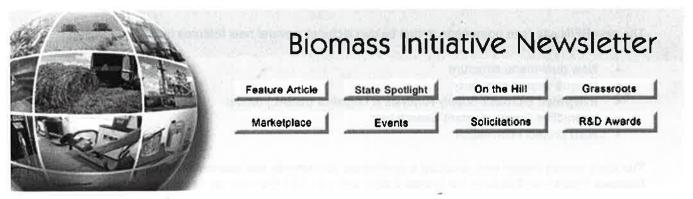
050873

---- Original Message ----- From: Biomass Initiative

To: mainbionewslist@bcs-hq.com

Sent: Friday, December 09, 2005 2:42 PM

Subject: Biomass Initiative 2005 December Newsletter



Feature Article

December 2005

Newly Redesigned Bioenergy Feedstock Information Network (BFIN) Now Online

December 5, 2005

Adam McCann - BCS, Incorporated

Oak Ridge National Laboratory (ORNL) recently redesigned its Bioenergy Feedstock Information Network (BFIN), dramatically increasing ease of access to feedstock related data and analysis. The U.S. Department of Energy's Bioenergy Information Network (BIN), housed at ORNL, had become a central location for information related to biomass and in particular feedstocks. Information available at the site includes:

- Reports
- Fact sheets
- Databases
- Presentations
- Images
- Links
- News
- Events
- Contacts

While the site received a significant amount of visitors, the information had become dated and difficult to find. Recently, however, the site was redesigned to improve ease of use, improved functionality, and was updated with a variety of new information. Biomass feedstock types with information featured on the site includes:

- Agricultural residue
- Forestry residue
- Herbaceous crops
- Municipal/Urban residues
- Oil crops
- Short-rotation woody crops

The new website, renamed Bioenergy Feedstock Information Network (BFIN), is now available publicly at www.bioenergy.ornl.gov (see Figure 1).

The U.S. Department of Energy developed the original BIN website with the intention of documenting the activities of the Biomass Feedstock Development Program (BFDP) and highlight ongoing work at ORNL. The site served to disseminate information regarding the various R&D activities related to biomass feedstocks to the public.

The new BFIN site (see homepage image below) includes several new features including:

- New dual-menu structure
- Unique search capability
- Integrated Biomass Supply Analysis & Logistics (IBSAL) model
- Interactive Supply System Search tool
- R&D project information

The site's overall design and structure is predicated on primarily two publications: The 2003 Roadmap for Agricultural Biomass Feedstock Supply in the United States and the 2005 Biomass as Feedstock for a Bioenergy and Bioproducts Industry: The Technical Feasibility of a Billion-Ton Annual Supply. The industry segments, outlined in the Roadmap, help to partially structure the site's content into five distinct supply system processes; harvesting, storage, preprocessing, transportation and system integration. The Billion-Ton study provided the structure by which feedstock types were categorized. The study also drives many of the numbers and projections that form the basis for information on the site.

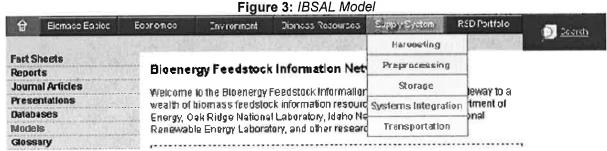


The BFIN home page prominently features the new Interactive BFIN Supply System Search tool (see Figure 1). This tool allows users to tailor unique searches to quickly gain access to a multitude of information. Users simply select their desired biomass feedstock type and a specific process stage and what is returned is information including fact sheets, reports, links, and presentations. So, for example, if a farmer is interested in R&D fact sheets about the harvesting of short-rotation woody crops, 3 simple clicks would quickly return a multitude of relevant results.

The most conspicuous improvement to the site is the new menu structure (see Figure 2). The menu structure categorizes every file into either a top-menu technical category or left-menu file-type category. Most files appear in both menus and are intuitively organized for quick access. Drop-down/sub menus allow users to further refine their search as seen in the screen shot below. Most of the top menu-items are completely new. The Biomass Basic, Environment and Economic menus are geared to the layperson and first time visitors to the site. The Biomass Resources and Supply System (see Figure 2) menus appeal to researchers and scientists looking for the latest R&D on biomass Feedstocks. Using these menus users can create refined search results for R&D information, links and images based on specific feedstock types or stages in the supply chain. The R&D Portfolio menu communicates work being conducting by ORNL pertaining specifically to biomass feedstocks.

Figure 2: Dual Menu Structure RSD Political Евстаро Бажес Diomoss Resources Economica Invironment Supply System <u> টেডেরো</u> Harveeting **Fact Sheets** Preprocessing Bioenergy Feedstock Information Net Reports Storage **Journal Articles** Welcome to the Bigenergy Feedstock information leway to a Presentations wealth of biomass feedstock information resourd Systems Integration Itment of Databases Energy, Oak Ridge National Laboratory, Idaho Na Transportation Madele Renewable Energy Laboratory, and other researd Glossbry

Another new addition is the IBSAL Model developed at ORNL (see Figure 3). The IBSAL Model is an on-line application comprised of a network of operational modules and connectors which allows users to input biomass feedstock types to compute energy costs. Each module represents a process or event. For example grain combining, swathing grasses, baling, grinding and sizing, storing, transporting are each a module. Modules may also be processes such as drying, wetting, and chemical reactions such as breakdown of carbohydrates. The biomass feedstock flows from one module to the next through a connector and costing and energy calculations are gathered. Other factors include time, weather, crop cycles and rainfall levels. Once all input parameters are identified, the model calculates costs per ton of biomass, energy input and emissions (CO2) from equipment. The IBSAL Model is a valuable addition to the new BFIN site.



The new BFIN site is a great resource for any visitor looking to obtain information regarding biomass and feedstocks. The site appeals to both experts and amateurs and contains a vast amount of R&D information. With the site's new design and structure it should be even easier for users to locate, access and, share this wealth of information.

BFIN Site Now Available at:www.bioenergy.ornl.gov

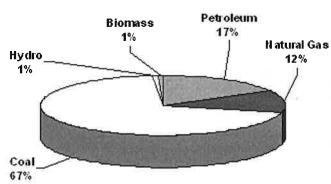
For more information please contact Adam McCann at amccann@bcs-hq.com or Bob Perlack perlackrd@ornl.gov.

State Spotlight: West Virginia



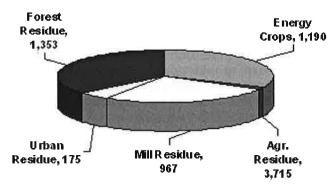
In 2001, the state of West Virginia consumed 1,254.8 trillion Btu of energy. The vast majority of the energy, or 69.5 percent, was produced from coal. Petroleum and natural gas accounted for 17 percent and 12 percent respectively, while hydroelectric contributed one percent. The state did not use any nuclear power in 2001, and about half a percent of energy was produced from biomass.¹

Fig. S.1: State Energy Profile



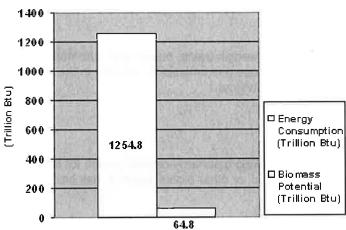
West Virginia has the potential to produce 5.4 billion kWh of electricity from biomass. That would be enough power to supply power to 543,000 average homes, or 61 percent of the state's residential needs. Forest residues would be the greatest source of biomass, available at a rate of 1,353,000 dry tons per year. 1,190,000 dry tons of energy crops, which are fast growing trees, shrubs, and grasses, could be used for energy production annually, and mill residues have the potential to contribute 967,000 dry tons per year.

Fig. S.2:Biomass Potential by Source (1000 Dry Tons)



Urban and agricultural residues are an annual resource of 175,000 and 51,000 dry tons respectively. Biomass projects in West Virginia are administered through the West Virginia Energy Efficiency Program. Plans for a 15 million gallon per year ethanol facility in Harrison County were announced in March of 2003, the result of local efforts by farmers and the county.

Fig. S.3: Energy Consumption vs. Biomass Pot ential



The state is currently sponsoring extensive research into the conversion of chicken wastes to liquid fuel. The Department of Energy is also contributing by funding work on co-firing coal with sawdust at the Albright Power Station⁴, a facility that already uses timber residue to produce electricity at a capacity of 42 kW.5 The state of West Virginia does not yet offer any incentives or tax breaks to biomass electricity users or producers. 6 There are. however, incentives available for alternative fuel vehicles, effective until June 2006.7

Data Sources: EIA and EERE Calculations for biomass Btus are estimated to be 12,000 Btu/kWh

¹Energy Information Administration. Table 7: Energy Consumption Estimates by Source, 1960-2001, West Virginia.

Available: http://www.eia.doe.gov/emeu/states/sep_use/total/use_tot_wv.html

²West Virginia Bioenergy Resources. Available: http://www.eere.energy.gov/state_energy/tech_biomass.cfm?state=WV

³BBI International. West Virginia: Ethanol Plant to Open Near Cadiz. Available: http://www.bbiethanol.com/news/view.cgi?article=732

West Virginia State Fact Sheet. Available: http://www.bioproducts-bioenergy.gov/publications.asp

⁵Current Renewable Energy Projects in West Virginia. Available: http://www.eere.energy.gov/state_energy/opfacbytech.cfm?state=WV

⁶Database of State Incentives for Renewable Energy.

Available: http://www.dsireusa.org/library/includes/map.cfm?State=WV&CurrentPageId=1

West Virginia Alternative Fuels Data Center. Available: http://www.eere.energy.gov/afdc/progs/search_state.cgi?afdc/WV

On the Hill

Bill#	Sponsor	Description	Last Action
S. 2025	Sen Bayh, Evan [IN]	Vehicle and Fuel Choices for American Security Act: A bill to promote the national security and stability of the United States economy by reducing the dependence of the United States on oil through the use of alternative fuels and new technology, and for other purposes.	11/16/2005: Referred to Senate committee. Status: Read twice and referred to the Committee on Finance
H.R. 4409	Rep Kingston, Jack [GA- 1]	Fuel Choices for American Security Act of 2005: To promote the national security and stability of the United States economy by reducing the dependence of the United States on foreign oil through the use of alternative fuels and new vehicle technologies, and for other purposes.	11/18/2005: Referred to House committee. Status Referred to the Committee on Energy and Commerce, and in addition to the Committees on Science, Ways and Means, Transportation and Infrastructure, and Government Reform, for a period to be subsequently determined by the Speaker, in each case for consideration of such provisions as fall within the jurisdiction of the committee concerned.

Grassroots

Cows make fuel for biogas train

New technologies combine biogas and biofuel options to run Swedish trains, buses, and automobiles. With an eye on European Commission direction and Kyoto targets for greenhouse gas emissions, industry in the Scandinavian nation has come up with a wide range of bioenergy options for the individual. http://news.bbc.co.uk/2/hi/science/nature/4373440.stm

Ag commissioner sees ethanol as next big farm product

New York Agriculture Commissioner Nathan Rudgers is promoting bioenergy-related growth for the state's farming future. A dearth of gas stations offering ethanol-based E-85 fuel, or other biofuel options, has prompted Rudgers to advocate using former farmland for bioenergy crops. http://www.wstm.com/Global/story.asp?S=4113116&nav=2aKD

Chadron State's woodchip fuels system attracting attention

A Nebraska college has been heating its buildings with woodchips for 15 years. Recent price increases in alternative power sources, in addition to their success using wood waste from the forestry industry, has lead to renewed interest in their system, as it simultaneously expands. A local school and hospital, and a school as far away as South Dakota, have researched similar possibilities.

http://www.southernblackhillsweeklygroup.com/articles/2005/11/15/chadron/headlines/news723.txt

BuildingGreen Announces Top-10 Green Building Products

Three of the top ten products selected by Environmental Building News are made from recycled or biobased materials Including a replacement for carcinogenic formaldehyde in plywood binding material, the products are the best of 160 included in the 2005 GreenSpec directory for builders. Many of these products have multiple environmental attributes, and replacing non-renewable components with biobased materials has been considered throughout. The 6th edition o the GreenSpec directory will be available early in 2006.

http://www.interiordesign.net/id_newsarticle/CA6283451.html

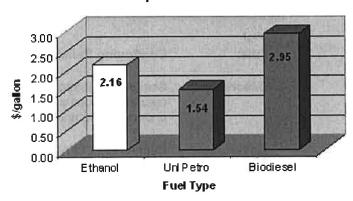
Marketplace

The Grain Prices graph shows the cost of soybeans, the main biodiesel feedstock, and corn, the main ethanol feedstock. The tables show actual grain prices, indicators which may affect gasoline prices, and the production of ethanol. Fuel Prices come from OPIS Ethanol and Biodiesel Report. Ethanol and RBOB Unl New York spot prices and Biodiesel Rack, Chicago, September 2005.

Cash Grain Prices Received by Farmers

7.00 6.00 5.00 4.00 3.00 2.00 1.00 0.00 And of the first of the first

Transportation Fuels



Grain Prices	November 2004	November 2005	% Change
Corn	2.05	1.79	-13%
Soybean	5.36	5.68	6%

Fuel Supply	November 2004 93.6	November 2005 88.6	% Change -5.40%
Percent Refinery Utilization			
Production by Product - Finished Motor Gasoline (Million Barrels)	8,833.5	8,888.5	0.62%
Stocks - Finished Motor Gasoline (Million Barrels)	136.9	134.3	-1.90%
Imports - Total Motor Gasoline (Million Barrels)	867.5	939.8	8.33%

Oxygenate Production	September 2004	September 2005	% Change
Ethanol Production (Million Barrels)	226	261	13.41%
MTBE Production (Million Barrels)	144	103	-39.81%

Data Sources:

U.S. DOE-Energy Information Administration, "Weekly Petroleum Status Report", "Monthly Oxygenate Report" USDA-National Agricultural Statistics Service, "Agricultural Prices," "Grain Stocks"

R&D Awards

No R&D Awards were granted for this month.

Solicitations

Title:

Continuing Solicitation for the Office of Science

Description:

Seeking grant applications for support of basic energy science fundamental research in the natural sciences and engineering leading to new and improved energy technologies and to understanding and mitigating the environmental impacts of energy technologies.

Government Agency:

Department of Energy's Office of Science

Schedule:

Applications may be submitted at any time.

URL:

http://www.science.doe.gov/grants/FAPN05-01.html

Title:

SARE

Description:

The program sponsors grants in research/education, professional development for agricultural educators and producer projects in sustainable agriculture

Government Agency:

USDA Sustainable Agriculture Research and Education (SARE)

Schedule:

Grant programs, funding amounts and funding cycles vary by region.

URL:

http://www.sare.org/htdocs/sare/cfp.html

Title:

TIFIA

Description:

Provides credit assistance in the form of secured (direct) loans, lines of credit, and loan guarantees to public and private sponsors of eligible surface transportation projects. Highway, passenger rail, transit, and intermodal projects (including intelligent transportation systems) may

receive credit assistance

Government

Agency:

U.S. Department of Transportation's Transportation Infrastructure Finance and Innovation Act

(TIFIA) Joint Program Office

Schedule:

Letters of interest are required and are accepted at any time.

URL:

http://tifia.fhwa.dot.gov

Title:

Energy Innovations Small Grant (EISG) Program

Description:

The EISG provides funding to small businesses, small non-profits, individuals and academic institutions for establishing the feasibility of new energy concepts. Qualifying entities outside of

California are eligible. Projects must develop innovative and original energy concepts that address a clear market need, provide benefit for California electricity ratepayers and target one or more areas of interest: Industrial/agriculture/water end-use efficiency; building end-use efficiency; advanced generation; renewable generation; energy-related environmental research; strategic energy research.

Government Agency:

California Energy Commission

Schedule:

EISG has up to 4 cycles of grants a year

URL:

http://www.energy.ca.gov/research/innovations/index.html

Title:

Energy Performance Contracting in State-Owned Facilities

Description:

Funded by a System Benefits Charge (SBC) on electric transmission, this program offers energy efficiency, research and development, low-income and environmental disclosure funding and education to assist electric consumers as the regulated electricity market moves to more

open competition.

Government Agency:

New York State Energy Research and Development Authority

Schedule:

Grant programs, funding amounts, and funding cycles vary

URL:

http://www.nyserda.org/Funding/funding.asp?i=2

Title:

USDA SBIR

Description:

The U.S. Department of Agriculture requests applications for Phase 1 and Phase 2 of the Small Business Innovation Research (SBIR) Program. The purpose of the USDA SBIR program is to provide an opportunity for U.S. owned, for profit small business firms to submit innovative, applied, R&D projects that address important problems facing American agriculture, and have the potential to lead to significant public benefit if the research is successful. Areas of interest include, but are not limited to, Animal Waste Management, Rural and Community Development, Aquaculture, and Wildlife. Up to \$19.4 million expected to be available, award range \$80K to '\$300K.

Government Agency:

USDA

Schedule:

Responses for Phase I due September 1, 2005, responses for Phase 2 due February 2, 2006.

URL:

http://www.csrees.usda.gov/fo/fundview.cfm?fonum=1220

Title:

National Research Initiative

Description:

The U.S. Department of Agriculture requests applications for the National Research Initiative Competitive Grants Program (NRI). NRI supports research, extension, and education projects that address key problems of national, regional, and multi-state importance in sustaining all components of agriculture. In FY 2006, the NRI Program will accept applications for fundamental research, mission-linked research, and integrated research, extension, and education projects, including Biobased Products and Bioenergy Production.

Government Agency:

USDA

Schedule:

Applications in the Biobased Products and Bioenergy Production area must be received by

January 12, 2006.

URL:

http://www.fedgrants.gov/Applicants/USDA/CSREES/OEP/USDA-GRANTS-101705-

001/Grant.html

Title:

Tribal Agricultural Research

Description:

The U.S. Department of Agriculture requests applications for the Tribal Colleges Research Grants Program (TCRGP). TCRGP funds investigative and analytical studies and experimentation in the food and agricultural sciences in areas including but not limited to

sustainable agriculture, sustainable forestry, biotechnology, and aquaculture.

Government Agency:

USDA

Schedule:

Reponses due December 12, 2005.

URL:

http://www.csrees.usda.gov/funding/rfas/tribal_research.html

Title:

National Research Initiative

Description:

The U.S. Department of Agriculture requests applications for the National Research Initiative Competitive Grants Program (NRI). NRI supports research, extension, and education projects that address key problems of national, regional, and multi-state importance in sustaining all components of agriculture. 29 program areas identified including Biobased Products and

Bioenergy Production; Water and Watersheds; and Rural Development.

Government Agency:

USDA

Schedule:

Due dates range from November 30, 2005 go October 31, 2006

URL:

http://www.fedgrants.gov/Applicants/USDA/CSREES/OEP/USDA-GRANTS-101705-

001/Grant.html

Events

December 11-13,

Bioenergy Australia 2005 Conference

2005

Organizer: Bioenergy Australia

Melbourne, Australia Contact: Stephen Schuck

Email: sschuck@bigpond.net.au

Tel: +61 2 9416 9246

Website: http://www.bioenergyaustralia.org/

January 12 - 13,

2006

Pacific Rim Summit on Industrial Biotechnology

Organizer: 2005 Biotechnology Industry Organization

Honolulu, HI

Contact:

Email: pacrim@bio.org Tel: 202-962-9200

Website: http://www.bio.org/pacrim/

January 18 - 19,

2006

Clean Energy Power 2006: Conference and Exposition for Renewable Energy and Energy

Efficiency in New and Old Buildings

Berlin, Germany

Organizer: erneuerbare energien Kommunikations- und Informationsservice GmbH

Contact:

Email: redaktion@energie-server.de-

Tel: +49 7121 30 16 - 0

Website: http://www.energie-server.de

January 19-20, 2006 LMOP 9th Annual Conference and Project Export Baltimore, Maryland Organizer: Environmental Protection Agency

Contact: Brian Guzzone

Email: guzzone.brian@epa.gov

Tel: (202) 343-9248

Website: http://www.epa.gov/lmop/conf/index.htm

January 23-26, 2006 NCSE's Energy for a Sustainable and Secure Future

Washington, DC

Organizer: National Council for Science and the Environment

Contact: Claire Christian

Email: conference2006@ncseonline.org

Tel: 202-530-5810

Website: http://www.epa.gov/lmop/conf/index.htm

January 26-27, 2006 Renewable Energy for the Developing World Workshop

Rancho Matastal,

Organizer: Solar Energy International

Contact:

Costa Rica

Email: sei@solarenergy.org

Tel: 970-963-8855

Website: http://www.solarenergy.org/workshops/workshop.php?id=21

February 5-8, 2006

2006 National Biodiesel Conference and Expo

Las Vegas, NV

Organizer: National Biodiesel Board

Contact: Anne Wester

Email: awester@bbibiofuels.com

Tel: 1-800-841-5849

Website: http://www.biodieselconference.org/2006/expo/schedule.asp

February 7-9, 2006

ENVIRO 2006

Manchester, United

Organizer: SJS International

Kingdom

Contact:

Email: enquiries@enviro2006.co.uk

Tel: +44 (0) 8700 433 874

Website: http://www.environmental-expert.com/events/enviro2006/enviro2006.htm

February 9-12, 2006 Bioenergy World 2006

Verona Italy

Organizer: BioEnergy Events and Services

Contact: Paul Stuart Email: paulstuart@bees.biz Tel: +33 384 86 89 30

Website: www.bioenergy-world.com

February 16-17,

Biofuels Markets

2006

Organizer: Green Power Conferences

Brussels, Belgium

Contact: Sarah Ellis

Email: sarah.ellis@greenpowerconferences.com

Tel:

Website: www.biofuelsmarkets.com

February 20-22,

11th Annual RFA National Ethanol Conference

2006

Organizer: Renewable Fuels Association

Las Vegas, Nevada Contact: N/A

Email: info@ethanolrfa.org

Tel: (202)289-3835

Website: http://www.ethanolrfa.org/industry/conference/

March 5-10, 2006 Tomar, Portugal

Bioenergy-I: From Concept to Commercial Processes Organizer: Engineering Conferences International

Contact: Dr. Muthanna Al-Dahhan

Email: info@eci.poly.edu Tel: 1-718-260-3743

Website: http://www.engconfintl.org/6ae.html

March 8-10, 2006

Renewable Energy Finance and Investment Summit

Phoenix, AZ

Organizer: Financial Research Associates

Contact: Janet

Email: janet@frallc.com

Tel: 1-800-280-8440

Website: http://www.frallc.com/project.asp#b319

March 21-23, 2006

Central Biofuels Conference & Expo II

Panama City,

Organizer: Central Biofuels Contact: Wendy Vincent

Panama

Email: wendy@biofuelsconferences.com

Tel: +01.605.338.6829, ext. 20

Website: http://www.centralbiofuels.com

March 27-28, 2006

Biofuels Markets Latin America

Rio de Janeiro,

Organizer: Green Power Conferences

Brazil

Contact: Sarah Ellis

Email: sarah.ellis@greenpowerconferences.com

Tel: (202)289-3835

Website: http://www.biofuelsmarkets.com

April 9-12, 2006

BIO 2006

Chicago, IL

Organizer: Biotechnology Industry Organization

Contact: N/A

Email: bio2006@bio.org Tel: (202) 962-6655

Website: http://www.bio.org/events/2006/

April 10-12, 2006

Power-Gen Renewable Energy: Phase II in the Mainstream

Las Vegas, NV

Organizer: PennWell and ACORE

Contact: Dick Rauner

Email: pgreexhibit@penwell.com

Tel: 918-832-9249

Website: http://www.power-gengreen.com

April 16-18, 2006

New Energy 2006

Shanghai, China

Organizer: Coastal International Exhibition Co., Ltd.

Contact: N/A

Email: general@coastal.com.hk

Tel: (852) 2827 6766

Website: http://www.coastal.com.hk

April 30-May 3, 2006 28th Symposium on Biotechnology for Fuels and Chemicals

Nashville, TN

Organizer: Society for Industrial Microbiology

Contact: Christine Lowe Email: Chris@simhq.org

Tel: 865-576-8522

Website: http://www.simhq.org/html/meetings/BioFuels06/BioBrochure.pdf or

http://www.simhq.org/html/meetings.html

May 5-7, 2006 Kassel, Germany ENBio 2006: International Conference for Energy from Biomass

Organizer: erneuerbare energien Kommunikations- und Informationsservice GmbH

Contact: Miriam Hegner

Email: redaktion@energie-server.de

Tel: +49 7121 30 16 - 0

Website: http://www.enbio.de/index.htm?/enbio.htm

The Biomass Initiative, formed as part of the Biomass R&D Act of 2000, is a multi-agency effort to coordinate and accelerate all Federal biobased products, biofuels, and bioenergy research and development. The Biomass Initiative distributes an online monthly newsletter to inform government institutions and the public, including private companies, about the Biomass Initiative and biomass-related activities. The newsletter's contents include a feature article highlighting important biomass-related stories of the month, as well as grassroots information and a state spotlight recognizing important local activities. In addition, the newsletter includes biomass-related information on recent legislation, R&D awards, solicitations, and market trends.

If you have any questions or comments about the Biomass Initiative Newsletter, please contact mmanella@bcs-hq.com.

To subscribe click here Contact for more information

To unsubscribe click here

Data Sources: EIA and EERE Calculations for biomass Btus are estimated to be 12,000 Btu/kWh

¹Energy Information Administration. Table 7: Energy Consumption Estimates by Source, 1960-2001, West Virginia.

Available: http://www.eia.doe.gov/emeu/states/sep_use/total/use_tot_wv.html

²West Virginia Bioenergy Resources. Available: http://www.eere.energy.gov/state_energy/tech_biomass.cfm?state=WV

BBI International. West Virginia: Ethanol Plant to Open Near Cadiz. Available: http://www.bbiethanol.com/news/view.cgi?article=732

West Virginia State Fact Sheet. Available: http://www.bioproducts-bioenergy.gov/publications.asp

⁵Current Renewable Energy Projects in West Virginia. Available: http://www.eere.energy.gov/state energy/opfacbytech.cfm?state=WV energy.gov/state energy/opfacbytech.cfm?state=WV

Available: http://www.dsireusa.org/library/includes/map.cfm?State=WV&CurrentPageId=1

⁷West Virginia Alternative Fuels Data Center. Available:http://www.eere.energy.gov/afdc/progs/search_state.cgi?afdc/WV