



U.S. Department of Energy
Energy Efficiency and Renewable Energy

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BIOMASS RESEARCH & DEVELOPMENT INITIATIVE

August 1, 2006

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Office of the Biomass Program - Department of
Energy



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Establishment of the Initiative

- The USDA - DOE Initiative was established by the Biomass Research and Development Act of 2000 (Biomass Act). The Biomass Act has since been amended by the Energy Policy Act of 2005 (EPAAct).
- The revised Biomass Act:
 - Outlines technical biomass R&D objectives
 - Organizes interagency collaboration (including the Interagency Biomass R&D Board)
 - Establishes the Biomass R&D Technical Advisory Committee (Committee), to provide outside expert input on current and future research
 - Establishes an annual USDA-DOE joint competitive solicitation for biomass research proposals for grants according to the Biomass Act's technical objectives
 - Requires the Committee and Board to provide input for the Initiative's annual report to Congress



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- The Biomass R&D Initiative is a Multi-agency effort to coordinate and accelerate all Federal biobased fuels and products research and development



- The Initiative agencies conduct the annual USDA/DOE Joint Solicitation:

<u>Year</u>	<u>Total Awarded</u> (USDA and DOE combined funds)
2002	\$79 million
2003	\$24 million
2004	\$26 million
2005	\$13 million
2006	Up to \$14 million (FY06 awards have not yet been made)



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The Board is a panel consisting of Senior Level representatives from:



- U.S. Department of Agriculture (co-chair)
- Department of Energy (co-chair)
- National Science Foundation
- Environmental Protection Agency
- Department of Interior
- Office of Science and Technology Policy
- Office of the Federal Environmental Executive
- Department of Transportation (new)



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USDA and DOE Leadership

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- Under Secretary for Rural Development Thomas Dorr is the Initiative point of contact and Board co-chair for the U.S. Department of Agriculture



- Assistant Secretary of Energy Efficiency and Renewable Energy Alexander Karsner is the Initiative point of contact and Board co-chair for the Department of Energy



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Board Membership

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- **Dr. Bruce Hamilton**, Director, Bioengineering and Environmental Systems Division, NSF
- **Dr. Ashok G. Kaveeshwar**, Administrator, Research and Innovative Technology Administration, DOT
- ***In transition***, EPA
- **Johnnie Burton**, Acting Assistant Secretary, Land and Minerals Management, DOI
- **Dr. Sharon Hays**, Chief of Staff, OSTP
- **Dana Arnold**, Chief of Staff, OFEE



Duties of the Board

- To coordinate R&D efforts among Agencies
- To ensure the USDA-DOE solicitation for biomass R&D is
 - Open
 - Competitive
 - Offered Annually
- To ensure the solicitation provides clear, minimally prescriptive, objectives and evaluation criteria
- To ensure that proposals received for each solicitation are independently reviewed



Committee Membership

Current Members

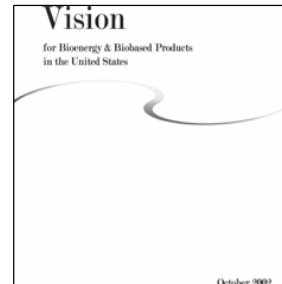
Jim Barber, Metabolix
Dr. Tom Binder, ADM
Arthur Blazer, New Mexico State Forestry
Jerrel Branson, BioCrude LLC
Dr. Ralph Cavalieri, Washington State University
Bob Dinneen, RFA
Tom Ewing, Davis & Harman LLP
Carolyn Fritz, Allylix
Doug Hawkins, Rohm & Haas
John Hickman, John Deere
Jack Huttner, Genencor
Terry Jaffoni, Clean Transportation Fuels
Charles Kinoshita, University of Hawai'i
Dr. Eric Larson, Princeton University
Jim Martin, OmniTech International
Scott Mason, Conoco Phillips
Larry Pearce, Governors' Ethanol Coalition
Del Raymond – Retired, Weyerhaeuser
Dr. Ed White, SUNY Environmental Science & Forestry

New Members

Dr. David Anton, DuPont
Dr. Lou Honary, University of Northern Iowa
Alan Kennett, Gay & Robinson Sugar
Mark Maher, GM
Dr. Ed McClellan, Alston & Bird LLP
John McKenna, Hamilton Clark & Co.
Mitch Peele, North Carolina Farm Bureau Federation
Jeffrey Serfass, Technology Transition Corporation
Bob Sharp, Mobile Forest Products
J. Read Smith, Agricultural Energy Work Group
Rod Williamson, Iowa Corn Marketing Board

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- The *Vision for Bioenergy and Biobased Products in the United States* was created by the Committee in 2002
- It established far-reaching goals to increase the role of biobased energy and products in our nation's economy
- EPA Act required that the *Vision* be updated to reflect the current bioenergy environment



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- The updated *Vision* does not change the original 2010 goals but recognizes that in some cases the U.S. is not on track to meet them.
- The *Vision* makes minor changes to its 2020 and 2030 goals and establishes 2015 goals which describe the types of activities that must occur to reach that goal and move down the path to the aggressive targets for 2020 and 2030.

Vision Goals							
	Units	2000	2004	2010	2015	2020	2030
Biopower	Market share (%)	4	4	4	5.5	7	7
	Consumption (Quadrillion Btu)	2.2	2.1	3.1	3.2	3.4	3.8
Biofuels	Market share (%)	0.7	1.2	4	6	10	20
	Consumption (million gasoline-equivalent gallons)	1,100	2,100	8,016	12,852	22,725	50,994
Bioproducts	Production (billion lbs)	12.4	17.6	23.7	26.4	35.6	55.3

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- The Committee created the *Roadmap for Biomass Technology in the U.S.* in 2003. EPCA also requires this document to be updated.
- Regional *Roadmap* Update Workshops were planned in 2006 by Regional Committee Chairs with USDA/DOE support
- Regional Workshops invite area experts to update the *Roadmap* by its categories: Feedstocks, Processing and Conversion, Product Uses and Distribution, and Public Policy



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- Update Roadmap language
- Incorporate New Federal/state activities
 - Renewable Fuels Standards
 - Produce 7.5 million gallons of ethanol by 2012
 - Biofuels Initiative
 - Decrease cost to \$1.07 per gallon of ethanol by 2012
 - Displace 40 million gasoline equivalent gallons by 2030
- Revisit path towards achieving Vision Goals

Central – April 11-12, 2006
Chicago, IL

Western – August 8-9, 2006
Sacramento, CA

Eastern – September 19-20, 2006
Syracuse, NY





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Contributions to the Biofuels Initiative

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Board representatives have appointed points of contact from their respective agencies to help develop the **Posture Plan:**

Doug Faulkner for Rural Development, USDA
Neil Rossmeissl for Energy Efficiency and Renewable Energy, DOE
Dr. Bruce Hamilton for National Science Foundation
William Chernicoff for Department of Transportation
Mike Catanzaro for Environmental Protection Agency
Peter Teensma for Department of Interior
Kevin Hurst for Office of Science Technology and Policy
Dana Arnold, Chief of Staff, Office of the Federal Environmental Executive