

Ohio Biomass Energy Program

Summer 2006

Promoting the development of renewable energy resources in Ohio, including wood and agricultural residues; ethanol and biodiesel biofuels; landfill gas to energy; and energy crops.

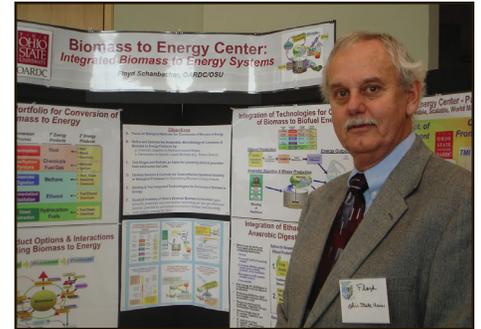
Technical Conferences Held in Response to Federal Energy Policy Act

The Public Utilities Commission of Ohio (PUCO) recently held four technical conferences related to distributed energy generation issues. Numerous experts provided technical presentations on net metering, smart metering, demand response, cogeneration, and small power production issues. One speaker, Joe Kramer of the Energy Center of Wisconsin, gave an informative presentation about anaerobic digestion projects operating in the Great Lakes region, mostly on dairy farms.

The conferences were held in response to a proceeding initiated on Dec. 14, 2005 to review the Commission's actions regarding provisions of the Federal Energy Policy Act of 2005 (EPA 2005), which require state regulatory agencies to consider and make a determination regarding distributed generation issues. In addition to the technical conferences, the interested parties were able to submit comments and make recommendations. The Commission issued an entry on July 28 directing the staff to review the comments submitted and make recommendations with regard to issues raised in the proceeding by Sept. 30, 2006. Interested parties may file written responses within 20 days following the issuance of staff recommendations.



Ohio First Lady Hope Taft delivered a keynote address at the PUCO Technical Conferences about the solar panels on the Governor's Residence.



Floyd Schanbacher of the OSU Ohio Agriculture Research and Development Center presented information about biomass energy technologies at the PUCO Technical Conferences.

The PUCO staff extends its special appreciation to Dale Arnold, Director of Energy Services of the Ohio Farm Bureau Federation, for presenting at each of the four technical conferences. Arnold addressed the critical concerns of farmers with regard to controlling rising energy costs, and the critical needs of farmers to implement diversified farm energy portfolios, risk management strategies for energy supplies and purchases, smart metering and demand response technology tools, and economical distributed generation projects.

To obtain copies of the documents and information about the proceeding in case number 05-1500-EI-COI, please visit www.PUCO.ohio.gov. Recorded Web casts of the conferences are also available for download on the site. ♦

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The Ohio Biomass Energy Program

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www.PUCO.ohio.gov

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HB 245 Passed by Legislature and Sent to Governor

House Bill 245 (HB 245), the alternative fuels legislation, passed both the Ohio House and Senate in May. The bill is expected to be signed by Gov. Bob Taft early in July.

The bill sets requirements for the purchase of alternative fuel vehicles (using E-85 ethanol and biodiesel) within the state fleet and establishes guidelines for the use of these fuels. The bill also expands the Alternative Fuel Transportation Grant Program to make grants for purchasing and installing alternative fuel distribution facilities and terminals, and funding educational and promotional activities regarding alternative fuels. Programs were also established in the bill to reduce diesel emissions.

The legislation is aimed at increasing the availability and use of alternative fuels in Ohio. The bill includes a \$1 million transfer from the Energy Efficiency Revolving Loan fund to the Alternative Fuel Transportation Grant fund.

For more information about the provisions of HB 245 or its status, visit the Ohio General Assembly Web site at www.legislature.ohio.gov. ♦

Biodiesel Fuel Facility Planned for Toledo

The Toledo area will soon be part of the growing alternative fuels industry as plans were recently announced by American Biodiesel, LLC to build a \$17 million facility that will produce and blend biodiesel fuel.

The plant will produce B-100 fuel, or fuel that is 100 percent biodiesel. Additionally, a partnership with Delta Fuels will allow the plant to produce blended petroleum and biodiesel fuels. Soybean oil will be used to produce the fuel, and the company plans to make it a priority to use soybean oil grown and produced in Ohio.

Rising energy costs are creating an increased demand for renewable fuels, and the demand for biodiesel is expected to grow in the upcoming years. Federal and state government initiatives are also supporting the growing biodiesel industry. For example, the federal American Jobs Creation Act of 2004 and Ohio House Bill 245 have created fuel tax rebates and usage requirements for biodiesel fuel.

For more information about the American Biodiesel facility, visit www.americanbiodiesel.net. ♦



Governor Bob Taft pours biodiesel fuel into a Cincinnati city bus on March 22, 2006, as part of a visit to Peter Cremer North America on Ohio Agriculture Day. (Photo by Chris Kasson/Office of the Governor)

Ohio Bioproducts Innovation Center Offers Resources for Bioproduct Industry



The newly formed Ohio Bioproducts Innovation Center (OBIC) is a research alliance to further develop renewable specialty chemicals, polymers/plastics, and advanced materials in Ohio. The

OBIC was created in 2005, and received 11.5 million in Third Frontier grant funding from the Ohio Department of Development.

The research scientists at The Ohio State University and Battelle Memorial Institute will work with representatives from Ohio's agriculture industry and chemicals, polymers, and rubber materials industry on initiatives to further the commercialization of bioproducts. A variety of companies make up the OBIC board of advisors, and these companies are interested in bio-based sources of chemical feedstocks to use in their operations.

Demand for bioproducts is expected to continue to rise in the future because they offer an alternative to petroleum-based materials. Bioproducts are also advantageous because the cost is increasing at a much slower rate than petroleum-based chemicals.

Currently, Ohio leads the U.S. in polymer and advanced materials technology, and manufacturing in these industries is expected to continue to grow in the future. For more information about the OBIC or to learn about how the center can provide resources for your bioproducts project, visit <http://bioproducts.osu.edu>. ♦

Use of Biodiesel Makes Dollars and Sense to COTA

The air surrounding bus stops in Columbus will be noticeably cleaner. This summer, the Central Ohio Transit Authority (COTA), is using a 90 percent biodiesel fuel blend (90 percent soybean and other vegetable oils and 10 percent low-sulfur diesel) to run its 232 bus fleet. COTA is blending its own fuels to take advantage of a \$1 per gallon federal tax credit, which will bring the cost of fuel comparable to or lower than regular diesel.

There are many advantages to using a biodiesel fuel blend, including significantly reduced tailpipe particulate matter and hydrocarbon emissions, reduced odor, cost savings, and improved engine lubricity. COTA will also utilize a renewable Ohio-grown soybean resource with this initiative.

COTA did not need to purchase new fuel tanks for the fuel, but instead was able to clean out the existing in-ground tanks. To create the biodiesel blend, the biodiesel fuel is splash blended with regular low sulfur diesel fuel. The supplier of the biodiesel is Peter Cremer North America, Cincinnati, which was selected through a bid process. In the colder months, COTA plans to reduce the amount of biodiesel blended to 50 percent or 20 percent in order to avoid possible gelling problems that can occur in cold weather.

COTA currently uses about 2 million gallons of fuel each year, and intends to continue using the biodiesel fuel in the future barring any unforeseen issues. The Ohio Biomass Energy Program would like to extend to COTA high praise for its leadership in using this cleaner, renewable, and locally produced fuel.

For additional information about biodiesel fuel, please visit the Web site of the National Biodiesel Board at www.biodiesel.org.

Additionally, the second edition of the Biodiesel Handling and Use Guidelines is available on the Web site of the National Renewable Energy Laboratory at www.nrel.gov. ♦

COTA
Introducing the
**LEAN, CLEAN,
BEAN MACHINE.**
COTA is fighting high fuel prices by using Bio-Diesel fuel made from Ohio-grown soybeans. It's cleaner and renewable!

Environmentally Friendly

- Cleaner air
- Up to 80% less soot emissions
- Biodegradable
- Non-toxic
- Renewable, non-fossil fuel
- Reduces diesel emissions and odor

Fiscally/Operationally Sound

- Saves an estimated \$400,000 per year over diesel fuel
- Helps Ohio farmers and the economy
- Increases engine life

COTA will use up to 90% Bio-Diesel blend June through September, 2006

For more information, call (614) 228-1776 or visit www.cota.com
Available information available upon request. Please call 614-228-1663.

COTA

Seminar Highlights Emerging Plug-In Hybrid Electric Vehicle Technology

A new campaign to promote the development of Plug-In Hybrid Electric Vehicles (PHEVs) was presented at a seminar held on April 25 in Columbus. The seminar was hosted by Clean Fuels Ohio at the Center for Automotive Research at The Ohio State University.

PHEV's use the same technology as the hybrid vehicles on the road today, but have a larger battery that can be recharged by plugging into a standard 120-volt electrical outlet. The technology results in about twice the fuel economy of a conventional vehicle and 30-50 percent better fuel economy than a standard hybrid. Depending on the design and battery size, the vehicle can be driven 20-60 miles on battery charge without the use of gasoline. Further, PHEV technology can be combined with existing flexible fuel vehicle (FFV) technology for use with domestically produced ethanol and biodiesel bioenergy sources to further reduce greenhouse gas emissions and the use of imported oil.

At the Plug-In Hybrid Electric Vehicle Seminar, attendees learned that the environmental benefits of PHEV's include increasing fuel economy and reducing emissions.

PHEV's would provide environmental benefits not only by increasing fuel economy, but by reducing regional tailpipe emissions and controlling emissions at the central source power plant through pollution control technology or zero emission sources such as wind power. Most PHEVs would be charged at night when electricity demand is at its lowest and in some regions when wind energy production is at its highest. According to the Electric Power Research Institute (EPRI), half of the cars on U.S roads are driven 25 miles per day or less. A PHEV with a 25-mile electric range would dramatically reduce the amount of refueling each year.

The national Plug-In Partners campaign is directed toward automakers to demonstrate that a market exists for PHEV's as a practical near-term solution to fuel source issues. The City of Austin, Texas and Austin Energy have established a Web site for this initiative. For additional information, go to www.pluginpartners.org. ♦

Save the Date: Upcoming Biomass Events

Farm Science Review

Presented by: The Ohio State University
Sept. 19 - 21, 2006
London, Ohio
www.fsr.osu.edu

While visiting the Farm Science Review, look for information from the Ohio Biomass Energy Program at a booth hosted by the Public Utilities Commission of Ohio. Staff will be available to distribute information and answer questions about utility and energy issues.

Power-Gen Renewable Energy & Fuels

Call for Papers Abstract Deadline extended until July 28, 2006
Presented by: ACORE
March 6-8, 2007
Las Vegas, NV
www.power-gengreen.com

BioCycle Conference on Renewable Energy: From Organics to Recycling

Presented by: BioCycle Magazine
Oct. 30 - Nov. 1, 2006
Minneapolis, Minnesota
www.jgpress.com/biocyclus

European Biomass Conference & Exhibition: Biomass for Energy, Industry, and Climate Protection

Presented by: ETA-Florence and WIP-Munich
May 7 - 11, 2007
Berlin, Germany
www.conference-biomass.com

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ADDRESS CORRECTION REQUESTED

