

DISCUSSION DOCUMENT

USDA/DOE Section 9008 Program

Reporting on Past Awards

Briefing to Technical Advisory Committee
Washington, DC
September 9, 2008

Section 9008 program was established in 2000 and has evolved through subsequent energy and agricultural legislation

Biomass R&D Act of 2000

Creates "Biomass R&D Initiative" to support research on recalcitrance, bioproducts, and ensuring environmental and economic performance

Farm Security and Rural Investment Act of 2002

Amends the R&D Act of 2000 by adding funds from CCC and extending the authority of the program to 9/30/2007

EPACT 2005

Establishes specific targets for funds distribution by technical area (feedstocks, biomass recalcitrance, product diversification, strategic guidance) and research type (fundamentals, innovation, demonstration)

EISA of 2007

Establishes aggressive RFS for advanced fuels.

Food Conservation and Energy Act of 2008

Objectives (Sec. 9008 (e) (2))

- ▶ Develop technologies & processes necessary for abundant commercial production;
- ▶ Develop high value biobased products;
- ▶ Diversity of feedstock sources and conversion processes, which are also sustainable.

Technical Areas (Sec. 9008(e)(3))

- ▶ Feedstock development (including logistics);
- ▶ Biofuels & biobased product development;
- ▶ Biofuels development analysis

Administration (Sec. 9008(e)(6)):

- ▶ Awards made by independent scientific review;
- ▶ Technical areas get not less than 15% of funds
- ▶ Cost share from non-Federal source is =>20% for R&D, =>50% for demos.
- ▶ Results from projects are to be included in a best practices database.

USDA recently evaluated the 9008 program to provide input to decision makers and identify performance metrics

PREVIOUS WORK



Dr. Helena Chum, NREL, conducted a study to identify a suite of metrics and assess USDA awards only during FY 2002 - 2005

Measures	Measure Amount	Index Measure/ Million \$	Comments
USDA Funding, Million \$	\$22.4		
Cost Share, Million \$	\$22.7	1:1	50 % cost share
# Proj. FY02 (2), FY03 (15), FY04 (4)	20	0.9	One FY03 project continued in FY04. Counted as 1
Cumulative # Publications	40	1.8	Easy to track but best associated with quality index
Cumulative # Patents (applied and issued)	20	0.9	Upper limit. Later separate applied and issued patents. Index is 0.04 for issued patent.
Cumulative # technologies under commercialization	2	0.08	One 1 st commercial (Project # 14, FY03) and one commercial prototype (Project # 14 FY03)
Cumulative # Processes, products, systems under development	36	1.6	Difficult to track. Expert judgment on the overall portfolio.
Cumulative # Licenses	2	0.08	Easy to track
Cumulative # Companies involved with IP generation	40	1.8	Requires detailed analysis of projects
Cumulative # Projects financed	2	0.08	Easy to track. USDA RUS Loan (Project # 3 FY03). Equity financing (Project # 14 FY03)
Cumulative # Feasibility studies	5	0.2	Decrease investment risk. Downselection tool
Cumulative # Outstanding training/ education courses/policy analysis	3	0.12	Not just numbers; counts only if quality is built into it.
Cumulative # of students to Post-docs	56	2.5	Human resource development dimension of training of professionals. Easy to track
Cumulative # of project investigators and lead collaborators	81	3.6	Human resource dimension of complexity of projects with multiple investigators at different organizations.

For the Biomass R&D Board, Booz Allen's task is to build on earlier work and deliver a complete assessment of results

Chum Report Recommendations

- ▶ Track outputs and outcomes over time
- ▶ Develop better framework for data collection and analysis

Additional Objectives

- ▶ Evaluate projects to include DOE and USDA awards through FY07 including more recent data available
- ▶ Evaluate data gaps and recommend process improvements
- ▶ Develop results and best practices database

BOOZ ALLEN CURRENT WORK

- ▶ Reporting on past initiative awards: Awards have been made under this initiative since FY 2002 by both DOE and USDA. Contractor will be asked to work with both Departments to compile a joint listing of awards, current status, and results/benefits that have been realized.

Booz Allen's current approach is to use existing data to formulate the framework, followed by a complete analysis of all awards

	Framework/Capsule Analysis	Comprehensive Analysis
Due Date	Sept. 30	Winter 2008
Agency	USDA, DOE if data avail.	USDA, DOE
Fiscal Years	2006 and 2007 at a minimum	2002-2007
Data Sources	Project reports, Award Summaries	Project Reports, Award Summaries, Phone interviews
Data Tracked	Funding amounts, PI, cost share %, status, impacts reported in contract reports, identify data gaps	Build on capsule analysis; Evaluate all projects across metrics in tailored fashion; Fill data gaps, potentially track additional items of interest (e.g. was follow-on work conducted? Commercialization status?)
Benchmark	EPACT 05	FCEA 2008
Report Format	Power point deck, short (<10 pgs) paper, briefings as necessary	Standard report and database



Next Steps

- ▶ Accelerated data collection from DOE and USDA
- ▶ Develop preliminary framework and initial data population
- ▶ Obtain feedback on proposed framework
- ▶ Identify data gaps and other process related issues/needs