (iii) 2.25 lb./MWH in the seventh, eighth and ninth years.

Emissions rates from landfill gas may not be factored into the weighted average used in calculating emissions rates from qualifying biomass facilities.

NRBP Featured Presenter at Maryland Forum

The NRBP was one of four featured presenters at a Workshop hosted by the Maryland Center for Agro-Ecology. The May 6, workshop, *Maryland's Working Landscapes: A Common Vision For 21st Century Farms Forests, and Rural Communities*, was attended by over 100 invited state government, working farmers, environmentalists, and local planners. The workshop was designed to develop good ideas for enhancing farmer and forest profitability as a means to preserving current use and preventing sprawl. The Maryland Center for Agro-Ecology Inc., is a non-profit affiliated with the University of

Maryland and located at the University's Wye Research Center. The Center offers financial support for critical research; works to develop and encourage innovative public policy at the state and federal level; and sponsors workshops and forums that educate the public on the benefits and the importance of agriculture and forestry in preserving open space. For more information contact the Center's web site at www.agroecol.umd.edu.

Review of NRBP State Activities

Connecticut: *Department of Environmental Protection (DEP)*

DEP has reported that "brown grease" in two cities is being collected to use as a fuel in waste water plants. The DEP is considering legislation that would require collection of "brown grease" to continue this practice. The biomass representative has proposed that additional use of brown grease be allowed with approval of the DEP commissioner for biodiesel production. The state has completed an inventory of organic wastes for potential energy production and other uses. An agricultural wastes study is also underway. The Clean Energy Fund is considering a biomass demonstration project at a sawmill with wood wastes. The Fund would initially fund the project. A private developer in Waterbury received a \$750,000 feasibility study to consider a biopower plant; but only a small portion would utilize biomass. The project originally anticipated two 50-55 MW gasifier plants generating electricity from wood and petroleum coke.

Delaware: *State Energy Office (SEO)*

SEO reported that the Legislature banned organic incineration statewide two years ago. The Nutrient Management Commission organized an Alternative Fuels Task Force to examine poultry waste management options. Now the Legislative statute may be overturned regarding organic incineration. The corn-to-heat workshop was postponed until late September, to feature a corn stove distributor. The Biomass Working Group changed its name to Consortium in order to appeal to a wider group of stakeholders. Nineteen attended the last meeting and toured a landfill gas facility.

Maine: *State Planning Office (SPO)*

Maine has assembled a very active group of State Commissioners, senior staff, and University researchers to consider the adequacy of the State's R&D infrastructure to attract bio-products production and support industry growth. A meeting of key University of Maine faculty and administrators, four Cabinet members (the Commissioners of Economic & Community Development, Environmental Protection, and Conservation, and the Director of the State Planning Office), senior staff, and the Director of the NRBP was held to identify common interests and opportunities for collaboration. The state's biomass representative has also conducted briefings to update the Governor, Commissioners, and senior staff on bio-products opportunities and progress.

Maryland: *Maryland Energy Administration (MEA)*

Nutrient waste management has been a central concern in Maryland. The Dept. of Environment now requires nutrient waste management plans to be filed by the end of this year: this presents a major opportunity to implement biomass projects. A bond issue may be needed to assist farmers with implementation. Some barns are being heated with wood heat at a demonstration farm and an evaluation is now underway. The state is examining the feasibility of switchgrass as a barrier for stream beds. Small-scale anaerobic digesters are also under study as a solution to nutrient waste problems. Refueling stations with ethanol are being built, including one in the DC area. A feasibility

study for a 20 million gallon ethanol plant from barley is being completed. A willow and poplar demonstration area planted several years ago may now be harvested.

Massachusetts: Division of Energy Resources (DOER)DOER reported that their large and active Working Group has completed a Biomass Supply report in draft form. The Renewables Portfolio Standard has commanded a great deal of attention. Eligible biomass fuel language changed in response to member comments: saw mill wastes, slash, and residues were inadvertently omitted in the first draft, only processed wastes were originally eligible. Liquid biomass fuels language has also been added. The original rule allowed only gasification and other “advanced technology”. Stoker and pile burn technologies were added after member comments, consistent with air permitting requirements. The Legislative Energy Committee, responsible for final adoption of the rules, did not accept all of these changes. Therefore the air permitting threshold was thrown out, especially with respect to out-of-state power plants, and “advanced technology” language was restored, leaving out pile burn and stokers.

World Energy, a biodiesel distributor, will open a service station pump in Chelsea, the site of its headquarters.

The Mt. Wachusett electric-to-wood conversion is moving forward, to be completed in September. The Massachusetts Water Resources Authority has several water treatment plants and has proposed powering one of their plants with wood provided from land adjacent to the reservoirs. Hampshire College is looking at district heating and working with the Biomass Energy Research Center for a feasibility study. A bio-oil project with a sawmill has been proposed, in conjunction with Renewable Oil International. Mill wastes and chips would be the feedstocks, producing 500 KW to 1 MW. Facility and waste heat would provide sawmill steam needs. Modest grant funding would be required to make this project viable.

New Hampshire: *Governor's Office of Energy and Community Services (ECS)*

One of the six remaining wood-fired power plants has closed. As a result of this event and the decline in the paper industry, bio-oil has gained attention as an opportunity to revive the forest products industry. The ECS has applied for a Biomass Power special projects grant, with bio-oil as the focus. The premise for the development of the potential new industry is a free, or low-cost, feedstock. Dartmouth College has had to temporarily halt its research on the enzymatic conversion of cellulose to ethanol due to loss of its sludge feedstock. The work is sponsored by NRBP funds designated for New Hampshire.

New Jersey: *Department of Environmental Protection, Forest Service (DEP)*

The State Renewable Portfolio Standard requires sustainable supply, and that Rex Lumber meet that test for its biomass gasification application. Novis Energy's Lou Brevakis spoke to a forestry management consultant group in southern New Jersey about chip burners and CHP opportunities. There is a CHP potential application in a southern NJ prison. The Biomass Working Group recently met and discussed options to restrict stoker systems as a qualifying renewable technology choice under the RPS regulations. There is about \$70 million in the Renewables Fund. Southern pine bark beetle infestation is a significant menace recently arriving in New Jersey. Previously this problem was confined to the SE.

New York: *New York State Energy Research & Development Authority (NYSERDA)*

NYSERDA has a permanent and broad-based program to promote biomass in a variety of applications. NYSERDA's Innovation in Agriculture Program has promoted projects in topics including manure management, value-added products such as biofuels, and controlled environment agriculture. NYSERDA and NREL held a successful Renewable Diesel Workshop in Albany, March 18, 2002. The agenda included discussions on policy, market drivers, and the use of biodiesel in transportation as well as in heating markets. Goals of the meeting include education and networking. NYSERDA has been meeting with key stakeholders, developing several projects, and planning future efforts in biodiesel. One ongoing project is looking at the viability of biodiesel in home heating applications. Researchers are studying the effects the fuel blend could have on residential-scale furnaces. This year's NRBP grant is being used to conduct a home heating demonstration in 100 houses for the 2001-2002 heating season.

Pennsylvania: *Department of Agriculture (PDA)*

Interest in ethanol production within the farm community is up. Efforts include a feasibility study on ethanol production. A group of farmers are working with the Mercer County extension office on a pre-feasibility investigation to look at economic factors, including siting for a plant, rail access, heat, water, power, and the cost of supporting grain by rail. In March, the Pennsylvania Legislative Energy Committee held a biofuel energy briefing to hear testimony on how the state can enhance the development of biodiesel and ethanol to displace foreign oil. Discussions continue on the biomass switch grass pilot project approved by USDA.

Rhode Island: *Department of Administration, State Energy Office (RISEO)*

The Warwick school district is demonstrating biodiesel in its heating system. Results to date show a reduction in emissions and no operation difficulties. The State Energy Office plans to work to establish an E-85 refueling station for state vehicles. A working group is in the planning stages and will meet this spring.

Vermont: *Department of Public Service (DPS)*

Vermont's Committee to Ensure Clean Air released its report to the Legislature, and included biomass among its endorsed technologies, but sought more attention from emissions from unregulated biomass energy sources. The Conservation Law Foundation sought emissions information from smaller facilities, including Vermont schools. Concerns about fly ash composition surfaced in the Solid Waste Division. The Spaulding High School wood chip heating system will soon be the largest in the state among schools (8 million BTUs). Atmospheric mercury is concentrated in soils and biomass at levels not previously appreciated, posing a concern to scientists, according to a recent article in "Forest Products Equipment." Wildfire is the particular danger in the accumulation of airborne mercury and in its intake by fish in water.