

112TH CONGRESS  
1ST SESSION

# H. R. 90

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 5, 2011

Mr. BARTLETT introduced the following bill; which was referred to the Committee on Science, Space, 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           propriate 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 2012 through 2016;

3           (2) to carry out section 5, \$25,000,000 for each  
4 of the fiscal years 2012 through 2016; and

5           (3) to carry out section 6, \$25,000,000 for each  
6 of the fiscal years 2012 through 2016.

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).

○