

## **Pacific Regional Biomass Energy Program August 2005 Monthly Report**

### **State Policies and Incentives Favorable to Support Biomass Energy Use in Montana:**

1. Montana Department of Environmental Quality (DEQ) started to develop information for the development of rules to ban MTBE. A number of states have existing laws. A short analyses of gasoline samples from late 2004 indicated that the MTBE level in Montana gasoline needed to be lower to protect some water supplies. The rule making needs to get scheduled on the Montana Board of Environmental Review, possibly at their spring quarterly meeting.

#### **Increase Biomass Energy Development through Technical Assistance**

2. In August, Montana Department of Environmental Quality (DEQ) responded to a request regarding permitting of an industrial hemp-to-ethanol production facility. Although Montana has a 2003 law regarding registration with the Department of Justice for the production of industrial hemp, the law is not in effect until industrial hemp production in the U. S. is permitted.

Currently, the producer would need to import the industrial hemp and then process it.

Unfortunately, the processing of industrial hemp for ethanol production appears to destroy the usefulness of the fiber for paper and other fiber products. Also, biodiesel may have been a better biofuels choice using hemp oil, and using the fibers for other markets.

#### **Increase Biomass Energy Awareness in Montana:**

3. The Montana Department of Environmental Quality (DEQ) helped develop a project proposal to place E85 FFVs and fuel in the Montana Conservation Corps that serves Montana, Wyoming, North Dakota, and parts of Idaho.

4. As part of the recognition of Montana Department of Environmental Quality's (DEQ) 10th anniversary, the biodiesel-powered glass pulverizer was unveiled August 1, 2005 at a ceremony with Lt. Governor John Bolinger.

#### **Leveraging of State and Federal Funding including Project Implementation and Partnerships in Montana:**

5. Joe Jobe, National Biodiesel Board, and Phil Madson, KATZEN International, were confirmed for biodiesel and ethanol speakers at the Governor's Energy Summit in October.

#### **Upcoming Biomass Events:**

- Pacific Regional Biomass Energy Program Peer Exchange, September 22-23, 2005, Valdez, Alaska
- Emissions (modeling) Forum Meeting - Missoula, MT, September 27-28, 2005
- Energy Management Institute, Professional Ethanol Management Program, Chicago, October 4 - 5, 2005.
- Greater Yellowstone Area Clean Air Partnership, October 4-6, 2005, Gardiner, MT
- Greening the Hospitality Industry Conference - Washington, DC, October 5-7, 2005
- Fuels for Schools Workshop, October 11-14, 2005, Missoula, Montana
- Professional Grant Proposal Writing Workshop, University of Montana-Missoula, October 17-19, 2005
- Governor's Summit on Energy, October 16-17, 2005, MSU Bozeman, Montana
- 16th Annual Montana Ethanol Conference, June 13-15, 2006, Whitefish, Montana

**Oregon Legislation to Boost Biomass Energy:** Oregon's 73rd Legislative Assembly adjourned on August 5, 2005, after enacting several bills affecting renewable energy development. Although failing to agree on an ambitious package of measures to promote biofuel use and production, the Legislature adopted new laws that should benefit biomass energy projects in the state. Included in the list of legislative accomplishments were the following:

- Senate Bill 84 amended Oregon's net metering law, making biomass energy projects eligible for net metering. Biomass projects now eligible for the incentive include landfill gas, digester gas, dedicated energy crops and low-emission energy from wood, forest or field residues.

- Senate Bill 735 authorizes loans to intergovernmental agencies for renewable energy projects, making it easier to fund such projects. This will allow more than one county or other local government entities to co-sponsor a project and will make projects located partially inside and outside of Oregon eligible for the state's Energy Loan Program. The Program has funded nearly \$200 million in renewable energy projects in its 24-year history.

- Senate Bill 736 expands an exemption from the state's site certificate requirement. A site certificate is a comprehensive state permit for siting energy facilities. State law previously exempted ethanol production facilities that use specified agricultural products as feedstock and that meet other criteria to limit environmental impact. The new law expands the eligible feedstock to include oil seed, waste oil, grass, straw, forest material and other organic material. Biodiesel production facilities as well as ethanol production facilities will now be eligible for the exemption.

- Senate Bill 1072 encourages greater use of forest waste material for bioenergy facilities on federal and state lands. The legislation directs the Oregon Department of Forestry to work with the Department of Energy and other state agencies to look for opportunities to develop bioenergy facilities while preserving forest health. The bill includes a legislative finding that "a biomass-based industry may provide a renewable source of energy, reduce net greenhouse gas emissions, reduce air pollution from wildfires, improve fish and wildlife habitat, create jobs and provide economic benefits to rural communities." The Legislature declared state policy support for biomass-fueled energy production facilities.

- House Bill 3350 expands the ability of local governments to provide property tax exemptions within designated "rural renewable energy development zones." To qualify for the tax exemption, the property must be used to generate renewable energy or to support or maintain a renewable energy facility.

**County of Hawaii Biodiesel Production and Organics Composting Facilities:** The County of Hawaii is planning two biodiesel production and organics composting facilities on the Big Island, in partnership with the private sector, as a result of the findings of its 2004 survey of food establishments. The survey, to determine the available amount of used cooking oil and grease for biodiesel production, was conducted under a Pacific Regional Biomass Energy Program (PRBEP) grant. The proposed facilities, in West Hawaii and in East Hawaii, will include receiving bays for grease trap waste and used cooking oil. With additional PRBEP support, the County is developing a biodiesel education program including fact sheets and a brochure that will be distributed with survey results. Funding for the proposed facilities is subject to County Council approval.

**Hawaii Gas Cap Law:** Hawaii's Gas Cap law goes into effect on September 1, 2005. Under the law, the Public Utilities Commission sets the weekly maximum wholesale price for gasoline based on the average of wholesale spot prices in the U.S. Gulf Coast, New York Harbor and Los Angeles. While the effect of Hawaii's Price Caps on pump prices is uncertain, it is likely that the new law will increase Hawaii prices in the near term due to the impact of Hurricane Katrina on the benchmark markets.

**Analysis of Selected Biomass Materials in Hawaii:** The Hawaii Natural Energy Institute (HNEI) completed two technical analyses and reports to support industry interest in use of agriculture and forestry residues for bioenergy. “Physicochemical Analysis of Selected Biomass Materials in Hawaii,” funded by Pacific Regional Biomass Energy Program (PRBEP), includes analyses of cane trash (leaf and top material) from Hawaiian Commercial & Sugar, and analyses of mahogany, eucalyptus, gum, and tropical ash tree samples from Hawaii forestry plantings. The “Preliminary Gasification Testing of Mixed Eucalyptus Derives Fuels” analysis and report includes heating values and chemical compositions of available forestry feedstocks. The reports will be available on-line at Hawaii’s biomass program website.

**Ethanol Outreach in Hawaii:** On April 2, 2006, gasoline in Hawaii will be required to contain 10 percent ethanol. In anticipation of the ethanol requirement, a public education and outreach program is in development including workshops, a website, educational materials, and information dissemination via the media.

**Alaska Farm Bill Forum:** Alaska Energy Authority (AEA) Program Manager Peter Crimp testified at the Alaska Farm Bill Forum on August 25 in Palmer, Alaska. Over 100 attended the Forum.

**Update on Wood Energy in Alaska:** Alaska Energy Authority (AEA) Program Manager Peter Crimp accompanied consultant Tom Miles and Juneau Economic Development Council staffer Dan Parrent on visits to two prospective wood district heating projects in Venetie and Delta Junction. The final design of the Craig Wood Fired district heating project is in progress.

**Update on the Fish Biodiesel Project.** Denali National Park’s staff continued troubleshooting the 50 kW Onan generator at Toklat Work Center fueled with B100. However, performance remains poor--replacing the thermostat to run the engine at higher temperature and replacing the fuel pump did not rectify the problem. Denali Park will resume biodiesel tests next summer after the weather warms up.

University of Alaska Fairbanks (UAF) noticed discoloration of the one of the totes of biodiesel. Running the engine with the discolored fuel caused filters and injectors to promptly plug, shutting down the unit. Alaska Energy Authority (AEA)/Steigers Corporation sent in and is awaiting laboratory test results of Denali Park and UAF fuel samples.

AEA and Alaska Village Electric Cooperative powered the sound stage at the Alaska Renewable Energy Fair on August 12 with B100.

### **Washington State Biomass Energy Monthly Report for August:**

#### Perspective

Chad Kruger and Craig Frear attended Iowa State University’s Growing the Bioeconomy conference. They brought back some key perspectives as follows:

1. “It is clear that in terms of technical R&D, we (WSU, Washington, the PNW region) are being left in the Stone Age. . . The fact that corn and soybeans existed as major crops in Iowa before ethanol and biodiesel made biofuels a no-brainer investment for them – **but it is a major hurdle for us as we are talking about “emerging” feedstock crops and not a market glutting amount of existing crops.**

2. **We really need to get serious immediately about clearly articulating what a PNW-specific bioeconomy might / should look like.**" - Quote from Chad Kruger, WSU (bolding for emphasis by Dave Sjoding).

### An Emerging Biopower Issue

Three dairy CHP/digester projects were put on hold pending resolution of a series of questions regarding the recent EPA's Air Quality Compliance agreement on Animal Feeding Operations Air Agreement <http://www.epa.gov/compliance/resources/agreements/caa/cafo-agr-0501.html> . This agreement has triggered a host of questions by dairy farmers regarding CHP/digester systems. Specific questions include:

1. What does a digester do for those air emissions being regulated by EPA (ammonia, hydrogen sulfide, VOC, particulate matter)
  - Will a digester solve my odor problem? How about the lagoon with the effluent from the digester? Is there still odor from the digested effluent when applied to the land?
2. What does a digester do to solve the nutrient loading problem on my land (primarily Phosphate, but also Nitrogen)?

Washington State University is working with the dairy farmers to resolve these questions.

### Key Highlights

There are five highlights for this month's report:

- 1) U.S. Senator Cantwell conducted a two day tour and meetings in eastern Washington Counties to discuss biodiesel in early August.
- 2) A WSU bioproducts/bioenergy meeting was held in Pullman, WA on August 19, 2005;
- 3) Triple-Bio (Bioenergy, Bioproducts and BIOAg. BIOAg focuses on capturing ecosystem services including energy efficiency [reducing the use of fuel and fossil energy based fertilizer inputs to agriculture and the use of biological controls of pests]) continues to emerge as a major program development initiative at WSU;
- 4) A five page summary of WSU's biopower/anaerobic digestion efforts has been developed. Over \$3 million dollars has been committed to reduce costs, add additional related bioproducts and bring this technology to the Pacific Northwest and beyond. It is entitled *Anaerobic Digestion at Washington State University: Research, Demonstration and Outreach Efforts*. A similar summary of the two decades of biofuel efforts is being developed; and
- 5) Updates have been made to the Pacific Biomass website including: 1) The events section now has the Alaska Rural Energy Conference and the Global Oil Depletion Conference added to it; 2) The net energy balance portion of the library under Ethanol has the latest PowerPoint from Argonne National Laboratory and a link to the GREET model; 3) A Regional and state level activities/news section is now on line; 4) An intranet/password protected area is also being developed.