

**Biomass Research and Development
Technical Advisory Committee**

March 1–2, 2012

Meeting Summary

List of Acronyms

Biomass Act – Biomass Research and Development Act of 2000
Board – Biomass Research and Development Board
BRDI – Biomass Research and Development Initiative
Committee – Biomass Research and Development Technical Advisory Committee
CTAB - Conversion Technologies for Advanced Biofuels
DOE – U.S. Department of Energy
DOD – U.S. Department of Defense
EPA – U.S. Environmental Protection Agency
FOA – Funding opportunity announcement
FY – Fiscal year
IBR – Integrated biorefinery
MSW – Municipal solid waste
QTR – Quadrennial Technology Review
RFP – Requests for proposals
RFS – Renewable Fuel Standard
R&D – Research and development
RDD&D – Research, development, demonstration, and deployment
RIN - Renewable identification number
SGE – Special government employees
USDA – U.S. Department of Agriculture

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I. Purpose

On March 1–2, 2012, the Biomass Research and Development Technical Advisory Committee (Committee) held its first quarter meeting of 2012. The purpose of the meeting was to introduce the Committee’s work plan for 2012, discuss new resources the Committee would need to make their fiscal year (FY) 2012 recommendations, and begin to formulate those recommendations.

The Committee listened to updates on recent activities of the U.S. Department of Energy (DOE) and the U.S. Department of Agriculture (USDA), as well as an update on the progress of the FY 2012 Biomass Research and Development Initiative (BRDI) solicitation. On the second day of the meeting, Committee members heard a panel discussion on the future of the Renewable Fuels Standard (RFS) from the perspective of the U.S. Environmental Protection Agency (EPA), an oil refining company, and an oil-seed crop producer.

II. Background:

The Committee was established by the Biomass Research and Development Act of 2000 (Biomass Act) and continued by Section 9008 of the Food, Conservation, and Energy Act of 2008. The Biomass Research and Development Board (Board) was established under the same legislation to coordinate activities across the federal agencies. The Committee is tasked with advising the Secretary of Energy and the Secretary of Agriculture on the direction of biomass research and development (R&D).

This report contains an overview of the presentations delivered at the meeting, key committee questions and answers, and follow-up discussions with the Committee. Attachment A contains a full list of Committee members who attended the meeting. Attachment B contains the final meeting agenda. Meeting presentations can found on the Biomass Research and Development website: <http://biomassboard.gov/committee/meetings.html>.

III. Committee Business for 2012

Elliott Levine, Biomass Program, U.S. Department of Energy

After an introduction from Committee Co-Chair Ronnie Musgrove, the Committee's Designated Federal Officer (DFO), Elliott Levine, delivered an update on Committee business. Mr. Levine first introduced the new USDA point of contact for the Committee, Todd Campbell. Mr. Campbell will be fulfilling the duties Bill Hagy provided for many years. Mr. Levine discussed the meeting agenda, the progress of new Committee member nominations, and the history and purpose of the Committee. He explained how the Committee was originally created to provide recommendations on the technical focus and direction of requests for proposals (RFPs) issued under BRDI. The Committee is explicitly charged with developing recommendations to ensure the following:

- Funds authorized for BRDI are distributed and used in a manner that is consistent with the objectives, purposes, and considerations of the Initiative
- Solicitations are open and competitive with awards made annually
- Objectives and evaluation criteria of the solicitations are clearly stated and minimally prescriptive, with no areas of special interest
- Funding proposals are selected on the basis of merit, as determined by an independent panel of scientific and technical peers predominantly from outside DOE and USDA.

Mr. Levine also discussed the process of drafting the BRDI Annual Reports to Congress. The Committee recommendations are a key component of the report, and the authorizing legislation requires that each report contain the official responses from DOE and USDA for each of the Committee's recommendations.

Finally, Mr. Levine discussed some of the new resources available for Committee members, including the Committee library which contains copies of past BRDI solicitations and award winners, results of the 2011 DOE Biomass Program Peer Review, information on other DOE solicitations, and various bioenergy-related reports and reading materials recommended to the Committee by the points of contact at DOE and USDA. More information about the library can be found on the BRDI website: http://www.biomassboard.gov/committee/tac_library.html.

Bill Provine asked about the current composition of the Board. Mr. Levine explained that the previous DOE representative on the Board, Dr. Steve Koonin, who had served as DOE's Under Secretary for Science, recently resigned from the Department. A new DOE representative to the Board has not yet been officially appointed, but Mr. Levine assured the Committee that DOE representatives still participate in Board meetings. James Seiber followed up with a question about the Board's feedback on the previous 2011 TAC Recommendations, and Mr. Levine conveyed that the FY 2011 recommendations were well received by the Board, but that the Board had some difficulty discerning which recommendations the Committee considered most significant. Mr. Levine suggested that for the 2012 recommendations, the Committee should decide on a method to prioritize the recommendations that would be presented to the Board.

IV. 2012 Work Plan for the Biomass TAC

Ronnie Musgrove, Committee Co-Chair

Mr. Musgrove presented to the Committee the Work Plan for 2012. Mr. Musgrove emphasized that in his reading of the Committee Charter and authorizing legislation, the Committee should focus more specifically on the details of the BRDI solicitations. Jay Levenstein agreed. Bruce Dale commented that additional information would need to be presented to the Committee in order to make more specific recommendations related to the BRDI solicitation. Bill Provine brought up the appropriate scope of the Committee's activity and presented the contrast between a narrow focus on the BRDI awards and review process and a broader focus on a review of the federal government's entire R&D portfolio on bioenergy. Bill Provine said that he believed the Committee's real function should be to provide the federal agencies with advice on which areas of the portfolio to have the most impact and what would be the best and most effective use of public money. Mr. Levine emphasized that DOE and USDA General Counsel had advised that it was permissible for the Committee to make recommendations on larger R&D issues. Ronnie Musgrove agreed, and the Committee came to a consensus on their role in providing recommendations on the larger umbrella of R&D issues, while focusing more attention on the key objectives outlined in the Committee Charter as it states on the BRDI solicitations.

V. U.S. Department of Energy Update

Elliott Levine, Biomass Program, U.S. Department of Energy

Mr. Levine also delivered a presentation on updates from the Department of Energy's Office of the Biomass Program. Mr. Levine discussed the results of the Program's recent conversion workshop – *Conversion Technologies for Advanced Biofuels (CTAB)*, held December 6–8, 2012, and the key deliverable from the workshop is a revised technology roadmap, which will be used to guide the Program's out-year R&D activities. The Program also recently released the results of its 2011 Peer Reviews, which included reviews by a panel of experts on 217 projects, across 8 platforms, as well as a review of the Biomass Program's overall focus and strategic direction. More information about the results of the Biomass Program's Peer Review can be found on the Program's website at: http://www1.eere.energy.gov/library/pir_publicationsnew.aspx/page/1.

Mr. Levine announced two upcoming Biomass events, a *Workshop on the Social Aspects of Bioenergy Sustainability*, to be held April 24, 2012, in Washington D.C., and the Biomass Program's fifth annual conference, *Biomass 2012: Confronting Challenges, Creating Opportunities – Sustaining a Commitment to Bioenergy*, which will be held July 10–11, 2012, at the Washington D.C. Convention Center. Finally, Mr. Levine announced the release of a recent Funding Opportunity Announcement (FOA) for “Advancements in Sustainable Algae Production,” and the Program's plans for the release of four other FOAs for “Synthetic Biology Applications for Biofuels and Bioproducts,” “Bio-Oil Stabilization and Commoditization,” “Clean Cookstoves,” and “Innovative Pilots.”

After the presentation, Harrison Dillon asked about the focus of the CTAB Workshop and whether or not the focus had been exclusively on advanced biofuels. Mr. Levine clarified and said that the workshop had focused primarily on “drop-in” hydrocarbon fuels. Harrison welcomed the clarification, but he and other Committee members pointed to what they felt was a continuing lack of clarity about the definitions for key terms such as “advanced biofuels” and “drop-in biofuels.”

VI. U.S. Department of Agriculture Update

Todd Campbell, Rural Development, U.S. Department of Agriculture

Mr. Campbell provided the Committee with an update on USDA supported projects and other USDA initiatives. Mr. Campbell is the new USDA representative on the Committee and replaces Bill Hagy, the former Director of Alternative Energy Policy at USDA, after his retirement from federal service last year.

Mr. Campbell provided an overview of a new suite of Web-based tools developed by the Department, including an Energy Investments Map, a USDA Energy Matrix, and a Renewable Energy Tool. The Energy Investment Map allows users to locate up to 14,000 energy projects from across USDA mission areas, and along with the other tools, will allow stakeholders and the general public to access a wide variety of technical, geographic, and socio-economic data and other resources related to the development of bioenergy feedstocks and other forms of renewable energy in the United States. More information about these tools can be found on USDA's website at: <http://www.usda.gov/energy>.

Next, Mr. Campbell discussed recent progress on USDA's Farm-to-Fly initiative and the role of USDA and other government agencies in promoting the development of an advanced aviation biofuels industry. Mr. Campbell also provided an update on USDA's BioPreferred Program and the Presidential Memorandum issued on February 21, 2012, that calls on USDA to increase the number of new products designated as ‘biobased’ by 50%, which are thus eligible to receive federal incentives under the BioPreferred Program. A copy of the Presidential Memorandum can

be found on the White House's website at: <http://www.whitehouse.gov/the-press-office/2012/02/21/presidential-memorandum-driving-innovation-and-creating-jobs-rural-ameri>.

Finally, Mr. Campbell provided an overview of the status of USDA's other bioenergy-related programs. Currently, there are seven active projects under USDA's Biorefinery Assistance Program, and the Department is continuing to work with lenders from Enerkem, Coskata, ZeaChem, and Fiberright to close. FY 2011 funding for USDA's Rural Energy for America Program is also providing funding for biomass renewable energy projects including anaerobic digesters, biofuels, and solid biomass fuel. Overall the program has funded almost 6,000 renewable energy and energy efficiency project. A summary report is out with state by state information and can be found at:

<http://www.rurdev.usda.gov/Reports/rdREAPReportMarch2012.pdf>.

VII. BRDI Solicitation

Carmela Bailey, NIFA, U.S. Department of Agriculture

Carmela Bailey delivered a brief update on the BRDI funding solicitations and award status. The 2011 BRDI awards will not be announced until the spring of 2012, but Ms. Bailey provided an overview of the Initiative; the key requirements for award selection; the available FY 2012 funding; and the review, evaluation, award, and follow-up process. Ms. Bailey also announced that the 2012 BRDI solicitation was expected to be released sometime in March of 2012.

Following this overview, several Committee members engaged in a wide-ranging discussion about the optimal focus and structure of the BRDI awards. Maureen McCann asked about the rationale for requiring proposals to combine all three technical focus areas. Ms. Bailey explained that this was a new approach developed over the past few years to prevent the problem of "stove piping" technologies and to ensure that research was being developed in parallel across the feedstocks production, conversion, and analysis areas of research. Harrison Dillon recognized the logic in this approach, but cautioned that the requirement also hindered companies and other entities with promising research in one technical area from applying for the BRDI awards, unless they were willing to partner with other entities with research that may be unrelated to their technology.

Bruce Dale asked Ms. Bailey about how sustainability concerns were incorporated into the BRDI solicitations, and Ms. Bailey explained that sustainability issues were certainly a part of the analysis piece, that applicants were required to address aspects of both social and environmental sustainability, and that BRDI was considering adopting certain sustainability metrics from the Global Bioenergy Partnership.

David Bransby and Maureen McCann also had questions for Ms. Bailey about additional information the Committee could have access to in order to more effectively draft their recommendations on the BRDI awards. For example, would it be possible for TAC to review the BRDI solicitations before they were released? Ronnie Musgrove asked the Committee about the relative importance of such a review process, and several members agreed that the Committee could look at the solicitations and award decisions retrospectively and make recommendations to the Board for future solicitations. Ms. Bailey agreed that this was likely the best way forward and emphasized that a number of the Committee’s recommendations, such as those on woody biomass, had already been incorporated into BRDI’s solicitations.

Next, the Committee discussed the appropriate size of the BRDI awards and whether the funding would be better spent by funding a limited number of large projects or a larger number of small projects. While some Committee members expressed support for funding a larger number of small projects, Bruce Dale said that he remembered the era of small projects, and that many of those projects were met with only limited success. David Bransby noted that it was important to consider not only the size of the project, but also the primary focus area of the funding award, explaining that funding agricultural projects typical cost less than engineering projects.

VIII. USDA Feedstock Readiness Tool

Jeff Steiner, U.S. Department of Agriculture

Jeff Steiner delivered a presentation on a Feedstock Readiness Tool, that has been developed by USDA, DOT, and FAA. Dr. Steiner discussed the complexity of the many technical factors that determine the readiness and suitability of a given biomass feedstock for market readiness — particularly for use in the aviation sector—and explained how the Commercial Aviation Alternative Fuels Initiative had proposed the concept of feedstock readiness level to avoid disconnects between technical and feedstock readiness.

Dr. Steiner then provided an overview of how feedstock readiness levels were determined and how the tool was developed to assess feedstock and technology readiness and then integrate those assessments across each stage of the bioenergy supply chain. The Feedstock Readiness Tool can be used to do the following:

- Facilitate communication between all supply chain participants—government and business contributors
- Plan and coordinate research around supply chain needs
- Integrate all supply chain activities and multi-agency programs
- Measure progress for commercial project development.

Bill Provine and other members commented on the tool’s potential utility in commercial applications and applauded the Department for the tool’s development. James Seiber commented

that he considered municipal solid waste (MSW) and invasive tree species to be two of the most underutilized feedstocks and he hoped that tools like the one being presented would help change that situation.

Dr. Steiner thanked the Committee and explained how development of the tool was championed by USDA Under Secretary Woteki and that the goal was to eventually find applications for the tool across every kind of bioenergy supply chain—not just for aviation fuels.

IX. Overview of DOE Biomass Program FY 2013 Budget and Anticipated FOAs

Valerie Reed, Biomass Program, U.S. Department of Energy

Valerie Reed, Acting Program Manager for DOE's Biomass Program, delivered an overview presentation on the Biomass Program. Dr. Reed discussed the history of the Program; key legislative drivers, such as the Renewable Fuel Standard; and the vision, mission, and strategic goals of the Program. She also described a new focus on hydrocarbon fuels, and the need to replace the whole barrel of petroleum, not just the gasoline fraction of a barrel of oil (only about 40% of the barrel), which includes biobased replacements for diesel fuel, jet fuel, and other products.

Next, Dr. Reed discussed changes in the Program's organizational structure and approach to project management. In FY 2012, the Program has been appropriated a budget of around \$200 million, with the largest portions of this budget committed to funding biochemical and thermochemical conversion technologies, integrated biorefinery (IBRs) projects, algae, feedstock logistics, and analysis activities. Dr. Reed also provided additional details about the objectives of the five FOAs released, or planned for release, in 2012, which are focused on sustainable algae production, applications of synthetic biology, clean cookstoves, bio-oil, and innovative pilots.

X. Overview of the Updated National Biofuels Action Plan

Alicia Lindauer, Biomass Program, U.S. Department of Energy

The Biomass Program's Alicia Lindauer provided the Committee with an overview on the status of the National Biofuels Action Plan Update. The Operations Committee and Working Groups of the Board are drafting the report as an update to the original National Biofuels Action Plan published in October of 2008. The key changes incorporated into the updated version of the report include a greater focus on advanced hydrocarbon fuels, the potential utilization of algae as a feedstock, and new approaches to feedstock logistics, including the concept of a uniform format feedstock supply system. The report also examines the impact of the economic downturn on financing the construction of new facilities, the impact of a changing policy landscape, and the approaching saturation of the E10 ethanol market. The report's authors are currently working

to incorporate comments from the Board, and they plan to finalize the document for publication in early summer of 2012.

XI. Panel Discussion – Renewable Fuel Standard

Overview of Fundamentals of RFS, Paul Argyropoulos, Environmental Protection Agency (EPA)
Refiner’s Perspective on Advanced Biofuels, Rick Weyen, Tesoro
Oil Crop Perspective on Advanced Biofuels, Bryan Sherbacow, AltAir Fuels

On the second day of the Committee meeting, the Committee listened to a panel presentation on the current status and future of RFS. Panelists were selected to present the perspective of the EPA, the petroleum industry, and alternative energy crop producers with the potential to benefit from revisions in the program.

First, EPA’s Paul Argyropoulos delivered a presentation on the fundamentals of the RFS system, including the history and authorizing legislation for RFS, determinants for the four fuel categories, and the compliance mechanisms built into the EPA Moderated Transaction System. Much of Mr. Argyropoulos’s presentation focused on EPA’s rulemaking for the cellulosic biofuel standard and the evaluation and approval process for new fuel pathways.

After his presentation, David Bransby asked about the cellulosic fraction of MSW, and Mr. Argyropoulos clarified that MSW was currently considered a cellulosic feedstock. In response to other Committee member questions, Mr. Argyropoulos also described the complexity involved in analyzing the potential economic value of cover crops, such as pennycress, and deciding on clear definitions for waste fats and greases. Mr. Argyropoulos said that he understood some of the questions involved in EPA’s rulemaking, but concluded it was important to remember that the EPA is bound by regulations set forth in the authorizing legislation for the RFS.

Next, Rick Weyen of Tesoro provided an overview of the refining and petroleum industry’s perspective on RFS. After delivering an assessment of the market outlook for the petroleum and refining industry in the United States, Mr. Weyen provided some very interesting insights surrounding what he termed as an “initial view” of the petroleum industry toward RFS, which points out many of the negatives of the program regarding the refining industry. However, an “alternative view” sees renewable fuels as opening up a new potential “growth market” for refiners and other segments of the petroleum industry. Mr.

Ronnie Musgrove asked for clarification about what percentage of refining operations were independently owned, and Mr. Weyen explained that one-third to one-half of refining facilities are independently owned by companies like Tesoro, and the rest are owned by major integrated

oil companies like Exxon Mobil and Chevron. Asked when the other companies would come around to a position supportive of RFS, Mr. Weyen said that he can't be certain, but that many petroleum companies are supporting bioenergy in a variety of different ways.

Finally, Bryan Sherbacow, of AltAir Fuels, provided a perspective on producers of oil-seed crops, such as camelina, and the way they are impacted by current rulemaking in the RFS program. EPA currently recognizes only a limited number of feedstock-to-fuel pathways within the RFS system. At the end of his presentation, Mr. Sherbacow concluded that while RFS is critical to the successful development of alternative fuels and feedstocks, changes to the program are needed to accommodate novel fuel feedstocks and to ensure that policy mechanisms promote the development of the most effective alternative fuel feedstocks and pathways.

XII. Subcommittee Breakout Reports

Feedstock Subcommittee:

Information Requests and Recommendations 2012:

Funding

- Report of funds going back to FY 2009, with a breakout of dollars authorized for BRDI, dollars appropriated, and dollars committed to solicitations.
- Chart and report past years' awards since 2009, including dollar amount, principal investigator, feedstock types, geography, and activity.
- What does the 'funnel' look like from the solicitation being released to the Review Panel to the award? Is there a joint award pot or are there separate amounts and awardees for DOE and USDA?
- Crosswalk the awards with the BRDI categories and Committee recommendations.

Process

- Access to solicitations and timelines is needed, including total number of pre-proposals by year, full proposals by year invited to submit, awards and dollar amount.
- Proposal evaluation criteria are needed from the solicitation, highlighting previous years' changes.
- Step by step for the process and snapshots of the makeup of proposal reviewers are needed. What were the demographics (e.g. geography, education levels) of the panelists and site visit groups? Categories should include university, state, commodity, federal, industry, non-profit.

Big Picture Questions

- Who sets award size; how do they arrive at that decision? Who writes the solicitation, and where does the direction come from for the solicitation?
- What information is needed besides 9008 to make recommendations?

- Report on FY 2011 solicitation/awardees from Carmela at quarter 2 Committee meeting. How can the Committee provide inputs before the annual solicitation is released?

Conversion Subcommittee:

Process Discussion

- Bring in an analyst to discuss R&D money spent across all the agencies as inconsistencies in design case studies and economic projections prove that more information is needed and a clear understanding of the needed solutions can lead to better discussions on process gaps
 - For all agencies involved in biomass funding, DOD, DOE, USDA, National Science Foundation, etc., discuss the following questions:
 - Which feedstocks and products?
 - What technology stage and what scale?
 - What types of processes (i.e., biochemical, biological, thermochemical, other)?

Solicitation Process

- The Committee would like to see full solicitations out as a public comment (or as an RFI)
- Solicitations should be open, fair, and non-prescriptive and should enable
 - Individual components within overall integrated process system
 - Engineering interfaces
 - Systems approach.
- Application process for final grant should have more technical substance and less emphasis on format, which will save on paperwork associated with the award; formatting is not needed for assessing merit.
- Review process should change to include
 - Review Panel improvements, which should incorporate
 - More background information—have panelists read solicitation
 - Diversity of reviewers, qualification of reviewers
 - Continual review of projects (DOE and ARPA-E examples), looking at accomplishments versus strategic objectives of the solicitation.

Infrastructure Subcommittee:

Initial Recommendation for the Committee

- Infrastructure Subcommittee should be authorized to provide recommendations on feedstock logistics.

- Infrastructure Subcommittee will continue to focus efforts on downstream infrastructure activities.

Major Challenges and R&D Potential Impacts

- **Downstream Infrastructure Challenge:** Ethanol market beyond E10 is needed for continued investments in cellulosic ethanol.
- **Downstream Infrastructure R&D:** Limited meaningful R&D potential impacts.
- **Feedstock Logistics Challenge:** Under what conditions could cellulosic feedstocks be delivered to a biorefinery at an economic cost, including potential for distributed processing in depots to densify and add value to biomass.
- **Feedstock Logistics R&D:** More rigorous analysis of key cost factors, including market costs, land rents, agricultural inputs, and other factors, would help better understand the cost of biomass delivered to a biorefinery with and without distributed processing in a depot. How could depots help catalyze formation of biomass supply chains, including multiple products from depots with established markets (e.g., torrefied pellets and animal feeds)? Potential of depots to increase rural wealth and economic development.

Information Needed for Future Recommendations

- **Information from BRDI**
 - Details about what specific criteria and data requirements are used to evaluate the BRDI solicitations
 - Details about how funding allocation decisions beyond the 15% requirement are made for each of the topic areas
 - Details about what portion of BRDI funding supports feedstock logistics activities
 - Details about BRDI's view on the relative importance of feedstock logistics
- **Outside Experts and Material**
 - Feedstock Logistics experts from AGCO Corporation
 - Idaho National Laboratory speakers
- **Initial Recommendations**
 - Fund more analysis projects on understanding and reducing feedstock logistics costs
 - For future solicitations, more extensive data should be required, including feedstock costs

XIII. Conclusion

During the first quarter Committee meeting, the Committee made significant progress in laying the groundwork for their recommendations on the direction of BRDI and the overall scope and focus of federal efforts related to bioenergy R&D. The Committee heard updates from the relevant federal agencies on bioenergy R&D and updates on the status of BRDI and the National Biofuels Action Plan; they also heard from several industry stakeholders about the key

legislative drivers and key challenges involved in promoting the development of a successful biofuels industry.

The Committee also identified the key resources and types of information they would need to draft and vote on the FY 2012 recommendations, established a new structure and focus for the subcommittees, and outlined a strategy for developing this year's recommendations to the Board. All of this work will help the Committee prepare recommendations for the Board and determine the focus and direction of future federal R&D efforts on bioenergy. These recommendations will help ensure that public money is used in the most efficient way possible and in a way that is designed to most effectively accelerate the development of a successful advanced biofuels industry that will help achieve national goals on energy security, reduced carbon emissions, and cutting-edge scientific innovation.

Attachment A: Committee Members

Attendance – March 1-2, 2012

Co- Chairs	Affiliation	Attended?
Steve Briggs	University of California	NO
Ronnie Musgrove	Former Governor, MS	YES

Members	Affiliation	Attended?
Bob Ames	Solazyme	NO
William Berg	Dairyland Power	YES
David Bransby	Auburn University	YES
Pamela Reilly Contag	Cygnnet Biofuels	YES
Bruce Dale	Michigan State University	YES
Harrison Dillon	Solazyme	YES
Joseph Ecker	Salk Institute for Biological Studies	YES
Neal Gutterson	Mendel Biotechnology	NO
Jennifer Holmgren	LanzaTech Limited	NO
Huey-Min Hwang	Jackson State University	NO
Kevin Kephart	South Dakota State University	YES
Craig Kvien	University of Georgia	YES
Jay Levenstein	FL Dept. of Ag. and Consumer Services	YES
Stephen Long	University of Illinois	NO
Mary McBride	CoBank	YES
Maureen McCann	Purdue University	YES
David Nothmann	Battelle	YES
William Provine	DuPont	YES
James Seiber	University of California	YES
John Tao	O-Innovation Advisors, LLC	YES
Todd Werpy	Archer Daniels Midland Company	NO

Total: 16 of 23 members attended

Attachment B: Meeting Agenda

Day 1: Technical Advisory Committee Meeting

March 1, 2012

9:00 a.m. – 9:30 a.m.	Welcome <i>Co-Chair – Steve Briggs</i> <i>Co-Chair – Ronnie Musgrove</i>	<i>Diplomat Room</i>
9:30 a.m. – 9:45 a.m.	<u>Presentation</u> : Committee Business for 2012 <i>Elliott Levine, DFO</i>	
9:45 a.m. – 10:00 a.m.	<u>Presentation</u> : 2012 Workplan for the Biomass TAC <i>Ronnie Musgrove, Committee Co-Chair</i> <i>Steve Briggs, Committee Co-Chair</i>	
10:00 a.m. – 10:15 a.m.	<i>Break</i>	
10:15 a.m. – 10:45 a.m.	<u>Presentation</u> : US DOE Updates <i>Elliott Levine, Biomass Program, U.S. Department of Energy</i>	
10:45 a.m. – 11:15 a.m.	<u>Presentation</u> : USDA Update on Biomass R&D Activities <i>Todd Campbell, U.S. Department of Agriculture</i>	
11:15 a.m. – 11:45 p.m.	<u>Presentation</u> : BRDI Solicitation Update <i>Carmela Bailey, NIFA, U.S. Department of Agriculture</i>	
11:45 a.m. – 12:15 p.m.	<u>Presentation</u> : USDA Feedstocks Readiness Tool <i>Jeff Steiner, U.S. Department of Agriculture</i>	
12:15 p.m. – 1:15 p.m.	<i>Lunch (to be provided for Committee)</i>	
1:15 p.m. – 1:35 p.m.	<u>Presentation</u> : Overview of DOE Biomass Program FY13 Budget and Anticipated Funding Opportunity Announcements (FOAs) <i>Valerie Sarisky-Reed, Acting Program Manager, Biomass Program, U.S. Department of Energy</i>	
1:35 p.m. – 2:00 p.m.	<u>Presentation</u> : Overview of the Updated National Biofuels Action Plan <i>Alicia Lindauer, Biomass Program, U.S. Department of Energy</i>	
2:00 p.m. – 3:45 p.m.	<u>Breakout</u> : Subcommittees	<i>(Not Open to the Public)</i>
3:45 p.m. – 4:00 p.m.	<i>Break</i>	
4:00 p.m. – 5:30 p.m.	<u>Breakout</u> : Subcommittees	<i>(Not Open to the Public)</i>

- 8:30 a.m. – 10:30 a.m. Discussion: Subcommittee Report Outs
Diplomat Room
- *Are there any additional issues/challenges that need to be added?*
 - *Under which subcommittee do they fall?*
- 10:30 a.m. – 10:45 a.m. *Break*
- 10:45 a.m. – 11:00 a.m. Discussion: Suggested speakers for next TAC meeting to address issues/challenges developed at this meeting?
TAC Co-chairs
- 11:00 a.m. – 12:30 p.m. Panel: Renewable Fuel Standard
- *Overview of Fundamentals of the RFS: Paul Argyropoulos, EPA*
 - *Refiner’s Perspective on Advance Biofuels: Rick Weyen, VP, Tesoro*
 - *Oil Crop Perspective on Advanced Biofuels: Bryan Sherbacow, President, AltAir Fuels, LLC*
- 12:30 p.m. – 12:45 p.m. Public Comment
- 12:45 p.m. – 1:00 p.m. Closing Comments
Co-Chair – Steve Briggs
Co-Chair – Ronnie Musgrove
- 1:00 p.m. – 2:00 p.m. *Lunch (to be provided for Committee)*
- 2:00 p.m. Adjourn