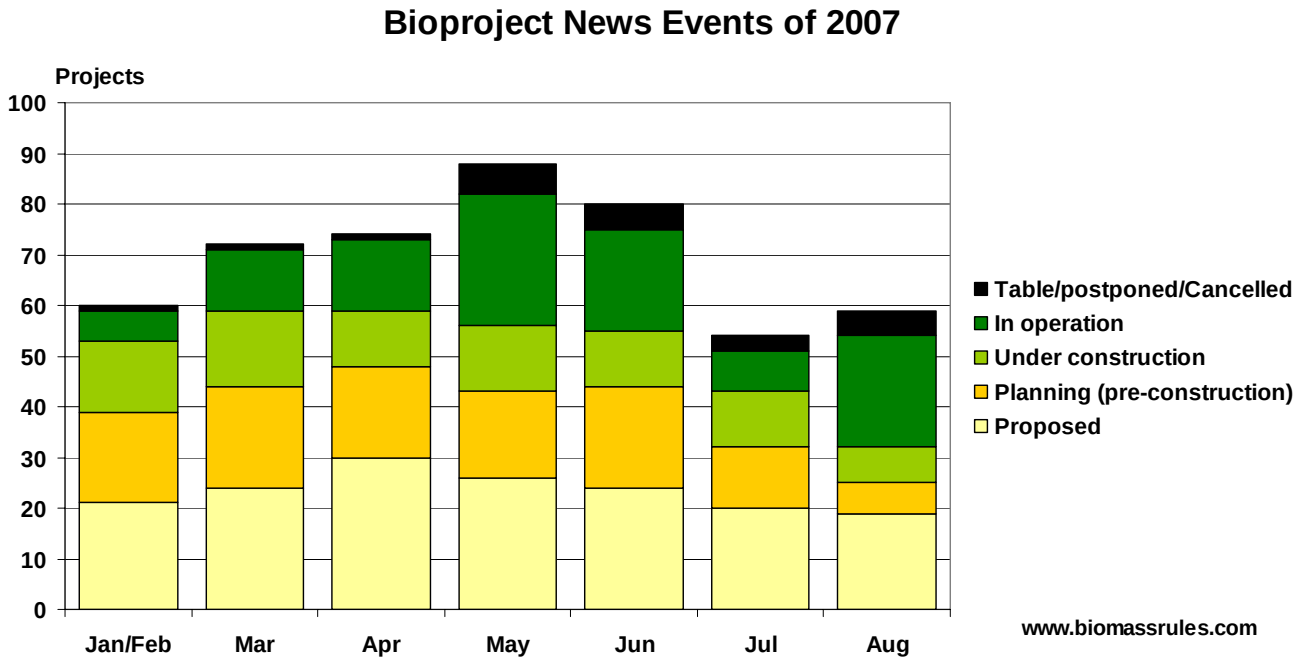
Burning Bio News
Adding Clarity and Understanding to all things Bio
www.biomassrules.com
Mission: Guide the strategic utilization of all biomass; create new markets for food, fiber and fuels; and streamline regulations.

Burning Bio News: Issue Number 7 — The *'Scorecard'* of commercial bioenergy adoption

We have data! About 1,000 records have been entered into the Burning Bio News database. 2007 is serving as a tremendous base year. I have learned a lot! There are limitations in using media records for analysis, but as my procedures improve, so does the quality of the data. The safe things to point out from this graph below are: The proposed projects are costless and keep occurring no matter what the economic environment. Preparing for construction (Planning) is leveling off – as are plants actually 'Under Construction.' The number of projects that are being stopped or delayed is increasing. The plants that are making up half the burning bio news in August are those that are completing their 6-18 month start-up cycle.



August biomass news has been screened into three categories: 1) bioprojects (biomass commerce), 2) bioscience (biomass technical facts) and 3) biopolicy (laws and programs that define the relation of commerce to science).

Bioprojects (economics and behavior)

Burning Bio News tracks predominately commercial-scale biomass projects. Most of the biomass projects relate to energy, but commercial composting projects and biobased industrial projects are also included. In August, 59 bioprojects were listed on www.biomassrules.com. These numbers represent only the projects that were reported in the August news. They are not more than a monthly total. 48 of these 59 projects reported the following capacities:

Energy Product	Annual Rated Capacity
Ethanol (includes cellulosic)	1,507 million gallons ethanol (42% of capacity is under construction or operational. 23% of capacity was reported as delayed or idled.)
Cellulosic Ethanol	109 million gallons (30 million gallons is preparing for construction and 2 million gallons is operational.)
Biodiesel plants	836 million gallons biodiesel - 356 million gallons (43%) already operational.
Electricity (biomass power)	119 MW generating capacity (110 MW is a biodiesel generator in Hawaii).

Bioprojects (continued)

In addition to the above 48 projects, a variety of other projects were listed without capacities. Two notable biosolids projects made the news. A very controversial biosolids project planned for Hinkley, CA received necessary approvals over very strong public opposition. Well Done! Lehigh Cement (Union Bridge, MD) was also in the news seeking an extension of its use of pelleted biosolids as their fuel source in producing cement.

Five projects were looking at using landfill solid waste (MSW) for a variety of energy projects. Franklin County Landfill (OH) wants to use MSW to produce jet fuel. An effort in Shady Hills, FL is looking at using existing landfill-generated power to convert wood to ethanol. An ethanol plant in Richmond, IN is proposing to run an ethanol plant on landfill gas. The University of New Hampshire plans to power the university from landfill gas. And a landfill project on HI is planning to produce electricity.

Fowler, CO, continues to push toward energy self-sufficiency. Essex Junction, VT opened a biodiesel mixing plant. A group in Mercer, WI is working to establish a pilot-scale cellulosic ethanol plant. And while corn-based ethanol plant new construction has slowed to a halt, a group in Casey, IL is still siting a plant.

These projects spanned 30 states and broke out by state as:

Number of Projects	State(s)
7	IA
5	KS, OH
4	FL
3	CA, IL, IN, PA
2	HI, MI, ND, WI
1	CO, CT, KY, MD, ME, MO, NE, NH, NJ, NY, RI, SC, SD, TN, VA, VT, WA, and WY

Year-to-date, the top five states with news-worthy biomass energy projects are: CA with 41 projects, IA with 37 projects, IN with 32 projects, IL with 28 projects and WI with 26 projects. Fast-moving projects may reoccur as they near completion.

One more dimension that clarifies these numbers is the stage in which a given project is in. For instance an idea for a project is classified as 'Proposed.' There are five categories at the moment. They are fairly self explanatory.

Project Stage Category	August News Stories	January - July
Proposed	19 (32.2%)	164 (33.7%)
Planning (pre-construction)	6 (10.2%)	111 (22.8%)
Under construction	**7 (11.9%)**	**82 (16.8%)**
In operation	**22 (37.3%)**	**108 (22.2%)**
Table/postponed/Cancelled	5 (8.5%)	22 (4.5%)

Information in these numbers is limited. Projects moving forward will show up again every time they shift to the next category. In addition, these numbers only reflect news stories. If no news story is written, it isn't captured in this data. Having made this disclaimer, Almost half these 59 projects (49%) are either operating or under construction. Projects preparing for construction are down to 10%. The 'Tabled/postponed/cancelled' category grew to nearly 9% of the news.

Biopolicies (laws, policies and programs)

Biomass policy covers a broad range of regulations and incentive programs. It also includes non-governmental incentive programs and legal challenges (crime). Biopolicies set boundaries between human choice and natural resources (science). In August, 35 news articles addressed biomass policies at some level. The funding values reported below have not been standardized across years or projects. Effort has been made not to count the same funding twice.

Money/Incentives that were awarded ($135,130,000):

- USDA awards $97 million in guaranteed loans for renewable energy systems in GA, IL, & NC.
- DOE announced $33.8 million of funding to develop enzymes to produce renewable biofuels.
- Vermont Department of Public Service awards $2 million in grants to 17 clean energy projects.
- CO State Forest Service awards $1 million in grants to fund 12 forest restoration projects.
- Evergreen Pulp (CA) received $500,000 from the state to improve energy efficiency.
- USDA-NRCS approved more than $480,000 in grants in TX for innovation on working ag lands.
- WI's Focus on Energy, is offering grants up to $250,000 to finance and install anaerobic digesters.

Biopolicies (continued)

- U.S. Forest Service awards a $100,000 grant to an Oregon stewardship group for forest thinning.
- The CA Public Utilities Commission creates a pricing policy for small generators (< 1.5 MW).
- The State of Delaware announced plans to fund its successful manure to fertilizer program.

Other Indirect Incentive Policies

- MSU's College of Engineering opens $10 million Energy & Automotive Research Laboratory.
- A first-ever, 10-year forest thinning plan for the entire Tahoe Basin is moving forward.
- A $5.6 million energy-saving upgrade of Lenawee County (MI) buildings has been proposed.
- Protecting Intellectual Property and patented processes were outlined in Ethanol Producer.
- Illinois and North Carolina joined 23 other states in enacting renewable energy standards (RES).
- City of Fargo, ND, plans to calculate its "carbon footprint" to target $267,000 a year in carbon credits.
- Rockingham County, NC, could generate $1 million annually by capturing landfill methane.
- Westport, CT, Green Energy Task Force (GETF) conducts a carbon dioxide baseline study.
- WY farmers look at thousands of dollars from selling their rangeland carbon offsets to coal-fired utilities.
- IN, Gov. Daniels presented the Paul Dana Leadership in Biofuels Awards to three biofuel distributors.
- Century Foods, Sparta, WI offered to pay proposed ethanol plant $2 million not to build next door.
- The federal Sun Grant Initiative announced a new tool, BioWeb. http://bioweb.sungrant.org

Bioenergy, the Law, and Other Miscellaneous Policy News:

- Attorney Richard Harriman files suit against Stanislaus County over its approval of an ethanol plant near Keyes, CA.
- Theft of grease from traps behind restaurants for conversion to biodiesel is a growing problem in TX.
- EPA's interpretation of air permitting regulations adds costs to biodiesel facility start-up.
- Piedmont Biofuels, Pittsboro, NC, was fined $10,000 after an accidental discharge into the Pittsboro sewer system.
- The U.S. House approved a $16 billion tax plan and a renewable electricity mandate in broad energy legislation.
- The planned ethanol plant in Hancock County, IA, has provided road improvement funding availability.
- Stanislaus County, CA Fire Chief reports fire department not equipped to handle a fire at the forthcoming ethanol plant.
- IL signed new law exempting home biofuel production from commercial fuel production bonding and paperwork.
- NY state court ruled that ethanol plant construction can begin at the former Seneca Army Depot in Romulus, NY.
- The Lindon (UT) City Council has revoked the business license of a biodiesel company, declaring its operation unsafe.
- Hampton (MN) town board says no to ethanol plant.
- A deadly explosion at a GA biodiesel plant killed 35-year-old welder.
- Growing Power, a Milwaukee, WI-based urban farming group, has revolutionized urban ag is expanding to bioenergy.

Biopolicy news items are not reflected in the Bioproject numbers reported above.

Bioscience (science and technology)

Innovations and Input Development

- University of MO has begun doing research with the jatropha plant for use in biodiesel.
- Hawaiian Electric Co. Inc. is investing in research for cultivation of biodiesel crops in the state.
- PA state engineers have found that combing coal and black liquor (paper waste) into syn-gas can produce a versatile fuel.
- University of FL is doing research on the jatropha for use in biodiesel production with a 1 acre plot.

Advances in Conversion Technologies

- Technology Management Inc. has developed a kW-size fuel cell that can run on methane.
- VA is developing a pilot pyrolysis unit to convert poultry litter into bio-oil, gas and char.
- Green Energy Live is developing homeowners systems that convert human waste to energy.
- San Diego Center for Sustainable Bioenergy has been formed to do research on algae.
- AZ State Univ., Mesa, AZ, is developing technology to turn oil from algae into military jet fuel.
- SunEthanol is streamlining ethanol production from cellulose, using bacteria called the Q microbe.
- OH State Univ. used fluid from a cow rumen to generate electricity in a microbial fuel cell.
- Boeing is exploring using algae to produce jet fuel. They are currently testing various biofuels.

- Diversified Energy Corp. formed a partnership and licensing for the XL Renewables, Inc, algae system.
- DOE and the US Air Force have studied producing l00,000 barrels per day of jet fuel from coal and biomass.

Technology Outreach

- To clarify impacts of energy crops, IA State has added bioeconomy elements to the I-FARM, Web tool.
- Univ. of NE can better assess greenhouse gas mitigation and energy efficiency of ethanol plants.

...And that is the ***Burning Bio News*** of August 2007.

General House Keeping

In the next week or so, I will be renovating the www.biomassrules.com site. We are moving all the material from www.markjenner.com to biomasrules.com and adding a new feature – which I am very excited about. My web wizard, the Queen of Pizzazz (http://www.jdharrison.com), has me convinced that the transition will be seamless. Still bear with me as we upgrade to better service.

If you need a biomass economic visionary...
...an innovative regulatory or economic analyst...
...access to real-time biomass project data...
...or a provocative speaker to discuss agriculture's shift from a culture of 'compliance' to one of 'environmental profit'...
- Call me!

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