

TO: Biomass Research and Development Board Members  
SUBJECT: Meeting Minutes  
TIME: 2:30-4pm, Wednesday March 10, 2010  
LOCATION: 108A Whitten Building, USDA

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### **General Commitments**

1. Members are committed to working together to leverage their agencies' strengths and sufficient staff support in coordinating and conducting biomass research and development (R&D) activities.
2. The President's Biofuels Interagency Working Group (BIWG) representatives expressed their commitment to coordinating with the Board on strategic planning and implementation efforts across the biofuels supply chain. The intersecting leadership, responsibilities, and staff support of the Board and BIWG provide greater opportunities to broaden and deepen coordination and communication across agencies.

### **Recommendations**

3. U/S Johnson recommended that Board member agencies coordinate closely on small business strategies, to proactively identify appropriate efforts across the supply chain in which small businesses could most actively take part. U/S Johnson encouraged the Board and BIWG consider working with the Small Business Administration in this regard.
4. U/S Johnson suggested the development of an agenda for each meeting through the calendar year that contains milestones, to better conceptualize its direction, focus, and goals. She indicated that agency staff could draft this proposed agenda, with Board input.
5. The Board recommended that a portion of each meeting be reserved for substantive discussion on topics of interest and relevance to the members.

### **Actions**

**Action 1: General Board focus/scope.** Members reached general agreement that the Board would continue to focus on broader areas of feedstock production, conversion, logistics, and sustainability with some consideration of technical feasibility and implications for commercialization. Regarding sustainability, several members stated their preferences for the subject's consideration throughout the biomass supply chain. The Board requested that USDA and DOE ensure sufficient and timely coordination on potentially related near-term activities, including an upcoming DOE sustainability solicitation and a USDA Request for Applications.

**Action 2: New areas of focus.** Members reached agreement on the Board's initial list of new priority areas. In several cases, members and member representatives provided greater detail on their individual agencies' activities; existing coordinated activities relevant to the list; and possible additional or related areas for consideration. Co-chairs solicited members' input on

additional areas the Board could consider. Such information is to be provided to and summarized by DOE and USDA Board liaisons, for planning and discussion at subsequent Board meetings. Initially proposed and agreed upon areas include the following:

- A. **Genetic improvement of biomass feedstocks.** USDA's Agricultural Research Service, DOE's Office of Science, and NSF are conducting work in this area. In addition, NIFA and DOE/Science provide joint funding for biomass genomics research projects. Members and staff also indicated that public-private partnerships should receive greater consideration in this area.
- B. **Anthropogenic modification of the biologic carbon cycle.** In this opportunity area, R&D will focus on addressing how biomass plant development and use should be further explored to best exploit their abilities to sink carbon/pull carbon out of the atmosphere.
- C. **Logistical efficiency of biomass feedstocks.** R&D work should include additional analysis of the economics, scale, costs of feedstock, and costs of conversion. It should also consider yield rates per acre, drying, compression, et cetera and focus on overcoming challenges regarding the determination of appropriate facility, technology size, and capability and associated economics.
- D. **Optimal use of biomass (e.g. liquid fuels, power, chemicals, products, home use).** Members indicated that a systems-based analytical approach in this area should include consideration of Renewable Fuels Standard requirements as well as biopower and bioproduct R&D to ensure utilization is value-added and maximized. U/S Johnson also requested that the use of bioproducts, whether generated through primary, co-product, or by-product means, be sufficiently considered.
- E. **Overcoming limitations of agriculture inputs, including water and nutrients.** No additional discussion.

**Additional areas proposed:**

- Appropriate treatment of life cycle analyses associated with each of the proposed R&D activities (Shere Abbott, OSTP).
- Further interagency analysis of economics, benchmarks, cost targets, et cetera throughout the supply chain (Dallas Tonsager, USDA).

**Action 3: Action Plan.** Board members agreed that the National Biofuels Action Plan will eventually require updating. Board members and BIWG representatives agreed that such an update would come under the BIWG's purview and with considerable Board input, and that the BIWG Management Team, once constituted, would intend to begin such work at a future date if/as necessary.

**Action 4: Board and BIWG support and coordination.** Board members agreed to provide additional direction, through further high-level discussion, regarding the management and staffing of a Board Operations Committee, including how it should interact with the BIWG Management Team as described in the *Growing America's Fuel* strategy. The BIWG mandate

covers the entire spectrum of biofuels work, from basic research through deployment. However, BIWG points of contact and Board members agreed that in general, the Board will take the lead on R&D issues, while the BIWG will take the lead on deployment issues, as well as broader policy issues associated with meeting the RFS goals.

**Action 5: Frequency of meetings.** After some discussion, Board members agreed to meet quarterly, with the possibility of additional discussions or special sessions as necessary by conference call or in person.

**Action 6: Draft reports and ongoing working group activities.** Board members agreed to approve publishing draft reports from previous Board upon OMB concurrence. The reports focused on Conversion, Feedstock Logistics, Feedstocks Production, and Pipeline Feasibility. The Board further approved publication of products entitled GIS Inventory and Multi-modal Analysis, in an abbreviated form, when interagency review process is completed. In addition, Board members also agreed to the continuation of Sustainability Working Group efforts through the next Board meeting. The Board requests a status briefing to obtain a fuller understanding of this Working Group's range of activities, including detail on its proposed sustainability metrics.

**Action 7: Working Groups.** Board members agreed to provide additional direction regarding the constitution and convening of new Working Groups through standing up an Operations Committee. The Board solicited staff input in this regard and requested that any input or suggestions be provided through DOE and USDA Board liaisons.

**Action 8: Biomass Research and Development Initiative** (Initiative). Pending OMB concurrence, the Board approved the release of the Initiative solicitation. Specifically, USDA provided Board members with a hard-copy background summary of past Initiative activities and explained the nature of this year's Funding Opportunity Announcement (FOA) and changes proposed from prior year solicitations. The proposal intends to cover applied RD&D, to support 5 to 10 projects over a 4-year period, and to require applicants to cover 3 of 3 targeted areas. It is supported through \$28M in USDA mandatory funds and \$5M in DOE incremental funds. OMB requested an off-line discussion with USDA and DOE to discuss potential impacts of proposed changes related to increasing the funding minimum. Agency Initiative points of contact are Carmela Bailey, USDA and Neil Rossmeissl, DOE.

**Action 9: Additional Members.** Board members agreed to immediately invite the Departments of Defense and Transportation to participate as members, and confirmed that OMB could continue to observe the meetings. The Board may consider inviting the Department of State, and any other departments or entities such as the Small Business Administration, as observers or members at a future meeting.

### **Additional Items of Interest**

- **USDA/NIFA planning.** NIFA Director Beachy expressed USDA's intentions to considerably ramp up its biomass work to further study and address scientific, economic, and market transformation impacts and implications of such work in a multi-disciplinary manner,

through regional and systems approaches, and referenced requested funds for FY2011 research centers.

- **NSF on strategic direction.** Given Administration direction enabling agencies to focus on a developing a broader range of advanced biofuels, NSF's John Regalbuto (representing Director Bement) suggested that in coordinating interagency R&D activities, the Board consider whether appropriate emphasis is placed on hydrocarbon, or "drop-in" fuel R&D as well as existing cellulosic R&D.
- **Interior, on Woody Biomass Utilization Group (Woody BUG).** Brenda Aird, Interior (representing Asst Sec Lewis) indicated that the Woody BUG may again request that the Biomass R&D Board sanction and/or oversee some of its activities and provide further direction. The group, established in 2004, has a charter previously approved by the Board. Its focus is on use of forest products, in particular use of fuel products from thinning, as well as consideration of additional research on identifying markets to use woody biomass (Brenda Aird, Interior).
- **EISA Report to Congress.** Alan Hecht provided hard-copy background information about this required report from EISA Section 204, and EPA plans to begin consultation with USDA and DOE on it next month. Legislation about this report contains very specific language about discussing and measuring the impacts of the Renewable Fuels Standard. The report's peer review period is slated for August 2010 and its issuance required by December 2010.
- **Catalogue of R&D program activities.** Hard-copy information was provided to Board members on major agency activities and funding levels for DOE, USDA, and NSF.

### **Biomass Research and Development Board Attending Members**

- Steven Koonin, Under Secretary for Science, DOE co-chair
- Dallas Tonsager, Under Secretary for Rural Development, USDA co-chair
- Kristina Johnson, Under Secretary for Energy, DOE
- Roger Beachy, Director of National Institute for Food and Agriculture and Chief Scientist, USDA
- Shere Abbott, Associate Director for Environment, Office of Science and Technology Policy

### **Biofuels Interagency Working Group Representatives**

- Dan Utech, Senior Advisor to Secretary Chu
- Sarah Bittleman, Senior Advisor to Secretary Vilsack

### **Representatives Attending for Members**

- John Regalbuto, former Program Director of Catalysis and Biocatalysis/Chemical, Biochemical and Biotechnology Systems/Directorate of Engineering, for Director of NSF Arden Bement
- Brenda Aird, Renewable Energy Ombudsman, for Assistant Secretary of Land and Minerals Management Wilma Lewis, Interior (Ms. Aird noted that Interior's member may change and that she would inform DOE and USDA of this change in the near future)
- Alan Hecht, Director for Sustainable Development in the Office of Research and Development, for Assistant Administrator of the Office of Research and Development and Science Advisor Paul Anastas, EPA

### **Additional Attendees**

#### **DOE**

- Avi Gopstein, Office of Science
- Jessie Harris, Office of Energy Efficiency and Renewable Energy
- Ben Steinberg, Office of Energy Efficiency and Renewable Energy
- Robert Edwards, General Counsel
- John Ferrell, Biomass Program
- Valri Lightner, Biomass Program
- Sarah Lynch, Biomass Program, DOE Board liaison

#### **USDA**

- Bill Hagy, Rural Development, USDA Board liaison
- Meg Bolin, Rural Development
- Chavonda Jacobs-Young, Office of the Chief Scientist
- Jeff Steiner, Office of the Chief Scientist and Agricultural Research Service
- Carmela Bailey, NIFA
- Meryl Broussard, NIFA
- Phil Southers, General Counsel
- Mark Zito, Office of Budget and Program Analysis

#### **NSF**

- George Antos, Directorate of Engineering
- Bruce Hamilton, Directorate of Engineering
- Greg Rorrer, Directorate of Engineering

#### **OSTP**

- Peter Schmeissner, Science Division
- Phil DeCola, Energy & Environment Division

#### **Observers**

- Kristi Kubista-Hovis, Agriculture examiner
- Uday Varadarajan, Energy examiner