

110TH CONGRESS
1ST SESSION

H. R. 80

To provide for Federal research, development, demonstration, and commercial application activities to enable the development of farms that are net producers of both food and energy, and for other purposes.

IN THE HOUSE OF REPRESENTATIVES

JANUARY 4, 2007

Mr. BARTLETT of Maryland introduced the following bill; which was referred to the Committee on Science and Technology, and in addition to the Committee on Agriculture, for a period to be subsequently determined by the Speaker, in each case for consideration of such provisions as fall within the jurisdiction of the committee concerned

A BILL

To provide for Federal research, development, demonstration, and commercial application activities to enable the development of farms that are net producers of both food and energy, and for other purposes.

1 *Be it enacted by the Senate and House of Representa-*
2 *tives of the United States of America in Congress assembled,*

3 **SECTION 1. FINDINGS.**

4 The Congress finds that—

5 (1) the productivity of the “green revolution”
6 has been fueled by abundant, low cost fossil fuels
7 providing raw material and energy for fertilizer, her-

1 bicides, and pesticides, and for powering mechaniza-
2 tion, thereby multiplying farm worker output;

3 (2) farm worker productivity is based on the
4 input of large quantities of fossil fuel based energy
5 and chemicals, with typically an input of as much as
6 10 fossil calories used to produce a calorie of food
7 output;

8 (3) food production in this manner cannot be
9 sustained if fossil fuels are depleted and become in-
10 creasingly costly and scarce, and biofuels are not a
11 viable alternative if their production consumes more
12 energy than they contain;

13 (4) reduction of energy consumption through
14 maximum efficiency is a prerequisite to sustainable
15 reliance on renewable resources at an affordable
16 scale; and

17 (5) for over a century, agriculture extension has
18 shown that demonstration of viable techniques and
19 technologies is a powerful force for their adoption
20 and promotion.

21 **SEC. 2. DEFINITIONS.**

22 In this Act:

23 (1) **ELIGIBLE ENTITY.**—The term “eligible enti-
24 ty” means—

1 (A) a regional, State, local, or tribal agen-
2 cy;

3 (B) a nonprofit organization or institution
4 that farms or provides farm or educational
5 services to persons or organizations that own or
6 operate farms;

7 (C) a farm or farmer or for-profit corpora-
8 tion that farms, or group of such farms, farm-
9 ers, or corporations, at least 50 percent of the
10 gross revenue of which is derived from the sale
11 of food or fiber grown on the farm, if the acre-
12 age under their control, individually and collec-
13 tively, whether through ownership or leasehold
14 interests, is less than 160 acres; and

15 (D) institutions of higher education, as de-
16 fined in section 101(a) of the Higher Education
17 Act of 1965 (20 U.S.C. 1001(a)).

18 (2) RENEWABLE ENERGY.—The term “renew-
19 able energy” means energy obtained from a resource
20 in a manner capable of being indefinitely sustained
21 or replenished.

22 (3) SECRETARY.—The term “Secretary” means
23 the Secretary of Energy.

1 (4) SELF-POWERED FARM.—The term “self-
2 powered farm” means a farm or collection of farms
3 that—

4 (A) is capable of independence from offsite
5 sources of energy, fuel, and raw materials for
6 fuel;

7 (B) is a community resource for—

8 (i) food; and

9 (ii) energy, fuel, or raw materials for
10 fuel;

11 (C) minimizes or eliminates ongoing oper-
12 ating expenditures to offsite entities for fossil
13 fuel-derived energy;

14 (D) employs sustainable farming practices
15 for long term soil fertility; and

16 (E) produces at least 2 times as much en-
17 ergy, including fuel or raw materials for fuel, as
18 it consumes both on site and in the transfer of
19 farm products to market.

20 **SEC. 3. NATIONAL ACADEMY OF SCIENCES RECOMMENDA-**
21 **TIONS.**

22 (a) IN GENERAL.—The Secretary shall enter into an
23 arrangement with the National Academy of Sciences for—

1 (1) the development of recommendations for ap-
2 appropriate evaluation measures and criteria for the
3 programs under this Act; and

4 (2) an evaluation of the feasibility of prize and
5 best practices award programs as tools to promote
6 self-powered farms, and recommendations for how to
7 carry out such programs, if feasible.

8 (b) REPORT.—Not later than 12 months after the
9 date of enactment of this Act, the Secretary shall transmit
10 to the Congress a report containing the recommendations
11 and evaluation described in subsection (a).

12 **SEC. 4. RESEARCH AND TECHNOLOGY DEVELOPMENT PRO-**
13 **GRAM.**

14 The Secretary shall establish a program, taking into
15 account the recommendations of the National Academy of
16 Sciences under section 3, for the research, development,
17 demonstration, and commercial application of energy tech-
18 nologies or other technologies that have the potential to
19 increase energy efficiency or otherwise to enable self-pow-
20 ered farms. The Secretary shall award grants under this
21 section to eligible entities, or consortia thereof, on a com-
22 petitive basis. The Secretary shall encourage participation
23 in the program under this section through the Agricultural
24 Cooperative Extension System.

1 **SEC. 5. STATE AGRICULTURAL DEMONSTRATION PROGRAM**

2 **AWARDS.**

3 The Secretary shall establish a program, taking into
4 account the recommendations of the National Academy of
5 Sciences under section 3, for making awards to not more
6 than 30 State agricultural research programs for the dem-
7 onstration in a farm setting of the integration of tech-
8 nologies developed under section 4, or other technologies,
9 in a manner that best achieves the goal of self-powered
10 farms.

11 **SEC. 6. LOAN PROGRAMS.**

12 (a) IN GENERAL.—The Secretary shall provide, on
13 a competitive basis, low-cost revolving loans and loan
14 guarantees to eligible entities for the commercial applica-
15 tion of energy technologies or other technologies that will
16 contribute to the goal of establishing self-powered farms.

17 (b) PREFERENCES.—In providing loans or loan guar-
18 antees under this section, the Secretary shall give pref-
19 erence to applicants who propose to derive the highest pro-
20 portion of their energy needs from technologies that use
21 biobased feedstocks or other renewable energy sources.
22 The Secretary shall give highest preference to applicants
23 who propose to meet their energy needs from biobased
24 feedstocks or other renewable energy sources produced on
25 that farm.

1 (c) OVERSIGHT.—The Secretary shall establish pro-
2 cedures to enable the Secretary to oversee the operation
3 of projects supported by loans or loan guarantees under
4 this section, to ensure that such projects are operated con-
5 sistent with the goals and requirements of this Act.

6 (d) LOAN AMOUNT.—The amount of a loan under
7 this section shall not exceed 80 percent of the cost of the
8 project for which the loan is provided.

9 (e) GUARANTEE AMOUNT.—The Secretary shall not
10 guarantee under this section more than 80 percent of the
11 principal of any loan.

12 **SEC. 7. CONSULTATION.**

13 In carrying out this Act, the Secretary shall consult
14 with the Secretary of Agriculture.

15 **SEC. 8. NATIONAL ACADEMY OF SCIENCES REVIEW.**

16 The Secretary shall enter into an arrangement with
17 the National Academy of Sciences for a review of the pro-
18 grams under this Act and the development of rec-
19 ommendations for improvements to such programs. Not
20 later than 4 years after the date of enactment of this Act,
21 the Secretary shall transmit to the Congress a report con-
22 taining such review and recommendations.

23 **SEC. 9. AUTHORIZATION OF APPROPRIATIONS.**

24 There are authorized to be appropriated to the Sec-
25 retary—

1 (1) to carry out section 4, \$25,000,000 for each
2 of the fiscal years 2008 through 2012;

3 (2) to carry out section 5, \$25,000,000 for each
4 of the fiscal years 2008 through 2012; and

5 (3) to carry out section 6, \$25,000,000 for each
6 of the fiscal years 2008 through 2012.

7 **SEC. 10. COST SHARING.**

8 In carrying out a research, development, demonstra-
9 tion, or commercial application program or activity under
10 this Act through an award of a grant, contract, coopera-
11 tive agreement, or other instrument other than a loan or
12 loan guarantee, the Secretary shall require cost sharing
13 in accordance with section 988 of the Energy Policy Act
14 of 2005 (42 U.S.C. 16352).

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