

Ohio Biomass Energy Program

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.

Franklin County Landfill to Produce Green Energy

The Franklin County Landfill, operated by the Solid Waste Authority of Central Ohio (SWACO), is expected to be operational for 20 years into the future with the use of recycling initiatives. However, gasses generated by the decomposing trash would continue to be released into the air several decades after the last load of trash is dumped.

On June 21, 2005, SWACO announced a partnership with FirmGreen that will use the landfill gas to produce electricity and other forms of green energy sources in a state-of-the-art Green Energy Center. There will be three phases to the project that will be implemented over the next 14 months.

Phase I will use the landfill gas to produce electricity to power SWACO's Administration, Education, and Fleet Maintenance buildings, which will provide savings on the costs of electricity and propane fuel. This project will also provide environmental benefits and create jobs for the Columbus community. The first phase of the project is expected to be completed by the end of 2005.

The second phase of the project will use technology to convert the landfill gas into Compressed Natural Gas (CNG), which SWACO will use to fuel fleet vehicles. This phase is scheduled to be operational in nine months.

In the final phase, landfill gas will be converted into methanol and CO₂ to be sold on the open market. SWACO will sell landfill gas to FirmGreen, who will produce the methanol at a proposed facility to be built next to the landfill. FirmGreen has already identified potential users of the methanol, and this phase is expected to be operational in 14 months.

The Green Energy Center will use landfill gas to produce electricity and other forms of green energy sources.

In addition to producing methanol, FirmGreen also hopes to use the methanol to produce biodiesel fuel by mixing it with soybean oil. This clean-burning fuel can be used to power diesel vehicles. This production of biodiesel would be the first in the world to use green methanol made from processed landfill gas.

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The Ohio Biomass Energy Program

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(Franklin County Landfill, continued from cover)

SWACO's Green Energy Center will be funded through an \$18 million investment from FirmGreen, and no taxpayer dollars will be used on the project. Construction will create 125 construction jobs, and the opening of the facility will create 25 permanent jobs for the Columbus area. For more information about the Green Energy Center, visit the SWACO Web site at www.swaco.org.



SWACO Executive Director Mike Long speaks at the groundbreaking for the Green Energy Center.



Representatives from SWACO and FirmGreen ceremoniously shovel dirt for the building of the Green Energy Center. The first phase is scheduled to be operational by the end of 2005.

Focus On: State Budget

The state biennial budget, which was signed on June 30 by Gov. Bob Taft, includes \$150,000 to promote the development of Ohio's biofuels infrastructure. The budget bill created the Alternative Fuel Transportation Grant Fund to fund the purchase and installation of alternative fuel refueling facilities and for the purchase and use of biodiesel or ethanol. The fund will be administered by the Ohio Department of Development, Office of Energy Efficiency. Grants will be open to businesses, nonprofit organizations, public school systems, or local governments. Details about the grant program will be made available later this year when the program is operating.

Alternative Fuel Vehicles Bill Passed by Ohio House Committee

A bill that would increase the amount of alternative fuels used in state vehicles was passed by the Ohio House Transportation, Public Safety, and Homeland Security Committee of the Ohio General Assembly in June. House Bill 245 (HB 245), sponsored by Representative Steve Reinhard (R-Bucyrus), would require state agencies to have 90 percent of the vehicles purchased for their fleets capable of running on alternative fuels. Additionally, it would require state agencies to increase the percentage of alternative fuels purchased for fleet vehicles from 30 percent in fiscal year 2006 up to 90 percent starting in 2008.

Currently, Ohio is in compliance with the Federal Energy Policy Act (EPACT) which requires that 75 percent of the state vehicles purchased must be capable of running on alternative fuels. However, the use of E-85 fuel in the flexible fuel vehicles has been limited by the low availability of these fueling facilities.

HB 245 would create an Alternative Fuel Transportation grant program at the Ohio Department of Agriculture to make grants available to businesses, nonprofit organizations, public school systems, or local governments for the purchase and installation of alternative fuel refueling facilities, terminals, distribution facilities, and for the purchase and use of alternative fuel. The bill would also create corporate franchise and income tax credits for the installation of E-85 blend fuel pumps or retrofitting existing fuel pumps at retail service stations. The bill would establish a "Biodiesel Revolving Fund" to pay for the incremental cost of biodiesel for use in state owned or leased vehicles.

For more information about HB 245, please visit the Ohio House of Representatives Web site at www.house.state.oh.us.

Senator Larry A. Mumper (R-Marion) introduced Senate Bill 156 (SB 156) in June with similar alternative fuel provisions. The bill establishes requirements regarding state agency purchases of alternative fuel vehicles and alternative fuels, a Biodiesel Revolving Loan Fund, alternative fuel transportation grant program, and tax credits for retail service stations to install E-85 blend fuel pumps. The bill has been assigned to the Senate Ways and Means and Economic Development Committee. For additional information about SB 156, please visit the Ohio Senate Web site at www.senate.state.oh.us.

Minnesota Governor Signs Ethanol Initiative

Part of the mission of the Ohio Biomass Energy Program is to highlight initiatives and accomplishments in the Midwest region that promote the use of biomass and renewable energy. Minnesota, the nation's leader in the use of renewable fuels, will increase the amount of ethanol in gasoline sold across the state as a result of legislation recently signed by Gov. Tim Pawlenty.

Under the new legislation signed on May 10, 2005, Minnesota law will require all gasoline sold in the state to include 20 percent ethanol starting in 2013. Since 1997, the law has required gasoline sold to include 10 percent ethanol.

Approximately 130 gas stations throughout Minnesota have E85 gas – a blend of 85 percent ethanol and 15 percent gasoline – available to customers. Many Minnesota citizens now drive flexible fuel cars that are designed to run on either gasoline or E85.

The ethanol industry in Minnesota creates more than 5,300 jobs and contributes \$1.3 billion dollars to the state's economy. Minnesota ranks 4th in the production of fuel-grade ethanol, and 15 percent of corn grown in the state is used for ethanol.

Since Minnesota became the first state to require the use of ethanol in gasoline, other states have enacted similar initiatives. Hawaii and Montana have recently passed similar ethanol mandates.

In April, Iowa Gov. Thomas J. Vilsack signed an executive order in which state agencies are required to purchase alternative fuel vehicles or hybrid-electric vehicles, and that the flexible fuel vehicles operate on E85 whenever an E85 facility is available. He also directed agencies to procure biodiesel blends, subject to availability, with the requirements for renewable content increasing from at least 5 percent by 2007, 10 percent by 2008, and 20 percent by 2010.



Ohio Proposals Submitted for Renewable Energy and Energy Efficiency Funding



Nine applications were submitted from Ohio for grants from the 2005 United States Department of Agriculture (USDA) Renewable Energy Systems and Energy Efficiency Improvements Program, according to the USDA Rural Development office in Columbus. This nationwide program was created in 2002 as part of the federal Farm Bill to provide assistance to farmers and rural small businesses in renewable energy installations and energy efficiency improvements. Applications were due at the end of June.

The 2005 Ohio applications included two biomass energy projects – an anaerobic digester for a dairy farm and a furnace using wood and agricultural wastes to heat a hog nursery. A third renewable energy proposal is for a small scale wind energy application with three turbines. Six other project proposals are for rural energy efficiency improvements, including energy efficient coolers and compressors for a grocery store, two greenhouse upgrades, two grain dryers, and improving the efficiency of a coal fired fluidized bed system used at a greenhouse operation. The nine applications that were submitted this year is an increase above the five received during each of the past two years.

To promote the USDA grant program, the Ohio Biomass Task Force hosted a workshop on March 3, 2005 at the Ohio Department of Agriculture in Reynoldsburg with 150 participants. Smaller workshops were also held later that month in Toledo, Massillon, and Piketon.

In 2003 and 2004, a total of \$44 million in grants was awarded to 281 projects in 33 states. For additional information about the USDA grant program, please visit www.rurdev.usda.gov/rbs/farmbill.

Watch the Ohio Biomass Energy Program Web site at www.PUCO.ohio.gov for a new look starting Aug. 1, 2005. The new Web site is designed to help visitors find the important biomass and utility-related information they need. The PUCO Web site will feature a link directly to the Ohio Biomass Energy Program from the home page. Visit www.PUCO.ohio.gov for more information.

Fifth Annual Biocycle Conference Focuses on Renewable Energy, Anaerobic Digestion, and Biomass

The *Fifth Annual Biocycle Conference on Renewable Energy from Organics Recycling* will be held Sept. 12-14, 2005 in Madison, WI at the Marriott West Hotel. This is the primary national bioenergy conference scheduled this year, and includes two full days of sessions on bioenergy technologies, feed stocks, economics, and incentives.

The third day is devoted to field trips for a firsthand look at several bioenergy facilities, including an anaerobic digester on a dairy farm, ethanol plant, and landfill gas to electricity project.

The Great Lakes Biomass State and Regional Partnership, of which the Ohio Biomass Energy Program is a member, is a co-sponsor of the conference.

The registration fee is \$395. For conference information, go to the Biocycle conference Web site at www.biocycle.net.

Save the Date: Biomass Events

Ohio Farm Science Review

Sept. 20-22, 2005

London, Ohio

Held at the Molly Caren Agricultural Center of The Ohio State University, the Ohio Farm Science Review is an annual event featuring programs and activities that highlight the latest developments in agriculture, including conservation and energy resources. The PUCO, which houses the Ohio Biomass Energy Program, will host a booth at this event to distribute energy and biomass information.

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