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(Original Signature of Member)

119TH CONGRESS
2D SESSION

H. R.

To provide for the establishment of technology maturation facilities for the bioindustrial sector, and for other purposes.

IN THE HOUSE OF REPRESENTATIVES

Mr. BAIRD introduced the following bill; which was referred to the Committee on _____

A BILL

To provide for the establishment of technology maturation facilities for the bioindustrial sector, 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. SHORT TITLE.**

4 This Act may be cited as the “Bioindustrial Infra-
5 structure for Open Scale-up, Commercialization, and Ac-
6 celerated Launch Ecosystems Act” or the “BIO-SCALE
7 Act”.

8 **SEC. 2. TECHNOLOGY MATURATION FACILITY PROGRAM.**

9 (a) **DEFINITIONS.**—In this section:

1 (1) BIOINDUSTRIAL SECTOR.—The term “bio-
2 industrial sector” means industries involved in pro-
3 ducing bio-based chemicals, fuels, materials, and
4 other products through biological and biochemical
5 processes.

6 (2) ELIGIBLE ENTITY.—The term “eligible enti-
7 ty” means public and private foundations and non-
8 profit organizations, including institutions of higher
9 education, that—

10 (A) are incorporated in the United States;

11 and

12 (B) operate primarily in the United States.

13 (3) FACILITY.—The term “facility” means a fa-
14 cility established under subsection (c).

15 (4) FEEDSTOCK.—The term “feedstock” means
16 raw material used as input for industrial processes
17 to produce biofuels, chemicals, or materials, such as
18 agricultural byproducts, microbial or algal biomass,
19 synthetic biological products or components, and
20 waste oils.

21 (5) OPEN ACCESS.—The term “open access”
22 means the use of infrastructure, data, or research
23 resources that are—

24 (A) available without licensing or intellec-
25 tual property barriers; and

1 (B) accessible to public and private entities
2 on an equitable basis.

3 (6) PRODUCT-AGNOSTIC.—The term “product-
4 agnostic”, with respect to a facility, technology, or
5 process means that the facility, technology, or proce-
6 ss can accommodate a variety of end products with-
7 out being limited to a specific output.

8 (7) SECRETARY.—The term “Secretary” means
9 the Secretary of Commerce, acting through the As-
10 sistant Secretary for Economic Development.

11 (8) TECHNOLOGY MATURATION.—The term
12 “technology maturation” means the development,
13 testing, and scaling of technologies to a level of
14 readiness suitable for commercialization or integra-
15 tion into industrial processes, including activities
16 such as prototyping, pilot-scale testing and dem-
17 onstration, and early-stage manufacturing and mar-
18 ket entry.

19 (b) PURPOSE.—The purpose of this section is to es-
20 tablish technology maturation facilities to provide world-
21 class capabilities, positioning the United States as a leader
22 in bioindustrial innovation and enabling participation in
23 groundbreaking projects through state-of-the-art infra-
24 structure.

25 (c) ESTABLISHMENT.—

1 (1) IN GENERAL.—The Secretary shall establish
2 not less than 3 regional, nonprofit, open access,
3 product-agnostic technology maturation facilities for
4 the bioindustrial sector to ensure the integration of
5 advanced and emerging capabilities such as solid-
6 state, gas, and continuous fermentation methods,
7 biomass processing equipment, and scalable commer-
8 cial-grade fermentation tanks of capacity ranging
9 from 1,500 to over 75,000 liters.

10 (2) OPERATION.—In carrying out this section,
11 the Secretary shall—

12 (A) use a competitive process to carry out
13 paragraph (1) through the award of—

14 (i) planning grants or cooperative
15 agreements to eligible entities for the de-
16 sign, construction, and operation of the fa-
17 cilities; and

18 (ii) implementation grants or coopera-
19 tive agreements to eligible entities that
20 were awarded and completed a planning
21 grant or cooperative agreement under
22 clause (i); and

23 (B) facilitate commercialization activities
24 and technology transfer in coordination with

1 any applicable programs of the Department of
2 Energy and the Department of Defense.

3 (d) IMPLEMENTATION PLAN.—Not later than 180
4 days after the date of enactment of this Act, the Secretary
5 shall submit to Congress a report on plans to implement
6 this section, including, at a minimum—

7 (1) finalized site selection criteria and a de-
8 scription of the decisionmaking process that will be
9 used, including a timeline for selecting facilities;

10 (2) funding allocation methodologies and a de-
11 scription of the decisionmaking process that was
12 used in developing those methodologies;

13 (3) design specifications for facilities, including
14 a plan for consulting with entities outside of the De-
15 partment of Commerce, as appropriate;

16 (4) an outreach strategy for soliciting proposals
17 and engaging key stakeholders across industry, aca-
18 demia, and government, including specific goals to
19 advance the leadership of the United States in the
20 biotechnological and bioindustrial sectors;

21 (5) considerations for how facilities may—

22 (A) complement existing infrastructure of
23 the Department of Energy, the Department of
24 Defense, and other facilities;

1 (B) ensure increased production levels by
2 functioning as a connected network, including
3 by providing fermentation capacity that covers
4 the full range needed for precommercial scale-
5 up; and

6 (C) build on existing initiatives to increase
7 local or regional job opportunities and economic
8 growth and competitiveness; and

9 (6) how the Secretary intends to coordinate
10 with other Federal agencies, such as the Department
11 of Energy and the Department of Defense, to ensure
12 the effective usage of funds, development of capabili-
13 ties, and prioritization of biotechnologies.

14 (e) PROPOSALS AND SELECTION.—

15 (1) IN GENERAL.—Not later than 1 year after
16 the date of enactment of this Act, the Secretary
17 shall—

18 (A) solicit proposals from eligible entities
19 for the design, construction, and establishment
20 of the facilities; and

21 (B) select not less than 3 facilities.

22 (2) CONSIDERATIONS.—In selecting facilities
23 under paragraph (1)(B), the Secretary shall—

1 (A) ensure that the facilities are geo-
2 graphically distributed throughout the United
3 States, with preference given to proposals for—

4 (i) facilities located near major feed-
5 stock sources; and

6 (ii) facilities located in areas with es-
7 tablished bioindustrial capabilities;

8 (B) give preference to proposals for—

9 (i) facilities in regions with a dem-
10 onstrated need for enhanced infrastruc-
11 ture, especially in rural areas; and

12 (ii) facilities from eligible entities al-
13 ready engaged in biotechnological and bio-
14 industrial activities.

15 (f) USE OF FUNDS.—

16 (1) IN GENERAL.—Funds provided for a facility
17 under this section shall be used for construction,
18 equipment procurement, and initial operating ex-
19 penses of the facility.

20 (2) DEADLINE.—Funds provided for a facility
21 under this section shall be expended by—

22 (A) not later than 2 years after the date
23 on which the amounts were provided to the fa-
24 cility, in the case of a facility that has existing

1 infrastructure and resources, as determined by
2 the Secretary; and

3 (B) not later than 3 years after the date
4 on which the amounts were provided to the fa-
5 cility, in the case of a facility that is to be con-
6 structed.

7 (g) FACILITY GOALS AND ACTIVITIES.—A facility
8 shall seek—

9 (1) to advance and promote technological inno-
10 vation in bioindustrial processes, including fermenta-
11 tion, biomass processing, and downstream proc-
12 essing;

13 (2) to strengthen national security by de-risking
14 and accelerating the scaling up of emerging bio-
15 technology processes and technologies;

16 (3) to enhance the leadership of the United
17 States in biotechnology through the promotion of in-
18 novation, economic growth, workforce development,
19 and job creation;

20 (4) to establish a secure digital infrastructure
21 for data sharing and process analysis; and

22 (5) to provide unique technical capabilities to
23 sustain the cutting-edge position of the United
24 States in biotechnology in order to enhance economic
25 growth and international competitiveness.

1 (h) OVERSIGHT AND INTERAGENCY COORDINATION
2 AND COLLABORATION.—In carrying out this section, the
3 Secretary shall—

4 (1) if applicable, oversee the design, construc-
5 tion, and establishment of the facilities to ensure the
6 integration of advanced and emerging capabilities;

7 (2) establish partnerships with industry, institu-
8 tions of higher education, and other Federal agen-
9 cies to maximize the impact and utilization of the fa-
10 cilities;

11 (3) develop and implement policies to ensure eq-
12 uitable and open access to the facilities for public
13 and private sector entities, with a focus on inclusion
14 of rural communities;

15 (4) pursue cost-sharing and co-funding arrange-
16 ments or opportunities with private sector stake-
17 holders to supplement Federal funding and promote
18 financial sustainability; and

19 (5) coordinate and consult with relevant stake-
20 holders to identify suitable locations and capabilities
21 objectives for the facilities, which stakeholders may
22 include—

23 (A) other Federal agencies, such as the
24 Department of Energy, including the National
25 Laboratories;

1 (B) the defense community, including the
2 Department of Defense and BioMADE;

3 (C) industry partners, including nonprofit
4 organizations;

5 (D) the agricultural community and rel-
6 evant Federal agencies, including the Depart-
7 ment of Agriculture;

8 (E) the transportation sector and relevant
9 Federal agencies, including the Department of
10 Transportation;

11 (F) Federal education and workforce devel-
12 opment programs, including the National
13 Science Foundation;

14 (G) institutions of higher education;

15 (H) rural community stakeholders;

16 (I) State and local governments; and

17 (J) international bodies with relevant sci-
18 entific expertise.

19 (i) INTELLECTUAL PROPERTY PROTECTIONS.—

20 (1) FEDERAL EMPLOYEE CONTRIBUTIONS.—

21 Any intellectual property created by a Federal em-
22 ployee at a facility in the performance of the duties
23 of that employee shall be considered to be part of
24 the public domain.

1 (2) OTHER ENTITIES.—Any intellectual prop-
2 erty created by an individual at a facility who is not
3 described in paragraph (1) shall be protected under
4 applicable intellectual property laws, subject to the
5 terms of the agreement that the individual has en-
6 tered into with the Secretary.

7 (3) DATA SHARING.—To the maximum extent
8 practicable, the facilities shall establish secure, inter-
9 operable digital systems to facilitate data exchange
10 across government, academia, and industry.

11 (j) REPORTS.—Not less frequently than annually, the
12 Secretary shall submit to Congress a report that in-
13 cludes—

14 (1) a description of the progress on the con-
15 struction and operation of the facilities;

16 (2) metrics on facility activities, including—

17 (A) data on usage and participation by
18 public and private sector entities;

19 (B) a description of ongoing and completed
20 projects of the facilities related to scale-up and
21 commercialization of biotechnologies; and

22 (C) any additional relevant metrics, such
23 as—

1 (i) workforce training and develop-
2 ment, including engagement with local or
3 regional academic institutions; and

4 (ii) domestic and local job creation;

5 (3) financial reports that detail expenditures
6 and cost-sharing contributions of the facilities, in-
7 cluding access to private capital; and

8 (4) a description of any obstacles encountered
9 by the facilities in carrying out facility activities and
10 achieving the goals described in subsection (g).

11 (k) AUTHORIZATION OF APPROPRIATIONS.—

12 (1) IN GENERAL.—There are authorized to be
13 appropriated to the Secretary to carry out this sec-
14 tion—

15 (A) \$345,000,000 for the period of fiscal
16 years 2026 through 2028; and

17 (B) \$117,000,000 for the period of fiscal
18 years 2029 through 2030.

19 (2) ADMINISTRATIVE COSTS.—Of the amounts
20 made available for each fiscal year under paragraph
21 (1), the Secretary may use not more than 7.5 per-
22 cent for the administrative and oversight costs of
23 implementing this section.

24 (l) SUNSET.—

1 (1) IN GENERAL.—Subject to paragraph (2),
2 the authority to establish and operate a facility
3 under this section shall terminate on the date that
4 is 10 years after the date of enactment of this Act.

5 (2) CONTINUED OPERATION.—The Secretary
6 may allow a facility that demonstrates successful
7 performance to continue to operate after the date
8 described in paragraph (1), subject to ongoing over-
9 sight by the Secretary.