

114TH CONGRESS
1ST SESSION

S. 2287

To amend the Department of Energy Organization Act to improve technology transfer at the Department of Energy by reducing bureaucratic barriers to industry, entrepreneurs, and small businesses, as well as ensure that public investments in research and development generate the greatest return on investment for taxpayers, and for other purposes.

IN THE SENATE OF THE UNITED STATES

NOVEMBER 17, 2015

Mr. UDALL introduced the following bill; which was read twice and referred to the Committee on Energy and Natural Resources

A BILL

To amend the Department of Energy Organization Act to improve technology transfer at the Department of Energy by reducing bureaucratic barriers to industry, entrepreneurs, and small businesses, as well as ensure that public investments in research and development generate the greatest return on investment for taxpayers, 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,*

1 **SECTION 1. SHORT TITLE.**

2 This Act may be cited as the “Accelerating Tech-
3 nology Transfer to Advance Innovation for the Nation Act
4 of 2015” or the “ATTAIN Act of 2015”.

5 **SEC. 2. DEFINITIONS.**

6 In this Act:

7 (1) DEPARTMENT.—The term “Department”
8 means the Department of Energy.

9 (2) SECRETARY.—The term “Secretary” means
10 the Secretary of Energy.

11 **SEC. 3. OFFICE OF TECHNOLOGY TRANSITIONS.**

12 (a) IN GENERAL.—Title II of the Department of En-
13 ergy Organization Act (42 U.S.C. 7131 et seq.) is amend-
14 ed by adding at the end the following:

15 **“SEC. 218. OFFICE OF TECHNOLOGY TRANSITIONS.**

16 “(a) IN GENERAL.—There is established an Office of
17 Technology Transitions (referred to in this section as the
18 ‘Office’), based in Washington, DC, and under the direc-
19 tion of the Technology Transfer Coordinator appointed
20 under section 1001(a) of the Energy Policy Act of 2005
21 (42 U.S.C. 16391(a)), to improve the coordination and use
22 of technology transfer resources of the Department.

23 “(b) DUTIES.—The Office shall—

24 “(1) improve processes and partnership proce-
25 dures for technology transfer through—

1 “(A) within the Department and National
2 Laboratories, the innovative use of existing
3 mechanisms (such as cooperative research and
4 development agreements) and the development
5 of new mechanisms to improve the ability of the
6 Department and National Laboratories to con-
7 tract and partner with industry and business to
8 implement technology transfer activities;

9 “(B) the streamlining and improvement of
10 the review and approval process at all levels, for
11 existing and future technology transfer agree-
12 ments (including cooperative research and de-
13 velopment agreements) and the use of best
14 practices and process performance improvement
15 evaluation to reduce the time required to enable
16 the technology transfer activities of the Depart-
17 ment and National Laboratories to engage and
18 cooperate with industry and business at the
19 speed of opportunity; and

20 “(C) in connection with other Federal
21 agencies, other actions that improve the oper-
22 ational efficiency and technology transfer effec-
23 tiveness of the Department;

24 “(2) improve the sharing and coordination of
25 technology transfer information and resources

1 through actions such as the establishment of a single
2 website that can be used for technology transfer
3 within the Department;

4 “(3) administer Lab-Corps in accordance with
5 section 219;

6 “(4) administer the technology transfer invest-
7 ment initiative in accordance with section 220;

8 “(5) improve the effectiveness of small business
9 innovation research programs and small business
10 technology transfer programs by increasing coordi-
11 nation and use of those programs across the Depart-
12 ment and National Laboratories;

13 “(6) coordinate with the Technology Transfer
14 Working Group established under subsection (d) of
15 section 1001 of the Energy Policy Act of 2005 (42
16 U.S.C. 16391), to carry out the duties of the Tech-
17 nology Transfer Working Group as described in that
18 subsection;

19 “(7) encourage the use of alternative data
20 rights provisions by improving procurements lan-
21 guage to enable the Department and National Lab-
22 oratories to work with third parties with whom the
23 Department and National Laboratories have issued
24 a subcontract, to enable—

1 “(A) the third party to have full title, lim-
2 ited title, or partial use of any software or data
3 authored by the Department or National Lab-
4 oratories, if necessary and applicable; and

5 “(B) each relevant group to coordinate and
6 cooperate more effectively;

7 “(8) identify areas to improve processes and co-
8 operation between university, foundation, nonprofit,
9 and industry partners (along with the Department
10 and National Laboratories) to facilitate identifica-
11 tion of an effective process that enhances opportuni-
12 ties for technology transfer and commercialization
13 by—

14 “(A) encouraging and leveraging research
15 and development funds dedicated to complemen-
16 tary projects;

17 “(B) facilitating streamlined research
18 agreements;

19 “(C) encouraging cost-effective intellectual
20 property management and fulfilling equal op-
21 portunity; and

22 “(D) minimizing potential for conflicts in a
23 manner that increases the access of participants
24 in Lab-Corps to scientists and engineers of Na-
25 tional Laboratories;

1 “(9) coordinate with the Small Business Inno-
2 vation Research Program (SBIR) and Small Busi-
3 ness Technology Transfer Program (STTR) of the
4 Department—

5 “(A) to maximize the impact of technology
6 transfer opportunities and activities; and

7 “(B) to implement strategic changes that
8 are mutually beneficial to the Office and those
9 Programs;

10 “(10) carry out technology transfer evaluations,
11 measurement, and reporting functions of the De-
12 partment;

13 “(11) conduct a biennial evaluation of the
14 progress and impact of the Office that includes in-
15 formation relating to the economic impact of busi-
16 nesses that participated in technology transfer pro-
17 grams, which shall include a description of—

18 “(A) the number of jobs created at, and
19 the survival and growth rate of, each start-up
20 business that participated in a technology
21 transfer program, covering a period from the
22 inception of the start-up business to the earlier
23 of—

24 “(i) 5 years after the inception of the
25 start-up business; or

1 “(ii) the date of the merger of the
2 start-up business or the acquisition of the
3 start-up business by another company;

4 “(B) the average time required to complete
5 each phase of cooperative research and develop-
6 ment agreements and other technology transfer-
7 related processes;

8 “(C) the effectiveness of local and regional
9 partnerships; and

10 “(D) other key metrics determined by the
11 Secretary and the National Nuclear Security
12 Administration;

13 “(12) collect data regarding the technology
14 transfer activities and programs of the Department
15 (in consultation with the Secretary and the Tech-
16 nology Transfer Working Group established under
17 section 1001(d) of the Energy Policy Act of 2005
18 (42 U.S.C. 16391(d))), subject to the safeguards,
19 protections, and restrictions on disclosure of infor-
20 mation described in section 12 of the Stevenson-
21 Wydler Technology Innovation Act of 1980 (15
22 U.S.C. 3710a);

23 “(13) submit the information described in para-
24 graphs (10), (11), and (15)(A) to—

1 “(A) the Secretary for inclusion in appro-
 2 priate required reports to Congress (including
 3 the reports required under section 1001(g)(2)
 4 of the Energy Policy Act of 2005 (42 U.S.C.
 5 16391(g)(2))); and

6 “(B) the Secretary of Commerce for inclu-
 7 sion in appropriate required reports to Congress
 8 (including the reports required under sections
 9 5(c)(7), 11(g)(2), and 26(n) of the Stevenson-
 10 Wydler Technology Innovation Act of 1980 (15
 11 U.S.C. 3704(c)(7), 3710(g)(2), 3721(n)));

12 “(14) consolidate resources and reduce bureau-
 13 cratic barriers within the Department and become
 14 the office responsible for the coordination, planning,
 15 monitoring, and implementation of sections 1001,
 16 1002, 1003, and 1004 of title X of the Energy Pol-
 17 icy Act of 2005 (42 U.S.C. 16391, 16392, 16393,
 18 16394), to assist the Department and National Lab-
 19 oratories in carrying out technology transfer and
 20 small business activities;

21 “(15) administer the Technology Commer-
 22 cialization Fund established under section 1001(e)
 23 of the Energy Policy Act of 2005 (42 U.S.C.
 24 16391(e)), including—

1 “(A) the development of a multiyear plan
2 for the use of the Fund; and

3 “(B) the coordination with other agencies
4 of the Department on the use of the Fund;

5 “(16) except as otherwise provided in this Act,
6 carry out the research, development, demonstration,
7 and commercial application programs, projects, and
8 activities authorized by this Act in accordance
9 with—

10 “(A) the Atomic Energy Act of 1954 (42
11 U.S.C. 2011 et seq.);

12 “(B) the Federal Nonnuclear Energy Re-
13 search and Development Act of 1974 (42
14 U.S.C. 5901 et seq.);

15 “(C) the Energy Policy Act of 1992 (42
16 U.S.C. 13201 et seq.);

17 “(D) the Stevenson-Wydler Technology In-
18 novation Act of 1980 (15 U.S.C. 3701 et seq.);

19 “(E) chapter 18 of title 35, United States
20 Code (commonly known as the ‘Bayh-Dole
21 Act’); and

22 “(F) any other Act under which the Sec-
23 retary is authorized to carry out the programs,
24 projects, and activities;

1 “(17) recommend to the Secretary changes in
2 policies to better protect information collected by the
3 Department or National Laboratories from recipi-
4 ents of financial assistance awards or technology
5 transfer partners (including parties to cooperative
6 research and development agreements or other simi-
7 lar agreements) including—

8 “(A) plans for commercialization of tech-
9 nologies developed under an award or agree-
10 ment;

11 “(B) business plans;

12 “(C) technology-to-market plans;

13 “(D) market studies; and

14 “(E) cost and performance models;

15 “(18) connect and coordinate each Office of Re-
16 search and Technology Applications at the National
17 Laboratories established under section 11(b) of the
18 Stevenson-Wydler Technology Innovation Act of
19 1980 (15 U.S.C. 3710(b)); and

20 “(19) perform such other duties as are deter-
21 mined appropriate by the Secretary.

22 “(c) RESULTS OF EVALUATION AND ANALYSIS.—

23 “(1) IN GENERAL.—The Secretary shall use the
24 reviews, evaluations, and reports conducted under
25 this section to improve and enhance—

1 “(A) the technology transfer programs and
2 activities of the Department; and

3 “(B) each Office of Research and Tech-
4 nology Applications at the National Labora-
5 tories and the National Nuclear Security Ad-
6 ministration to promote the technology transfer
7 goals of the Department.

8 “(2) NATIONAL LABORATORIES.—

9 “(A) IN GENERAL.—The Department shall
10 work with each National Laboratory to incor-
11 porate the evaluation and impact of technology
12 transfer activities in the annual performance
13 evaluation and measurement plan of the Na-
14 tional Laboratory to enable significant progress
15 to be rewarded and limited progress to be im-
16 proved annually.

17 “(B) ADMINISTRATION.—The evaluation
18 process under this paragraph shall—

19 “(i) focus on the performance of each
20 National Laboratory individually; and

21 “(ii) compare the performance of each
22 National Laboratory during the applicable
23 and previous year.

1 “(d) AUTHORIZATION OF APPROPRIATIONS.—There
 2 are authorized to be appropriated such sums as are nec-
 3 essary to carry out this section.”.

4 (b) CONFORMING CHANGES TO OFFICE OF TECH-
 5 NOLOGY TRANSITIONS ESTABLISHED BY SECRETARY.—
 6 The Secretary shall conform the Office of Technology
 7 Transitions of the Department (as in existence on the day
 8 before the date of enactment of this Act) with section 218
 9 of the Department of Energy Organization Act (as added
 10 by subsection (a)).

11 **SEC. 4. LAB-CORPS.**

12 Title II of the Department of Energy Organization
 13 Act (42 U.S.C. 7131 et seq.) (as amended by section 3(a))
 14 is amended by adding at the end the following:

15 **“SEC. 219. LAB-CORPS.**

16 “(a) ESTABLISHMENT.—

17 “(1) IN GENERAL.—The Secretary shall estab-
 18 lish a Lab-Corps, modeled after the I-Corps of the
 19 National Science Foundation, to support invest-
 20 ments in entrepreneurs, mentors, and principal in-
 21 vestigators.

22 “(2) GOALS.—The goal of the Lab-Corps is to
 23 invest in—

24 “(A) market assessment; and

1 “(B) increasing industry and small busi-
2 ness access to intellectual property and core ca-
3 pabilities of the Department and National Lab-
4 oratories.

5 “(b) TEAMS.—

6 “(1) IN GENERAL.—The Secretary shall estab-
7 lish in the Lab-Corps teams composed of—

8 “(A) entrepreneurs who possess relevant
9 technical knowledge and a commitment to in-
10 vestigate the commercial applications of tech-
11 nology innovation;

12 “(B) mentors who are experienced entre-
13 preneurs, with technology, marketing, commer-
14 cialization, or other relevant expertise to assist
15 teams in the development of the team and
16 throughout the learning process in a manner
17 similar to the Senior Corps; and

18 “(C) principal investigators who serve as
19 technical lead and project managers.

20 “(2) COMPETITIVE PROCESS.—Each team shall
21 be selected and assembled through a competitive
22 process.

23 “(3) OFFICES OF RESEARCH AND TECHNOLOGY
24 APPLICATIONS.—

1 “(A) IN GENERAL.—Each team shall be
 2 hosted by an Office of Research and Technology
 3 Applications at the National Laboratories es-
 4 tablished under section 11(b) of the Stevenson-
 5 Wydler Technology Innovation Act of 1980 (15
 6 U.S.C. 3710(b)).

7 “(B) DUTIES.—Each applicable Office of
 8 Research and Technology Applications shall
 9 monitor and administer participation in the
 10 program in accordance with this section.

11 “(4) DIVERSITY.—The Secretary shall ensure,
 12 to the maximum extent practicable, the diversity of
 13 teams established under this subsection.

14 “(c) TECHNOLOGY COMMERCIALIZATION CHAL-
 15 LENGES.—

16 “(1) IN GENERAL.—The Secretary may estab-
 17 lish and participate in technology commercialization
 18 challenges.

19 “(2) ADMINISTRATION.—The Secretary may
 20 use a technology commercialization challenge—

21 “(A) to leverage the core strengths of a
 22 National Laboratory and allow the National
 23 Laboratory to focus on a specific topic; and

24 “(B) to create collaborative public-private
 25 partnerships that address challenges identified

1 by the industry or National Laboratory tech-
2 nology transfer working groups.

3 “(C) SMALL ENTERPRISES.—The Sec-
4 retary and the Administrator of the Small Busi-
5 ness Administration shall ensure that at least
6 80 percent of the businesses participating in the
7 Lab-Corps are smaller enterprises (as defined
8 by the Administrator) that are located in di-
9 verse regional geographic areas established
10 under section 220(d)(3).

11 “(d) COORDINATION.—

12 “(1) IN GENERAL.—The Office of Technology
13 Transitions established by section 218 (referred to
14 in this subsection as the ‘Office’) shall work with
15 each Office of Research and Technology Applications
16 at the National Laboratories—

17 “(A) to develop information sharing and
18 coordinate resources to enable coordination and
19 competition between members of Lab-Corps
20 teams, including a coordination platform that
21 leverages existing elements of social media and
22 networking to connect individuals and teams in
23 the exchange of information and ideas; and

“(B) to connect follow on-funding and other resources with successful start-ups through actions such as—

“(i) inviting successful teams or projects to participate in an alumni network to reinvest in the next generation of start-ups; and

“(ii) arranging opportunities for successful start-ups to connect with programs that are not administered by the Department or the Small Business Administration to promote the growth of business.

“(2) NONPROFIT ENTITIES.—

“(A) IN GENERAL.—The Office shall partner with foundations and nonprofit entities with similar technology transfer and entrepreneurship priorities and goals to assist in carrying out this section.

“(B) ACTIVITIES.—The partnerships may be established to carry out—

“(i) coordination, planning, and volunteer activities that do not involve the transfer of funding between partners; or

“(ii) competitively solicited partnership agreements—

1 “(I) to enable foundations and
 2 nonprofit entities to apply for funding
 3 to assist in carrying out Department
 4 activities; or

5 “(II) to provide funding to aug-
 6 ment existing Department activities
 7 relating specifically to common tech-
 8 nology transfer and entrepreneurship
 9 priorities and goals.

10 “(e) FUNDING.—The Secretary may use to carry out
 11 this section—

12 “(1) funding made available to carry out—

13 “(A) the Small Business Act (15 U.S.C.
 14 631 et seq.); or

15 “(B) section 1001 of the Energy Policy
 16 Act of 2005 (42 U.S.C. 16391); and

17 “(2) any other funds that are made available to
 18 carry out this section.”.

19 **SEC. 5. TECHNOLOGY TRANSFER INVESTMENT INITIATIVE.**

20 Title II of the Department of Energy Organization
 21 Act (42 U.S.C. 7131 et seq.) (as amended by section 4)
 22 is amended by adding at the end the following:

1 **“SEC. 220. TECHNOLOGY TRANSFER INVESTMENT INITIA-**
2 **TIVE.**

3 “(a) IN GENERAL.—The Secretary and the Adminis-
4 trator of the Small Business Administration (referred to
5 in this section as the ‘Administrator’) shall jointly estab-
6 lish and carry out a Technology Transfer Investment Ini-
7 tiative (referred to in this section as the ‘Initiative’).

8 “(b) PARTNERSHIP.—To carry out the Initiative, the
9 Secretary shall enter into a memorandum of under-
10 standing with the Administrator to coordinate a partner-
11 ship program carried out by—

12 “(1) the Office of Technology Transitions es-
13 tablished by section 218 (referred to in this section
14 as the ‘Office’); and

15 “(2) the Small Business Investment Company
16 (referred to in this section as ‘SBIC’) Program of
17 the Small Business Administration.

18 “(c) GOAL.—The goal of the partnership program
19 shall be to leverage the strengths of the SBIC program
20 to benefit the Lab-Corps established under section 219(a)
21 completing the Department program.

22 “(d) TECHNOLOGY TRANSFER INVESTMENT INITIA-
23 TIVE.—

24 “(1) SELECTION.—The Administrator, in con-
25 sultation with the Secretary, shall solicit SBIC par-
26 ticipation in the technology transfer investment ini-

1 initiative of the Small Business Administration and the
2 Department.

3 “(2) PARTICIPATION.—A SBIC that agrees or
4 is selected to participate in technology transfer in-
5 vestment initiative shall—

6 “(A) regularly review proposals created by
7 Lab-Corps teams for possible investment;

8 “(B) assess each proposal against the cri-
9 teria established by the SBIC; and

10 “(C) comply with all provisions of law ap-
11 plicable to the Small Business Administration
12 (including regulations).

13 “(3) REGIONAL GEOGRAPHIC AREAS.—

14 “(A) IN GENERAL.—The Office, in coordi-
15 nation with the Lab-Corps established by the
16 Secretary under section 219, shall establish and
17 coordinate regional geographic areas to carry
18 out the Initiative.

19 “(B) LEVERAGE.—The Office and SBICs
20 shall leverage, to the maximum extent prac-
21 ticable, the experience and expertise of local,
22 State, and regional partners to efficiency and
23 effectively implement the Initiative.”.

24 **SEC. 6. REGIONAL ENGAGEMENT AND RESEARCH.**

25 (a) REGIONAL FUNDING PARTNERSHIPS.—

1 (1) DEFINITIONS.—In this subsection:

2 (A) ECONOMIC DEVELOPMENT AGENCY.—

3 The term “economic development agency” has
4 the meaning given the term in section 3 of the
5 Workforce Innovation and Opportunity Act (29
6 U.S.C. 3102).

7 (B) REGIONAL ENTITY.—The term “re-
8 gional entity” means a State, local government,
9 economic development agency, or small- or me-
10 dium-sized business.

11 (2) IN GENERAL.—The Secretary, after identi-
12 fying barriers to the access of regional entities to co-
13 operative research and development agreements,
14 shall establish policies to increase that access.

15 (b) POST-GRADUATE RESEARCH PILOT PROGRAM.—

16 (1) ESTABLISHMENT.—The Secretary shall es-
17 tablish a pilot program, to be administered through
18 the Office of Technology Transitions (in coordina-
19 tion with the Office of Energy Efficiency and Re-
20 newable Energy), to award grants to post-graduate
21 researchers for the purpose of spinning off and li-
22 censing technology.

23 (2) GRANTS.—

1 (A) IN GENERAL.—The Secretary may
2 award grants under the program established
3 under paragraph (1).

4 (B) APPLICATION.—To be eligible for a
5 grant under this paragraph, an applicant shall
6 submit to the Secretary an application at such
7 time, in such form, and containing such infor-
8 mation as the Secretary may require.

9 (c) UNIVERSITY PARTNERSHIPS IN MANAGEMENT
10 AND OPERATING CONTRACTS.—

11 (1) IN GENERAL.—The Secretary may include,
12 in a management and operating contract for a Na-
13 tional Laboratory, partnership agreements with in-
14 stitutions of higher education.

15 (2) PURPOSE.—The purpose of a partnership
16 described in paragraph (1) is—

17 (A) to provide incentives to the National
18 Laboratories (in coordination with technology
19 transfer offices within the Department and the
20 National Laboratories) to use technology trans-
21 fer capabilities within an institution of higher
22 education that enter into a partnership agree-
23 ment under paragraph (1); and

24 (B) to support graduate and post-graduate
25 researchers at the National Laboratories par-

1 ticipating in technology commercialization and
2 entrepreneurship.

3 (3) CERTAIN COSTS ALLOWED.—The Secretary
4 may pay to the contractor of a management and op-
5 erating contract described in paragraph (1)—

6 (A) compensation for entering into the
7 partnership agreement described in that para-
8 graph; and

9 (B) the costs of the partnership described
10 in that paragraph.

11 **SEC. 7. CONFORMING AMENDMENTS TO THE ENERGY POL-**
12 **ICY ACT OF 2005.**

13 (a) COST SHARING.—Section 988(f) of the Energy
14 Policy Act of 2005 (42 U.S.C. 16352(f)) is amended—

15 (1) in paragraph (2), by striking “or” after the
16 semicolon;

17 (2) in paragraph (3)(B), by striking the period
18 at the end and inserting “; or”; and

19 (3) by adding at the end the following:

20 “(4) activities funded by the Energy Tech-
21 nology Commercialization Fund under section
22 1001(e)(1)(A).”.

23 (b) IMPROVED TECHNOLOGY TRANSFER OF ENERGY
24 TECHNOLOGIES.—Section 1001(e) of the Energy Policy
25 Act of 2005 (42 U.S.C. 16391(e)) is amended—

1 (1) by striking “The Secretary” and inserting
2 the following:

3 “(1) IN GENERAL.—The Secretary”;

4 (2) in paragraph (1) (as so designated), by
5 striking “used to provide” and inserting “used—

6 “(A) to fund the Lab-Corps established
7 under section 219 of the Department of Energy
8 Organization Act; and

9 “(B) to provide”; and

10 (3) by adding at the end the following:

11 “(2) COST SHARING.—The cost-sharing require-
12 ments of section 988—

13 “(A) do not apply to activities funded by
14 the Energy Technology Commercialization
15 Fund under paragraph (1)(A); and

16 “(B) apply to matching funds provided by
17 the Energy Technology Commercialization
18 Fund under paragraph (1)(B).”.

19 **SEC. 8. GOVERNMENT ACCOUNTABILITY OFFICE REPORT.**

20 Not later than 3 years after the date of enactment
21 of this Act, the Comptroller General of the United States
22 shall submit to Congress a report describing—

23 (1) the results of the projects developed under
24 this Act or amendments made by this Act, including

1 information regarding whether activities carried out
2 under those projects resulted in—

3 (A) expansion of capabilities at the Na-
4 tional Laboratories;

5 (B) increased efficiency of technology
6 transfers; or

7 (C) an increase in general efficiency of the
8 National Laboratory system;

9 (2) efforts of the Secretary to promote tech-
10 nology transfer and private sector engagement at the
11 National Laboratories; and

12 (3) recommendations on ways in which the De-
13 partment could improve the activities described in
14 paragraphs (1) and (2).

○