109TH CONGRESS
1ST SESSION

S. 1210

To enhance the national security of the United States by providing for the research, development, demonstration, administrative support, and market mechanisms for widespread deployment and commercialization of biobased fuels and biobased products, and for other purposes.

IN THE SENATE OF THE UNITED STATES

JUNE 9, 2005

Mr. HARKIN (for himself, Mr. LUGAR, Mr. OBAMA, and Mr. COLEMAN) introduced the following bill; which was read twice and referred to the Committee on Agriculture, Nutrition, and Forestry

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A BILL

To enhance the national security of the United States by providing for the research, development, demonstration, administrative support, and market mechanisms for widespread deployment and commercialization of biobased fuels and biobased products, and for other purposes.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,

SECTION 1. SHORT TITLE; TABLE OF CONTENTS.

(a) SHORT TITLE.—This Act may be cited as the ''National Security and Bioenergy Investment Act of 2005''.

(b) TABLE OF CONTENTS.—The table of contents of this Act is as follows:

SEC. 2. FINDINGS.

Congress finds that—

(1) the Governors' Ethanol Coalition, in the report entitled ''Ethanol From Biomass America's 21st Century Transportation Fuel'', found that—

(A) the dependence of the United States on oil is a major risk to national security and economic and environmental health;

(B) the safest and least costly approach to mitigating these risks is to set and achieve aggressive biofuels research, development, production and use goals; and

(C) significant investment in cellulosic biofuels, including a dramatic expansion of existing research programs, production and consumer incentives, and commercialization assistance, is needed;

(2) the National Academy of Sciences has found that there are abundant sources of waste biomass, and approximately 280,000,000 tons of waste biomass generated, in all regions of the United States each year;

(3) the Natural Resources Defense Council has estimated that by 2025, 200,000,000 additional tons of biomass could be harvested each year from dedicated energy crops grown throughout the country,

yielding $5,000,000,000 annually in profit for farmers;

(4) the Department of Agriculture has estimated that energy derived from existing biomass supplies could displace 25 percent of current petroleum imports while still meeting agricultural demands;

(5) if all diesel fuel in the United States were blended with a 4-percent blend of biodiesel, crude oil consumption in the United States would be reduced by 300,000,000 barrels each year by 2016;

(6) there is sufficient domestic feedstock for the production of at least 8,000,000,000 annual gallons of renewable fuels, including ethanol and biodiesel, by 2012;

(7) the Natural Resources Defense Council has estimated that biomass could supply 50 percent of current transportation petroleum demand by 2050;

(8) the National Academy of Sciences has estimated that enough agricultural crop residue is produced each year to entirely replace the 700,000,000 barrels of petroleum used in organic chemical production in 2004;

(9) the Biotechnology Industry Organization, in its report entitled ''New Biotechnology Tools for a

Cleaner Environment'', found that if all plastics in the United States were made from biomass, oil consumption would decrease by up to 145,000,000 barrels per year;

(10) the National Academy of Sciences has reported that biobased products have the potential to improve the sustainability of natural resources, environmental quality, and national security while competing economically;

(11) the Department of Agriculture has made significant advances in the understanding and use by the United States of biomass as a feedstock for fuels and products;

(12) through participation with the Department of Energy in the Biomass Research and Development Initiative, the Department of Agriculture has also made valuable contributions, through grantmaking and other initiatives, to the support of biomass research and development at institutions throughout the United States;

(13) the Government Accountability Office has found that—

(A) actions to implement the requirements of the Farm Security and Rural Investment Act of 2002 (Public Law 107–171; 116 Stat. 134)

for purchasing biobased products have been limited; and

(B) greater priority by the Department of Agriculture would promote compliance by other agencies with biobased purchasing requirements;

(14) an Assistant Secretary of the Department of Agriculture for Energy and Biobased Products would provide the priority, staff, and financial resources to fully implement biobased purchasing requirements and other provisions of the energy title of the Farm Security and Rural Investment Act of 2002;

(15) Federal Government contractors and the Architect of the Capitol are currently exempt from biobased purchasing requirements of the Farm Security and Rural Investment Act of 2002;

(16) expansion of those biobased purchasing requirements—

(A) to Federal contractors would significantly expand the market for, and advance commercialization of, biobased products; and

(B) to the Architect of the Capitol would, in combination with a program of public education, allow the Capitol Complex to serve as a

showcase for the existence, use, and benefits of biobased products;

(17) fuel derived from cellulosic biomass could have near-zero net carbon dioxide and sulfur emissions, and substantially reduced carbon monoxide, particulate and toxic emissions relative to petroleum-based fuels;

(18) the bipartisan National Commission on Energy Policy has predicted that with a dedicated Federal research, development, and demonstration effort, cellulosic ethanol could be less expensive to produce than gasoline by 2015;

(19) the 2004 report of the Rocky Mountain Institute, entitled ''Winning the Oil Endgame'', estimated that a mature biomass industry would create up to 1,045,000 jobs;

(20) the National Academy of Sciences has found that there are significant opportunities to produce biomass ethanol more efficiently;

(21) the National Commission on Energy Policy has found that current Federal programs directed toward reducing the cost of biofuels are under-funded, intermittent, scattered, and poorly targeted;

(22) a report commissioned by the Department of Defense urged the United States to invest in a

new large-scale initiative to produce biofuels as an alternative supply source, and as a feedstock for future fuel vehicles;

(23) the Consumer Federation of America has found that the blending of ethanol into conventional gasoline can significantly benefit consumers by lowering prices at the pump;

(24) 45 leading national security, labor, and energy policy experts joined the Energy Future Coalition in supporting a national commitment to cut the oil use of the United States by 25 percent by 2025 through the rapid development and deployment of advanced biomass, alcohol, and other available petroleum fuel alternatives; and

(25) an aggressive effort to advance technology for conversion of biomass to fuel and products is warranted.

SEC. 3. DEFINITIONS.

In this Act:

(1) DEPARTMENT.—The term ''Department'' means the Department of Agriculture.

(2) SECRETARY.—The term ''Secretary'' means the Secretary of Agriculture.

TITLE I—BIOMASS RESEARCH AND DEVELOPMENT

SEC. 101. DEFINITIONS.

Section 303 of the Biomass Research and Development Act of 2000 (Public Law 106–224; 7 U.S.C. 8101 note) is amended—

(1) by striking paragraphs (2), (3), and (9);

(2) by redesignating paragraphs (4), (5), (6), (7), and (8) as paragraphs (5), (7), (8), (9), and (10) respectively;

(3) by inserting after paragraph (1) the following:

''(2) BIOBASED FUEL.—The term 'biobased fuel' means any transportation fuel produced from biomass.

''(3) BIOBASED PRODUCT.—The term 'biobased product' means a commercial or industrial product (including chemicals, materials, polymers, and animal feed) produced from biomass, or electric power derived in connection with the conversion of biomass to fuel.

''(4) BIOMASS.—

''(A) IN GENERAL.—The term 'biomass' means—

"(i) organic material from a plant, including grasses and trees, that is planted for the purpose of being used to produce energy, including vegetation produced for harvest on land enrolled in the conservation reserve program established under subchapter B of chapter 1 of subtitle D of title XII of the Food Security Act of 1985 (16 U.S.C. 3831 et seq.) if the harvest is consistent with the integrity of soil and water resources and with other environmental purposes of the conservation reserve program;

"(ii) nonhazardous, lignocellulosic, or hemicellulosic matter derived from—

"(I) the following forest-related resources:

"(aa) pre-commercial thinnings;

"(bb) slash; and

"(cc) brush;

"(II) an agricultural crop, crop byproduct, or agricultural crop residue, including vegetation produced for harvest on land enrolled in the

conservation reserve program established under subchapter B of chapter 1 of subtitle D of title XII of the Food Security Act of 1985 (16 U.S.C. 3831 et seq.) if the harvest is consistent with the integrity of soil and water resources and with other environmental purposes of the conservation reserve program; or

"(III) miscellaneous waste, including landscape or right-of-way tree trimmings; and

"(iii) agricultural animal waste.

"(B) EXCLUSION.—The term 'biomass' does not include—

"(i) unsegregated municipal solid waste;

"(ii) incineration of municipal solid waste;

"(iii) recyclable post-consumer waste paper and paper products;

"(iv) painted, treated, or pressurized wood;

"(v) wood contaminated with plastic or metals; or

''(vi) tires.''; and

(4) by inserting after paragraph (5) (as redesignated by paragraph (2)):

''(6) DEMONSTRATION.—The term 'demonstration' means demonstration of technology in a pilot plant or semi-works scale facility.''.

SEC. 102. COOPERATION AND COORDINATION IN BIOMASS RESEARCH AND DEVELOPMENT.

Section 304 of the Biomass Research and Development Act of 2000 (Public Law 106–224; 7 U.S.C. 8101 note) is amended—

(1) in subsections (a) and (d), by striking ''industrial products'' each place it appears and inserting ''fuels and biobased products'';

(2) by striking subsections (b) and (c);

(3) by redesignating subsection (d) as subsection (b); and

(4) in subsection (b)(1)(A) (as redesignated by paragraph (3)), by striking ''an officer of the Department of Agriculture appointed by the President to a position in the Department before the date of the designated, by and with the advice and consent of the Senate'' and inserting: ''the Assistant Secretary of Agriculture for Energy and Biobased Products''.

SEC. 103. BIOMASS RESEARCH AND DEVELOPMENT BOARD.

Section 305 of the Biomass Research and Development Act of 2000 (Public Law 106–224; 7 U.S.C. 8101 note) is amended—

(1) in subsections (a) and (c), by striking ''industrial products'' each place it appears and inserting ''fuels and biobased products'';

(2) in subsection (b)—

(A) in paragraph (1), by striking ''304(d)(1)(B)'' and inserting ''304(b)(1)(B)''; and

(B) in paragraph (2), by striking ''304(d)(1)(A)'' and inserting ''304(b)(1)(A)''; and

(3) in subsection (c)—

(A) in paragraph (1)(B), by striking ''and'' at the end;

(B) in paragraph (2), by striking the period at the end and inserting a semicolon; and

(C) by adding at the end the following:

''(3) ensure that—

''(A) solicitations are open and competitive with awards made annually; and

''(B) objectives and evaluation criteria of the solicitations are clearly stated and mini-

mally prescriptive, with no areas of special interest; and

''(4) ensure that the panel of scientific and technical peers assembled under section 307(c)(2)(C) to review proposals is composed predominantly of independent experts selected from outside the Departments of Agriculture and Energy.''.

SEC. 104. BIOMASS RESEARCH AND DEVELOPMENT TECHNICAL ADVISORY COMMITTEE.

Section 306 of the Biomass Research and Development Act of 2000 (Public Law 106–224; 7 U.S.C. 8101 note) is amended—

(1) in subsection (b)(1)—

(A) in subparagraph (A), by striking ''biobased industrial products'' and inserting ''biofuels'';

(B) by redesignating subparagraphs (B) through (J) as subparagraphs (C) through (K), respectively;

(C) by inserting after subparagraph (A) the following:

''(B) an individual affiliated with the biobased industrial and commercial products industry;'';

(D) in subparagraph (F) (as redesignated by subparagraph (B)) by striking ''an individual'' and inserting ''2 individuals'';

(E) in subparagraphs (C), (D), (G), and (I) (as redesignated by subparagraph (B)) by striking ''industrial products'' each place it appears and inserting ''fuels and biobased products''; and

(F) in subparagraph (H) (as redesignated by subparagraph (B)), by inserting ''and environmental'' before ''analysis'';

(2) in subsection (c)(2)—

(A) in subparagraph (A), by striking ''goals'' and inserting ''objectives, purposes, and considerations'';

(B) by redesignating subparagraphs (B) and (C) as subparagraphs (C) and (D), respectively;

(C) by inserting after subparagraph (A) the following:

''(B) solicitations are open and competitive with awards made annually and that objectives and evaluation criteria of the solicitations are clearly stated and minimally prescriptive, with no areas of special interest;''; and

(D) in subparagraph (C) (as redesignated by subparagraph (B)) by inserting ''predominantly from outside the Departments of Agriculture and Energy'' after ''technical peers''.

SEC. 105. BIOMASS RESEARCH AND DEVELOPMENT INITIATIVE.

Section 307 of the Biomass Research and Development Act of 2000 (Public Law 106–224; 7 U.S.C. 8101 note) is amended—

(1) in subsection (a), by striking ''research on biobased industrial products'' and inserting ''research on, and development and demonstration of, biobased fuels and biobased products, and the methods, practices and technologies, including industrial biotechnology, for their production''; and

(2) by striking subsections (b) through (e) and inserting the following:

''(b) AGENCIES.—

''(1) AGRICULTURE.—The Secretary of Agriculture, through the point of contact of the Department of Agriculture and in consultation with the Board, shall provide, or enter into, grants, contracts, and financial assistance under this section through the Cooperative State Research, Education, and Extension Service of the Department of Agriculture.

''(2) ENERGY.—The Secretary of Energy, though the point of contact of the Department of Energy and in consultation with the Board, shall provide, or enter into, grants, contracts, and financial assistance under this section through the appropriate agency, as determined by the Secretary of Energy.

''(c) OBJECTIVES.—The objectives of the Initiative are to develop—

''(1) technologies and processes necessary for abundant commercial production of biobased fuels at prices competitive with fossil fuels;

''(2) high-value biobased products—

''(A) to enhance the economic viability of biobased fuels and power; and

''(B) as substitutes for petroleum-based feedstocks and products; and

''(3) a diversity of sustainable domestic sources of biomass for conversion to biobased fuels and biobased products.

''(d) PURPOSES.—The purposes of the Initiative are—

''(1) to increase the energy security of the United States;

''(2) to create jobs and enhance the economic development of the rural economy;

''(3) to enhance the environment and public health; and

''(4) to diversify markets for raw agricultural and forestry products.

''(e) TECHNICAL AREAS.—To advance the objectives and purposes of the Initiative, the Secretary of Agriculture and the Secretary of Energy, in consultation with the Administrator of the Environmental Protection Agency and heads of other appropriate departments and agencies (referred to in this section as the 'Secretaries'), shall direct research and development toward—

''(1) feedstock production through the development of crops and cropping systems relevant to production of raw materials for conversion to biobased fuels and biobased products, including—

''(A) development of advanced and dedicated crops with desired features, including enhanced productivity, broader site range, low requirements for chemical inputs, and enhanced processing;

''(B) advanced crop production methods to achieve the features described in subparagraph (A);

''(C) feedstock harvest, handling, transport, and storage; and

''(D) strategies for integrating feedstock production into existing managed land;

''(2) overcoming recalcitrance of cellulosic biomass through developing technologies for converting cellulosic biomass into intermediates that can subsequently be converted into biobased fuels and biobased products, including—

''(A) pretreatment in combination with enzymatic or microbial hydrolysis; and

''(B) thermochemical approaches, including gasification and pyrolysis;

''(3) product diversification through technologies relevant to production of a range of biobased products (including chemicals, animal feeds, and cogenerated power) that eventually can increase the feasibility of fuel production in a biorefinery, including—

''(A) catalytic processing, including thermochemical fuel production;

''(B) metabolic engineering, enzyme engineering, and fermentation systems for biological production of desired products or cogeneration of power;

''(C) product recovery;

''(D) power production technologies; and

''(E) integration into existing biomass processing facilities, including starch ethanol plants, paper mills, and power plants; and

''(4) analysis that provides strategic guidance for the application of biomass technologies in accordance with realization of societal benefits in improved sustainability and environmental quality, cost effectiveness, security, and rural economic development, usually featuring system-wide approaches.

''(f) ADDITIONAL CONSIDERATIONS.—Within the technical areas described in subsection (e), and in addition to advancing the purposes described in subsection (d) and the objectives described in subsection (c), the Secretaries shall support research and development—

''(1) to create continuously expanding opportunities for participants in existing biofuels production by seeking synergies and continuity with current technologies and practices, including the use of dried distillers grains as a bridge feedstock;

''(2) to maximize the environmental, economic, and social benefits of production of biobased fuels and biobased products on a large scale through life-

cycle economic and environmental analysis and other means; and

''(3) to assess the potential of Federal land and land management programs as feedstock resources for biobased fuels and biobased products, consistent with the integrity of soil and water resources and with other environmental considerations.

''(g) ELIGIBLE ENTITIES.—To be eligible for a grant, contract, or assistance under this section, an applicant shall be—

''(1) an institution of higher education;

''(2) a national laboratory;

''(3) a Federal research agency;

''(4) a State research agency;

''(5) a private sector entity;

''(6) a nonprofit organization; or

''(7) a consortium of 2 of more entities described in paragraphs (1) through (6).

''(h) ADMINISTRATION.—

''(1) IN GENERAL.—After consultation with the Board, the points of contact shall—

''(A) publish annually 1 or more joint requests for proposals for grants, contracts, and assistance under this section;

''(B) establish a priority in grants, contracts, and assistance under this section for research that advances the objectives, purposes, and additional considerations of this title;

''(C) require that grants, contracts, and assistance under this section be awarded competitively, on the basis of merit, after the establishment of procedures that provide for scientific peer review by an independent panel of scientific and technical peers; and

''(D) give some preference to applications that—

''(i) involve a consortia of experts from multiple institutions;

''(ii) encourage the integration of disciplines and application of the best technical resources; and

''(iii) increase the geographic diversity of demonstration projects.

''(2) DISTRIBUTION OF FUNDING BY TECHNICAL AREA.—Of the funds authorized to be appropriated for activities described in this section—

''(A) 20 percent shall be used to carry out activities for feedstock production under subsection (e)(1);

''(B) 45 percent shall be used to carry out activities for overcoming recalcitrance of cellulosic biomass under subsection (e)(2);

''(C) 30 percent shall be used to carry out activities for product diversification under subsection (e)(3); and

''(D) 5 percent shall be used to carry out activities for strategic guidance under subsection (e)(4).

''(3) DISTRIBUTION OF FUNDING WITHIN EACH TECHNICAL AREA.—Within each technical area described in paragraphs (1) through (3) of subsection (e)—

''(A) 15 percent of funds shall be used for applied fundamentals;

''(B) 35 percent of funds shall be used for innovation; and

''(C) 50 percent of funds shall be used for demonstration.

''(4) MATCHING FUNDS.—

''(A) IN GENERAL.—A minimum 20 percent funding match shall be required for demonstration projects under this title.

''(B) NO OTHER REQUIREMENT.—No matching funds shall be required for other activities under this title.

''(5) TECHNOLOGY AND INFORMATION TRANSFER TO AGRICULTURAL USERS.—

''(A) IN GENERAL.—The Administrator of the Cooperative State Research, Education, and Extension Service and the Chief of the Natural Resources Conservation Service shall ensure that applicable research results and technologies from the Initiative are adapted, made available, and disseminated through those services, as appropriate.

''(B) REPORT.—Not later than 2 years after the date of enactment of this paragraph, and every 2 years thereafter, the Administrator of the Cooperative State Research, Education, and Extension Service and the Chief of the Natural Resources Conservation Service shall submit to the committees of Congress with jurisdiction over the Initiative a report describing the activities conducted by the services under this subsection.''.

SEC. 106. REPORTS.

Section 309 of the Biomass Research and Development Act of 2000 (Public Law 106–224; 7 U.S.C. 8101 note) is amended—

(1) in subsection (a)—

(A) in paragraph (2), by striking ''industrial product'' and inserting ''fuels and biobased products''; and

(B) in paragraph (3), by striking ''industrial products'' each place it appears and inserting ''fuels and biobased products'';

(2) by redesignating subsection (b) as subsection (c);

(3) by inserting after subsection (a) the following:

''(b) ASSESSMENT REPORT AND STRATEGIC PLAN.—Not later than 1 year after the date of enactment of the National Security and Bioenergy Investment Act of 2005, the Secretary and the Secretary of Energy shall jointly submit to Congress a report that—

''(1) describes the status and progress of current research and development efforts in both the Federal Government and private sector in achieving the objectives, purposes, and considerations of this title, specifically addressing each of the technical areas identified in section 307(e);

''(2) describes the actions taken to implement the improvements directed by this title; and

''(3) outlines a strategic plan for achieving the objectives, purposes, and considerations of this title.''; and

(4) in subsection (c) (as redesignated by paragraph (2))—

(A) in paragraph (1)—

(i) in subparagraph (A), by striking ''purposes described in section 307(b)'' and inserting ''objectives, purposes, and additional considerations described in subsections (c) through (f) of section 307'';

(ii) in subparagraph (B), by striking ''and'' at the end;

(iii) by redesignating subparagraph (C) as subparagraph (D); and

(iv) by inserting after subparagraph (B) the following:

''(C) achieves the distribution of funds described in paragraphs (2) and (3) of section 307(h); and''; and

(B) in paragraph (2), by striking ''industrial products'' and inserting ''fuels and biobased products''.

SEC. 107. FUNDING.

(a) FUNDING.—Section 310(a)(2) of the Biomass Research and Development Act of 2000 (Public Law 106–224; 7 U.S.C. 8101 note) is amended by striking ''$14,000,000 for each of fiscal years 2003 through 2007'' and inserting ''$200,000,000 for each of fiscal years 2006 through 2010''.

(b) AUTHORIZATION OF APPROPRIATIONS.—Section 310(b) of the Biomass Research and Development Act of 2000 (Public Law 106–224; 7 U.S.C. 8101 note) is amended by striking ''title $54,000,000 for each of fiscal years 2002 through 2007'' and inserting''title $200,000,000 for fiscal year 2011 and each fiscal year thereafter''.

SEC. 108. TERMINATION OF AUTHORITY.

The Biomass Research and Development Act of 2000 (Public Law 106–224; 7 U.S.C. 8101 note) is amended by striking section 311.

SEC. 109. BIOMASS-DERIVED HYDROGEN.

(a) IN GENERAL.—The Secretary shall conduct a research, development, and demonstration program focused on the economic production and use of hydrogen from biofuels, with emphasis on the rural transportation and rural electrical generation sectors.

(b) TRANSPORTATION SECTOR OBJECTIVES.—The objectives of the program in the transportation sector shall be to—

(1) conduct research, and to develop and test processes and equipment, to produce low-cost liquid biobased fuels that can be transported to distant fueling stations for the production of hydrogen or for direct use in conventional internal combustion engine vehicles;

(2) demonstrate the cost-effective production of hydrogen from liquid biobased fuels at the local fueling station, to eliminate the costs of transporting hydrogen long distances or building hydrogen pipeline networks;

(3) demonstrate the use of hydrogen derived from liquid biobased fuels in fuel cell vehicles, or, as an interim cost-reduction option, in internal combustion engine hybrid electric vehicles, to demonstrate sustainable transportation with significantly reduced local air pollution, greenhouse gas emissions, and dependence on imported fossil fuels;

(4) evaluate the economic return to agricultural producers producing feedstocks for liquid biobased fuels compared to agricultural producer returns as of the date of enactment of this Act;

(5) evaluate the crop yield and long-term soil sustainability of growing and harvesting feedstocks for liquid biobased fuels; and

(6) evaluate the fuel costs to fuel cell car owners (or hybrid electric car owners running on hydrogen) per mile driven compared to burning gasoline in conventional vehicles.

(c) ELECTRICAL GENERATION SECTOR OBJECTIVES.—The objectives of the program in the rural electrical generation sector shall be to—

(1) design, develop, and test low-cost gasification equipment to convert biomass to hydrogen at regional rural cooperatives, or at businesses owned by farmers, close to agricultural operations to minimize the cost of biomass transportation to large central gasification plants;

(2) demonstrate low-cost electrical generation at such rural cooperatives or farmer-owned businesses, using renewable hydrogen derived from biomass in either fuel cell generators, or, as an interim cost reduction option, in conventional internal combustion engine gensets;

(3) determine the economic return to cooperatives or other businesses owned by farmers of producing hydrogen from biomass and selling electricity

compared to agricultural economic returns from producing and selling conventional crops alone;

(4) evaluate the crop yield and long-term soil sustainability of growing and harvesting of feedstocks for biomass gasification, and

(5) demonstrate the use of a portion of the biomass-derived hydrogen in various agricultural vehicles to reduce—

(A) dependence on imported fossil fuel; and

(B) environmental impacts.

(d) AUTHORIZATION FOR APPROPRIATIONS.—There is authorized to be appropriated to carry out this section $5,000,000 for each of fiscal years 2006 through 2010.

TITLE II—PRODUCTION INCENTIVES

SEC. 201. PRODUCTION INCENTIVES.

(a) PURPOSE.—The purpose of this section is to—

(1) accelerate deployment and commercialization of biofuels;

(2) deliver the first 1,000,000,000 gallons of cellulosic biofuels by 2015;

(3) ensure biofuels produced after 2015 are cost competitive with gasoline and diesel; and

(4) ensure that small feedstock producers and rural small businesses are full participants in the development of the cellulosic biofuels industry.

(b) DEFINITIONS.—In this section:

(1) CELLULOSIC BIOFUELS.—The term ''cellulosic biofuels'' means any fuel that is produced from cellulosic feedstocks.

(2) ELIGIBLE ENTITY.—The term ''eligible entity'' means a producer of fuel from cellulosic biofuels the production facility of which—

(A) is located in the United States;

(B) meets all applicable Federal and State permitting requirements;

(C) is to begin production of cellulosic biofuels not later than 3 years after the date of the reverse auction in which the producer participates; and

(D) meets any financial criteria established by the Secretary.

(c) PROGRAM.—

(1) ESTABLISHMENT.—The Secretary, in consultation with the Secretary of Energy, the Secretary of Defense, and the Administrator of the Environmental Protection Agency, shall establish an in-

centive program for the production of cellulosic biofuels.

(2) BASIS OF INCENTIVES.—Under the program, the Secretary shall award production incentives on a per gallon basis of cellulosic biofuels from eligible entities, through—

(A) set payments per gallon of cellulosic biofuels produced in an amount determined by the Secretary, until initiation of the first reverse auction; and

(B) reverse auction thereafter.

(3) FIRST REVERSE AUCTION.—The first reverse auction shall be held on the earlier of—

(A) not later than 1 year after the first year of annual production in the United States of 100,000,000 gallons of cellulosic biofuels, as determined by the Secretary; or

(B) not later than 3 years after the date of enactment of this Act.

(4) REVERSE AUCTION PROCEDURE.—

(A) IN GENERAL.—On initiation of the first reverse auction, and each year thereafter until the earlier of the first year of annual production in the United States of 1,000,000,000 gallons of cellulosic biofuels, as determined by

the Secretary, or 10 years after the date of enactment of this Act, the Secretary shall conduct a reverse auction at which—

(i) the Secretary shall solicit bids from eligible entities;

(ii) eligible entities shall submit—

(I) a desired level of production incentive on a per gallon basis; and

(II) an estimated annual production amount in gallons; and

(iii) the Secretary shall issue awards for the production amount submitted, beginning with the eligible entity submitting the bid for the lowest level of production incentive on a per gallon basis, until the amount of funds available for the reverse auction is committed.

(B) AMOUNT OF INCENTIVE RECEIVED.—An eligible entity selected by the Secretary through a reverse auction shall receive the amount of performance incentive requested in the auction for each gallon produced and sold by the entity during the first 6 years of operation.

(d) LIMITATIONS.—Awards under this section shall be limited to—

(1) a per gallon amount determined by the Secretary during the first 4 years of the program;

(2) a declining per gallon cap over the remaining lifetime of the program, to be established by the Secretary so that cellulosic biofuels produced after the first year of annual cellulosic biofuels production in the United States in excess of 1,000,000,000 gallons are cost competitive with gasoline and diesel;

(3) not more than 25 percent of the funds committed within each reverse auction to any 1 project;

(4) not more than $100,000,000 in any 1 year; and

(5) not more than $1,000,000,000 over the lifetime of the program.

(e) PRIORITY.—In selecting a project under the program, the Secretary shall give priority to projects that—

(1) demonstrate outstanding potential for local and regional economic development;

(2) include agricultural producers or cooperatives of agricultural producers as equity partners in the ventures; and

(3) have a strategic agreement in place to fairly reward feedstock suppliers.

(f) FUNDING.—

(1) IN GENERAL.—The Secretary shall use to carry out this title $250,000,000 of funds of the Commodity Credit Corporation, to remain available until expended.

(2) AUTHORIZATIONS OF APPROPRIATIONS.—In addition to amounts made available under paragraph (1), there are authorized to be appropriated such sums as are necessary to carry out this section.

TITLE III—ASSISTANT SECRETARY OF AGRICULTURE FOR ENERGY AND BIOBASED PRODUCTS

SEC. 301. ASSISTANT SECRETARY OF AGRICULTURE FOR ENERGY AND BIOBASED PRODUCTS.

(a) ESTABLISHMENT.—Not later than 1 year after the date of enactment of this Act, the Secretary shall establish in the Department a position of Assistant Secretary of Agriculture for Energy and Biobased Products (referred to in this section as the ''Assistant Secretary'').

(b) RESPONSIBILITIES.—The Assistant Secretary shall be responsible for—

(1) the energy programs established under title IX of the Farm Security and Rural Investment Act of 2002 (7 U.S.C. 8101 et seq.); and

(2) all other programs and initiatives that the Secretary considers appropriate.

(c) CONFIRMATION REQUIREMENT.—The Assistant Secretary shall be appointed by the President, by and with the advice and consent of the Senate.

(d) PERSONNEL.—The Secretary, acting through the Assistant Secretary, may transfer or assign work to personnel, or assign staff hours, on a permanent or a part-time basis, as needed, to the Office of the Assistant Secretary to carry out the functions and duties of the office.

(e) BUDGET.—The Secretary shall establish a budget for the office of the Assistant Secretary.

TITLE IV—PROCUREMENT OF BIOBASED PRODUCTS

SEC. 401. FEDERAL PROCUREMENT.

(a) DEFINITION OF PROCURING AGENCY.—Section 9001 of the Farm Security and Rural Investment Act of 2002 (7 U.S.C. 8101) is amended—

(1) by redesignating paragraphs (4), (5), and (6) as paragraphs (5), (6), and (7), respectively; and

(2) by inserting after paragraph (3) the following:

''(4) PROCURING AGENCY.—The term 'procuring agency' means—

''(A) any Federal agency that is using Federal funds for procurement; or

''(B) any person contracting with any Federal agency with respect to work performed under the contract.''.

(b) PROCUREMENT.—Section 9002 of the Farm Security and Rural Investment Act of 2002 (7 U.S.C. 8102) is amended—

(1) by striking ''Federal agency'' each place it appears (other than in subsections (f) and (g)) and inserting ''procuring agency'';

(2) in subsection (c)(2)—

(A) by striking ''(2)'' and all that follows through ''Notwithstanding'' and inserting the following:

''(2) FLEXIBILITY.—Notwithstanding'';

(B) by striking ''an agency'' and inserting ''a procuring agency''; and

(C) by striking ''the agency'' and inserting ''the procuring agency'';

(3) in subsection (d), by striking ''procured by Federal agencies'' and inserting ''procured by procuring agencies''; and

(4) in subsection (f), by striking ''Federal agencies'' and inserting ''procuring agencies'' .

SEC. 402. CAPITOL COMPLEX PROCUREMENT.

Section 9002 of the Farm Security and Rural Investment Act of 2002 (7 U.S.C. 8102) (as amended by section 401(b)) is amended—

(1) by redesignating subsection (j) as subsection (k); and

(2) by inserting after subsection (i) the following:

''(j) INCLUSION.—Not later than 90 days after the date of enactment of the National Security and Bioenergy Investment Act of 2005, the Architect of the Capitol, the Sergeant of Arms of the Senate, and the Chief Administrative Officer of the House of Representatives shall issue regulations that apply the requirements of this section to procurement for the Capitol Complex.''.

SEC. 403. EDUCATION .

(a) IN GENERAL.—The Architect of the Capitol shall establish in the Capitol Complex a program of public education regarding use by the Architect of the Capitol of biobased products.

(b) PURPOSES.—The purposes of the program shall be—

(1) to establish the Capitol Complex as a showcase for the existence and benefits of biobased products; and

(2) to provide access to further information on biobased products to occupants and visitors.

SEC. 404. REGULATIONS.

Requirements issued under the amendment made by section 402 shall be made in accordance with regulations issued by the Committee on Rules and Administration of the Senate and the Committee on House Administration of the House of Representatives.

TITLE V—BIOECONOMY GRANTS AND TAX INCENTIVES

SEC. 501. SMALL BUSINESS BIOPRODUCT MARKETING AND CERTIFICATION GRANTS.

(a) IN GENERAL.—Using amounts made available under subsection (g), the Secretary shall make available on a competitive basis grants to eligible entities described in subsection (b) for the biobased product marketing and certification purposes described in subsection (c).

(b) ELIGIBLE ENTITIES.—An entity eligible for a grant under this section is any manufacturer of biobased products that—

(1) has fewer than 50 employees;

(2) proposes to use the grant for the biobased product marketing and certification purposes described in subsection (c); and

(3) has not previously received a grant under this section.

(c) BIOBASED PRODUCT MARKETING AND CERTIFICATION GRANT PURPOSES.—A grant made under this section shall be used—

(1) to plan activities and working capital for marketing of biobased products; and

(2) to provide private sector cost sharing for the certification of biobased products.

(d) MATCHING FUNDS.—

(1) IN GENERAL.—Grant recipients shall provide matching non-Federal funds equal to the amount of the grant received.

(2) EXPENDITURE.—Matching funds shall be expended in advance of grant funding, so that for every dollar of grant that is advanced, an equal amount of matching funds shall have been funded prior to submitting the request for reimbursement.

(e) AMOUNT.—A grant made under this section shall not exceed $100,000.

(f) ADMINISTRATION.—The Secretary shall establish such administrative requirements for grants under this section, including requirements for applications for the grants, as the Secretary considers appropriate.

(g) AUTHORIZATIONS OF APPROPRIATIONS.—There are authorized to be appropriated to make grants under this section—

(1) $1,000,000 for fiscal year 2006; and

(2) such sums as are necessary for fiscal year 2007 and each subsequent fiscal year.

SEC. 502. REGIONAL BIOECONOMY DEVELOPMENT GRANTS.

(a) IN GENERAL.—Using amounts made available under subsection (g), the Secretary shall make available on a competitive basis grants to eligible entities described in subsection (b) for the purposes described in subsection (c).

(b) ELIGIBLE ENTITIES.—An entity eligible for a grant under this section is any regional bioeconomy development association, agricultural or energy trade association, or Land Grant institution that—

(1) proposes to use the grant for the purposes described in subsection (c); and

(2) has not previously received a grant under this section.

(c) REGIONAL BIOECONOMY DEVELOPMENT ASSOCIATION GRANT PURPOSES.—A grant made under this section shall be used to support and promote the growth and development of the bioeconomy within the region served by the eligible entity, through coordination, edu-

cation, outreach, and other endeavors by the eligible entity.

(d) MATCHING FUNDS.—

(1) IN GENERAL.—Grant recipients shall provide matching non-Federal funds equal to the amount of the grant received.

(2) EXPENDITURE.—Matching funds shall be expended in advance of grant funding, so that for every dollar of grant that is advanced, an equal amount of matching funds shall have been funded prior to submitting the request for reimbursement.

(e) ADMINISTRATION.—The Secretary shall establish such administrative requirements for grants under this section, including requirements for applications for the grants, as the Secretary considers appropriate.

(f) AMOUNT.—A grant made under this section shall not exceed $500,000.

(g) AUTHORIZATIONS OF APPROPRIATIONS.—There are authorized to be appropriated to make grants under this section—

(1) $1,000,000 for fiscal year 2006; and

(2) such sums as are necessary for fiscal year 2007 and each subsequent fiscal year.

SEC. 503. PREPROCESSING AND HARVESTING DEMONSTRATION GRANTS.

(a) IN GENERAL.—The Secretary shall make grants available on a competitive basis to enterprises owned by agricultural producers, for the purposes of demonstrating cost-effective, cellulosic biomass innovations in—

(1) preprocessing of feedstocks, including cleaning, separating and sorting, mixing or blending, and chemical or biochemical treatments, to add value and lower the cost of feedstock processing at a biorefinery; or

(2) 1-pass or other efficient, multiple crop harvesting techniques.

(b) LIMITATIONS ON GRANTS.—

(1) NUMBER OF GRANTS.—Not more than 5 demonstration projects per fiscal year shall be funded under this section.

(2) NON-FEDERAL COST SHARE.—The non-Federal cost share of a project under this section shall be not less than 20 percent, as determined by the Secretary.

(c) CONDITION OF GRANT.—To be eligible for a grant for a project under this section, a recipient of a grant or a participating entity shall agree to use the material harvested under the project—

(1) to produce ethanol; or

(2) for another energy purpose, such as the generation of heat or electricity.

(d) AUTHORIZATION FOR APPROPRIATIONS.—There is authorized to be appropriated to carry out this section $5,000,000 for each of fiscal years 2006 through 2010.

SEC. 504. SENSE OF THE SENATE.

It is the sense of the Senate that Congress should amend the Federal tax code to encourage investment in, and production and use of, biobased fuels and biobased products through—

(1) an investment tax credit for the construction or modification of facilities for the production of fuels from cellulose biomass, to drive private capital towards new biorefinery projects in a manner that allows participation by smaller farms and cooperatives; and

(2) an investment tax credit to small manufacturers of biobased products to lower the capital costs of starting and maintaining a biobased business.

TITLE VI—OTHER PROVISIONS

SEC. 601. EDUCATION AND OUTREACH.

(a) IN GENERAL.—The Secretary shall establish, within the Department or through an independent contracting entity, a program of education and outreach on biobased fuels and biobased products consisting of—

(1) training and technical assistance programs for feedstock producers to promote producer ownership, investment, and participation in the operation of processing facilities; and

(2) public education and outreach to familiarize consumers with the biobased fuels and biobased products.

(b) AUTHORIZATION OF APPROPRIATIONS.—There is authorized to be appropriated to carry out this title $1,000,000 for each of fiscal years 2006 through 2010.

SEC. 602. REPORTS.

(a) PROGRESS REPORT.—Not later than 1 year after the date of enactment of this Act, the Secretary shall submit to the Committee on Agriculture of the House of Representatives and the Committee on Agriculture, Nutrition, and Forestry of the Senate a report on progress in establishing the Office of the Assistant Secretary of Agriculture for Energy and Biobased Products under title I.

(b) BIOBASED PRODUCT POTENTIAL.—Not later than 1 year after the date of enactment of this Act, the Secretary shall submit to the Committee on Agriculture of the House of Representatives and the Committee on Agriculture, Nutrition, and Forestry of the Senate a report that—

(1) describes the economic potential for the United States of the widespread production and use of commercial and industrial biobased products through calendar year 2025; and

(2) as the maximum extent practicable, identifies the economic potential by product area.

(c) ANALYSIS OF ECONOMIC INDICATORS.—Not later than 2 years after the date of enactment of this Act, and every 2 years thereafter, the Secretary shall submit to Congress an analysis of economic indicators of the biobased economy during the 2-year period preceding the analysis.

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