

CRS Report for Congress

Renewable Energy Policy in the 2007 Farm Bill

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Summary

On July 27, 2007, the House passed a farm bill, the Farm, Nutrition, and Bioenergy Act of 2007 (H.R. 2419). On October 25, 2007, the Senate Agriculture Committee (SAC) approved its version of the 2007 farm bill. The SAC-approved bill is expected to be reported to the Senate for floor action by early November. This report provides a summary of the energy provisions in these two bills and compares them with current law.

Renewable energy's role in the 2002 farm bill is contained in Title IX — the Energy title — and concentrates on grants, loans, and loan guarantees to foster research on agriculture-based renewable energy, to share development risk, and to promote the adoption of renewable energy systems. USDA's Bioenergy Program (Sec. 9006 of P.L. 107-171), whose funding expired in FY2006, has been the primary exception in that it provided incentives to expand actual production of bioenergy. Both the House-passed (H.R. 2419) and the SAC-approved bills retain Title IX as the Energy title, but with modifications. Both bills expand and extend several energy provisions from the 2002 farm bill with substantial increases in funding and a heightened focus on developing cellulosic ethanol production. Both bills establish a new program — the Bioenergy Reserve Program in the House version and the Biomass Crop Transition Program in the Senate — with mandatory funding to stimulate and facilitate the production, harvest, storage, and processing of cellulosic-based biomass feedstock. In addition, the two bills include a variety of new studies, research and demonstration projects, and pilot programs targeted to specific issues within the renewable energy purview that would be subject to annual appropriations.

Funding levels for the provisions of the energy title vary under the two farm bills. The House-passed version authorizes \$3.2 billion in mandatory and over \$1.4 billion in discretionary funding, whereas the SAC-approved farm bill authorizes \$1.1 billion in mandatory and over \$2 billion in discretionary funding. Such differences in new energy funding, as well as differences in budgetary revenue and cost offsets related to "pay-go" budget restrictions, will likely have to be resolved in conference. For more information this and other farm bill issues, see CRS Report RL33934, *Farm Bill Proposals and Legislative Action in the 110th Congress*.

In addition to forthcoming Senate farm bill action, both the House (H.R. 3221) and the 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*.

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.¹ In addition, USDA's Bioenergy Program (Sec. 9006 of P.L. 107-171) — whose funding expired in FY2006 — provided direct incentives to expand actual production of bioenergy. **Table 1** provides a list of current-law energy provisions and their funding (as requested by the President, and as authorized and enacted by Congress) 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).² 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.³ 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.⁴

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

¹ 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>].

² For more information on agriculture and bioenergy, see CRS Report RL32712, *Agriculture-Based Renewable Energy Production*; CRS Report RL33290, *Fuel Ethanol: Background and Public Policy Issues*; and CRS Report RL33928, *Ethanol and Biofuels: Agriculture, Infrastructure, and Market Constraints Related to Expanded Production*. Also see CRS Report RL33572, *Biofuels Incentives: A Summary of Federal Programs*.

³ 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.

⁴ 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.

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 (a member of the Senate Agriculture Committee) introduced resolutions in January 2007 that "express the sense of Congress" that U.S. agricultural, forestry, and working lands should provide from renewable resources 25% of the total U.S. energy consumption by 2025 (H.Con.Res. 25/S.Con.Res. 3).⁵

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 mandatory funding for Title IX energy provisions over five years, including \$1.4 billion in production incentive payments on new biofuels production under an extension of the USDA Bioenergy Program; \$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 under the Biomass Research and Development Act; and new mandatory funding for a biomass reserve for cellulosic feedstock under the Biomass Energy Reserve Program. See **Table 2** for a complete listing of energy provisions in H.R. 2419, including proposed mandatory and discretionary funding for FY2008 through FY2012.

House Energy Funding Issues. 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.⁶ 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.⁷ To address this issue, the House Agriculture Committee (HAC) turned to the House Ways and Means Committee (HWMC). In turn, the HWMC was able to find 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

⁵ H.Con.Res. 25 was approved by the House on October 15, 2007. S.Con.Res. 3 was referred to the Senate Agriculture Committee on January 17, 2007. No action has been taken on S.Con.Res. 3 to date.

⁶ 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.

⁷ For more information see CRS Report RL33850, *The House's 'Pay-As-You-Go' (PAYGO) Rule in the 110th Congress: A Brief Overview* by Robert Keith.

under certain Outer Continental Shores (OCS) deepwater leases.⁸ 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.⁹ The HWMC budget offsets were passed as part of H.R. 2419.

Senate Farm Bill Action

Senate Agriculture Committee (SAC) Approves Farm Bill. The SAC, under Chairman Tom Harkin, approved its version of a 2007 farm bill on October 25, 2007. The Senate floor debate on the SAC-approved farm bill is currently planned for November 5, 2007.

Senate Energy Funding Issues. As in the House, the Senate is expected to adhere to “pay-go” budget restrictions. However, SAC members expressed general disagreement with the budget offsets proposed by the House Ways and Means Committee to free up funds for new energy provisions. Instead, the SAC turned to the Senate Finance Committee (SFC) for assistance in finding alternate budget offsets to allow for new energy funding. SFC Chairman Max Baucus proposed a tax package that would provide incentives for conservation, alternative energy production, rural development, and to create a permanent disaster relief fund.¹⁰ Among the SFC’s proposed offsets is a reduction in the production tax credit (PTC) presently available to blenders of ethanol, from \$0.51/gallon to \$0.46/gallon. The Congressional Budget Office projects that the PTC reduction of \$0.05/gallon will save nearly \$0.9 billion during FY2008-FY2012. The tax package was approved by the SFC on October 4, 2007, and reported out as S. 2242.

The SAC-approved farm bill includes a new energy title (Title IX) that expands and extends several provisions from the energy title of the enacted 2002 farm bill similar to the House-passed H.R. 2419, but with different funding levels and priorities. The SAC bill authorizes \$1.1 billion in new mandatory funding and over \$2 billion in new discretionary spending (i.e., spending subject to annual appropriations) compared with \$3.2 billion in mandatory and \$1.4 billion in discretionary funding in H.R. 2419. See **Table 3** for a complete listing of energy provisions in the SAC-approved farm bill, including proposed mandatory and discretionary funding for FY2008 through FY2012.

⁸ House Committee on Rules, H.Res. 574 (H.Rept. 110-261), reported by a record vote of 9-4 on July 26, 2007, and adopted 222-202 on the same day.

⁹ For more information, see *Congressional Quarterly*, “The Farm Bill,” Floor Summary, No. 110-14, July 31, 2007.

¹⁰ “Finance Chairman Outlines Agriculture Tax Package,” Senate Finance Committee News Release, Sept. 11, 2007; [<http://finance.senate.gov/press/Bpress/2007press/prb091107a.pdf>].

Comparison of House and Senate Farm Bill Energy Provisions

Both the House-passed (H.R. 2419) and the Senate Agriculture Committee (SAC)-approved versions of the 2007 farm bill retain Title IX as the Energy title, but with modifications. (See **Table 4** for a side-by-side comparison of current law with the energy title from the House- and SAC-approved farm bills.) Both bills expand and extend several energy provisions from the 2002 farm bill with substantial increases in funding and a heightened focus on developing cellulosic ethanol production. Existing energy programs retained and extended with mandatory funding include the federal biobased product preference program, the biorefinery development grant and loan guarantee program, the renewable energy systems and energy efficiency improvements program, the Biomass Research and Development Act, the USDA bioenergy program, and the Biodiesel Fuel Education Program. Both bills establish a new program — the Bioenergy Reserve Program in the House version and the Biomass Crop Transition Program in the Senate — with mandatory funding to stimulate and facilitate the production, harvest, storage, and processing of cellulosic-based biomass feedstock. In addition, a variety of studies, research and demonstration projects, and pilot programs targeted to specific issues within the renewable energy purview that would be subject to annual appropriations are included in the two bills. Both bills also add new funding and extend the USDA bioenergy program. However, in a key departure from current farm bill-related energy provisions, all new bioenergy funding is directed away from corn starch-based ethanol production and toward either cellulosic-based biofuels production or new as-yet-undeveloped technologies with some type of agricultural linkage.

Funding levels and the sources of funding for the provisions of the energy title differ somewhat under the two farm bills. The House-passed version authorizes substantially more in new mandatory funding (\$3.2 billion versus \$1.1 billion) but less in discretionary funding (\$1.4 billion versus \$2 billion) for provisions of the energy title. In addition, substantial differences exist between the budget funding offsets proposed by the HWMC and the SFC. The funding of new or extended energy provisions hinges on the ultimate resolution of such differences in conference.

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.¹¹ 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

¹¹ 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 110th Congress, see CRS Report RL33831, *Energy Efficiency and Renewable Energy Legislation in the 110th Congress*, by Fred Sissine, Anne Gillis, and Mark Gurevitz.

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.¹² 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 the House-passed 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 \$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.¹³ 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.

¹² 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.

¹³ USDA's 2007 farm bill proposal is available online at [http://www.usda.gov/wps/portal/!ut/p/_s.7_0_A/7_0_1UH?navid=FARM_BILL_FORUMS].

Table 1. 2002 Farm Bill Title IX Energy Funding (Presidential Request, Authorization, and Enactment) by Provision, FY2002 to FY2007

| Current law provision | FY2002 | | | FY2003 | | | FY2004 | | | FY2005 | | | FY2006 | | | FY2007 | | |
|---|-------------|-------|---------------------|-------------|-------|---------------------|-------------|-------|---------------------|-------------|-------|---------------------|-------------|-------|---------------------|-------------|-------|---------------------|
| | Pres. Req. | Auth. | Enact. ^a | Pres. Req. | Auth. | Enact. ^a | Pres. Req. | Auth. | Enact. ^a | Pres. Req. | Auth. | Enact. ^a | Pres. Req. | Auth. | Enact. ^a | Pres. Req. | Auth. | Enact. ^a |
| | \$ 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 | 0 |
| Sec. 9003*Biorefinery Development Grants | 0 | SSAN | 0 | 0 | SSAN | 0 | 0 | SSAN | 0 | 0 | SSAN | 0 | 0 | SSAN | 0 | 0 | SSAN | 0 |
| Sec. 9004 Biodiesel Fuel Education Program | 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 |
| Sec. 9006 Renewable Energy Systems ^b | 23 | 23 | 23 | 18 | 23 | 23 | 3 | 23 | 23 | 11 | 23 | 23 | 10 | 23 | 23 | 10 | 23 | 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 |
| Sec. 9008*Biomass Research and Development ^c | 5 | 54 | 5 | 14 | 63 | 14 | 14 | 63 | 14 | 14 | 63 | 14 | 12 | 214 | 12 | 12 | 214 | 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 |
| Sec. 9010*Continuation of Bioenergy Program | 0 | 0 | 0 | 150 | 150 | 116 | 150 | 150 | 150 | 100 | 150 | 100 | 60 | 150 | 60 | 0 | 0 | 0 |
| Total Energy Programs | 30 | 79 | 30 | 184 | 238 | 155 | 169 | 238 | 189 | 127 | 238 | 139 | 84 | 389 | 97 | 24 | 239 | 0 |

*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

| Title IX Provisions | Related H.R. 2419 Section and Provision Name — Proposed Change or Addition to Current Law | Funding Status ^a | FY2008 | FY2009 | FY2010 | FY2011 | FY2012 | Sum: FY08-12 |
|---------------------|---|-----------------------------|-------------|-------------|-------------|-------------|-------------|--------------|
| | | | \$ millions | \$ millions | \$ millions | \$ millions | \$ millions | \$ millions |
| Current Law | | | | | | | | |
| 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. 9004 | Sec. 9017: Biodiesel Fuel Education Program | Mandatory | 2 | 2 | 2 | 2 | 2 | 10 |
| Sec. 9005 | Sec. 9004: Energy Audit and Renewable Energy Program | Discretionary | SSAN | SSAN | SSAN | SSAN | SSAN | SSAN |
| Sec. 9006 | Sec. 9005: Renewable Energy Systems and Energy Eff. Improvements | Mandatory | 50 | 75 | 100 | 125 | 150 | 500 |
| Sec. 9007 | No Provision | No funding | | | | | | |
| Sec. 9008 | Sec. 9006: Biomass Research and Development Act | Mandatory | 35 | 60 | 75 | 100 | 150 | 420 |
| | Additional funding authorization ^b | Discretionary | 200 | 200 | 200 | 200 | 200 | 1,000 |
| Sec. 9009 | “Cooperative Research & Extension Projects” amended to the Biomass Research and Development Act | | | | | | | |
| Sec. 9010 | Sec. 9007: Continuation of Bioenergy Program | Mandatory | 225 | 250 | 275 | 300 | 350 | 1,400 |
| Sec. 9011 | Sec. 9008: Research, Extension, & Educational Programs on Biobased Energy Technologies and Products | Discretionary | 75 | 75 | 75 | 75 | 75 | 375 |
| Proposed Addition | | | | | | | | |
| Sec. 9012 | Sec. 9009: Energy Council of USDA | Discretionary | 0 | 0 | 0 | 0 | 0 | 0 |
| Sec. 9013 | Sec. 9010: Farm Energy Production Pilot Program ^c | Discretionary | 1 | 1 | 1 | 1 | 1 | 5 |
| Sec. 9014 | Sec. 9011: Rural Energy Self-Sufficiency Initiative | Discretionary | 5 | SSAN | SSAN | SSAN | SSAN | 5 |
| Sec. 9015 | Sec. 9012: Agr Biofuels from Biomass Internship Pilot Program | Discretionary | SSAN | SSAN | SSAN | SSAN | SSAN | SSAN |
| Sec. 9016 | Section 9013: Feedstock Flexibility Program for bioenergy producers | Mandatory | SSAN | SSAN | SSAN | SSAN | SSAN | SSAN |
| Sec. 9014 | Sec. 9014: Biomass Inventory Report | Discretionary | 0 | 0 | 0 | 0 | 0 | 0 |
| Sec. 9015 | Sec. 9015 Future Farmsteads Program | Discretionary | SSAN | SSAN | SSAN | SSAN | SSAN | SSAN |
| Sec. 9016 | Sec. 9016: Sense of Congress on Renewable Energy | No funding | | | | | | |
| Sec. 9017 | Sec. 9018: Biomass Energy Reserve | Mandatory | SSAN | SSAN | SSAN | SSAN | SSAN | SSAN |
| Sec. 9018 | Sec. 9019: Forest Biomass for Energy | Mandatory | 15 | 15 | 15 | 15 | 15 | 75 |

| Title IX Provisions | Related H.R. 2419 Section and Provision Name — Proposed Change or Addition to Current Law | Funding Status^a | FY2008 | FY2009 | FY2010 | FY2011 | FY2012 | Sum: FY08-12 |
|--------------------------------|--|-----------------------------------|---------------|---------------|---------------|---------------|---------------|---------------------|
| | Sec. 9019: Community Wood Energy Program | Discretionary | SSAN | SSAN | SSAN | SSAN | SSAN | SSAN |
| | Sec. 9020: Supplementing Corn as an Ethanol Feedstock ^d | Discretionary | 4 | 4 | 4 | 4 | 4 | 20 |
| Total Mandatory Funding | | | 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. Senate Agriculture Committee's Approved 2007 Farm Bill (October 25, 2007):
Proposed Funding for Title IX Energy Provisions, FY2008-FY2012**

| Title IX Provisions | | Funding Status ^a | FY2008 | FY2009 | FY2010 | FY2011 | FY2012 | Sum: FY08-FY12 |
|----------------------------|--|-----------------------------|-------------|--------|--------|--------|--------|----------------|
| Section and Provision Name | | | | | | | | |
| | | | \$ millions | | | | | |
| Sec. 9002 | Biobased Markets Program | Mandatory | 3 | 3 | 3 | 3 | 3 | 15 |
| Sec. 9003 | Biodiesel Fuel Education | Mandatory | 2 | 2 | 2 | 2 | 2 | 10 |
| Sec. 9004 | Biomass Crop Transition ^b | Mandatory | 32 | 32 | 32 | 32 | 32 | 160 |
| Sec. 9005 | Biorefinery and Repowering Assistance ^b | Mandatory | 60 | 60 | 60 | 60 | 60 | 300 |
| Sec. 9006 | Bioenergy Program ^b | Mandatory | 49 | 49 | 49 | 49 | 49 | 245 |
| Sec. 9007 | Rural Energy for America Program ^b | Mandatory | 46 | 46 | 46 | 46 | 46 | 230 |
| Sec. 9008 | Biomass Research and Development Act | Mandatory | 15 | 25 | 35 | — | — | 75 |
| | Additional funding authorization | Discretionary | 85 | 85 | 85 | 85 | 85 | 425 |
| Sec. 9009 | Sun Grant Program | Mandatory | 5 | 10 | 10 | — | — | 25 |
| | Additional funding authorization | Discretionary | 70 | 70 | 70 | 70 | 70 | 350 |
| Sec. 9010 | Regional Biomass Crop Experiments | Mandatory | 10 | 20 | 10 | — | — | 40 |
| Sec. 9011 | Biochar Research, Development and Demonstration | Discretionary | 3 | 3 | 3 | 3 | 3 | 15 |
| Sec. 9012 | Renewable Woody Biomass for Energy | Discretionary | 5 | 5 | 5 | 5 | 5 | 25 |
| Sec. 9013 | Community Wood Energy Program | Discretionary | 5 | 5 | 5 | 5 | 5 | 25 |
| Sec. 9014 | Rural Energy Systems Renewal | Discretionary | 5 | 5 | 5 | 5 | 5 | 25 |
| Sec. 9015 | Voluntary Renewable Biomass Certification Program | Discretionary | — | — | — | — | — | 0 |
| Sec. 9016 | Administration | Discretionary | — | — | — | — | — | 0 |
| Sec. 9017 | Biofuels Infrastructure Study | Discretionary | 1 | 1 | 1 | 1 | 1 | 5 |
| Sec. 9018 | Rural Nitrogen Fertilizer Study | Discretionary | 1 | — | — | — | — | 1 |
| Sec. 9019 | Study of Life Cycle Analysis of Biofuels | Discretionary | — | — | — | — | — | 0 |
| Sec. 9020 | E-85 Fuel Program ^b | Discretionary | 4 | 4 | 4 | 4 | 4 | 20 |
| Sec. 9021 | Research and Development of Renewable Energy | Discretionary | 5 | 5 | 5 | 5 | 5 | 25 |
| | Additional funding authorization ^c | Discretionary | 110 | 110 | 110 | 110 | 110 | 550 |

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| Title IX Provisions | Section and Provision Name | Funding Status ^a | FY2008 | FY2009 | FY2010 | FY2011 | FY2012 | Sum: FY08-FY12 |
|--------------------------------|--|-----------------------------|--------------|--------------|--------------|--------------|--------------|----------------|
| \$ millions | | | | | | | | |
| | Additional funding authorization ^d | Discretionary | 110 | 110 | 110 | 110 | 110 | 550 |
| Sec. 9022 | Northeast Dairy Nutrient Management and Energy Development Program | Discretionary | SSAN | SSAN | SSAN | SSAN | SSAN | SSAN |
| Sec. 9023 | Future Farmsteads Program | Discretionary | — | — | — | — | — | 0 |
| Total Discretionary Funding | | Discretionary | \$404 | \$403 | \$403 | \$403 | \$403 | \$2,016 |
| Total Mandatory Funding | | Mandatory | \$222 | \$247 | \$247 | \$192 | \$192 | \$1,100 |

Source: Senate Agriculture Committee approved (October 25, 2007) 2007 farm bill (discussion draft version WEI07B39).

“SSAN” = Such sums as necessary.

- a. Budgetary funding availability for FY2008-12 is contingent on revenues and cost offsets as detailed in the “Heartland, Habitat, Harvest and Horticulture Act of 2007” as approved by the Senate Committee on Finance on October 4, 2007.
- b. Authorized appropriations are for the entire period FY2008 to FY2012 with no specific annual breakout; annual designations are made by CRS to facilitate comparisons.
- c. Section 9021 includes additional discretionary funding of \$110 million to the Under Secretary for Research, Education, and Economics acting through the Agricultural Research Service of USDA for each of FY2008 to FY2012.
- d. Section 9021 includes additional discretionary funding of \$110 million to the Secretary of USDA and the Secretary of DOE for development of smaller-scale biorefineries and biofuel plants for each of FY2008 to FY2012.

Table 4. Comparison of Current Law with the House-Passed 2007 Farm Bill (H.R. 2419) and the Senate Agriculture Committee's Approved 2007 Farm Bill (October 25, 2007)

| 2002 Farm Bill (P.L. 107-171) | House-Passed Farm Bill (H.R. 2419) | Senate Agriculture Committee's Approved Farm Bill (October 25, 2007) |
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| TITLE IX: Energy | | |
| Definitions | | |
| Sec. 9001. Defines Administrator, Biomass, Biobased Product, Biomass, Procuring Agency, Renewable Energy, Rural Small Business, and Secretary. | Sec. 9001. No changes to definitions. | Sec. 9001. Adds several definitions including: "Advanced Biofuels" which excludes any fuel derived from corn-starch, but includes ethanol derived from other plant starches (e.g., sorghum), sugar, as well as cellulosic biomass or organic waste; it also includes organically-derived biogas, butanol or other alcohols; and, notably, biodiesel. Other noteworthy definitions include: Biobased Product; Biomass Conversion Facility, Biorefinery, Intermediate Ingredient or Feedstock; Renewable Biomass, and Renewable Energy. |
| Federal Procurement of Biobased Products | | |
| 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. | 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. | Section 9002: Continues the Federal Biobased Products Procurement Program, clarifying that biobased intermediate ingredients and feedstocks qualify under the program. It also requires the Secretary to establish a voluntary labeling program for biobased products — "USDA Certified Biobased Product." Additionally, this section provides grants for education and awareness of bioenergy and biobased products. This section provides \$3 million per year in mandatory funding for FY2008 through FY2012. |

| 2002 Farm Bill (P.L. 107-171) | House-Passed Farm Bill (H.R. 2419) | Senate Agriculture Committee's Approved Farm Bill (October 25, 2007) |
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| Biorefinery Development Grants | | |
| <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. Renamed as the Biorefinery Development Program and extended through FY2012. It replaces grants with new loan guarantee authority for biorefineries — 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 for a total in new mandatory funding of \$800 million during FY2008-FY2012.</p> | <p>Section 9005: Renamed the Biorefinery and Repowering Assistance Program, it refocuses emphasis on “advanced biofuel” production in renewable-fuel-powered biorefineries. Provides competitive grants for up to 50% of project costs for pilot- and demonstration-scale biorefineries; matching funds for feasibility studies and competitive grants for up to 20% of total project costs for the repowering of fossil-fueled biomass conversion facilities with renewable resources; and provides loan guarantees for up to 80% of total eligible project costs for the development and construction of commercial-scale biorefineries and the repowering of biomass conversion facilities with renewable energy.</p> <p>Any loan guaranteed for commercial scale biorefineries cannot exceed \$250 million and a loan guaranteed for repowering cannot exceed \$70 million. The section includes a preference for local ownership of these facilities.</p> <p>Provides \$300 million in mandatory funding during FY2008-FY2012.</p> |

| 2002 Farm Bill (P.L. 107-171) | House-Passed Farm Bill (H.R. 2419) | Senate Agriculture Committee's Approved Farm Bill (October 25, 2007) |
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| Biodiesel Fuel Education Program | | |
| 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. | Section 9003. Same as H.R. 2419. |
| Energy Audit and Renewable Energy Development Program | | |
| Section 9005. A competitive grant program for eligible entities to provide energy audits and technical assistance to agricultural producers and rural small businesses to assist them 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. | Section 9004. Extends the Energy Audit and Renewable Energy Development Program through FY2012. | Section 9007. Extends the Energy Audit and Renewable Energy Development Program through FY2012, but folds it into the new Rural Energy for America Program where mandatory funding is available (see next section for more information). |

| 2002 Farm Bill (P.L. 107-171) | House-Passed Farm Bill (H.R. 2419) | Senate Agriculture Committee's Approved Farm Bill (October 25, 2007) |
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| Renewable Energy Systems | | |
| <p>Section 9006. The Renewable Energy Systems and Energy Efficiency 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 for a total in new mandatory funding of \$500 million during FY2008-FY2012.</p> | <p>Section 9007. Renamed as the Rural Energy for America Program, this section adds the option to receive a production incentive payment in lieu of a grant, and stipulates that a grant may cover up to 25% of project costs while a loan guarantee may cover up to 75% of the cost.</p> <p>It creates a separate allocation of funding for grants and loan guarantees to build and evaluate on-farm and community animal manure-to-energy facilities such as methane digesters.</p> <p>It also establishes a streamlined application grant and loan applications for small-scale projects (under \$20,000), and requires that 20% of funds be used for such projects.</p> <p>The Energy Star Program is extended in this section to identify and promote energy-efficient equipment and facilities in the agricultural sector.</p> <p>Provides \$230 million in mandatory funding for FY2008 to remain available until expended, with not less than 15% of this funding dedicated to the animal manure-to-energy provision.</p> |

| 2002 Farm Bill (P.L. 107-171) | House-Passed Farm Bill (H.R. 2419) | Senate Agriculture Committee's Approved Farm Bill (October 25, 2007) |
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| Biomass Research and Development Act | | |
| <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.</p> <p>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 for a total in new mandatory funding of \$420 million during FY2008-FY2012.</p> <p>Includes the appropriations authority for \$200 million in each of FY2008 through FY2015.</p> | <p>Section 9008. Extends the program and moves it in statute to this act. Adds new emphasis on utilization of byproducts such as dried distillers grains and solubles (DDGS) and development of technologies for harvest, storage, preprocessing and transportation of renewable biomass feedstocks.</p> <p>Provides mandatory funding to remain available until expended of \$15 million in FY2008, \$25 million in FY2009, and \$35 million in FY2010 for a total in new mandatory funding of \$75 million during FY2008-FY2012. .</p> <p>Includes the appropriations authority for \$85 million in each of FY2008 through FY2012.</p> |
| Bioenergy Program | | |
| <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 for a total in new mandatory funding of \$1.4 billion during FY2008-FY2012.</p> <p>Ethanol produced from corn starch is excluded. Expands eligibility for the production incentive to combined heat and power production using biomass at biofuels plants and biomass gasification.</p> | <p>Section 9006. Renews and extends the Bioenergy Program through FY2012. Bases the payment rate on: (1) biofuel production, (2) feedstock prices, and (3) net non-renewable energy content of the fuel. This will benefit those purchasing feedstocks for cellulosic biofuels and biodiesel.</p> <p>The program is not available to those claiming a biofuel production tax credit or with biofuel production capacity greater than 150 million gallons per year.</p> <p>Provides \$245 million in mandatory funding for FY2008 through FY2012.</p> |

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| Research, Extension, and Educational Programs on Biobased Energy Technologies and Products | | |
| <p>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 national 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.</p> <p>Authorized appropriations of \$25 million in FY2005, \$50 million in FY2006, and \$75 million for each of FY2006 through FY2010 for a total in discretionary funding of \$150 million during FY2005-FY2010.</p> | <p>Section 9008. Extends the sun grant programs through FY2012 with authorized appropriations of \$75 million for each of FY2008 through FY2012 for a total in discretionary funding of \$375 million during FY2008-FY2012. .</p> | <p>Section 9009. Reauthorizes the Sun Grant Program through FY2012 and establishes a 6th regional center — Western Insular Pacific Sub-Center — at the University of Hawaii.</p> <p>Competitive grants are available to land-grant schools within each region.</p> <p>Provides, for the first time, mandatory funding for the Sun Grant program of \$5 million in FY2008, \$10 million in each of FY2009 and FY2010 (available until expended) for a total of \$25 million for FY2008 through FY2012.</p> <p>Also includes the appropriations authority for \$70 million in each of FY2008 through FY2015.</p> |
| Administration / Energy Council of USDA | | |
| <p>No provision.</p> | <p>Section 9009 (would be appended as Section 9012). 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.</p> | <p>Section 9016. Expands and codifies the scope of responsibilities of the USDA related to the coordination of energy programs and specifies that USDA should have one entity serving as central coordinator for these programs. Responsibilities of the coordinating entity include provision of oversight and coordination of energy-related activities within USDA, as well as coordination of related activities with other Federal, State, and local agencies. This entity also will coordinate and disperse information on agricultural sector energy research and Federal agricultural energy programs, and coordinate an annual report to Congress on federal agency initiatives related to agricultural energy. No new funding.</p> |

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| Farm Energy Production Pilot Program | | |
| No provision. | <p>Section 9010 (would be appended as Section 9013). Establishes a pilot program to provide grants to farmers to demonstrate the feasibility of making a farm become energy neutral using existing technologies.</p> <p>Authorizes appropriations of \$5 million for FY2008 through FY2012.</p> | No provision. |
| Rural Energy Initiatives | | |
| No provision. | <p>Section 9011 (would be appended as Section 9014). Establishes the Rural Energy Self-Sufficiency Initiative to 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. Requires a report to Congress on best practices/approaches.</p> <p>Total grants under this section are limited to no more than 5 per year, and authorizes appropriations of not more than \$5 million for FY2008, and such sums as are necessary for FY2009 through FY2012.</p> | <p>Section 9014. Establishes a program — the Rural Energy Systems Renewal Program — of competitive cost-shared grants for rural communities to assess their energy systems and formulate strategies for improvements.</p> <p>Authorizes discretionary funding of \$5 million for each of FY2008 through FY2012.</p> |
| Agricultural Biofuels from Biomass Internship Program | | |
| No provision. | <p>Section 9012 (would be appended as Section 9015). Provides 3rd and 4th year undergraduate or graduate students from universities in states with substantial farm-based economies with 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.</p> | No provision. |

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| Feedstock Flexibility Program for Bioenergy Producers | | |
| No provision. | Section 9013 (would be appended as Section 9016). 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. | See Title I, Section 1501, Sugar Program, for a similar sugar-for-ethanol provision entitled the "Feedstock Flexibility Program for Bio-Energy Producers". |
| Biomass Inventory Report | | |
| 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. | No provision. |
| Future Farmsteads Program | | |
| 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. | Section 9023. Same as H.R. 2419. |

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| Sense of Congress on Renewable Energy | | |
| 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. | Section 9002. Sense of Congress concerning higher levels ethanol blended gasoline (i.e., intermediate blends such as E13, E15, E20 and higher). Encourages Secretary of Agr. to collaborate with DOE, DOT, and EPA in study of economic and environmental effects of intermediate blends of ethanol in U.S. fuel supply. |
| New Program to Facilitate Biomass Feedstock Production | | |
| No provision. | <p>Section 9018. Establishes a new Biomass Energy Reserve (BER).</p> <p>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.</p> <p>BER projects would have to be within a 50-mile radius of a bioenergy facility. Authorizes mandatory funding of such sums as are necessary.</p> | <p>Section 9004. Creates the Biomass Crop Transition program to stimulate production of annual and perennial biomass crops.</p> <p>USDA provides technical and financial assistance with establishment costs for the production of bioenergy crops for use in a biomass conversion facility. Provides \$130 million in mandatory funding for FY2008 through FY2012 to support biomass production.</p> <p>Also provides \$30 million in mandatory funding for FY2008 through FY2012 for a fixed assistance payment to agricultural producers for production, collection, harvest, storage and transportation of biomass crops for use in a biomass conversion facility.</p> <p>Requires the Secretary to provide public information on the production potential, environmental impacts, and best practices for production, harvesting, transport and storage of biomass crops and requires participants to provide information as needed for that purpose.</p> |

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| Forest Biomass for Energy | | |
| 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. Provides mandatory CCC funding of \$15 million for each of FY2008 through FY2012. | Section 9012. Same program as H.R. 2419, but with discretionary (not mandatory) funding of \$5 million for each of FY2008 through FY2012. |
| Community Wood Energy Program | | |
| 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 discretionary funding of such sums as are necessary. | Section 9013. Same program as H.R. 2419, but with discretionary funding of \$5 million for each of FY2008 through FY2012. |
| Supplementing Corn as an Ethanol Feedstock | | |
| 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. | No provision. |

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| Regional Biomass Crop Experiments | | |
| No provision. | No provision. | <p>Section 9010. Provides for 10 competitive grants to 10 geographically dispersed and land-grant universities to establish regional bioenergy crop research experiments. The universities are required to commit adequate crop land for these on-going crop experiments. Crop experiments are to include all appropriate biomass species, including perennials, annuals, and woody biomass species. Calls for coordination among participants, with the Biomass Research and Development Board and with the Sun Grant Centers, and the establishment of a "best practices" database on all aspects of bioenergy crop production.</p> <p>Provides mandatory funding of \$40 million for FY2008 through FY2012.</p> |
| Biochar Research, Development and Demonstration | | |
| No provision. | No provision. | <p>Section 9011. Creates a program of competitive grants for research and demonstration of the production and use of biochar in the agricultural sector. Provides discretionary funding of \$3 million for each of FY2008 through FY2012.</p> |
| Voluntary Renewable Biomass Certification Program | | |
| No provision. | No provision. | <p>Section 9015. Establishes a voluntary certification program for renewable biomass that is grown using sustainable practices. No new funding.</p> |

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| Biofuels Infrastructure Study | | |
| No provision. | No provision. | <p>Section 9017. Directs USDA, in collaboration with the Secretaries of Energy and Transportation and the Administrator of the EPA, to conduct a study of the infrastructure needs associated with a significant expansion in biofuel production and use. Specifically includes dedicated ethanol pipeline feasibility studies and examination of water resource needs. Requires a report to Congress on the results of the studies.</p> <p>Authorizes discretionary funding of \$1 million for each of FY2008 through FY2012.</p> |
| Rural Nitrogen Fertilizer Study | | |
| No provision. | No provision. | <p>Section 9018. Directs USDA to assess the feasibility of producing nitrogen fertilizer from renewable energy. Provides discretionary funding of \$1 million for FY2008.</p> |
| Study of Life Cycle Analysis of Biofuels | | |
| No provision. | No provision. | <p>Section 9019. This provision directs USDA in consultation with DOE and EPA to conduct a study of methods for evaluating the life-cycle greenhouse gas emissions of conventional fuels and biofuels, and to provide (in form of report to Congress) results and recommendations for a streamlined, simplified method for evaluating the lifecycle greenhouse gas emissions of fuels.</p> <p>No new funding.</p> |

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| E-85 Fuel Program | | |
| No provision. | No provision. | <p>Section 9020. Provides cost-share grants of up to 20% of total costs for installation of E-85 fuel infrastructure.</p> <p>Authorizes appropriations (i.e., discretionary funding) of \$20 million for FY2008 through FY2012 to remain available until expended.</p> |
| Research and Development of Renewable Energy | | |
| No provision. | No provision. | <p>Section 9021. USDA will conduct research, with the Colorado Renewable Energy Collaboratory, relating to various aspects of renewable energy including biomass crops adapted to arid and semi-arid regions, and storage and conversion technologies for wind and solar energy.</p> <p>Authorizes discretionary funding of \$5 million for each of FY2008 through FY2012. Additional discretionary funding of \$110 million to USDA Under Secretary for Research, Education, and Economics for cellulosic biofuel research for each of FY2008 through FY2012; and additional discretionary funding of \$110 million to USDA/DOE for development of small-scale biorefineries for each of FY2008 through FY2012.</p> |
| Northeast Dairy Nutrient Management and Energy Development Program | | |
| No provision. | No provision. | <p>Section 9022. Establishes USDA program to provide grants to a consortium of Northeast U.S. land-grant colleges and universities to conduct research, extension, and demonstration projects for dairy nutrient management and energy development . Authorizes discretionary funding of such sums as are necessary.</p> |