

Subcommittee Report Outs

Biomass Technical Advisory Committee Meeting

May 22–23, 2012

Feedstock Subcommittee:

Information Requests and Recommendations 2012:

Funding

- Report of funds going back to fiscal year (FY) 2009, with a breakout of dollars authorized for Biomass Research and Development Initiative (BRDI), dollars appropriated and dollars committed to solicitations.
- Chart and report past years' awards since 2009—dollar amount, PI, feedstock types, geography, and activity.
- What does the 'funnel' look like from the solicitation being released to the panel review to the award? Is there a joint award pot or separate amounts and awardees for the U.S. Department of Energy (DOE) and the U.S. Department of Agriculture (USDA)?
- Crosswalk the awards with the BRDI categories and Technical Advisory Committee (TAC) recommendations:
 - Identify projects that specifically address prior TAC recommendations
 - Need to provide more specific feedstock type data from awards
 - *Recommendation:* Develop a checklist for proposers to complete that will provide data that can be tracked (see National Science Foundation example)
 - Need to be a few key metrics
 - Outputs chart needs further breakout by each year
 - Review intellectual property (disclosures) data in summary table
 - Use iEdison from Department of Commerce.

Process

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

Big Picture

- Who sets award size? How is the decision arrived at? Who writes the solicitation? 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 Bailey at Q2. How can TAC provide inputs before annual solicitation is released?
- Has the combined solicitations approach to promote consortium projects been successful over prior year solicitations?
- Identification of Funding Gaps:
 - See what other research programs are doing in the biomass feedstocks area, such as Office of Science. See funding numbers, number of awards.
 - What are the funding amounts and feedstock topics across and the biomass research, development, and demonstration (RD&D) timeline?

Timeline of Recommendations

- Full committee should have final recommendations ready for vote at the end of the Q3 meeting in August.

Recommendations Areas

- Demonstration-scale projects low for BRDI
 - Cost-share requirements
 - Could be based on pre or full proposals
- Is the composition of reviewers adequate to evaluate feedstock proposals?
- Analysis/Modeling scenarios on the impacts of select feedstocks.

Logistics, Storage, and Infrastructure Subcommittee:

The Committee proposed to rename themselves **Logistics, Storage, and Infrastructure Committee**.

The Committee will focus on:

- Feedstock storage, harvesting, preprocessing, logistics and downstream infrastructure for liquid fuels, biobased products, and power generation.

Assessment of Allocations:

- The Committee would like to request additional information on BRDI awards related to feedstock logistics: 2010 Awards for Metabolix, University of Kentucky, and U.S. Forrest Service awards; the 2009 University of Tennessee award; and the 2007 Kansas State University award.
- Additional information on 2009 DOE funding opportunity announcement on large-scale feedstock logistics handling systems.
- Additional information, if it exists, on other funding awards germane to the subject of the Committee, including USDA Awards, DOE Labs – INL, and SBIR.
- Additional information is also requested on DOE's programs relative to the 2011 Infrastructure Recommendation #7.

Research Needs:

- Densification and preprocessing to improve logistics and facilitate storage

- Research densification, drying, substance removal, and other strategies for efficiently transporting biomass from the field to the conversion facility.
- Research preprocessing techniques to reduce the logistical load for transportation and storage.
- Research strategies designed to mitigate seasonality concerns and the problems associated with seasonal harvesting, storage, and processing.
- Biopower/Biothermal
 - Support research for the substitution of biobased solid fuels in electric generation and combined heat and power, as well as in biorefineries.
 - Research on how biomass substitution for fossil fuels in biorefineries could reduce greenhouse gas emissions profiles and costs for transportation fuels and enable them to qualify as Advanced Biofuels under the Renewable Fuel Standard (RFS).
- Bioproducts
 - Conduct research to explore how manufacturers can utilize biomass in place of fossil materials and fuels.

The Committee is still considering priority levels for the [2011 Recommendations](#) (#7 and #8).

Additional Notes:

- Research on testing for differentiating renewable diesel from petroleum diesel for purposes of renewable identification number (also known as RIN) credit identification.
- Difficulty in using biomass for power, when the RFS mandates liquid fuels, and no comparable federal statute exists to incentivize biopower. Should federal research support state mandates?

Conversion Subcommittee:

- Conversion, pre-treatment through fuel, is the major barrier to bringing down costs. There is not enough emphasis on research for conversion technologies currently funded by BRDI.
- Awards should be considered based on available feedstocks.
- What constitutes a commercial should be based on profitability.
- The focus of research and development (R&D) funds should be dedicated to biofuels and bioproducts in preference to biopower.
- BRDI grants failing to meet the stated goals with the requirement to be a full, integrated system. Focus next solicitation on R&D specific efforts. Percentage of funds should be reserved for smaller, non-consortia grants. Geographic diversity should be improved in the award system.
- The BRDI solicitation would be stronger if the timeline included a draft solicitation phase to allow for public comment and revisions. The solicitation timeline should be longer and more consistent. Consider meeting proposed deadlines as recommended by TAC.
- All reviewers for BRDI solicitation should be required to read to full solicitation before beginning the review process. More neutral review system is still needed for the BRDI process. Consider use of clickers or other method to keep voting independent.
- The quality of the reviewers should be improved. Develop industry network for reviewers. Consider drawing reviewers from previous or current applicants or using a finalist peer review

system. Qualifications should be previously demonstrated. Reviewers should be drawn from industry, academia, government and other groups to create a diverse pool.

- Criteria for awards should be on performance metrics and compared across the board. Measureable outputs of awards should be established; results should be recorded and shared.
- Success of the funded technologies should be shared and reviewed by TAC.