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119TH CONGRESS
2D SESSION

H. R. 10605

To require the Secretary of Agriculture to carry out a study and research and demonstration on agrivoltaic systems and to issue guidance on best practices for protection of soil health and productivity during the siting, construction, operation, and decommissioning of solar energy systems on agricultural land.

IN THE HOUSE OF REPRESENTATIVES

SEPTEMBER 24, 2026

Mr. SORENSEN introduced the following bill; which was referred to the Committee on Agriculture

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A BILL

To require the Secretary of Agriculture to carry out a study and research and demonstration on agrivoltaic systems and to issue guidance on best practices for protection of soil health and productivity during the siting, construction, operation, and decommissioning of solar energy systems on agricultural land.

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

SECTION 1. SHORT TITLE.

This Act may be cited as the ''Securing and Understanding Our National Renewable Agriculture Yields for Energy Act'' or the ''SUNRAY for Energy Act''.

SEC. 2. AGRIVOLTAIC SYSTEMS.

(a) DEFINITION OF AGRIVOLTAIC SYSTEM.—

(1) IN GENERAL.—The Secretary of Agriculture (referred to in this section as the ''Secretary'') shall incorporate the definition of the term ''agrivoltaic system'' under paragraph (2) into all applicable programs of the Department of Agriculture relating to agrivoltaic systems.

(2) DEFINITION OF AGRIVOLTAIC SYSTEM.—

(A) IN GENERAL.—The term ''agrivoltaic system''—

(i) means a system under which solar energy production and agricultural production, including crop or animal production, occurs in an integrated manner on the same piece of land through the duration of a solar project; and

(ii) includes any subsequent definition developed under subparagraph (B).

(B) SUBSEQUENT DEFINITION.—

(i) IN GENERAL.—The Secretary, in consultation with the Secretary of Energy and farm and conservation groups, shall develop a definition of the term ''agrivoltaic system'' for purposes of the incorporation of agrivoltaic systems into—

(I) Federal agricultural conservation programs;

(II) Federal agricultural risk management programs, including Federal crop insurance;

(III) Federal renewable energy programs;

(IV) Federal agricultural procurement programs;

(V) Federal investment tax credits;

(VI) such other programs as the Secretary determines to be appropriate; and

(VII) the regulations of the Secretary relating to the programs described in subclauses (I) through (VI).

(ii) CONSIDERATIONS.—In developing the definition of ''agrivoltaic system'' under clause (i), the Secretary shall consider—

(I) using or modifying the definition under subparagraph (A)(i);

(II) regional needs and variations in climate, soils, costs, existing infra-

structure, and market access for agrivoltaic system products;

(III) existing State and local agrivoltaic system policies and definitions; and

(IV) such other factors as the Secretary determines to be appropriate.

(b) STUDY.—

(1) IN GENERAL.—The Secretary, in coordination with the Secretary of Energy and relevant experts, shall conduct a study on agrivoltaic systems that shall include—

(A) a review of the current research and gaps in research relating to the regional compatibility of different species of livestock with different agrivoltaic panel and agrivoltaic system designs, including—

(i) the optimal height of and distance between solar panels for—

(I) livestock grazing; and

(II) shade for livestock;

(ii) manure management considerations;

(iii) fencing requirements;

(iv) other animal handling considerations; and

(v) the incorporation of apiculture;

(B) an assessment of animal breeding research needs with respect to beneficial and compatible characteristics and behaviors of different species of grazing animals in agrivoltaic systems;

(C) a review of the current research and gaps in research relating to the regional compatibility of different crop types with different agrivoltaic system designs, including—

(i) the optimal height of and distance between solar panels for—

(I) plant shading; and

(II) farm equipment use;

(ii) the impact on crop yield;

(iii) the impact on soil moisture and water availability; and

(iv) market opportunities to sell crops at a premium price;

(D) an assessment of plant breeding research needs with respect to beneficial and compatible characteristics of different crops, includ-

ing specialty and perennial crops, in agrivoltaic systems;

(E) a risk-benefit analysis of agrivoltaic systems in different regions of the United States, including a comparison between the total greenhouse gas impact of agrivoltaic systems and solar energy systems that displace agricultural production;

(F) an assessment of the economic scalability of agrivoltaic systems across different agricultural land types, production systems, and regional markets;

(G) an assessment of the types of agricultural land best suited and worst suited for agrivoltaic systems;

(H) an assessment of how to best develop agrivoltaic systems on a national and local scale consistent with—

(i) maintaining or increasing agricultural production;

(ii) increasing agricultural resilience;

(iii) retaining prime farmland;

(iv) increasing economic opportunities in farming and rural communities;

(v) reducing nonfarmer ownership of farmland; and

(vi) enhancing biodiversity;

(I) an assessment of the unique risk management and crop insurance needs of agrivoltaic systems;

(J) an assessment of how Federal procurement of agricultural products could help build a market for agricultural products from farms with agrivoltaic systems; and

(K) an assessment of appropriate modifications to better incorporate agrivoltaic systems into existing Federal—

(i) agricultural conservation programs;

(ii) agricultural risk management programs, including Federal crop insurance;

(iii) renewable energy programs;

(iv) agricultural procurement programs; and

(v) investment tax credits.

(2) 5-YEAR PLAN.—Based on the study under paragraph (1), the Secretary shall develop a 5-year plan for using the research, extension, outreach, conservation, and renewable energy activities of the De-

partment of Agriculture to better support agrivoltaic systems that do not displace agricultural production.

(3) REPORT.—Not later than 3 years 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 containing the results of the study conducted under paragraph (1).

(c) AGRIVOLTAIC SYSTEM RESEARCH AND DEMONSTRATION.—

(1) IN GENERAL.—The Secretary, acting through the Administrator of the Agricultural Research Service and in coordination with the Director of the National Institute of Food and Agriculture and the relevant research programs of the Department of Energy, shall establish and maintain a network of research and demonstration sites operated by the Agricultural Research Service to investigate and demonstrate agrivoltaic systems in multiple regions of the United States, including arid, semi-arid, and wet agricultural zones, that—

(A) increase agricultural productivity and profitability;

(B) enhance agricultural resilience and the capacity to mitigate and adapt to climate change;

(C) protect biodiversity; and

(D) increase economic opportunities in farming and rural communities.

(2) COLLABORATION.—In establishing and maintaining the network described in paragraph (1), the Secretary shall collaborate with climate hubs of the Department of Agriculture and extension programs to share research findings and translate research findings into educational, outreach, and technical assistance materials for agricultural producers, including through cooperative agreements.

(d) AUTHORIZATION OF APPROPRIATIONS.—There is authorized to be appropriated to carry out this section $15,000,000 for each of fiscal years 2027 through 2031.

SEC. 3. BEST PRACTICES GUIDANCE FOR SOLAR ENERGY LAND MANAGEMENT.

(a) IN GENERAL.—Not later than 1 year after the date of enactment of this Act, the Secretary of Agriculture, acting through the Chief of the Natural Resources Conservation Service (referred to in this section as the ''Secretary''), in collaboration with the Secretary of Energy (including the Solar Energy Technologies Office) and

the national office of the rural development mission area of the Department of Agriculture, shall—

(1) develop both national and regionally relevant guidance on best practices for protection of soil health and productivity during the siting, construction, operation, and decommissioning of solar energy systems on agricultural land, which shall include—

(A) guidance for—

(i) soil carbon and soil health;

(ii) water management;

(iii) vegetation management, including types of plants best suited for pollinators; and

(iv) other practices, as determined appropriate by the Secretary of Agriculture; and

(B) regional considerations for each type of guidance described in clauses (i) through (iv) of subparagraph (A); and

(2) make the guidance developed under paragraph (1) publicly available on the website of the Natural Resources Conservation Service.

(b) REVIEW REQUIRED.—The Secretary, acting through the Chief of the Natural Resources Conservation

Service, in coordination with the Secretary of Energy, shall—

(1) update guidance developed under subsection (a)(1) not less frequently than once every 2 years; and

(2) ensure, to the maximum extent practicable, the completeness and relevance of that guidance.

(c) CONSULTATION.—In conducting the review under subsection (b), the Secretary shall consult with eligible participants, State technical committees established under section 1261(a) of the Food Security Act of 1985 (16 U.S.C. 3861(a)), crop consultants, cooperative extension and land grant universities, nongovernmental organizations, industry, and other qualified entities.

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