

Testimony of Cheryl Cook, Deputy Under Secretary, Rural Development
Jonathan Coppess, Administrator, Farm Service Agency
Carmela Bailey, National Program Leader for Biobased Products and Bioenergy, National
Institute of Food and Agriculture

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Subcommittee on Conservation, Credit, Energy, and Research

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Mr. Chairman, Ranking Member Goodlatte, and Members of the Subcommittee, we welcome the opportunity to appear before you today to discuss the implementation of Title IX, the Energy Title, of the 2008 Farm Bill.

America's energy system is in transition. We are nearer the beginning of this process than the end, but there can be no doubt of the direction of change that is both necessary and desirable. For environmental, economic, and national security reasons alike, America needs to diversify our fuel supply, reduce our dependence on imported oil, and reduce our carbon footprint. The Obama Administration is committed to these objectives, and we are grateful for the leadership of the Congress, and in particular its vision in the 2002 and 2008 Farm Bills, in giving USDA the tools to support this vital national effort.

Renewable energy and energy efficiency are important commitments for USDA. Because of its feedstock and siting requirements, renewable energy is largely rural energy. Biofuels and biomass depend on farm and forest feedstocks. Utility scale wind, solar, and geothermal developments will be located largely in rural areas. Agriculture is energy intensive and improved energy efficiency is therefore an important consideration for agricultural producers as it is for rural residents and rural businesses in other sectors as well.

For all these reasons, we at USDA recognize that renewable energy and energy efficiency constitute an enormous opportunity for rural America. With rural broadband, local foods and local markets, and a broad-based rejuvenation of rural business, it is among the primary drivers of an emerging new rural economy -- a rural economy that is more prosperous, that offers more and better jobs, that can attract young families, and that leads the nation's fight for energy independence and a cleaner environment.

Title IX is broad in scope. The three USDA Agencies testifying today -- Rural Development, the Farm Services Agency, and the National Institute of Food and Agriculture -- administer a wide variety of programs ranging from basic research to feedstock production to commercialization of renewable energy and energy efficiency technologies.

Rural Development

Rural Development administers four Title IX energy programs from the 2008 Farm Bill. Before turning to them in detail, however, it should be noted that Rural Development's support for renewable energy extends well beyond the "9000 series" programs. The commitment to renewable energy is Agency-wide.

Most of Rural Development's Title VI business programs have supported renewable energy investments over the years. These include the Business and Industry Guaranteed Loan Program (B&I), the Value-Added Producer Grant program (VAPG), the Rural Business Opportunity Grant (RBEG) and the Rural Business Enterprise Grant programs (RBEG), and the Rural

Economic Development Loan and Grant program (REDLG). Similarly, the Rural Utilities Service has financed wind and solar investments by rural electric cooperatives.

Of the four Rural Development Title IX programs, all have now been implemented. In total, the Section 9003 and 9007 programs awarded 1559 projects during Fiscal Year 2009, creating or saving 10,258,372 million Btu's of energy. This equates to 1.76 million barrels (5.8 million Btu's per barrel of oil) of crude oil, or providing enough energy to provide electricity for 250,815 homes (40.9 million Btu's per year).

Section 9003 -- Biorefinery Assistance Program.

The Biorefinery Assistance Program provides loan guarantees to viable commercial-scale facilities to develop new and emerging technologies for advanced biofuels. (It is also authorized to provide grants for demonstration scale facilities, but no grant funding was provided for FY 2010.) Eligible entities include Indian tribes, State or local governments, corporations, farmer co-ops, agricultural producer associations, higher education institutions, rural electric co-ops, public power entities, or consortiums of any of the above.

Three Section 9003 project investments involving three different technologies have been announced to date. One loan has closed; the other two remain in process. These projects are:

- Range Fuels, Inc. received approval of an \$80 million guaranteed loan on January 16, 2009. The loan closed on February 10, 2010. This is a cellulosic ethanol project.

- Sapphire Energy received approval for a \$54.5 million guaranteed loan on December 3, 2009. The loan is expected to close September 2010.
- The Freemont Community Digester application involves a \$12.75 million loan guarantee that is still under review.

Looking forward, a balance of approximately \$80 million remains to be awarded under the Extension Notice of Funding Availability for Fiscal Year 2009. The Fiscal Year 2010 NOFA provides up to \$150 million in budget authority for the Program to support loan guarantees.

Type of Notice	Date of Publication in <u>Federal Register</u>	Application Deadline
Extension Notice of Funding Availability FY 2009	March 12, 2010	June 1, 2010
Notice of Proposed Rulemaking	April 16, 2010	June 15, 2010 (comments)
Notice of Funding Availability for FY 2010	May 6, 2010	August 4, 2010

The pace of applications for the Section 9003 program has clearly been affected by the recent recession, volatility in world oil prices, and a high level of caution by lenders in the wake of the credit crisis. The level of interest among potential applicants remains high, and we expect volume to increase in the year ahead as the economic recovery gathers strength.

Section 9004 -- Repowering Assistance Payments.

The Repowering Assistance Program provides payments to biorefineries that use fossil fuels to produce heat and power to replace the fossil fuels with renewable biomass. To be eligible, the biorefineries must have been in existence as of June 18, 2008, and applicants must demonstrate the economic, technical, and environmental feasibility of the proposed biomass system.

As of May 27, 2010, five project awards totaling \$13,269,383 have been approved and will be announced as soon as the applicants submit their letters of intent.

Congress appropriated mandatory budget authority of \$35 million over the life of the 2008 Farm Bill. However, in FY 2009, the program was allotted \$20 million. A balance of approximately \$6.7 million remains from FY 2009 and is available under the Extension Notice of Funding Availability for Fiscal Year 2009. Up to \$8 million is authorized in budget authority for the Notice of Funding Availability for FY 2010.

Type of Notice	Date of Publication in <u>Federal Register</u>	Application Deadline
Extension Notice of Funding Availability for FY 2009	March 12, 2010	June 15, 2010
Notice of Proposed Rulemaking	April 16, 2010	June 15, 2010 (comments)
Notice of Funding Availability for FY 2010	May 6, 2010	July 20, 2010

Section 9005 – Advanced Biofuel Producer Payments.

The Section 9005 Advanced Biofuel Producer Payment program provides payments to producers to support and expand production of advanced biofuels refined from sources other than corn kernel starch. To be eligible, producers must enter into a contract with USDA Rural Development for advanced biofuels production and submit records to document such production.

Determination of Payments as per the Notice of Contract Proposals: The Section 9005 program is designed to favor small producers. Five percent of the funds are allocated for payment to producers of over 150,000,000 gallons. Ninety-five percent of the funds will be allocated for small producers (less than 150,000,000 gallons). In Fiscal Year 2009, 156 producers applied and 141 were determined eligible and awarded \$14,711,362 in December 2009.

Producer Payments to:	Number of Producers	Awarded 12/09 Amount of Payments	Percentage of Payment
BIODIESEL PRODUCERS	80	6,472,996	0.44
ANAEROBIC DIGESTERS	41	294,227	0.02
NON-CORN KERNEL STARCH ETHANOL PRODUCERS	16	7,355,681	0.50
WOODY BIOMASS	<u>4</u>	<u>735,568</u>	<u>0.04</u>
Total	141	\$14,711,362	1.00

Congress appropriated mandatory budget authority to this program as follows: \$55 million for FY 2009 and \$55 million for FY 2010. However, in FY 2009, the program was allotted \$30 million. Approximately \$15 million remains in 2009 budget authority, and is available under the Extension Notice of Contract Proposals for FY 2009. The remaining FY 2009 funding of \$25 million, and \$15 million of funding from the FY 2010 allocation, which totals \$40 million in budget authority is available for this program in FY 2010.

Type of Notice	Date of Publication in <u>Federal Register</u>	Application Deadline
Extension Notice of Contract Proposals for FY 2009	March 12, 2010	May 30, 2010
Notice of Proposed Rulemaking	April 16, 2010	May 17, 2010 (comments)
Notice of Contract Proposals FY 2010	May 6, 2010	July 6, 2010

Section 9007 – Rural Energy for America Program (REAP).

The Rural Energy for America Program -- known formerly as the Section 9006 “Renewable Energy Systems and Energy Efficiency Improvements Program” -- provides loan guarantees and grants to agricultural producers and rural small businesses to purchase and install renewable energy systems and make energy-efficiency improvements.

Renewable energy systems include those that generate energy from wind, solar, biomass, geothermal sources, or that produce hydrogen from biomass or water using renewable energy,

and ocean and hydroelectric source technologies. Energy-efficiency projects typically involve installing or upgrading equipment to significantly reduce energy use. Energy audits and feasibility studies are also eligible for assistance.

Eligible applicants for energy audits include State, tribe, or local governments; land-grant colleges and universities; rural electric cooperatives; and public power entities. Eligible applicants for feasibility studies include rural small businesses and agricultural producers.

REAP Performance for FY 2009

# Projects	Funding Type	Grant Only	G-Loan Only	Combo Grant	Combo Loan
904	Grants Less Than \$20 Thousand	\$ 12,040,048			
199	Grants Greater than \$20,000	\$ 11,167,222			
380	Combinations			\$ 27,774,710.25	\$ 49,007,390.50
2	Guaranteed Loan Only		\$ 8,451,638		
22	EA/REDA	\$ 2,173,631.00			
50	Feasibility Study	\$ 1,244,600.00			
1,557	TOTAL	\$ 26,625,501.00	\$ 8,451,638.00	\$ 27,774,710.25	\$ 49,007,390.50

# Projects	Category	Sub-Category	Grant	G-Loan
49	BIOMASS Total		\$ 7,431,859	\$ 17,372,569
		14 ANAEROBIC DIGESTER	\$ 4,117,368	\$ 6,619,198
		7 BIODIESEL PRODUCTION	\$ 674,096	\$ 1,341,692
		5 SOLID FUEL PRODUCTION	\$ 843,936	\$ 754,679
		23 THERMAL CONVERSION	\$ 1,796,459	\$ 8,657,000

1,099	ENERGY EFFICIENCY	\$ 27,857,621	\$ 18,252,122
47	GEOTHERMAL	\$ 881,279	\$ 229,599
4	HYBRID	\$ 180,916	\$ 133,996
4	HYDROPOWER	\$ 464,432	\$ 600,000
166	SOLAR	\$ 5,994,685	\$ 3,399,253
116	WIND	\$ 8,171,188	\$ 17,471,490
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1,485		\$ 50,981,980	\$ 57,459,029
22	EA/REDA	\$ 2,173,631	
50	Feasibility Study	\$ 1,244,600	
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1,557	TOTAL	\$ 54,400,211	\$ 57,459,029

For FY 2010, approximately 75 percent of Rural Energy for America Program (REAP) funds are being allocated to the States. The total amount of appropriated and carry over funds for FY 2010 is \$99,371,998 (\$39.34 million in discretionary, \$60 million in mandatory, and \$31,998 carry-over from FY 2009). The following charts identify the allocations and projected timelines for FY 2010.

REAP Allocation FY 2010

Energy Audit & REDA	\$2,400,000
Feasibility Study	\$9,694,000
Grants of \$20,000 or less (allocated to the States)	\$19,865,706
State Allocation	\$55,636,292
National Office REAP Reserve	\$11,776,000
Total	\$99,371,998

REAP Timeline FY 2010

REAP - Type of Notice	Date of Publication in <u>Federal Register</u>
Notice of Funding Availability – Rural Energy for America Renewable Energy Systems and Energy Efficiency Improvements Loan Guarantee and Grants FY 2010	April 26, 2010
Notice of Funding Availability – REAP Energy Audits and Renewable Energy Development Assistance Grants	Anticipated May 27, 2010
Notice of Funding Availability – REAP Feasibility Studies Grants	Pending OMB Clearance
Notice of Proposed Rulemaking -- Rural Energy for America Renewable Energy Systems and Energy Efficiency Improvements Loan Guarantee and Grants FY 2010	Draft Pending
Notice of Proposed Rulemaking -- – REAP Energy Audits and Renewable Energy Development Assistance Grants	Draft Pending
Notice of Proposed Rulemaking – REAP Feasibility Studies Grants	Draft Pending

Farm Service Agency

The Farm Service Agency (FSA) is charged with implementation of two programs authorized under the Energy Title of the 2008 Farm Bill. These include the Biomass Crop Assistance Program (BCAP), and the Feedstock Flexibility Program.

Biomass Crop Assistance Program (BCAP)

The Biomass Crop Assistance Program (BCAP) was enacted in the 2008 Farm Bill as an important foundation to U.S. energy, environmental and agriculture policy. BCAP was designed to jump-start the development of a large scale non-traditional crop base in order to provide expanded biomass options to carbon-dominated materials used for energy purposes. As the nation transitions further into the development of the biofuels sector, BCAP is designed to

address a key “chicken-or-egg” dilemma: commercial-scale biomass conversion facilities require an established large-scale crop base for sufficient feedstock supplies; and conversely, crop producers require an established, commercial-scale marketplace to purchase the non-traditional crop. Incentives must exist for landowners to risk switching from conventional revenue-generating crops to non-food, non-feed crops.

BCAP has two primary components. The first provides matching payments to agricultural and forest land owners and operators for the amount paid for the collection, harvest, storage and transportation (CHST) of eligible biomass materials by a qualified Biomass Conversion Facility (BCF). The second provides up to 75 percent of establishment costs and annual payments to encourage the production of non-traditional bioenergy crops within designated BCAP project areas. The contracts are for up to 5 years for annual and non-woody perennial crops or up to 15 years for woody perennial crops.

The President’s proposed budget includes preliminary estimates of outlays for BCAP at approximately \$263 million in FY 2010, and \$479 million in FY 2011.

On June 11, 2009, FSA published a Notice of Funding Availability (NOFA) implementing the BCAP matching payments provisions for the collection, harvest, storage, and transportation of eligible biomass delivered to a qualified BCF. As of May 31, FSA has disbursed payments totaling \$233,181,656 on 4,551 contracts in 31 states. On February 8, 2010, FSA published a proposed rule for the full implementation of the BCAP program and suspended the matching payments provisions until publication of the final BCAP regulation. FSA accepted comments on the proposed rule until April 9, 2010, and nearly 25,000 comments were received. Public comments are being addressed and the final rule is in the clearance process. We are optimistic that the final regulation to implement the full BCAP program will be completed in the autumn timeframe.

Feedstock Flexibility Program

The Feedstock Flexibility Program, authorized as a new program under the 2008 Farm Bill, is to be used to avoid forfeitures of sugar to the CCC by diverting surplus supplies to bioenergy production.

In implementing 2008 Farm Bill programs, FSA has prioritized needed regulations to best utilize staff and resources in implementing the entire suite of programs as quickly as possible. Due to the relatively high level of sugar prices (and low likelihood of forfeitures), use of the Feedstock Flexibility Program is not foreseen by FSA in the near term. Currently, the proposed rule for the Feedstock Flexibility Program is within the internal clearance process.

National Institute of Food and Agriculture

The National Institute of Food and Agriculture administers Section 9008, the Biomass Research and Development Initiative. The objectives are to develop technologies and processes necessary for abundant commercial production of biofuels at prices competitive with fossil fuels, and high-value biobased products. These objectives are expected to enhance the economic viability of biofuels and power; serve as substitutes for petroleum-based feedstocks and products; and to enhance the value of coproducts produced all of which will result in a diversity of economically and environmentally sustainable domestic sources of renewable biomass for conversion to biofuels, bioenergy, and biobased products.

The legislation describes three technical areas that must be addressed, including Feedstocks Development, Biofuels and Biobased Products Development and Biofuels Development Analysis that includes assessment of Federal land. Since 2009, NIFA has administered Section 9008 which includes managing active projects previously awarded through Rural Development,

as well as leading the program in 2009 and 2010. This program has been very competitive since it was first authorized in the 2002 Farm Bill. Last year, over 800 pre-applications were received in response to the funding opportunity announcement. Of those, 108 invited full applications were reviewed and 12 awards were made, 9 by USDA and 3 by DOE.

As a joint program, USDA and DOE collaborate on drafting the solicitation, selecting reviewers and administering the peer review process. Beginning last year, the DOE Office of Biomass Program and the DOE Golden Field Office are responsible for administering the pre-application process and NIFA is responsible for administering the full application process. Each agency makes final selections independently based on program policy factors, e.g. the contribution of projects to each agency's bioenergy portfolio.

Currently the funding opportunity announcement for pre-applications is open until July 13. Pre-applications will be peer reviewed in August, invited full applications will be peer reviewed in early January 2011, and awards will be made in February/March 2011. In 2010, \$28M in mandatory spending is authorized. DOE has committed \$5M. Last year, in addition to addressing at least one of the three technical areas, all applicants were required to give consideration to a life cycle perspective of the technologies being proposed.

This year, applicants are required to integrate all three technical areas to accelerate technology implementation and to address sustainability in the fullest sense: renewable resources, beneficial environmental, economic and social impacts.

This year, technical areas have been expanded to emphasize small scale conversion technologies, local-scale woody biomass-to-energy conversion, new industrial crop and bioproduct development, and field testing of biobased products to industry standards and specifications. Products of interest include lubricants, hydraulic fluids, solvents and packaging materials. We anticipate that biobased products, as well as biofuels, will play a prominent role in reducing our reliance on petroleum.

In addition, the FY 2010 solicitation supports models that focus on public lands regarding the current and future potential for feedstock development, including analysis of new policy approaches to stewardship contracting, forest ecosystem restoration post-insect and disease outbreaks, invasive species management, low-value or dead/dying wood, and grassland restoration projects.

A team within NIFA has been organized to develop a post award evaluation process to ensure we capture all the outcomes and impacts of the program and to ensure that research results and technologies are disseminated as appropriate. Post award evaluation will also allow us to more easily identify knowledge gaps as we move forward.

Thank you for the opportunity to describe our successes and challenges in implementing the Energy Title of the Farm Bill. We are happy to respond to any questions at this time.