

111<sup>TH</sup> CONGRESS  
2<sup>D</sup> SESSION

# S. 4047

To establish the Federal Acceleration of State Technologies Deployment Program and for related purposes.

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IN THE SENATE OF THE UNITED STATES

DECEMBER 17, 2010

Mr. BENNETT introduced the following bill; which was read twice and referred to the Committee on Commerce, Science, and Transportation

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## A BILL

To establish the Federal Acceleration of State Technologies Deployment Program and for related 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 “Federal Acceleration  
5 of State Technologies Deployment Act of 2009” or the  
6 “FAST Deployment Act of 2010”.

7       **SEC. 2. FINDINGS.**

8       Congress finds the following:

9               (1) Individual States are currently investing ap-  
10       proximately \$5,000,000,000 annually into new tech-

1 nology development and deployment to support the  
2 local economies in the States and to create jobs,  
3 with little or no direct high technology deployment  
4 assistance from the Federal Government.

5 (2) Based on 2 National Centers of Excellence  
6 reports, the level of technology deployment invest-  
7 ment by States is now more than 10 times the  
8 amount of the investment nationwide just a decade  
9 ago and State budgets for technology deployment in-  
10 vestment are increasing 8 to 10 times faster than  
11 State budgets as a whole.

12 (3) In order to continue the investment by  
13 States into the deployment and commercialization of  
14 new technologies and innovations under increasingly  
15 difficult economic circumstances, it is essential that  
16 the Federal Government become a strategic partner  
17 in the technology deployment efforts of the States.

18 (4) The Federal Government is investing less  
19 than 2 percent (approximately \$2,650,000,000) of  
20 the annual Federal budget for research and develop-  
21 ment budget of \$150,000,000,000 into industry for  
22 the benefit of small business concerns and the Na-  
23 tion through the Small Business Innovative Re-  
24 search program and the Small Business Technology  
25 Transfer program under section 9 of the Small

1 Business Act (15 U.S.C. 638), to help create innova-  
2 tive products a Federal agency, not the private sec-  
3 tor market, has determined are needed.

4 (5) The Association of University Technology  
5 Managers that represents all research universities in  
6 the United States recently conducted a survey of  
7 157 major research universities and found the total  
8 return on investment on funded research in the form  
9 of royalties received back by the universities over a  
10 10-year period was less than 5 percent, meaning, on  
11 average, for every \$100,000,000 invested in research  
12 during the past decade, the aggregate return over  
13 that 10-year period is less than \$5,000,000.

14 (6) Most university technologies have been li-  
15 censed to a limited number of the 3,000 largest  
16 manufacturers in the United States representing less  
17 than 2 percent of all manufacturers in the United  
18 States, while small- and medium-sized manufac-  
19 turing entities constitute 98 percent of all manufac-  
20 turing in the United States, and have little to no  
21 interaction with research universities or national  
22 labs, and research institutions do not have the re-  
23 sources to promote technologies to each of the  
24 300,000 small- and medium-sized manufacturing en-  
25 tities in the United States.

1           (7) Only about 10 percent of the new tech-  
2           nologies and innovations from research universities  
3           and national labs are ever licensed for incorporation  
4           into commercial private sector products while the re-  
5           maining 90 percent of new technologies and innova-  
6           tions resulting from such national research and de-  
7           velopment remain in inventory, completely unli-  
8           censed and unused.

9           (8) Private industry generates 15 to 20 times  
10          more patented innovations and technologies each  
11          year than structured research universities and Fed-  
12          eral labs combined and private industry consistently  
13          commercializes about 35 percent of the patented  
14          ideas developed by private industry, compared to less  
15          than 10 percent from higher education and Federal  
16          labs.

17          (9) The Federal Government should allocate a  
18          portion of the total annual Federal research and de-  
19          velopment budget each year to match funding that  
20          individual States are appropriating from their budg-  
21          ets to expand and accelerate the development and  
22          deployment of new technologies and innovations  
23          through small manufacturing businesses in the  
24          United States, which comprise more than 95 percent

1 of all manufacturing companies in the United  
2 States.

3 **SEC. 3. PURPOSES.**

4 The purposes of this Act are—

5 (1) to establish within the Economic Develop-  
6 ment Administration the Federal Acceleration of  
7 State Technologies Deployment Program or FAST  
8 Deployment Program to provide matching funds to  
9 qualified States for the acceleration of local commer-  
10 cialization of newly developed technologies and the  
11 promotion of small manufacturing and the innova-  
12 tion and deployment of new technologies by small  
13 manufacturing enterprises in the United States; and

14 (2) to establish a national manufacturing tech-  
15 nology needs database.

16 **SEC. 4. FEDERAL ACCELERATION OF STATE TECH-**  
17 **NOLOGIES DEPLOYMENT PROGRAM.**

18 (a) DEFINITIONS.—In this section.

19 (1) ASSISTANT SECRETARY.—The term “Assist-  
20 ant Secretary” means the Assistant Secretary of  
21 Commerce for Economic Development.

22 (2) DEPLOYMENT.—The term “deployment”,  
23 relating to technology, means—

1 (A) detailed designing of a new or im-  
2 proved product resulting from a new innovation  
3 or technology;

4 (B) developing production processes, tech-  
5 niques, and methods relating specifically to a  
6 new or improved product;

7 (C) identifying, securing, or developing fa-  
8 cilities, equipment, and related supply chain  
9 necessary to produce a new or improved prod-  
10 uct;

11 (D) developing expertise and training of  
12 the employees or contractors necessary to  
13 produce a new or improved product; and

14 (E) developing and implementing mar-  
15 keting activities necessary to introduce a new or  
16 improved product into the market place.

17 (3) EXTRAMURAL BUDGET AND RESEARCH AND  
18 DEVELOPMENT.—The terms “extramural budget”  
19 and “research and development” have the meanings  
20 given those terms in section 9 of the Small Business  
21 Act (15 U.S.C. 638).

22 (4) FAST DEPLOYMENT PROGRAM.—The term  
23 “FAST Deployment Program” means the Federal  
24 Acceleration of State Technologies Deployment Pro-  
25 gram established under subsection (b).

1           (5) FAST DEPLOYMENT PROGRAM FUNDS.—  
2           The term “FAST Deployment Program funds”  
3           means the amounts appropriated to the Assistant  
4           Secretary pursuant to subsection (c)(1).

5           (6) FAST GRANT FUNDS.—The term “FAST  
6           grant funds” means 94 percent of the FAST De-  
7           ployment Program funds for a fiscal year.

8           (7) QUALIFIED STATE.—The term “qualified  
9           State” means a State that meets the criteria estab-  
10          lished by the Assistant Secretary under subsection  
11          (d).

12          (8) SMALL MANUFACTURING ENTERPRISE.—  
13          The term “small manufacturing enterprise” means a  
14          business concern with less than 500 employees in an  
15          industry assigned a North American Industry Classi-  
16          fication System code for manufacturing that is ma-  
17          jority-owned by citizens of the United States.

18          (9) STATE.—The term “State” has the mean-  
19          ing given the term in section 3 of the Public Works  
20          and Economic Development Act of 1965 (42 U.S.C.  
21          3122).

22          (b) ESTABLISHMENT.—The Assistant Secretary shall  
23          establish a Federal Acceleration of State Technologies De-  
24          ployment Program to distribute matching Federal funds  
25          to qualifying States in accordance with this section.

1 (c) FAST DEPLOYMENT PROGRAM AUTHORITY.—

2 (1) AUTHORIZATION OF APPROPRIATIONS.—In  
3 each fiscal year, there is authorized to be appro-  
4 priated to the Assistant Secretary of Commerce for  
5 Economic Development to carry out the FAST De-  
6 ployment Program an amount equal to 0.05 percent  
7 of the aggregate of the amounts appropriated for  
8 that fiscal year for the extramural budgets of all  
9 other Federal agencies for research and develop-  
10 ment.

11 (2) MATCHING GRANTS.—For each fiscal year,  
12 the Assistant Secretary shall make grants from  
13 FAST Deployment Program funds to qualified  
14 States.

15 (3) AVAILABILITY.—FAST Deployment Pro-  
16 gram funds shall remain available to the Assistant  
17 Secretary until expended.

18 (4) ESTABLISHMENT OF MANUFACTURING  
19 TECHNOLOGY DATABASE.—The Assistant Secretary  
20 shall, in accordance with subsection (k), establish as  
21 part of the FAST Deployment Program a national  
22 manufacturing technology database.

23 (d) QUALIFICATION FOR GRANTS.—The Assistant  
24 Secretary shall promulgate regulations establishing cri-

1 teria for being designated a qualified State, which shall  
2 include that—

3 (1) for the fiscal year before the fiscal year for  
4 which a grant under subsection (c)(2) is made (in  
5 this paragraph referred to as the “previous fiscal  
6 year”), the State funded—

7 (A) the promotion of manufacturing;

8 (B) deployment of new technologies and in-  
9 novations;

10 (C) the acceleration of new technology de-  
11 ployment; or

12 (D) the promotion of new product develop-  
13 ment by small manufacturing enterprises lo-  
14 cated in the State; and

15 (2) a State desiring to be designated as a quali-  
16 fied State shall certify for each fiscal year that if the  
17 State received funds under the FAST Deployment  
18 Program during the previous fiscal year, the State  
19 complied with subsection (g) during such previous  
20 fiscal year.

21 (e) DISTRIBUTION OF FUNDS.—

22 (1) IN GENERAL.—The Assistant Secretary  
23 shall make grants using the FAST grant funds to  
24 qualified States for making competitive grants to

1 small manufacturing enterprises to support specific,  
2 detailed technology deployment projects.

3 (2) MINIMUM DISTRIBUTION.—For each fiscal  
4 year, the Assistant Secretary shall make available to  
5 each qualified State not less than \$10,000,000 in  
6 FAST grant funds.

7 (3) REMAINING FUNDS.—Subject to paragraph  
8 (4), for each fiscal year, the Assistant Secretary  
9 shall distribute the FAST grant funds remaining  
10 after the minimum distribution under paragraph (2)  
11 to qualified States on a pro rata basis, based on the  
12 number of small manufacturing enterprises located  
13 in each qualified State.

14 (4) MAXIMUM DISTRIBUTION.—A qualified  
15 State may not receive more than 5 percent of the  
16 FAST grant funds available for any fiscal year.

17 (5) UNDISTRIBUTED FUNDS.—If all FAST  
18 grant funds are not distributed to qualified States  
19 under paragraphs (1) through (4), the Assistant  
20 Secretary may use the undistributed FAST grant  
21 funds—

22 (A) to award grants on a competitive basis  
23 to States—

24 (i) to assist a State that is not a  
25 qualified State in developing investment

1 programs to promote the rapid deployment  
2 of new technologies for manufacturing  
3 within the State; and

4 (ii) to accelerate the establishment of  
5 the national manufacturing technology  
6 database established pursuant to sub-  
7 section (c)(4); and

8 (B) for activities of the Economic Develop-  
9 ment Administration that promote and provide  
10 training on implementing manufacturing best  
11 practices and deployment of technology.

12 (f) USE OF FUNDS.—

13 (1) IN GENERAL.—A qualified State shall—

14 (A) use FAST grant funds exclusively to  
15 make grants to small manufacturing enterprises  
16 on a competitive basis for technology deploy-  
17 ment project assistance projects approved by  
18 the qualified State;

19 (B) allocate FAST grant funds based on  
20 guidelines that the Assistant Secretary shall es-  
21 tablish, qualifications established by the quali-  
22 fied State, and the technology needs as assessed  
23 by the Assistant Secretary and the qualified  
24 State;

1 (C) evaluate applications for grants under  
2 the FAST Deployment Program and rank the  
3 applications in accordance with the qualifica-  
4 tions established by the qualified State and the  
5 economic needs and interests of the qualified  
6 State; and

7 (D) make grants from FAST grant funds  
8 to the small manufacturing enterprises with the  
9 highest scores, determined in accordance with  
10 subparagraph (C), for deployment of a tech-  
11 nology that is—

12 (i) a newly patented technology or a  
13 technology for which the small manufac-  
14 turing enterprise has applied for a patent;

15 (ii) a licensed technology from a pub-  
16 lic research and development institution, a  
17 Federal laboratory, or the private sector;  
18 or

19 (iii) an innovation that, when incor-  
20 porated into a product, will provide a dis-  
21 tinct difference and a substantial benefit,  
22 based on an evaluation using a nationally  
23 accepted system of business idea evaluation  
24 and assessment.

1           (2) PROHIBITED USES.—FAST grant funds  
2           may not be used by a qualified State or a small  
3           manufacturing enterprise receiving a grant under  
4           the FAST Deployment Program—

5                   (A) for start-up capital; or

6                   (B) to enhance the availability of venture  
7           capital within a State.

8           (3) PERIOD OF AVAILABILITY.—

9                   (A) IN GENERAL.—A qualified State shall  
10          expend FAST grant funds not later than 2  
11          years after the date on which the qualified  
12          State receives the FAST grant funds.

13                  (B) RESCISSION.—Any FAST grant funds  
14          not expended by a qualified State during the  
15          period specified in subparagraph (A) shall be  
16          rescinded.

17          (g) MATCHING FUND REQUIREMENTS.—For each  
18          fiscal year, a qualified State that receives FAST Deploy-  
19          ment Program funds shall make available non-Federal  
20          funds to carry out the FAST Deployment Program in an  
21          amount not less than the total amount of FAST Deploy-  
22          ment Program funds received by the qualified State.

23          (h) REPORTING.—

24                   (1) ANNUAL REPORTS BY QUALIFIED STATES  
25          TO ASSISTANT SECRETARY.—Each fiscal year, each

1 qualified State that receives FAST Deployment Pro-  
2 gram funds for a fiscal year shall submit to the As-  
3 sistant Secretary a report describing—

4 (A) the use of the FAST Deployment Pro-  
5 gram funds by the qualified State during the  
6 fiscal year; and

7 (B) the benefits to manufacturing within  
8 the qualified State, including the new tech-  
9 nologies and innovations deployed and the jobs  
10 created or retained.

11 (2) SEMIANNUAL REPORTS BY ASSISTANT SEC-  
12 RETARY TO FEDERAL AGENCIES.—In order to assist  
13 the heads of Federal agencies in carrying out the re-  
14 sponsibilities of such Federal agencies relating to re-  
15 search and development budgeted for under the ex-  
16 tramural budgets of such agencies, the Assistant  
17 Secretary shall, not less frequently than twice each  
18 year, submit to such heads a report on the FAST  
19 Deployment Program.

20 (i) ADMINISTRATIVE FUNDING.—

21 (1) IN GENERAL.—The Assistant Secretary  
22 may use not more than 6 percent of the FAST De-  
23 ployment Program funds for a fiscal year for admin-  
24 istrative and project support purposes, in accordance  
25 with this subsection.

1           (2) PROGRAM SUPPORT AND OPERATIONS.—

2           The Assistant Secretary may use not more than 3  
3           percent of the FAST Deployment Program funds for  
4           a fiscal year for administration and management of  
5           the FAST Deployment Program and other programs  
6           of the Economic Development Administration relat-  
7           ing to technology innovation and deployment, includ-  
8           ing—

9                   (A) training of officials of qualified States  
10                  regarding the operation and management of the  
11                  FAST Deployment Program, and other pro-  
12                  grams of the Administration relating to tech-  
13                  nology innovation and deployment determined  
14                  appropriate by the Assistant Secretary;

15                   (B) to assist small manufacturing enter-  
16                  prises to secure low interest funding for new or  
17                  modified facilities and equipment in order to  
18                  manufacture the products resulting from tech-  
19                  nology deployment;

20                   (C) providing small manufacturing enter-  
21                  prises receiving a grant under the FAST De-  
22                  ployment Program with uniform guidance relat-  
23                  ing to strategic and business planning, in ac-  
24                  cordance with the metrics established under  
25                  paragraph (3); and

1 (D) facilitating access for small manufac-  
2 turing enterprises receiving a grant under the  
3 FAST Deployment Program to the metrics es-  
4 tablished under paragraph (3) to conduct de-  
5 tailed enterprise, product, and staffing assess-  
6 ments.

7 (3) METRICS.—The Assistant Secretary shall  
8 establish a system of metrics to evaluate the per-  
9 formance of the FAST Deployment Program and  
10 the participants in such program.

11 (4) STATES PROGRAM SUPPORT AND OPER-  
12 ATIONS.—

13 (A) IN GENERAL.—The Assistant Sec-  
14 retary shall make available to qualified States  
15 that receive FAST grant funds for a fiscal year  
16 0.9 percent of the FAST Deployment Program  
17 funds for the fiscal year for program implemen-  
18 tation and management, in accordance with this  
19 paragraph.

20 (B) MINIMUM DISTRIBUTION.—

21 (i) IN GENERAL.—Except as provided  
22 in clause (ii), for each fiscal year, the As-  
23 sistant Secretary shall make available to  
24 each qualified State receiving FAST grant

1 funds for the fiscal year \$300,000 for pro-  
2 gram support and operations.

3 (ii) MODIFICATION.—The Assistant  
4 Secretary may modify the minimum dis-  
5 tribution under clause (i) for a fiscal year  
6 based on the total amount of FAST De-  
7 ployment Program funds available for the  
8 fiscal year.

9 (C) REMAINING FUNDS.—Subject to sub-  
10 paragraph (D), for each fiscal year, the Assist-  
11 ant Secretary shall distribute the amounts de-  
12 scribed in subparagraph (A) remaining after  
13 the minimum distribution under subparagraph  
14 (B) on a prorated basis, based on the number  
15 of small manufacturing enterprises located in  
16 each qualified State receiving FAST grant  
17 funds for the fiscal year.

18 (D) MAXIMUM AMOUNT.—A qualified  
19 State may not receive more than 5 percent of  
20 the total amount made available under subpara-  
21 graph (A) for a fiscal year.

22 (E) USE OF FUNDS.—Amounts made  
23 available to a qualified State under this para-  
24 graph shall be used for—

1           (i) soliciting, evaluating, and  
2           prioritizing proposals for technology de-  
3           ployment funding from small manufac-  
4           turing enterprises, consistent with the eco-  
5           nomic development objectives of the quali-  
6           fied State;

7           (ii) supporting projects to implement  
8           technology deployment; and

9           (iii) administering the solicitation and  
10          evaluation activities of the FAST Deploy-  
11          ment Program.

12          (5) OPERATIONAL SUPPORT.—

13           (A) IN GENERAL.—For each fiscal year,  
14           the Assistant Secretary shall use 1 percent of  
15           the FAST Deployment Program funds—

16           (i) to assess the technology needs of  
17           small manufacturing enterprises;

18           (ii) to maintain a database of all  
19           projects receiving funds under the FAST  
20           Deployment Program; and

21           (iii) to develop best practices to refine  
22           and to improve the efficiency and effective-  
23           ness of the FAST Deployment Program.

24           (B) GRANTS.—The Assistant Secretary  
25           may carry out the requirements of subpara-

1 graph (A) through the awarding of grants to  
2 non-Federal experts.

3 (j) COORDINATION WITH FEDERAL AGENCIES.—In  
4 carrying out the FAST Deployment Program, the Assist-  
5 ant Secretary shall coordinate with the heads of other  
6 Federal agencies to ensure the grants made under the  
7 FAST Deployment Program are a complement to and en-  
8 hance the efforts and programs of other Federal agencies  
9 to promote and support small manufacturing enterprises  
10 in the United States.

11 (k) ESTABLISHMENT OF MANUFACTURING TECH-  
12 NOLOGY DATABASE.—

13 (1) ESTABLISHMENT OF NATIONAL MANUFAC-  
14 TURING TECHNOLOGY NEEDS DATABASE.—The As-  
15 sistant Secretary shall establish a national manufac-  
16 turing technology database for the purposes of as-  
17 sembling information relating to new manufacturing  
18 technologies created throughout the United States to  
19 efficiently disseminate the information to manufac-  
20 turing enterprises within the United States. Such  
21 database shall include comprehensive information  
22 about patents held by United States persons that  
23 are available for licensing and the technology needs  
24 of United States manufacturers.

1           (2) COORDINATION WITH EXISTING DATA-  
2           BASE.—The Assistant Secretary shall ensure that  
3           the database established under paragraph (1) is co-  
4           ordinated with the national manufacturing tech-  
5           nology needs database established by the Garn Ad-  
6           vanced Manufacturing Business Innovation and  
7           Technologies Center to ensure the ongoing mainte-  
8           nance of a national repository for new manufac-  
9           turing technologies.

10           (3) PROTECTION OF INTELLECTUAL PROP-  
11           ERTY.—The Assistant Secretary shall take appro-  
12           priate measures to protect the intellectual property  
13           of participants in the database established under  
14           paragraph (1).

15           (4) AVAILABILITY.—The Assistant Secretary  
16           shall make the database established under para-  
17           graph (1) available to—

18                   (A) manufacturers located in the United  
19                   States that seek new technologies or innova-  
20                   tions to improve manufacturing or to promote  
21                   new manufacturing for the primary purpose of  
22                   deploying new technologies and innovations de-  
23                   veloped within the United States to small man-  
24                   ufacturing enterprises located in the United  
25                   States;

1 (B) National Laboratories, research uni-  
2 versities in the United States, and other patent  
3 holders in the United States for—

4 (i) determining if any technologies al-  
5 ready developed or under development have  
6 potential for filling the technology needs  
7 defined in the database;

8 (ii) identifying technology needs to  
9 improve manufacturing in the United  
10 States or to introduce new products to  
11 small manufacturing enterprises;

12 (iii) identifying the technology needs  
13 of small manufacturing enterprises which  
14 might be addressed by technologies or in-  
15 novations developed or used by other small  
16 manufacturing enterprises and that could  
17 be licensed or otherwise accessed; and

18 (iv) promoting the use of patents of  
19 such laboratories, research universities,  
20 and other patent holders.

21 (5) ASSESSMENT.—The Assistant Secretary  
22 shall—

23 (A) annually survey not less than 10 per-  
24 cent of small manufacturing enterprises in the

1 United States to assess the technology needs of  
2 small manufacturing enterprises; and

3 (B) incorporate information from each an-  
4 nual survey under subparagraph (A) into the  
5 database established under this subsection, in a  
6 manner that appropriately protects confiden-  
7 tiality and intellectual property rights.

8 (I) REGULATIONS.—The Assistant Secretary shall, in  
9 consultation with the States, promulgate regulations for  
10 the distribution of FAST Deployment Program funds to  
11 all qualified States and the use of FAST Deployment Pro-  
12 gram funds in accordance with this section.

○