



- **Welcome to our new members!**
 - Harrison Dillon, Solazyme
 - Neal Gutterson, Mendel Biotechnology
 - Huey-Min Hwang, Jackson State University
 - Kevin Kephart, South Dakota State University
 - Maureen McCann, Purdue University
 - David Nothmann, Arborgen
 - William Provine, Dupont
 - James Seiber, University of California
 - John Tao, Weyerhaeuser (retired); SEA Consulting
- **Notes:**
 - Members whose terms expire in November 2011
 - 2012 nominations

- **Changes to Travel Process**
 - Allowing DOE to schedule your travel (flight or train arrangements) is the preferred option
 - If you prefer to arrange your own travel, you must contact Natalie Roberts to determine the government rate for your flight or train
 - DOE no longer guarantees that flight or train costs higher than the government rate will be reimbursed
 - Benefit: DOE has the flexibility to change or cancel reservations; you can now arrange for travel prior to meeting date/location details being confirmed
 - Natalie Roberts: natalie.roberts@ee.doe.gov or 202-586-2325

TAC Housekeeping - Future Meeting Dates

- 2011

- Week of August 22 – August 26, most likely in Illinois (may be a 2.5 or 3 day meeting to allow for tours)
- Week of November 7 – November 10, most likely in DC area
- We try to target Tuesday/Wednesday or Wednesday/Thursday in each case

AUGUST						
M	T	W	T	F	S	S
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31				

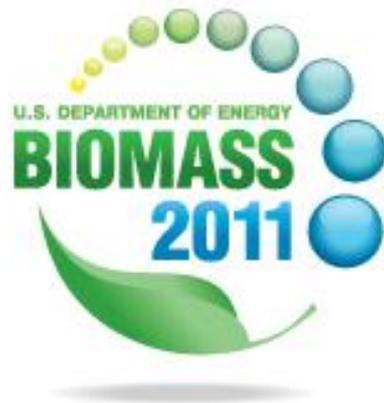
NOVEMBER						
M	T	W	T	F	S	S
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30				

2011 OBP Program Review Portal

2011 Biomass Program Peer Review Meetings

The U.S. Department of Energy (DOE), Office of Energy Efficiency and Renewable Energy, Biomass Program will be conducting detailed biennial peer review meetings of its activities throughout the first half of 2011. The process will begin with reviews of the Program's eight technology areas between February 2011 and April 2011. The process will wrap up in June 2011 with a two-day Program Peer Review Conference. The Peer Review is required of the Biomass Program and other Energy Efficiency and Renewable Energy Programs to obtain independent assessments of the Program's current research and development project portfolio.

The 2011 Platform and Program Peer Review meetings provide interested stakeholders an opportunity to learn about these federally funded, state-of-the-art biomass energy technology development activities, and they provide DOE an opportunity to obtain meaningful feedback from stakeholders. The information will be useful as the Biomass Program considers future funding and portfolio balance decisions.



- 2011 Biomass Program Peer Review
 - June 27 – 28 in Washington, DC
 - Registration required (no fee); open to public
 - More information/Registration:
<http://obpreview2011.govtools.us/>
- Biomass 2011: *Replace the Whole Barrel, Supply the Whole Market*
 - July 26 – 27, 2011 at Gaylord National Resort & Convention Center in National Harbor, MD
 - Registration is required (no fee)
 - More Information:
http://www1.eere.energy.gov/biomass/biomass_2011.html

- Provide a context and framework for the Department's energy programs, as well as principles by which to establish program plans with a five-year horizon
- Five primary topic areas:
 - Alternative Fuels (4/26):
http://energy.gov/qtr/documents/Fuels_portfolio.pdf
 - Vehicle Efficiency & Electrification (5/3)
 - Building & Industrial Efficiency (5/17)
 - Grid (5/23)
 - Alternative Generation (6/7)
- For more information: <http://www.energy.gov/qtr/index.htm>

Updated Biomass Program Multi-Year Plan

- The Biomass Program has updated the Multi-Year Program Plan (MYPP):
http://www1.eere.energy.gov/biomass/pdfs/mypp_april_2011.pdf
- Major changes include:
 - 2010 States of Technology updates for feedstock and conversion targets
 - Updates to out-year design cases for Biochemical and Thermochemical/Gasification Conversion
 - Introduction of uniform format feedstock supply system approach
 - Updated feedstock volumetric potential and grower payments based on new “Billion Ton” analysis



Updated Feedstock Resource Potential

Year		2011	2012	2012	2013	2014	2015	2016	2017	2017	2022	2030
EISA	BGY	1	N/A	2	3	4	6	7	N/A	9	21	21
Biofuels Demand ¹	Million tons/yr	16	N/A	24	32	44	65	85	N/A	106	247	247
Biopower Demand ²	Million tons/yr	10	N/A	20	27	32	38	44	N/A	49	78	78
National Feedstock Demand	Million tons/yr	26	130	44	60	76	102	129	250	155	325	325

¹ Biofuels demand calculated at 85gal/dry ton

² 2010 AEO Reference Case Table 16: Generation: Wood and biomass, net of generation from biofuels (Table 26) and pulp and paper (Table 36); 13,000 Btu/kWh; 16 million Btu/dry ton

Updated 2012 Target Modeled Costs

	Biochem Old	Biochem New Design	Thermochem Old	Thermochem New Design
Ethanol Yield (gal/dry ton)	89.9	79.1	71.1	83.8
Mixed Alcohols Yield (gal/dry ton)	-	-	83.7	93.9
Ethanol Production (MMgal/yr)	69.4	61.1	54.9	64.7
Mixed Alcohols (MMgal/yr)	-	-	64.6	72.5
Installed Equipment Cost (\$MM)	132.8	231.8	170.7	296.7
Lang Factor	2.59	3.3	3.43	3.45
Total Capital Investment (\$MM)	229.6	422.3	237.2	516.3
Feedstock	Corn Stover	<i>Corn Stover</i>	Woody	<i>Woody</i>
Total Delivered Feedstock Cost (\$/dry ton)	\$50.90 (to reactor throat)	\$58.50 (to reactor throat)	\$50.70 (to plant gate)	\$61.57 (to reactor throat)
Grower / Stumpage Payment	15.90	\$23.50	\$15.70	\$15.20
MESP (\$/gallon)	\$1.49	\$2.15	\$1.57	\$2.06

Updated Financial Assumptions

Applicable for both Biochemical and Thermochemical Models

	Prior Values	Updated Values
% Equity / % Debt Financing	100%	40% / 60%
Loan Terms (% Rate, Term)	N/A	8%, 10 years
Discount Factor	10%	10%
Year-Dollars	\$2007	\$2007
Depreciation Method, Time	MACRS 7 years general plant 20 years steam/boiler	MACRS 7 years general plant 20 years steam/boiler (if exporting electricity)
Cash Flow / Plant Life	20 years	30 years
Income Tax	39%	35%
On-Line Time	96%	96%
Indirect Costs (Contingency, Fees, Etc)	48% of total installed costs	60% of total installed costs

Justification for changing financing assumptions includes:

- Harris Group feedback
- Peer reviewer feedback
- Current financial atmosphere and markets
- DOE feedback, inclusion of DOE programs such as loan guarantees