

111TH CONGRESS  
1ST SESSION

# S. 2776

To amend the Energy Policy Act of 2005 to create the right business environment for doubling production of clean nuclear energy and other clean energy and to create mini-Manhattan projects for clean energy research and development.

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## IN THE SENATE OF THE UNITED STATES

NOVEMBER 16, 2009

Mr. ALEXANDER (for himself and Mr. WEBB) introduced the following bill; which was read twice and referred to the Committee on Energy and Natural Resources

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## A BILL

To amend the Energy Policy Act of 2005 to create the right business environment for doubling production of clean nuclear energy and other clean energy and to create mini-Manhattan projects for clean energy research and development.

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 “Clean Energy Act of  
5 2009”.

6 **SEC. 2. FINDINGS.**

7 Congress finds that—

1 (1) nuclear energy provides—

2 (A) approximately 19 percent of the elec-  
3 tricity of the United States; and

4 (B) approximately 70 percent of the car-  
5 bon-dioxide free electricity of the United States;

6 (2) nuclear energy has the lowest land-use re-  
7 quirements per megawatt of any electricity gener-  
8 ating source;

9 (3) the majority of the 104 operating reactors  
10 located in the United States were constructed during  
11 a 20-year time period beginning in 1970 and ending  
12 in 1990; and

13 (4) a broader deployment of nuclear energy (in-  
14 cluding novel methods such as the development of  
15 small reactors and advanced fuel cycles) would  
16 greatly improve the ability of the United States—

17 (A) to reduce greenhouse gas emissions;

18 and

19 (B) to maintain low electricity prices.

20 **SEC. 3. REVISIONS TO LOAN GUARANTEE PROGRAM AU-**  
21 **THORITY.**

22 (a) DEFINITION OF COMMERCIAL TECHNOLOGY.—  
23 Section 1701(1) of the Energy Policy Act of 2005 (42  
24 U.S.C. 16511(1)) is amended by striking subparagraph  
25 (B) and inserting the following:

1           “(B) EXCLUSION.—The term ‘commercial  
2           technology’ does not include a technology if the  
3           sole use of the technology is in connection  
4           with—

5                     “(i) a demonstration project; or

6                     “(ii) a project for which the Secretary  
7                     approved a loan guarantee.”.

8           (b) SUBROGATION.—Section 1702(g)(2) of the En-  
9           ergy Policy Act of 2005 (42 U.S.C. 16512(g)(2)) is  
10           amended by striking subparagraphs (B) and (C) and in-  
11           serting the following:

12                   “(B) SUPERIORITY OF RIGHTS.—Except as  
13                   provided in subparagraph (C), the rights of the  
14                   Secretary, with respect to any property ac-  
15                   quired pursuant to a guarantee or related  
16                   agreements, shall be superior to the rights of  
17                   any other person with respect to the property.

18                   “(C) TERMS AND CONDITIONS.—A guar-  
19                   antee agreement shall include such detailed  
20                   terms and conditions as the Secretary deter-  
21                   mines appropriate to—

22                             “(i) protect the interests of the United  
23                             States in the case of default;

24                             “(ii) have available all the patents and  
25                             technology necessary for any person se-

1 lected, including the Secretary, to complete  
2 and operate the project;

3 “(iii) provide for sharing the proceeds  
4 received from the sale of project assets  
5 with other creditors or control the disposi-  
6 tion of project assets if necessary to pro-  
7 tect the interests of the United States in  
8 the case of default; and

9 “(iv) provide such lien priority in  
10 project assets as necessary to protect the  
11 interests of the United States in the case  
12 of a default.”.

13 (c) FEES.—Section 1702(h) of the Energy Policy Act  
14 of 2005 (42 U.S.C. 16512(h)) is amended by striking  
15 paragraph (2) and inserting the following:

16 “(2) AVAILABILITY.—Fees collected under this  
17 subsection shall remain available to the Secretary for  
18 expenditure, without further appropriation or fiscal  
19 year limitation, for administrative expenses incurred  
20 in carrying out this title.

21 “(3) ADJUSTMENT.—The Secretary may adjust  
22 the amount or manner of collection of fees under  
23 this title as the Secretary determines is necessary to  
24 promote, to the maximum extent practicable, eligible  
25 projects under this title.

1           “(4) EXCESS FEES.—Of the amount of a fee  
2           imposed on an applicant at the conditional commit-  
3           ment stage, 75 percent of the amount shall be re-  
4           fundable to the applicant if there is no financial  
5           close on the application, unless the Secretary deter-  
6           mines that the administrative costs of the Depart-  
7           ment have exceeded the amount retained.

8           “(5) CREDIT REPORT.—If, in the opinion of the  
9           Secretary, the credit rating of an applicant is not  
10          relevant to the determination of whether or not sup-  
11          port will be provided and the applicant agrees to ac-  
12          cept the credit rating assigned to the applicant by  
13          the Secretary, the Secretary may waive any require-  
14          ment to provide a third-party credit report.”.

15          (d) PROCESSING.—Section 1702 of the Energy Policy  
16          Act of 2005 (42 U.S.C. 16512) is amended by adding at  
17          the end the following:

18          “(k) ACCELERATED REVIEWS.—To the maximum ex-  
19          tent practicable and consistent with sound business prac-  
20          tices, the Secretary shall seek to conduct necessary reviews  
21          concurrently of an application for a loan guarantee under  
22          this title such that decisions as to whether to enter into  
23          a commitment on the application can be issued not later  
24          than 180 days after the date of submission of a completed  
25          application.”.

1 (e) ELIGIBLE PROJECTS.—Section 1703(b)(4) of the  
2 Energy Policy Act of 2005 (42 U.S.C. 16513(b)(4)) is  
3 amended by inserting “(including nuclear power parts,  
4 services, and fuel suppliers)” after “energy facilities”.

5 (f) AUTHORIZATION OF APPROPRIATIONS.—Section  
6 1704 of the Energy Policy Act of 2005 (42 U.S.C. 16514)  
7 is amended—

8 (1) by redesignating subsection (b) as sub-  
9 section (c); and

10 (2) by inserting after subsection (a) the fol-  
11 lowing:

12 “(b) USE OF FUNDS.—Of the funds made available  
13 under subsection (a), not less than \$10,000,000,000 shall  
14 be used to cover the costs of subsidies under this title.”.

15 **SEC. 4. NUCLEAR REGULATORY COMMISSION.**

16 (a) SENSE OF CONGRESS REGARDING BLUE-RIBBON  
17 PANEL FOR DEVELOPMENT OF FEDERAL NUCLEAR  
18 WASTE POLICY.—It is the sense of Congress that Con-  
19 gress supports the convening by the President of a blue-  
20 ribbon panel for the development of a Federal nuclear  
21 waste policy.

22 (b) SMALL NUCLEAR REACTOR DESIGN DEVELOP-  
23 MENT.—Section 952(c) of the Energy Policy Act of 2005  
24 (42 U.S.C. 16272(c)) is amended by adding at the end  
25 the following:

1           “(3) SMALL NUCLEAR REACTOR DESIGN DE-  
2 VELOPMENT.—

3           “(A) IN GENERAL.—In carrying out the  
4 Program, in accordance with subparagraph (B),  
5 the Secretary shall offer to enter into coopera-  
6 tive agreements with reactor manufacturers and  
7 electric utilities to license nuclear reactors—

8           “(i) the electrical power capacity of  
9 which are less than 350 megawatts per  
10 unit; or

11           “(ii) the thermal power capacity of  
12 which are less than 900 megawatts per  
13 unit.

14           “(B) REQUIREMENTS.—In carrying out  
15 subparagraph (A), the Secretary shall—

16           “(i) ensure that not more than 3 of  
17 the most technically and economically fea-  
18 sible designs will be submitted to the Nu-  
19 clear Regulatory Commission for design  
20 certification and licensing; and

21           “(ii) with respect to a reactor, pay to  
22 the Nuclear Regulatory Commission 50  
23 percent of any fees arising from—

24           “(I) the design certification of  
25 the reactor;

1                   “(II) the first early site permit  
2                   for the reactor; and

3                   “(III) the first combined oper-  
4                   ating license for the reactor.

5                   “(C) RESPONSIBILITY OF NUCLEAR REGU-  
6                   LATORY COMMISSION.—Not later than 90 days  
7                   after the date of receipt of an application for a  
8                   design certification, early site permit, or com-  
9                   bined operating license, the Nuclear Regulatory  
10                  Commission shall submit to the appropriate  
11                  committees of Congress a report regarding the  
12                  status of the application.

13                  “(D) AUTHORIZATION OF APPROPRIA-  
14                  TIONS.—There is authorized to be appropriated  
15                  to the Secretary to carry out this paragraph  
16                  \$200,000,000 for each of fiscal years 2011  
17                  through 2015, to remain available until ex-  
18                  pended.”.

19                  (c) CONSTRUCTION AND OPERATING LICENCES.—  
20                  Section 182 of the Atomic Energy Act of 1954 (42 U.S.C.  
21                  2232) is amended by adding at the end the following:

22                  “e. NUCLEAR WASTE CONFIDENCE.—In considering  
23                  applications for the construction and operation of a nu-  
24                  clear facility submitted to the Commission under section  
25                  103 or 104, the Commission shall consider that sufficient

1 capacity will be available in a timely manner to dispose  
2 of spent nuclear fuel and high-level radioactive waste re-  
3 sulting from the operation of the nuclear facility that is  
4 the subject of the application.”.

5 **SEC. 5. FUNDING FOR WORKFORCE DEVELOPMENT AND**  
6 **RESEARCH.**

7 (a) NUCLEAR WORKFORCE EDUCATION.—

8 (1) AUTHORIZATION OF APPROPRIATIONS.—

9 There is authorized to be appropriated to the Sec-  
10 retary of Education to carry out the education of a  
11 nuclear workforce \$100,000,000 for each of fiscal  
12 years 2011 through 2020, to remain available until  
13 expended.

14 (2) USE OF FUNDS.—In using funds made  
15 available under paragraph (1), the Secretary of Edu-  
16 cation, in consultation with the Secretary of Labor  
17 and the Secretary of Energy, shall—

18 (A) carry out activities to educate and  
19 train craftsmen, engineers, operators, and other  
20 appropriate workers as determined to be nec-  
21 essary by the Secretary of Education to ensure  
22 an adequate nuclear workforce; and

23 (B) make grants to develop educational  
24 and cooperative programs at—

1 (i) secondary schools, as defined in  
2 section 9101 of the Elementary and Sec-  
3 ondary Education Act of 1965 (20 U.S.C.  
4 7801); and

5 (ii) postsecondary institutions.

6 (b) NUCLEAR REACTOR LIFETIME-EXTENSION RE-  
7 SEARCH.—There is authorized to be appropriated to the  
8 Secretary of Energy to carry out nuclear reactor uprate  
9 and lifetime-extension research \$50,000,000 for each of  
10 fiscal years 2011 through 2020, to remain available until  
11 expended.

12 (c) CLEAN ENERGY RESEARCH AND DEVELOP-  
13 MENT.—

14 (1) AUTHORIZATION OF APPROPRIATIONS.—

15 There is authorized to be appropriated to the Sec-  
16 retary of Energy to carry out research and develop-  
17 ment activities to advance clean energy  
18 \$750,000,000 for each of fiscal years 2011 through  
19 2020, to remain available until expended.

20 (2) USE OF FUNDS.—Of the funds made avail-  
21 able under paragraph (1) for each of fiscal years  
22 2011 through 2020—

23 (A) \$150,000,000 shall be used for the re-  
24 search and development of liquid transportation  
25 biofuels other than ethanol;

1 (B) \$150,000,000 shall be used for the re-  
2 search and development of marketable—

3 (i) carbon dioxide capture, storage, or  
4 conversion; or

5 (ii) beneficial reuses of carbon dioxide;

6 (C) \$150,000,000 shall be used for re-  
7 search and development to reduce the cost of  
8 batteries for electric vehicles;

9 (D) \$150,000,000 shall be used for re-  
10 search and development to make solar elec-  
11 tricity cost-competitive with respect to tradi-  
12 tional sources of electricity generation (includ-  
13 ing coal); and

14 (E) \$150,000,000 shall be used for re-  
15 search and development to recycle used nuclear  
16 fuel (including the research and development of  
17 Generation IV nuclear reactors that are de-  
18 signed to consume recycled nuclear fuel).

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