

# CRS Report for Congress

## Renewable Energy Policy in the 2007 Farm Bill

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## Summary

This report provides a summary of major legislative proposals for change in the farm bill energy title (Title IX) and compares current law with energy provisions from the recently approved House 2007 farm bill.

On July 27, 2007, the House approved a new farm bill — the Farm, Nutrition, and Bioenergy Act of 2007 (H.R. 2419) — which includes an energy title (Title IX). H.R. 2419, as amended and passed by the House, expands and extends several provisions from the energy title of the enacted 2002 farm bill with substantial increases in funding and a heightened focus on developing cellulosic ethanol production. A key departure from current farm-bill related energy provisions is that most new funding would be directed away from corn-starch-based ethanol production and towards either cellulosic-based biofuels production or to new as-yet-undeveloped technologies with some type of agricultural linkage. A funding complication relating to “pay-go” budget restrictions on new energy funding arose during the House Agriculture Committee’s (HAC’s) bill preparation because the Congressional Budget Office’s March baseline showed no funding in the farm bill for a new energy title. However, the House Ways and Means Committee resolved this issue for the HAC by finding \$2.4 billion in revenue offsets from outside of the agriculture budget.

The Senate Agriculture Committee (SAC) is expected to mark up its version of a 2007 farm bill in mid-October. The Senate is also expected to adhere to “pay-go” budget restrictions which may, in and of themselves, lead to different funding choices than made by the House. The SAC has turned to the Senate Finance Committee for assistance in resolving potential budget shortfalls. However, Senate Finance Committee Chairman Max Baucus has indicated a strong interest in controlling how any new money is to be used. For more information this and other farm bill issues, see CRS Report RL33934, *Farm Bill Proposals and Legislative Action in the 110<sup>th</sup> Congress*, coordinated by Renee Johnson.

Although the SAC chairman’s mark is not yet completed, several farm-policy related bills with important energy components have already emerged in the Senate and are likely to figure in the Senate farm bill discussion. In addition to forthcoming Senate farm bill action, both the House (H.R. 3221) and Senate (H.R. 6) have recently passed different versions of new energy bills that cover a wide range of topics with extensive attention to biofuels, including ethanol and biodiesel. In particular, Title V of H.R. 3221 contains provisions similar or identical to provisions passed in Title IX of H.R. 2419. For more information on these energy bills, see CRS Report RL34136, *Biofuels Provisions in H.R. 3221 and H.R. 6: A Side-by-Side Comparison*, by Brent Yacobucci.

This report will be updated as events warrant.

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# Renewable Energy Policy in the 2007 Farm Bill

## Introduction

The 2002 farm bill — the Farm Security and Rural Investment Act of 2002 (P.L. 107-171) — was the first farm bill to explicitly include an energy title (Title IX). Title IX's role in the 2002 farm bill was concentrated on grants, loan, and loan guarantees to foster research on agriculture-based renewable energy, to share development risk, and to promote the adoption of renewable energy systems.<sup>1</sup> In addition, USDA's Bioenergy Program (Sec. 9006 of P.L. 107-171) provided direct incentives to expand actual production of bioenergy. **Table 1** provides a list of current-law energy provisions and their funding as derived from the 2002 farm bill's energy title for FY2002 through FY2007.

Since enactment of the 2002 farm bill, interest in renewable energy has grown rapidly due, in large part, to a strong rise in domestic and international fuel prices and a dramatic acceleration in domestic biofuel production (mostly ethanol). Many policymakers view agriculture-based biofuels as both a catalyst for rural economic development and a response to growing energy import dependence. Ethanol and biodiesel, the two most widely used biofuels, receive significant federal support in the form of tax incentives, loan and grant programs, and regulatory programs.<sup>2</sup> However, emerging concerns related to corn-based ethanol production are generating greater policy interest in the potential for cellulosic ethanol production which appears to offer many environmental benefits over corn-based ethanol.<sup>3</sup>

Renewable energy policy initiatives have been included in almost every 2007 farm bill proposal in both the House and Senate. In most cases, legislative proposals involve expanding and/or extending bioenergy provisions from the 2002 farm bill. Strong congressional interest in maintaining, if not expanding, agriculture's role in renewable energy production was signaled early in the farm bill congressional debate, when both Chairman Collin Peterson of the House Agriculture Committee and Senator Ken Salazar introduced resolutions in January 2007 that "express the sense of Congress" that U.S. agricultural, forestry, and working lands should provide from

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<sup>1</sup> For more information see CRS Report RL32712, *Agriculture-Based Renewable Energy* by Randy Schnepf. For details of current law, see USDA, *2002 Farm Bill*, "Title IX — Energy," available at [<http://www.ers.usda.gov/Features/Farmbill/titles/titleIXenergy.htm>].

<sup>2</sup> For a listing of federal incentives in support of biofuels production, see CRS Report RL33572, *Biofuels Incentives: A Summary of Federal Programs* by Brent D. Yacobucci.

<sup>3</sup> For more information see CRS Report RL33928, *Ethanol and Biofuels: Agriculture, Infrastructure, and Market Constraints Related to Expanded Production* by Brent Yacobucci and Randy Schnepf.

renewable resources 25% of the total U.S. energy consumption by 2025 (H.Con.Res. 25/S.Con.Res. 3).

## House Farm Bill Action

**H.R. 2419 Approved.** On July 27, 2007, the House approved a new farm bill — the Farm, Nutrition, and Bioenergy Act of 2007 (H.R. 2419) — which includes a new energy title (Title IX). H.R. 2419, as amended and passed by the House, expands and extends several provisions from the energy title of the enacted 2002 farm bill with substantial increases in funding and a heightened focus on developing cellulosic ethanol production. In particular, H.R. 2419 proposes a total of \$3.2 billion in new funding for Title IX energy provisions over five years including \$1.4 billion in production incentive payments on new biofuels production; \$800 million in new funding to underwrite up to \$2 billion in loan guarantees for the development of new biorefineries; \$420 million in new funding for research on biomass production, harvest, transportation, and storage; and new mandatory funding for a biomass reserve for cellulosic feedstock.

H.R. 2419 also includes several additional new provisions relating to agriculture-based renewable energy production including the following:

- Energy Council of USDA to coordinate the energy policy of USDA and consult with other federal departments and agencies.
- Farm Energy Production Pilot Program to provide grants to farmers to demonstrate the feasibility of making a farm become energy neutral using existing technologies.
- Rural Energy Self-Sufficiency Initiative to provide cost-share grants to enable eligible rural communities (of less than 25,000) to increase energy self-sufficiency.
- Internship pilot program for issues related to producing agricultural biofuels from biomass.
- Feedstock Flexibility Program for Bioenergy Producers to administer a sugar-for-ethanol program using sugar intended for food use but deemed to be in surplus.
- Biomass Inventory Report of all county-level biomass resources.
- Future Farmsteads Program to demonstrate technologies to improve farm energy production and use efficiencies and to serve as a working example to farmers.
- Biomass Energy Reserve (BER) to provide financial and technical assistance (including five year contracts) to landowners and operators to grow dedicated energy crops as feedstock for cellulosic ethanol and other energy production.
- Forest Biomass for Energy to address the specific issues facing the use of woody biomass for bioenergy production, including feedstock issues such as yield and new varieties.
- Community Wood Energy Program to encourage State and local governments to acquire community wood energy systems for public buildings and to implement a community wood energy plan.
- New university grant program for demonstration of supplementing corn as an ethanol feedstock with sweet sorghum and switchgrass.

See **Table 2** for a complete listing of energy provisions in H.R. 2419 including proposed mandatory and discretionary funding for FY2008 through FY2012. See **Table 3** for a comprehensive side-by-side comparison of provisions from H.R. 2419 with the energy provisions in the 2002 farm bill.

**Emphasis on Cellulose-Based Ethanol Production.** A key departure from current farm-bill related energy provisions is that most new funding under H.R. 2419 is directed away from corn-starch-based ethanol production and towards either cellulosic-based biofuels production or to new as-yet-undeveloped technologies with some type of agricultural linkage. Most notable of the corn-starch-based ethanol exclusions is from the \$1.4 billion in new funding for biofuels production incentive payments under the Bioenergy Program.

**Budget Funding Issue Emerges.** Because all mandatory funding authority under the energy title of the 2002 farm bill expires either on or before the end of fiscal 2007, CBO budget scoring showed no funding in the baseline budget for an energy title under new farm legislation.<sup>4</sup> Under current budget law, this posed “pay-go” budget issues, since any new initiatives with new spending would have to be offset with either increased revenue or reductions in other spending.<sup>5</sup> To address this issue, the House Agriculture Committee (HAC) turned to the House Ways and Means Committee. In turn, the Ways and Means Committee was able to find an additional \$2.4 billion in revenue offsets from outside of the agriculture budget by proposing an amendment to impose a “conservation of resources fee” on oil or gas companies that are not paying royalties under certain Outer Continental Shores (OCS) deepwater leases.<sup>6</sup> The amendment also repeals provisions of the Energy Policy Act of 2004 (P.L. 109-58), thus eliminating certain incentives and royalty relief for oil and gas production in the Gulf of Mexico, allowing the federal government to collect fees on drilling permits, and to change oil and gas leases in the National Petroleum Reserve in Alaska. CBO estimates that these provisions would produce total offsets of \$2.435 billion over five years.<sup>7</sup>

## Senate Farm Bill Action

The Senate Agriculture Committee (SAC), under Chairman Tom Harkin, is expected to mark up its version of a 2007 farm bill in mid-October. As in the House, the Senate is expected to adhere to “pay-go” budget restrictions which may, in and of themselves, lead to different energy funding choices than those made by the House. As the HAC turned to the Ways and Means Committee for assistance in finding budget offsets, the SAC has turned to the Senate Finance Committee for

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<sup>4</sup> Congressional Budget Office, March 2007 Baseline Budget. For more information, see CRS Report RS22694, *Farm Bill Budget and Costs: 2002 vs. 2007* by Ralph Chite.

<sup>5</sup> For more information see CRS Report RL33850, *The House’s ‘Pay-As-You-Go’ (PAYGO) Rule in the 110<sup>th</sup> Congress: A Brief Overview* by Robert Keith.

<sup>6</sup> House Committee on Rules, H.Res. 574, [H.Rept. 110-261], reported by a record vote of 9-4 on Thursday, July 26, 2007; and adopted 222 - 202 on Thursday, July 26, 2007.

<sup>7</sup> For more information, see *Congressional Quarterly*, “The Farm Bill,” Floor Summary, No. 110-14, July 31, 2007.

assistance in resolving potential budget shortfalls. However, Senate Finance Committee Chairman Max Baucus has indicated a strong interest in controlling how any new money is to be used. Chairman Baucus has proposed a tax package to be included in the new farm bill that would provide incentives for conservation, alternative energy production, rural development, and to create a permanent disaster relief fund.<sup>8</sup> Budget issues appear to be the principal factor delaying the completion of the SAC chairman's mark.

## Related Congressional Energy Bill Action

It is noteworthy that many of the federal programs that currently support renewable energy production in general, and agriculture-based energy production in particular, are outside the purview of USDA and have legislative origins outside of the farm bill.<sup>9</sup> For example, the current Renewable Fuels Standard mandating the inclusion of an increasing volume of biofuels in the national fuel supply (achieving inclusion of at least 7.5 billion gallons of biofuels by 2012) originated with the Energy Policy Act of 2005 (EPACT; P.L. 109-58). Similarly, the federal fuel tax exemptions available to biofuels blenders and the federal production tax credit for wind energy producers were most recently extended by the American Jobs Creation Act of 2004 (P.L. 108-357).

More recently, both the House and Senate have passed different versions of new energy bills that contain many biofuel provisions similar to those contained in Title IX of the 2002 farm bill.<sup>10</sup> The Senate approved its version of an energy bill, H.R. 6 (the Renewable Fuels, Consumer Protection, and Energy Efficiency Act of 2007) on June 21, 2007, while the House approved its own energy bill, H.R. 3221 (the New Direction for Energy Independence, National Security, and Consumer Protection Act of 2007) on August 4, 2007.

In particular, Title V of H.R. 3221 contains provisions similar or identical to provisions in Title IX of H.R. 2419. The major distinction between the agriculture energy titles of the two bills is that Title IX of H.R. 2419 has higher funding levels and more provisions than in Title V of H.R. 3221. In particular, H.R. 2419 proposes a total of \$3.2 billion in new funding for Title IX energy provisions over five years compared with \$2.2 billion under Title V of H.R. 3221. More specifically, Title V of H.R. 3221 includes nearly \$1 billion in production incentive payments on new biofuels production (compared with \$1.4 billion in H.R. 2419); new funding of \$590 million to underwrite up to \$1.6 billion in loan guarantees for the development of new biorefineries (compared with \$800 million in new funding in H.R. 2419); and

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<sup>8</sup> "Finance Chairman Outlines Agriculture Tax Package," Senate Finance Committee News Release, Sept. 11, 2007; [<http://finance.senate.gov/press/Bpress/2007press/prb091107a.pdf>].

<sup>9</sup> For more information see CRS Report RL32712, *Agriculture-Based Renewable Energy* by Randy Schnepf. For a complete listing of renewable energy legislative proposals introduced during the 110<sup>th</sup> Congress see CRS Report RL33831, *Energy Efficiency and Renewable Energy Legislation in the 110<sup>th</sup> Congress* by Fred Sissine, Anne Gillis, and Mark Gurevitz.

<sup>10</sup> For more information on these energy bills, see CRS Report RL34136, *Biofuels Provisions in H.R. 3221 and H.R. 6: A Side-by-Side Comparison*, by Brent Yacobucci.

\$236 million in new funding for research on biomass production, harvest, transportation, and storage (compared with \$420 million in H.R. 2419).

The most notable omission from H.R. 3221 is the Biomass Energy Reserve (BER) program (Section 9018 of H.R. 2419) which is designed to provide financial and technical assistance to landowners and operators to grow dedicated energy crops as feedstock for cellulosic ethanol and other energy production.

## **The Administration's Farm Bill Energy Proposals**

In late January 2007, the Administration released a comprehensive 2007 farm bill proposal for consideration in advance of the legislative debate.<sup>11</sup> Because of its early release, the USDA proposal likely provided a useful template for many of the provisions included in H.R. 2419, as well as legislative proposals in the Senate. In particular, Title IX of the Administration's farm bill proposal included \$1.6 billion in new funding for basic and applied research on renewable energy as well as loan and loan guarantee programs to share the risk associated with developing and commercializing new energy technologies. As with H.R. 2419, the primary focus of USDA's proposed new funding is the development of cellulosic ethanol production including a biomass reserve for cellulosic feedstock, loans and loan guarantees, grants, and funding for Forest Service research on the use of woody biomass.

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<sup>11</sup> USDA's 2007 farm bill proposal is available online at [[http://www.usda.gov/wps/portal/lut/p/\\_s.7\\_0\\_A/7\\_0\\_1UH?navid=FARM\\_BILL\\_FORUMS](http://www.usda.gov/wps/portal/lut/p/_s.7_0_A/7_0_1UH?navid=FARM_BILL_FORUMS)].



**Table 1. 2002 Farm Bill Title IX Energy Funding by Provision, FY2002 to FY2007**

Current law provision	FY2002			FY2003			FY2004			FY2005			FY2006			FY2007			
	Pres. Req.	Auth.	Enact. <sup>a</sup>	Pres. Req.	Auth.	Enact. <sup>a</sup>	Pres. Req.	Auth.	Enact. <sup>a</sup>	Pres. Req.	Auth.	Enact. <sup>a</sup>	Pres. Req.	Auth.	Enact. <sup>a</sup>	Pres. Req.	Auth.	Enact. <sup>a</sup>	
	\$ millions			\$ millions			\$ millions			\$ millions			\$ millions			\$ millions			
Sec. 9002 Federal Biobased Product Procurement	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0
Sec. 9003* Biorefinery Development Grants	0	SSAN	0	0	SSAN	0	0	SSAN	0	0	SSAN	0	0	SSAN	0	0	SSAN	0	0
Sec. 9004 Biodiesel Fuel Education Program	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0
Sec. 9005* Energy Audit and Renewable Energy Program	0	SSAN	0	0	SSAN	0	0	SSAN	0	0	SSAN	0	0	SSAN	0	0	SSAN	0	0
Sec. 9006 Renewable Energy Systems <sup>b</sup>	23	23	23	18	23	23	3	23	23	11	23	23	10	23	23	10	23	0	0
Sec. 9007* Hydrogen and Fuel Cell Technologies	0	SSAN	0	0	SSAN	0	0	SSAN	0	0	SSAN	0	0	SSAN	0	0	SSAN	0	0
Sec. 9008* Biomass Research and Development <sup>c</sup>	5	54	5	14	63	14	14	63	14	14	63	14	12	214	12	12	214	0	0
Sec. 9009 Cooperative Research and Extension Projects	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sec. 9010* Continuation of Bioenergy Program	0	0	0	150	150	116	150	150	150	100	150	100	60	150	60	0	0	0	0
<b>Total Energy Programs</b>	<b>30</b>	<b>79</b>	<b>30</b>	<b>184</b>	<b>238</b>	<b>155</b>	<b>169</b>	<b>238</b>	<b>189</b>	<b>127</b>	<b>238</b>	<b>139</b>	<b>84</b>	<b>389</b>	<b>97</b>	<b>24</b>	<b>239</b>	<b>0</b>	<b>0</b>

\*Joint program with the Department of Energy.

Note: "Pres. Req." = Presidential request; "Auth." = Authorization; "Enact." = Enacted; "SSAN" = Such sums as necessary. Sec. 9003 and Sec. 9005 have not been implemented.

a. Represents a combination of the amount authorized by the 2002 Farm Bill, less any reductions in annual appropriations acts, plus discretionary funding provided where applicable.

b. The Deficit Reduction Act of 2005 (P.L. 109-171) reduced Sec. 9006 mandatory funding by \$20 million in FY2007, leaving \$3 million as the authorized level for FY2007.

c. Section 310 (7 U.S.C. 8609) of the Biomass Research and Development Act of 2000 (P.L. 106-224) provides discretionary authorization of \$200 million for each of FY2006 through FY2015.

**Table 2. House Farm Bill (H.R. 2419) Proposed Funding for Title IX Energy Provisions,  
FY2008-FY2012**

H.R. 2419 Section	Current Law Section and Provision Name	Funding Status <sup>a</sup>	FY2008	FY2009	FY2010	FY2011	FY2012	Sum: FY08-12
			\$ millions	\$ millions	\$ millions	\$ millions	\$ millions	\$ millions
<b>Provisions under Current Law</b>								
Sec. 9002	Sec. 9002: Federal Procurement of Biobased Product	Discretionary	2	2	2	2	2	10
Sec. 9003	Sec. 9003: Biorefinery Development Grants & Loan Guarantees	Mandatory	75	100	125	200	300	800
Sec. 9017	Sec. 9004: Biodiesel Fuel Education Program	Mandatory	2	2	2	2	2	10
Sec. 9004	Sec. 9005: Energy Audit and Renewable Energy Program	Discretionary	SSAN	SSAN	SSAN	SSAN	SSAN	SSAN
Sec. 9005	Sec. 9006: Rural Energy for America Program	Mandatory	50	75	100	125	150	500
	Sec. 9007: Hydrogen and Fuel Cell Technologies	No funding						
Sec. 9006	Sec. 9008: Biomass Research and Development Act	Mandatory	35	60	75	100	150	420
	Additional funding authorization <sup>b</sup>	Discretionary	200	200	200	200	200	1,000
	Sec. 9009: Cooperative Research & Extension Projects	Amended to the Biomass Research and Development Act						
Sec. 9007	Sec. 9010: Continuation of Bioenergy Program	Mandatory	225	250	275	300	350	1,400
Sec. 9008	Sec. 9011: Research, extension, & educational programs on biobased energy technologies and products	Discretionary	75	75	75	75	75	375
<b>New Provisions (and redesignated sections for appending to current law)</b>								
Sec. 9009	Section 9012: Energy Council of USDA	Discretionary	0	0	0	0	0	0
Sec. 9010	Section 9013: Farm Energy Production Pilot Program <sup>c</sup>	Discretionary	1	1	1	1	1	5
Sec. 9011	Section 9014: Rural Energy Self-Sufficiency Initiative	Discretionary	5	SSAN	SSAN	SSAN	SSAN	5
Sec. 9012	Section 9015: Agr Biofuels from Biomass Internship Pilot Program	Discretionary	SSAN	SSAN	SSAN	SSAN	SSAN	SSAN
Sec. 9013	Section 9016: Feedstock Flexibility Program for bioenergy producers	Mandatory	SSAN	SSAN	SSAN	SSAN	SSAN	SSAN
Sec. 9014	Biomass Inventory Report	Discretionary	0	0	0	0	0	0
Sec. 9015	Future Farmsteads Program	Discretionary	SSAN	SSAN	SSAN	SSAN	SSAN	SSAN
Sec. 9016	Sense of Congress on Renewable Energy	No funding						

<b>H.R. 2419 Section</b>	<b>Current Law Section and Provision Name</b>	<b>Funding Status<sup>a</sup></b>	<b>FY2008</b>	<b>FY2009</b>	<b>FY2010</b>	<b>FY2011</b>	<b>FY2012</b>	<b>Sum: FY08-12</b>
Sec. 9018	Section 9017: Biomass Energy Reserve	Mandatory	SSAN	SSAN	SSAN	SSAN	SSAN	SSAN
Sec. 9019	Section 9018: Forest Biomass for Energy	Mandatory	15	15	15	15	15	75
Sec. 9019	Community Wood Energy Program	Discretionary	SSAN	SSAN	SSAN	SSAN	SSAN	SSAN
Sec. 9020	Supplementing Corn as an Ethanol Feedstock <sup>d</sup>	Discretionary	4	4	4	4	4	20
<b>Total Mandatory Funding</b>			402	502	592	742	967	3,205

**Source:** H.R. 2419. “SSAN” = Such sums as necessary.

- a. Budgetary funding availability for FY2008-12 is contingent on cost offsets as detailed in Title XII — Additional Cost Offsets of H.R. 2419.
- b. Section 9006 provides discretionary authorization of \$200 million for each of FY2006 through FY2015.
- c. Section 9010 provides for \$5 million for the period FY2008 to FY2012 with no specific annual breakout.
- d. Section 9020 authorizes the appropriation of \$20 million for the period FY2008 to FY2012 with no specific annual breakout.

**Table 3. Comparison of the House-Passed 2007 Farm Bill (H.R. 2419) with Current Law**

2002 Farm Bill (P.L. 107-171)	House-Passed Farm Bill (H.R. 2419)
<b>TITLE IX: Energy</b>	
<b>Federal Procurement of Biobased Products</b>	
<p>Sec. 9002. Statutes currently require federal agencies to purchase biobased products under certain conditions and authorize a voluntary biobased labeling program. USDA regulations define biobased products, identify biobased product categories, and specify the criteria for qualifying those products for preferred procurement. Mandatory CCC funding of \$1 million is authorized for each of FY2002 through FY2007 for testing biobased products.</p>	<p>Section 9002. Continues federal commitment to biobased product preference in its purchases. Requires annual reports from agencies to Administrator of Federal Procurement Policy. Also requires annual reports from USDA to Congress on implementation status. Clarifies that products with at least 5% of intermediate ingredients and feedstock that are biobased should be considered under the preference. Requires USDA to complete rulemaking on labeling regulation. Increases mandatory CCC funding to \$2 million for each of FY2008 through FY2012 for bio-product testing, labeling, and procurement research, promotion, and awareness initiatives.</p>
<b>Biorefinery Development Program</b>	
<p>Section 9003. Established a grant program to help finance the cost of developing and constructing biorefineries and biofuel production plants to carry out projects to demonstrate the commercial viability of converting biomass to fuels or chemicals. No mandatory funding was authorized and no discretionary funding has been appropriated for the program. Therefore, no implementation regulations have been developed.</p>	<p>Section 9003. Extends the biorefinery development program through FY2012 and provides new loan guarantee authority for biorefineries, with one-half for loans less than \$100 million, and the other half for loans up to \$250 million. The loan guarantee would cover 90% of an eligible loan. Requires that construction contractors and subcontractors on federally assisted loan guarantee projects pay their employees not less than the prevailing wage in the same locality under the Davis-Bacon Act. Authorizes mandatory CCC funding of \$75 million in FY2008; \$100 million in FY2009; \$125 million in FY2010; \$200 million in FY2011; and \$300 million in FY2012.</p>
<b>Energy Audit and Renewable Energy Development Program</b>	
<p>Section 9005. A competitive grant program for eligible entities to carry out a program to assist farmers, ranchers, and rural small businesses in becoming more energy efficient and in using renewable energy technology and resources. Authorized appropriations of such sums as are necessary to carry out the program for each of FY2002 through FY2007.</p>	<p>Section 9004. Extends the Energy Audit and Renewable Energy Development Program through 2012. Includes the appropriations authority for such sums as necessary.</p>

2002 Farm Bill (P.L. 107-171)	House-Passed Farm Bill (H.R. 2419)
<b>Renewable Energy Systems</b>	
<p>Section 9006. The program, administered by USDA’s Rural Development Agency, authorizes loans, loan guarantees, and grants to farmers, ranchers, and rural small businesses to purchase and install renewable energy systems and to make energy efficiency improvements. Grant funds may be used to pay up to 25% of project costs; combined grants and loans or loan guarantees may fund up to 50% of project cost. Eligible projects include those that derive energy from wind, solar, biomass, or geothermal sources. Projects using energy from those sources to produce hydrogen from biomass or water are also eligible. Mandatory CCC funding of \$23 million was made available for each of FY2003 through FY2007. Unspent money lapses at the end of each year.</p>	<p>Section 9005. Renamed as the “Rural Energy for America Program.” Raises the loan guarantee level from \$10 million to \$25 million. Grant fund cost share is retained at up to 25% of project costs; however, combined grants and loans (including guarantees) is expanded to 75% of project cost. Allows for feasibility studies to be eligible for the program. Increases mandatory CCC funding to \$50 million in FY2008; \$75 million in FY2009; \$100 million in FY2010; \$125 million in FY2011; and \$150 million in FY2012.</p>
<b>Biomass Research and Development Act</b>	
<p>Section 9008. The program — created originally under the Biomass Research and Development Act (BRDA) of 2000 — provides competitive funding for research, development, and demonstration projects on biofuels and bio-based chemicals and products, administered jointly by USDA and DOE. Specified mandatory CCC funding of \$5 million in FY2002 and \$14 million for each of FY2003 through FY2007 (available until expended). Additional appropriation authority of \$200 million for each of FY2006 through FY2015.</p>	<p>Section 9006. Extends the program through FY2012. Authorizes mandatory CCC funding of \$35 million in FY2008; \$60 million in FY2009; \$75 million in FY2010; \$100 million in FY2011; and \$150 million in FY2012. Includes the appropriations authority for \$200 million in each of FY2008 through FY2015.</p>
<b>Bioenergy Program</b>	
<p>Section 9010. Originally created by a 1999 Executive Order during the Clinton Administration, the bioenergy program provides CCC incentive payments to biofuels producers based on year-to-year increases in the quantity of biofuel produced. Mandatory CCC funding of \$150 million was made available for each of FY2002 through FY2006. No funding was authorized for FY2007.</p>	<p>Section 9007. Renews and extends the bioenergy program through FY2012 with mandatory CCC funding of \$225 million in FY2008; \$250 million in FY2009; \$275 million in FY2010; \$300 million in FY2011; and \$350 million in FY2012. Ethanol produced from corn starch is excluded. Expands eligibility for combined heat and power production using biomass at biofuels plants and biomass gasification as types of bioenergy eligible for the production incentive.</p>

2002 Farm Bill (P.L. 107-171)	House-Passed Farm Bill (H.R. 2419)
<b>Research, Extension, and Educational Programs on Biobased Energy Technologies and Products</b>	
Section 9011. This provision was added subsequent to the 2002 farm bill under the “Sun Grant Research Initiative Act of 2003.” Establishes 5 national sun grant research centers based at land-grant universities and each covering a different region. The purpose is to enhance coordination and collaboration between USDA, DOE, and land-grant universities in the development, distribution, and implementation of biobased energy technologies. Authorized appropriations of \$25 million in FY2005, \$50 million in FY2006, and \$75 million for each of FY2006 through FY2010.	Section 9008. Extends the sun grant programs through FY2012 with authorized appropriations of \$75 million for each of FY2008 through FY2012.
<b>Energy Council of USDA</b>	
No provision. (Would be appended as Section 9012.)	Section 9009. Directs the Secretary to establish an energy council to coordinate the energy policy of USDA and consult with other federal departments and agencies. No new funding.
<b>Farm Energy Production Pilot Program</b>	
No provision. (Would be appended as Section 9013.)	Section 9010. Establishes a pilot program to provide grants to farmers to demonstrate the feasibility of making a farm become energy neutral using existing technologies. Authorizes appropriations of \$5 million for FY2008 through FY2012.
<b>Rural Energy Self-Sufficiency Initiative</b>	
No provision. (Would be appended as Section 9014.)	Section 9011. Provides cost-share grants to enable eligible rural communities (of less than 25,000) to substantially increase their energy self-sufficiency. The grant may not exceed 75% of costs. Total grants under this section are limited to no more than 5 per year. Authorizes appropriations of not more than \$5 million for FY2008, and such sums as are necessary for FY2009 through FY2012.

2002 Farm Bill (P.L. 107-171)	House-Passed Farm Bill (H.R. 2419)
<b>Agricultural Biofuels from Biomass Internship Program</b>	
No provision. (Would be appended as Section 9015.)	Section 9012. Provides 3 <sup>rd</sup> and 4 <sup>th</sup> year undergraduate or graduate students from universities in states with substantial farm-based economies with the opportunity to work with U.S. government and nongovernmental organizations on matters pertaining to renewable energy policies. Requires state matching funds of \$1 for every \$2 of federal. Authorizes appropriations of such sums as are necessary to carry out the program.
<b>Feedstock Flexibility Program for Bioenergy Producers</b>	
No provision. (Would be appended as Section 9016.)	Section 9013. Requires that USDA establish (in FY2008) and administer a sugar-for-ethanol program using sugar intended for food use but deemed to be in surplus. USDA would implement the program only in those years where purchases are determined to be necessary to ensure that the sugar program operates at no cost. The use of such sums as necessary to carry out the program is authorized.
<b>Biomass Inventory Report</b>	
No provision.	Section 9014. Instructs USDA to conduct a national inventory of biomass resources on a county-by-county basis and submit this information as a report to Congress within one year of enactment.
<b>Future Farmsteads Program</b>	
No provision.	Section 9015. Establishes a program to equip a farm entity (house and lands), in each of 5 regions of the country, with technologies to improve farm energy production and use efficiencies. Each designated entity would serve as a working example to farmers and as an educational, research, and demonstration facility for research related to renewable energy or energy conservation technologies. Authorizes appropriations of such sums as are necessary to carry out the program.

2002 Farm Bill (P.L. 107-171)	House-Passed Farm Bill (H.R. 2419)
<b>Sense of Congress on Renewable Energy</b>	
No provision.	Section 9016. Declaration of Congress' recognition of the importance of renewable energy in meeting a growing national energy demand, diversifying the U.S. energy portfolio, and increasing U.S. energy independence; while allowing market forces to remain an important instrument in determining renewable energy sources and technology.
<b>Biodiesel Fuel Education Program</b>	
Section 9004. The program, administered by USDA's Cooperative State Research, Education, and Extension Service, awards competitive grants to nonprofit organizations that educate governmental and private entities operating vehicle fleets, and educates the public about the benefits of biodiesel fuel use. Mandatory CCC funding of \$1 million was authorized for each of FY2003 through FY2007.	Section 9017. Extends the Biodiesel Fuel Education Program through FY2012 with mandatory funding of \$2 million for each of FY2008 through FY2012.
<b>Biomass Energy Reserve (BER)</b>	
No provision. (Would be appended as Section 9017.)	Section 9018. Establishes a new biomass energy reserve (BER). Provides financial and technical assistance (including five-year contracts) to landowners and operators to grow dedicated energy crops as feedstock for cellulosic ethanol and other energy production. Incentives also cover producer harvesting, storing, and transporting of biomass to bioenergy facilities. BER projects would have to be within a 50-mile radius of a bioenergy facility. Authorizes CCC funding of such sums as are necessary.
<b>Forest Biomass for Energy</b>	
No provision. (Would be appended as Section 9018.)	Section 9019. New competitive research and development program to encourage the use of woody biomass for bioenergy production. Mandatory CCC funding of \$15 million for each of FY2008 through FY2012.



2002 Farm Bill (P.L. 107-171)	House-Passed Farm Bill (H.R. 2419)
<b>Community Wood Energy Program</b>	
No provision.	Section 9019. New program to provide matching grants to State and local governments to acquire community wood energy systems for public buildings and to implement a community wood energy plan. Authorizes CCC funding of such sums as are necessary.
<b>Supplementing Corn as an Ethanol Feedstock</b>	
No provision.	Section 9020. New grant program for demonstration of supplementing corn as an ethanol feedstock with sweet sorghum and switchgrass. The program permits grants of up to \$1 million each to no more than 20 universities for three-year demonstration programs. Authorizes CCC funding of \$20 million.