

Report for Congress

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Energy Provisions of the Farm Bill: Comparison of the New Law with Previous Law and House and Senate Bills

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Energy Provisions of the Farm Bill: Comparison of Current Law with House and Senate Bills

Summary

On May 13, 2002, President Bush signed a new farm bill—The Farm Security and Rural Investment Act of 2002 (P.L. 107-171). The new farm bill contains many energy-related provisions. The previous farm bill was the Federal Agriculture Improvement and Reform Act of 1996 (P.L. 104-127), popularly called the FAIR Act. Most of the authorities of the FAIR Act expired at the end of FY2002.

Increased concerns about energy security, greenhouse gas emissions, and pollution have led to an increase in congressional interest in energy policy. In that general context, there is growing interest in biofuels (including ethanol and biodiesel), bioenergy, and biobased products as a strategy to improve domestic energy security and increase farm income. Further, open spaces used for agricultural production are seen by some as ideal places to install renewable energy systems such as wind turbines and solar cells. In addition, farmers have been concerned with high energy costs because energy can be a major production cost. Although there were no energy provisions in the FAIR Act, the final version of the farm bill contains several provisions on renewable energy, biomass and biofuels, carbon sequestration, and other energy issues.

This report provides a side-by-side comparison of the energy provisions of the new law with previously existing law, as well as the versions engrossed by the House and Senate in the 107th Congress. While the energy provisions in the House version were spread throughout the bill, the Senate version consolidated most of its energy provisions into Title IX - Energy. Both bills provided for the use of reserve land for renewable energy production. The House version also allowed for loans to farmers in response to high energy prices, while the Senate version did not. The Senate version created several new grant and/or loan programs for biorefineries, biodiesel fuel education, renewable energy systems, energy audits, rural energy systems, hydrogen and fuel cells, and technical assistance. Among these topics, the House version addressed grants for biobased product research and loans for renewable energy systems, and instead of creating new programs, expanded or extended existing programs. Further, the Senate version created new programs for carbon sequestration research and demonstration, while the House version extended the authority of an existing research program.

The final version generally follows the Senate provisions, although there are some key differences, including the addition of funding for the Commodity Credit Corporation Bioenergy Program (which supports ethanol and biodiesel production), and reductions in funding for several other programs. CBO estimates that the new law will require \$366 million in mandatory spending between FY2002 and FY2006.

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Energy Provisions: Comparison of the New Law with Previous Law and House and Senate Farm Bills

Introduction

The most recent farm bill was the Federal Agriculture Improvement and Reform Act of 1996 (P.L. 104-127), popularly called the FAIR Act. Most of the authorities of the FAIR Act expired at the end of FY2002. The 107th Congress enacted new farm legislation. The House approved its version of the farm bill (H.R. 2646) on October 5, 2001, and the Senate approved its version on February 13, 2002. In some cases, the two bills had dramatically different provisions for various policies, including provisions on energy policy. The new farm bill, the Farm Security and Rural Investment Act of 2002 (P.L. 107-171) was signed by President Bush on May 13, 2002.

Increased concerns about energy security, greenhouse gas emissions, and pollution have led to an increase in congressional interest in energy policy. In that general context, there is growing interest in biofuels (including ethanol and biodiesel), bioenergy, and biobased products as a strategy to improve domestic energy security and increase farm income. Further, open spaces used for agricultural production are seen by some as ideal places to install renewable energy systems such as wind turbines and solar cells. In addition, farmers have been concerned with high energy costs because energy can be a major production cost. Although there were no energy provisions in the FAIR Act, the new law contains several provisions on renewable energy, biomass and biofuels, carbon sequestration, and other energy issues.

This report provides a side-by-side comparison of the energy provisions in the various versions of the bill. While the energy provisions in the House version were spread throughout the bill, the Senate version consolidated most of its energy provisions into Title IX - Energy. The final version follows the Senate model and also consolidates energy provisions in Title IX. Table 1 presents the comparison. The table is organized such that stand-alone provisions in the House bill are presented first, followed by provisions Title IX of the Senate bill, and Title IX in the final version, in section-by-section order.

Key provisions of the bills include:

- Grants to farmers for economic emergencies, including drastic increases in energy costs (House);
- Grants for energy production from hazardous forest fuel (House and Senate);
- A requirement that the federal government purchase biobased products (Final and Senate)

- Grants and loans for the development of biorefineries (Final and Senate), renewable energy generation (Final, House, and Senate), energy audits (Final and Senate), hydrogen and fuel cells (Final and Senate), and technical assistance (House and Senate);
- Carbon sequestration research (Final, House, and Senate) and demonstration programs (Senate).

The new law authorizes \$366 million in mandatory spending for FY2002 through FY2006, and \$405 million through FY2011. The new law also authorizes increases in discretionary spending.

**Table 1. Comparison of Energy Provisions in the New Law with Previous Law
and House and Senate Versions of H.R. 2646**

Previous Law/Policy	House Farm Bill (H.R. 2646 EH)	Senate Farm Bill (H.R. 2646 EAS)	Final Version (P.L. 107-171)
Miscellaneous laws and regulations (see below)	Various titles	Title IX - Energy, and other sections	Title IX - Energy, and other sections
Commodity Credit Corporation (CCC) Bioenergy Program			
<p>Under the Bioenergy Program, CCC may grant payments to ethanol and biodiesel producers who expand their production capacity. Payments are intended to help cover the purchase cost of the additional commodities necessary for that expansion. Allowable commodities include crops such as barley, corn, soybeans, and wheat, as well as cellulosic crops such as switchgrass and short rotation trees. The program is scheduled to terminate at the end of 2002. [7 CFR 1424]</p>	<p>Animal fats, agricultural byproducts, and oils are added to the list of allowable commodities. [Section 922]</p>	<p>No Provision. Note: S. 1731 expresses the sense of the Congress that the Bioenergy Program should be continued and expanded. In addition, the section states that expanded ethanol and biodiesel production will be needed to phase out methyl tertiary butyl ether (MTBE)—a common additive in gasoline that has contaminated groundwater in several states. [Section 907]</p>	<p>The program is extended and expanded. Mandatory spending of up to \$150 million is provided annually for FY2003 through FY2006. The Congressional Budget Office estimates that \$204 million total will be authorized between FY2002 and FY2006. [Section 9010]</p>
Renewable Energy on Conservation Reserve Program (CRP) Lands			
<p>The Farm Security Act of 1985 created the Conservation Reserve Program (16 U.S.C. 3830 et. seq.) to assist and encourage farmers and ranchers to conserve and enhance soil and other resources, but does not specify renewable energy projects. [Sec. 3832(a)(7)(A)]</p>	<p>Amends Section 3832 of the Act to allow the use of CRP land for wind energy generation and biomass harvesting for energy production, with reduced payments. [Sec. 213]</p>	<p>Amends Section 3832 of the act to allow the use of CRP land for wind energy generation, with reduced payments. [Sec. 212(h)]</p>	<p>Amends Section 3832 of the act to allow the use of CRP land for wind energy generation and biomass harvesting for energy production. [Sec. 2101]</p>

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Emergency Loans to Respond to Sharply Increasing Energy Costs			
The Consolidated Farm and Rural Development Act (7 U.S.C. 1969) provides for emergency loans for natural disasters, but does not include high energy costs as a disaster. [Sec. 329]	Amends the Act to allow loans in response to economic emergencies, which are defined to include sharply increasing energy costs. [Sec. 510]	No provision.	No provision.
Grants to Reduce Hazardous Forest Fuels for Energy Production			
The Cooperative Forestry Assistance Act of 1978 (16 U.S.C. 2101 et. seq) provides for technical and financial assistance for rural fire control. There are no provisions for biomass reduction grants. [P.L. 95-313]	Creates a new section of law which authorizes the Secretary of Agriculture to provide grants to energy producers who purchase biomass that poses a wildfire hazard for the production of electric power, useful heat, or transportation fuels. Authorizes \$50 million each fiscal year. [Sec. 921]	Similar to the House provision, but amends the Cooperative Forestry Assistance Act to add a section on hazardous fuels reductions instead of establishing a new section of the code. [Sec. 808]	No provision.
Clean Energy			
Under the current law, the Consolidated Farm and Rural Development Act (CFRDA) (7 U.S.C. 1921 et. seq.), there are no provisions for clean energy. [P.L. 87-128]	Several sections amend various laws. (See below.)	CFRDA is amended to add a Subtitle L (3 chapters) on “Clean Energy” that establishes programs on biobased products, renewable energy and energy efficiency, and carbon sequestration. [Section 902]	In several sections, existing laws are not amended, but new sections of law are created. (See below.)

Previous Law/Policy	House Farm Bill (H.R. 2646 EH)	Senate Farm Bill (H.R. 2646 EAS)	Final Version (P.L. 107-171)
Clean Energy - Chapter 1: Biobased Product Development			
<p>1. <i>Biobased products</i>. No provision for biobased products under CFRDA.</p>	<p>1. No provision</p>	<p>1. Requires the Secretary of Agriculture to publish a list of biobased products that are environmentally preferable (defined as a having a reduced effect on human health and the environment compared with competing products). Federal agencies are required to purchase environmentally preferable biobased products, if available. For FY2002 through FY2006, \$2 million per year in mandatory spending is authorized, to remain available until expended. [Section 388B]</p>	<p>1. Similar to the Senate provision. However, products are not required to be environmentally preferable. Mandatory spending of \$1 million annually is provided for FY2002 through FY2007. [Section 9002]</p>
<p>2. <i>Biorefineries</i>. No provision for biorefineries under CFRDA.</p>	<p>2. There is no provision for biorefineries. However, the bill amends the Agricultural Research, Extension, Education, and Reform Act of 1988 (7 U.S.C. 7624) to extend authority to provide grants for pilot projects on biobased product development. Authority, which expired at the end of FY2001, is extended to FY2011. [Sec. 725]</p>	<p>2. Establishes a new grant program to assist in the development and construction of biorefineries, defined as facilities that convert biomass into fuels and chemicals. For FY2002 through FY2006, \$15 million per year in mandatory spending is authorized, to remain available until expended. [Section 388C] Also, Sec. 379 of the Act is amended to give priority to bioenergy and biochemical projects for grants. [Sec. 644]</p>	<p>2. Similar to the Senate provision. However, no mandatory spending is authorized. [Sec. 9003]</p>

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<p>3. <i>Biodiesel fuel.</i> No provision for biodiesel fuel under CFRDA.</p>	<p>3. No provision.</p>	<p>3. Establishes a new program to provide grants to nonprofit organizations that educate fleet operators and the public about the benefits of biodiesel. For FY2002 through FY2006, \$5 million annually is authorized to remain available until expended. <i>[Section 388D]</i></p>	<p>3. Similar to the Senate provision. However, only \$1 million in annual mandatory spending is authorized for FY2003 through FY2007. <i>[Section 9004]</i></p>
Clean Energy - Chapter 2: Renewable Energy Development and Energy Efficiency			
<p>1. <i>Loans and loan guarantees.</i> CFRDA allows loans and loan guarantees for the installation of solar energy systems. <i>[Sec. 310]</i></p>	<p>1. Amends Sec. 310 of the Act to allow loans and loan guarantees for renewable energy systems, including wind generators and anaerobic digesters. No new budget authority is provided. <i>[Sec. 606]</i></p>	<p>1. Establishes a new program to assist farmers, ranchers, and rural business ventures in the establishment or expansion of electrical facilities powered by renewable energy. For FY2002 through FY2006, \$16 million per year in mandatory spending is authorized, to remain available until expended. <i>[Section 388E]</i></p>	<p>1. Similar to the House provision. No new budget authority is provided. <i>[Section 6013]</i></p>
<p>2. <i>Energy audits.</i> No provision for energy audits under CFRDA.</p>	<p>2. No provision</p>	<p>2. Establishes a new grant program for entities that assist farmers, ranchers, and rural small businesses in performing audits to identify potential for improving energy efficiency and developing renewable energy. For FY2002 through FY2006, \$15 million per year in mandatory spending is authorized. <i>[Section 388F]</i></p>	<p>2. Similar to the Senate provision. However, no mandatory spending is authorized. <i>[Section 9005]</i></p>

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<p>3. <i>Grants for energy systems.</i> No provision for energy systems under CFRDA.</p>	<p>3. No provision.</p>	<p>3. Establishes a new system of grants and loans to farmers, ranchers, and rural small businesses for the purchase of renewable energy systems. Recipients must have sales less than \$1 million per year. For FY2002 through FY2006, \$33 million per year in mandatory spending is authorized, to remain available until expended. [Section 388G]</p>	<p>3. Similar to the Senate provision, except that energy efficiency improvements are also eligible. Further, the Secretary of Agriculture is given authority to define a “small business.” \$23 million in annual mandatory spending is authorized for FY2003 through FY2007. [Section 9006]</p>
<p>4. <i>Hydrogen and fuel cell applications.</i> No provision for hydrogen and fuel cells under CFRDA.</p>	<p>4. No provision.</p>	<p>4. Establishes a new grant program for cooperative research on hydrogen and fuel cell technologies for use in farm, ranch, and rural applications. For FY2002 through FY2006, \$5 million per year in mandatory spending is authorized, to remain available until expended. [Section 388H]</p>	<p>4. The Departments of Agriculture and Energy are required to cooperate on research into farm and rural applications for hydrogen fuel and fuel cell technologies. No new budget authority is provided. [Section 9007]</p>
<p>5. <i>Technical assistance.</i> No provision for technical assistance to support energy development under CFRDA.</p>	<p>5. Amends the Food Security Act of 1985 (16 U.S.C. 3839aa) to allow the Secretary to provide education and technical assistance to farmers and ranchers to develop and market renewable energy resources. No new budget authority is created. [Sec. 942]</p>	<p>5. Allows USDA to provide technical assistance to farmers and ranchers to develop renewable energy resources. The Secretary may retain up to 4% of the funds in the above areas to assist farmers and ranchers in developing and marketing renewable energy. [Section 388I]</p>	<p>5. No provision.</p>

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Clean Energy - Chapter 3: Carbon Sequestration Research, Development and Demonstration Program			
<p>1. <i>Carbon sequestration research.</i> No provision for carbon sequestration research under CFRDA, however, other programs under the Department of Agriculture, as well as the Department's general authority for research, do provide for such research.</p>	<p>1. Amends the Agricultural Risk Protection Act of 2000 (P.L. 106-224, Sec. 211) to extend the authorization of the Carbon Cycle Research Program, which provides grants to land grant universities for carbon cycle research. Authorization is extended through FY2011 (originally a one-time authorization of \$15 million). [Sec. 751]</p>	<p>1. Authorizes new funding for basic and applied carbon sequestration research, conducted either by the Secretary of Agriculture, or by other entities funded through competitive grants. The research goals include the study of net sequestration of carbon by soils and plants, and the net greenhouse gas emissions from agriculture. \$25 million is authorized annually for FY2002 through FY2006. [Section 388J]</p>	<p>1. Similar to the House provision. Research authority is extended through FY2007, but no new mandatory spending is provided. [Sec. 9009]</p>
<p>2. <i>Carbon sequestration demonstration projects.</i> No provision for demonstration projects.</p>	<p>2. No provision.</p>	<p>2. Authorizes projects, administered by the Secretary, to demonstrate the ability to monitor and verify carbon sequestration, and to educate farmers and ranchers about the economic and environmental benefits of conservation practices that increase sequestration. \$10 million is authorized each year for FY2002 through FY2006. [Section 388K]</p>	<p>2. No provision.</p>

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Biomass Research and Development			
<p>The Biomass Research and Development Act of 2000 provides competitive funding for R&D projects on biofuels and other biobased chemicals and products, administered by the Secretaries of Agriculture and Energy. \$49 million per year is authorized for FY2002 through FY2005. The authority for the program expires December 31, 2005.</p> <p><i>[P.L. 106-244, Title III]</i></p>	<p>Extends authority for the program through FY2011; adds animal byproducts to the definition of “biomass”; and adds a livestock trade association representative to the Technical Advisory Board. Authorized appropriations will increase from zero to \$49 million in each of FY2006 through FY2011.</p> <p><i>[Section 746]</i></p>	<p>Amends the Act to provide additional mandatory funding of \$15 million each year for FY2002 through FY2006, to remain available until expended. Program authority is extended by one year, to September 30, 2006, and an additional \$49 million in discretionary funding authorized for FY2006.</p> <p><i>[Section 903]</i></p> <p>Note: Congress appropriated \$15 million for this initiative in FY2002. In effect, the current funding would be made mandatory.</p>	<p>Similar to the Senate version. Authority is extended through FY2007. This section provides mandatory spending of \$5 million for FY2002 and \$14 million annually between FY2003 and FY2007. An additional \$49 million annually in discretionary funding is also provided for FY2002 through FY2007.</p> <p><i>[Section 9008]</i></p>
Renewable Energy Projects			
<p>The Rural Electrification Act of 1936 authorizes the Rural Utilities Service, which provides credit assistance to build and operate electric generating facilities, wholesale transmission equipment, and local distribution lines. The Secretary of Agriculture is authorized to provide loans and grants to improve electricity supply in rural areas. Currently, there are no provisions for renewable energy.</p> <p><i>[7 U.S.C. 901 et. seq.]</i></p>	<p>Amends the Act to allow loan guarantees for the purchase of renewable energy systems by farmers, ranchers, and rural small businesses.</p> <p><i>[Section 605]</i></p>	<p>Amends the Act to establish a loan and grant program to assist renewable energy projects at rural electric utilities and cooperatives. Grants may cover up to 75% of a feasibility study or for technical assistance on a project. Loans may be used to cover a percentage (to be determined by the Secretary) of the project cost. For FY2002 through FY2006, \$9 million per year in mandatory spending is provided, to remain available until expended.</p> <p><i>[Section 904]</i></p>	<p>No provision.</p>

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Carbon Sequestration Demonstration Program			
<p>The Agricultural Research, Extension, and Education Reform Act of 1998 establishes an account in the Treasury to be used by the Secretary of Agriculture for matching grants to address critical emerging agricultural issues. <i>[P.L. 105-185]</i></p>	<p>No provision.</p>	<p>Amends the Act (adding Sec. 409) to authorize \$20 million each year for FY2002 through FY2006 to establish projects that can show demonstrable reductions in net greenhouse gas emissions or increases in carbon sequestration by soils and forests. It also adds farmer cooperatives to the list of eligible entities. <i>[Section 905]</i></p>	<p>No provision.</p>