Analysis Subcommittee

May 15, 2007
Biomass Technical Advisory Committee Meeting

Analysis Subcommittee

- Purpose: To conduct high level assessment of “foundational documents” used by agencies in decision making and program guidance and to provide comment via the Biomass Technical Advisory Committee as input to agency and/or industry programs on their past, present, and future analytical project documents.

Analysis Subcommittee

- The committee was asked to provide high level assessment of the documents and its members decided to focus their comments on each document's:
  - (1) key assumptions;
  - (2) analysis methods;
  - (3) data quality;
  - (4) whether the conclusions were supported by the analysis; and
  - (5) the quality of independent reviews prior to publication.

Analysis Subcommittee

- Ralph Cavalieri, Washington State University
- Douglas Hawkins, Rohm and Haas
- John Hickman, John Deere
- Charles Kinoshita, University of Hawaii at Manoa
- Eric Larson, Princeton University
- John McKenna, Hamilton Clark & Co.
- Edwin White, SUNY - ESF

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- Federal liaisons:
  - Harry S. Baumes, USDA, Associate Director Office of Energy Policy and New Uses
  - Valri Lightner, Department of Energy, Biomass Program, EE-2E
- BCS liaison:
  - Leslie Pezzullo

Analysis Subcommittee

- US-DOE reports reviewed to date:
  - The potential of thermochemical ethanol via mixed alcohols production
  - Preliminary Screening - Technical and Economic Assessment of Synthesis Gas to Fuels and Chemicals with Emphasis on the Potential for Biomass-Derived Syngas
  - Development of a Multi-Criteria Assessment Model for Ranking Biomass (corn stover) Collection and Transportation Systems
  - Costs of Wet Corn Stover Harvest, Large-Pile Storage, and Transport
  - Roadmap for Agriculture Biomass Feedstock Supply in the United States
  - Lignocellulosic Biomass to Ethanol Process Design and Economics Utilizing Co-Current Dilute Acid Prehydrolysis and Enzymatic Hydrolysis for Corn Stover
  - Updated: Development of Two Process Assessment Cases: 2003 State of Technology and 2002 Experimental Parameters

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- Summary of review of these documents (November 13, 2006 report):

  “General consensus on the documents reviewed was that many of the analyses were well-done, but based on out-dated, unclear, or questionable assumptions. It remains uncertain what review, if any, was conducted prior to publication for several of the documents. In one case, one of the authors provided a “peer review”, a highly irregular procedure. The subcommittee would like to assist in the development of a review process for biomass R&D analytical documents, to facilitate delivery of an end product with a high degree of objectivity and quality.”

Analysis Subcommittee

- Next steps
  - Examine list of 96 USDA documents recently compiled and provided to the subcommittee.
  - With input from USDA and US-DOE, select 5-10 that are “foundational” for decision making and program direction
  - Determine review teams and collect assessments prior to meeting later in 2007