

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

# H. R. 5866

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## AN ACT

To amend the Energy Policy Act of 2005 requiring the Secretary of Energy to carry out initiatives to advance innovation in nuclear energy technologies, to make nuclear energy systems more competitive, to increase efficiency and safety of civilian nuclear power, 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 “Nuclear Energy Re-  
5 search and Development Act of 2010”.

6 **SEC. 2. OBJECTIVES.**

7        Section 951(a) of the Energy Policy Act of 2005 (42  
8 U.S.C. 16271(a)) is amended—

9            (1) by redesignating paragraphs (2) through  
10            (8) as paragraphs (5) through (11), respectively;

11            (2) by inserting after paragraph (1) the fol-  
12            lowing new paragraphs:

13            “(2) Reducing the costs of nuclear reactor sys-  
14            tems.

15            “(3) Reducing used nuclear fuel and nuclear  
16            waste products generated by civilian nuclear energy.

17            “(4) Supporting technological advances in areas  
18            that industry by itself is not likely to undertake be-  
19            cause of technical and financial uncertainty.”; and

20            (3) by inserting after paragraph (11), as so re-  
21            designated, the following new paragraph:

22            “(12) Researching and developing technologies  
23            and processes so as to improve and streamline the  
24            process by which nuclear power systems meet Fed-  
25            eral and State requirements and standards.”.

1 **SEC. 3. FUNDING.**

2 Section 951 of the Energy Policy Act of 2005 (42  
3 U.S.C. 16271) is further amended—

4 (1) in subsection (b), by striking paragraphs  
5 (1) through (3) and inserting the following:

6 “(1) \$419,000,000 for fiscal year 2011;

7 “(2) \$429,000,000 for fiscal year 2012; and

8 “(3) \$439,000,000 for fiscal year 2013.”; and

9 (2) in subsection (d)—

10 (A) by striking “under subsection (a)” and  
11 inserting “under subsection (b)”;

12 (B) by amending paragraph (1) to read as  
13 follows:

14 “(1) For activities under section 953—

15 “(A) \$201,000,000 for fiscal year 2011;

16 “(B) \$201,000,000 for fiscal year 2012;

17 and

18 “(C) \$201,000,000 for fiscal year 2013.”;

19 and

20 (C) by inserting after paragraph (3) the  
21 following new paragraphs:

22 “(4) For activities under section 952, other  
23 than those described in section 952(d)—

24 “(A) \$64,000,000 for fiscal year 2011;

25 “(B) \$64,000,000 for fiscal year 2012; and

26 “(C) \$64,000,000 for fiscal year 2013.

- 1           “(5) For activities under section 952(d)—  
2           “(A) \$55,000,000 for fiscal year 2011;  
3           “(B) \$65,000,000 for fiscal year 2012; and  
4           “(C) \$75,000,000 for fiscal year 2013.  
5           “(6) For activities under section 958—  
6           “(A) \$99,000,000 for fiscal year 2011;  
7           “(B) \$99,000,000 for fiscal year 2012; and  
8           “(C) \$99,000,000 for fiscal year 2013.”.

9   **SEC. 4. PROGRAM OBJECTIVES STUDY.**

10       Section 951 of the Energy Policy Act of 2005 (42  
11 U.S.C. 16271) is amended by adding at the end the fol-  
12 lowing new subsection:

13       “(f) PROGRAM OBJECTIVES STUDY.—In furtherance  
14 of the program objectives listed in subsection (a) of this  
15 section, the Secretary shall, within one year after the date  
16 of enactment of this subsection, transmit to the Congress  
17 a report on the results of a study on the scientific and  
18 technical merit of major State requirements and stand-  
19 ards, including moratoria, that delay or impede the further  
20 development and commercialization of nuclear power, and  
21 how the Department in implementing the programs can  
22 assist in overcoming such delays or impediments.”.

1 **SEC. 5. NUCLEAR ENERGY RESEARCH AND DEVELOPMENT**  
2 **PROGRAMS.**

3 Section 952 of the Energy Policy Act of 2005 (42  
4 U.S.C. 16272) is amended by striking subsections (c)  
5 through (e) and inserting the following:

6 “(c) REACTOR CONCEPTS.—

7 “(1) IN GENERAL.—The Secretary shall carry  
8 out a program of research, development, demonstra-  
9 tion, and commercial application to advance nuclear  
10 power systems as well as technologies to sustain cur-  
11 rently deployed systems.

12 “(2) DESIGNS AND TECHNOLOGIES.—In con-  
13 ducting the program under this subsection, the Sec-  
14 retary shall examine advanced reactor designs and  
15 nuclear technologies, including those that—

16 “(A) are economically competitive with  
17 other electric power generation plants;

18 “(B) have higher efficiency, lower cost, and  
19 improved safety compared to reactors in oper-  
20 ation as of the date of enactment of the Nu-  
21 clear Energy Research and Development Act of  
22 2010;

23 “(C) utilize passive safety features;

24 “(D) minimize proliferation risks;

25 “(E) substantially reduce production of  
26 high-level waste per unit of output;

1           “(F) increase the life and sustainability of  
2 reactor systems currently deployed;

3           “(G) use improved instrumentation;

4           “(H) are capable of producing large-scale  
5 quantities of hydrogen or process heat; or

6           “(I) minimize water usage or use alter-  
7 natives to water as a cooling mechanism.

8           “(3) INTERNATIONAL COOPERATION.—In car-  
9 rying out the program under this subsection, the  
10 Secretary shall seek opportunities to enhance the  
11 progress of the program through international co-  
12 operation through such organizations as the Genera-  
13 tion IV International Forum, or any other inter-  
14 national collaboration the Secretary considers appro-  
15 priate.

16           “(4) EXCEPTIONS.—No funds authorized to be  
17 appropriated to carry out the activities described in  
18 this subsection shall be used to fund the activities  
19 authorized under sections 641 through 645.”.

20 **SEC. 6. SMALL MODULAR REACTOR PROGRAM.**

21           Section 952 of the Energy Policy Act of 2005 (42  
22 U.S.C. 16272) is further amended by adding at the end  
23 the following new subsection:

24           “(d) SMALL MODULAR REACTOR PROGRAM.—

25           “(1) IN GENERAL.—

1           “(A) The Secretary shall carry out a small  
2 modular reactor program to promote research,  
3 development, demonstration, and commercial  
4 application of small modular reactors, including  
5 through cost-shared projects for commercial ap-  
6 plication of reactor systems designs.

7           “(B) The Secretary shall consult with and  
8 utilize the expertise of the Secretary of the  
9 Navy in establishing and carrying out such pro-  
10 gram.

11           “(C) Activities may also include develop-  
12 ment of advanced computer modeling and sim-  
13 ulation tools, by Federal and non-Federal enti-  
14 ties, which demonstrate and validate new design  
15 capabilities of innovative small modular reactor  
16 designs.

17           “(2) DEFINITION.—For the purposes of this  
18 subsection, the term ‘small modular reactor’ means  
19 a nuclear reactor—

20           “(A) with a rated capacity of less than 300  
21 electrical megawatts;

22           “(B) with respect to which most parts can  
23 be factory assembled and shipped as modules to  
24 a reactor plant site for assembly; and

1           “(C) that can be constructed and operated  
2           in combination with similar reactors at a single  
3           site.

4           “(3) LIMITATION.—Demonstration activities  
5           carried out under this section shall be limited to in-  
6           dividual technologies and systems, and shall not in-  
7           clude demonstration of full reactor systems or full  
8           plant operations.

9           “(4) ADMINISTRATION.—In conducting the  
10          small modular reactor program, the Secretary may  
11          enter into cooperative agreements to support small  
12          modular reactor designs that enable—

13                 “(A) lower capital costs or increased access  
14                 to private financing in comparison to current  
15                 large reactor designs;

16                 “(B) reduced long-term radiotoxicity,  
17                 mass, or decay heat of the nuclear waste pro-  
18                 duced by generation;

19                 “(C) increased operating safety of nuclear  
20                 facilities;

21                 “(D) reduced dependence of reactor sys-  
22                 tems on water resources;

23                 “(E) increased seismic resistance of nu-  
24                 clear generation;



1           “(F) reduced proliferation risks through  
2 integrated safeguards and security proliferation  
3 controls; and

4           “(G) increased efficiency in reactor manu-  
5 facturing and construction.

6           “(5) APPLICATION.—To be eligible to enter into  
7 a cooperative agreement with the Secretary under  
8 this subsection, an applicant shall submit to the Sec-  
9 retary a proposal for the small modular reactor  
10 project to be undertaken. The proposal shall docu-  
11 ment—

12           “(A) all partners and suppliers that will be  
13 active in the small modular reactor project, in-  
14 cluding a description of each partner or sup-  
15 plier’s anticipated domestic and international  
16 activities;

17           “(B) measures to be undertaken to enable  
18 cost-effective implementation of the small mod-  
19 ular reactor project;

20           “(C) an accounting structure approved by  
21 the Secretary;

22           “(D) all known assets that shall be con-  
23 tributed to satisfy the cost-sharing requirement  
24 under paragraph (6); and

1           “(E) the extent to which the proposal will  
2           increase domestic manufacturing activity, ex-  
3           ports, or employment.

4           “(6) COST SHARING.—Notwithstanding section  
5           988, the Secretary shall require the parties to a co-  
6           operative agreement under this subsection to be re-  
7           sponsible for not less than 50 percent of the costs  
8           of the small modular reactor project.

9           “(7) CALCULATION OF COST SHARING  
10          AMOUNT.—A recipient of financial assistance under  
11          this section may not satisfy the cost sharing require-  
12          ment under paragraph (6) by using funds received  
13          from the Federal Government through appropriation  
14          Acts.

15          “(8) PROJECT SELECTION CRITERIA.—The Sec-  
16          retary shall consider the following factors in entering  
17          into a cooperative agreement under this subsection:

18                 “(A) The domestic manufacturing capabili-  
19                 ties of the parties to the cooperative agreement  
20                 and their partners and suppliers.

21                 “(B) The viability of the reactor design  
22                 and the business plan or plans of the parties to  
23                 the cooperative agreement.

24                 “(C) The parties to the cooperative agree-  
25                 ment’s potential to continue the development of

1 small modular reactors without Federal sub-  
2 sidies or loan guarantees.

3 “(D) The cost share to be provided.

4 “(E) The degree to which the following  
5 goals will be advanced:

6 “(i) Lower capital costs or increased  
7 access to private financing in comparison  
8 to current large reactor designs.

9 “(ii) Reduced long-term radiotoxicity,  
10 mass, or decay heat of the nuclear waste  
11 produced by generation.

12 “(iii) Increased operating safety of  
13 nuclear facilities.

14 “(iv) Reduced dependence of reactor  
15 systems on water resources.

16 “(v) Increased seismic resistance of  
17 nuclear generation.

18 “(vi) Reduced proliferation risks  
19 through integrated safeguards and security  
20 proliferation controls.

21 “(vii) Increased efficiency in reactor  
22 manufacturing and construction.”.

1 **SEC. 7. CONVENTIONAL IMPROVEMENTS TO NUCLEAR**  
2 **POWER PLANTS.**

3 Section 952 of the Energy Policy Act of 2005 (42  
4 U.S.C. 16272) is further amended by adding at the end  
5 the following new subsection:

6 “(e) CONVENTIONAL IMPROVEMENTS TO NUCLEAR  
7 POWER PLANTS.—

8 “(1) IN GENERAL.—The Secretary may carry  
9 out a Nuclear Energy Research Initiative for re-  
10 search and development related to steam-side im-  
11 provements to nuclear power plants to promote the  
12 research, development, demonstration, and commer-  
13 cial application of—

14 “(A) cooling systems;

15 “(B) turbine technologies;

16 “(C) heat exchangers and pump design;

17 “(D) special coatings to improve lifetime of  
18 components and performance of heat exchang-  
19 ers; and

20 “(E) advanced power conversion systems  
21 for advanced reactor technologies.

22 “(2) ADMINISTRATION.—The Secretary may  
23 undertake initiatives under this subsection only when  
24 the goals are relevant and proper to enhance the  
25 performance of technologies developed under sub-  
26 section (c). Not more than \$10,000,000 of funds au-

1       thorized for this section may be used for carrying  
2       out this subsection.”.

3       **SEC. 8. FUEL CYCLE RESEARCH AND DEVELOPMENT.**

4       (a) AMENDMENTS.—Section 953 of the Energy Pol-  
5       icy Act of 2005 (42 U.S.C. 16273) is amended—

6               (1) in the section heading by striking “**AD-**  
7       **VANCED FUEL CYCLE INITIATIVE**” and inserting  
8       “**FUEL CYCLE RESEARCH AND DEVELOPMENT**”;

9               (2) by striking subsection (a);

10              (3) by redesignating subsections (b) through (d)  
11       as subsections (e) through (g), respectively; and

12              (4) by inserting before subsection (e), as so re-  
13       designated by paragraph (3) of this subsection, the  
14       following new subsections:

15       “(a) IN GENERAL.—The Secretary shall conduct a  
16       fuel cycle research, development, demonstration, and com-  
17       mercial application program (referred to in this section as  
18       the ‘program’) on fuel cycle options that improve uranium  
19       resource utilization, maximize energy generation, minimize  
20       nuclear waste creation, improve safety, mitigate risk of  
21       proliferation, and improve waste management in support  
22       of a national strategy for spent nuclear fuel and the reac-  
23       tor concepts research, development, demonstration, and  
24       commercial application program under section 952(c).

1       “(b) FUEL CYCLE OPTIONS.—Under this section the  
2 Secretary may consider implementing the following initia-  
3 tives:

4           “(1) OPEN CYCLE.—Developing fuels, including  
5 the use of nonuranium materials, for use in reactors  
6 that increase energy generation and minimize the  
7 amount of nuclear waste produced in an open fuel  
8 cycle.

9           “(2) MODIFIED OPEN CYCLE.—Developing fuel  
10 forms, reactors, and limited separation and trans-  
11 mutation methods that increase fuel utilization and  
12 reduce nuclear waste in a modified open fuel cycle.

13           “(3) FULL RECYCLE.—Developing advanced re-  
14 cycling technologies, including Generation IV Reac-  
15 tors, to reduce the risk of proliferation, radiotoxicity,  
16 mass, and decay heat to the greatest extent possible.

17           “(4) ADVANCED STORAGE METHODS.—Devel-  
18 oping advanced storage technologies for both onsite  
19 and long-term storage that substantially prolong the  
20 effective life of current storage devices or that sub-  
21 stantially improve upon existing nuclear waste stor-  
22 age technologies and methods, including repositories.

23           “(5) ALTERNATIVE AND DEEP BOREHOLE  
24 STORAGE METHODS.—Developing alternative storage  
25 methods for long-term storage, including deep

1 boreholes into stable crystalline rock formations and  
2 mined repositories in a range of geologic media.

3 “(6) OTHER TECHNOLOGIES.—Developing any  
4 other technology or initiative that the Secretary de-  
5 termines is likely to advance the objectives of the  
6 program established under subsection (a).

7 “(c) ADDITIONAL ADVANCED RECYCLING AND  
8 CROSSCUTTING ACTIVITIES.—In addition to and in sup-  
9 port of the specific initiatives described in paragraphs (1)  
10 through (6), the Secretary may support the following ac-  
11 tivities:

12 “(1) Development and testing of integrated  
13 process flow sheets for advanced nuclear fuel recy-  
14 cling processes.

15 “(2) Research to characterize the byproducts  
16 and waste streams resulting from fuel recycling  
17 processes.

18 “(3) Research and development on reactor con-  
19 cepts or transmutation technologies that improve re-  
20 source utilization or reduce the radiotoxicity of waste  
21 streams.

22 “(4) Research and development on waste treat-  
23 ment processes and separations technologies, ad-  
24 vanced waste forms, and quantification of prolifera-  
25 tion risks.

1           “(5) Identification and evaluation of test and  
2           experimental facilities necessary to successfully im-  
3           plement the advanced fuel cycle initiative.

4           “(6) Advancement of fuel cycle-related modeling  
5           and simulation capabilities.

6           “(d) BLUE RIBBON COMMISSION REPORT.—

7           “(1) In carrying out this section, the Secretary  
8           shall give consideration to the final report on a long-  
9           term nuclear waste solution produced by the Blue  
10          Ribbon Commission on America’s Nuclear Future.

11          “(2) Not later than 180 days after the release  
12          of the Blue Ribbon Commission on America’s Nu-  
13          clear Future final report, the Secretary shall trans-  
14          mit to Congress a report, which shall include—

15                 “(A) any plans the Department may have  
16                 to incorporate any relevant recommendations  
17                 from this report into the program; and

18                 “(B) how those recommendations for long-  
19                 term nuclear waste solutions that will be incor-  
20                 porated into the plan compare with plans for a  
21                 long-term nuclear waste solution of a repository  
22                 at Yucca Mountain, that may or may not be in-  
23                 corporated into the plan, with regard to the  
24                 safety, security, legal, cost, and technological  
25                 and site readiness factors associated with any



1 recommendations related to final disposition  
2 pathways for spent nuclear fuel and high-level  
3 radioactive waste to the same factors associated  
4 with permanent deep geological disposal at the  
5 Yucca Mountain waste repository.

6 “(3) The analysis described in paragraph  
7 (2)(B) shall be conducted using scientific and tech-  
8 nical materials and information used to support pol-  
9 icy actions related to the Yucca Mountain project.”.

10 (b) CONFORMING AMENDMENT.—The item relating  
11 to section 953 in the table of contents of the Energy Policy  
12 Act of 2005 is amended to read as follows:

“Sec. 953. Fuel cycle research and development.”.

13 **SEC. 9. NUCLEAR ENERGY ENABLING TECHNOLOGIES PRO-**  
14 **GRAM.**

15 (a) AMENDMENT.—Subtitle E of title IX of the En-  
16 ergy Policy Act of 2005 (42 U.S.C. 16271 et seq.) is  
17 amended by adding at the following new section:

18 **“SEC. 958. NUCLEAR ENERGY ENABLING TECHNOLOGIES.**

19 “(a) IN GENERAL.—The Secretary shall conduct a  
20 program to support the integration of activities under-  
21 taken through the reactor concepts research, development,  
22 demonstration, and commercial application program under  
23 section 952(c) and the fuel cycle research and development  
24 program under section 953, and support crosscutting nu-  
25 clear energy concepts. Activities commenced under this

1 section shall be concentrated on broadly applicable re-  
2 search and development focus areas.

3 “(b) ACTIVITIES.—Activities conducted under this  
4 section may include research involving—

5 “(1) advanced reactor materials;

6 “(2) advanced radiation mitigation methods;

7 “(3) advanced proliferation and security risk  
8 assessment methods;

9 “(4) advanced sensors and instrumentation;

10 “(5) advanced nuclear manufacturing methods;

11 or

12 “(6) any crosscutting technology or trans-  
13 formative concept aimed at establishing substantial  
14 and revolutionary enhancements in the performance  
15 of future nuclear energy systems that the Secretary  
16 considers relevant and appropriate to the purpose of  
17 this section.

18 “(c) REPORT.—The Secretary shall submit, as part  
19 of the annual budget submission of the Department, a re-  
20 port on the activities of the program conducted under this  
21 section, which shall include a brief evaluation of each ac-  
22 tivity’s progress.”.

23 (b) CONFORMING AMENDMENT.—The table of con-  
24 tents of the Energy Policy Act of 2005 is amended by

1 adding at the end of the items for subtitle E of title IX  
2 the following new item:

“Sec. 958. Nuclear energy enabling technologies.”.

3 **SEC. 10. EMERGENCY RISK ASSESSMENT AND PREPARED-**  
4 **NESS REPORT.**

5 Not later than 180 days after the date of enactment  
6 of this Act, the Secretary shall transmit to the Congress  
7 a report summarizing quantitative risks associated with  
8 the potential of a severe accident arising from the use of  
9 civilian nuclear energy technology, including reactor tech-  
10 nology deployed or likely to be deployed as of the date  
11 of enactment of this Act, and outlining the technologies  
12 currently available to mitigate the consequences of such  
13 an accident. The report shall include recommendations of  
14 areas of technological development that should be pursued  
15 to reduce the potential public harm arising from such an  
16 incident.

17 **SEC. 11. NEXT GENERATION NUCLEAR PLANT.**

18 (a) PROTOTYPE PLANT LOCATION.—Section  
19 642(b)(3) of the Energy Policy Act of 2005 (42 U.S.C.  
20 16022(b)(3)) is amended to read as follows:

21 “(3) PROTOTYPE PLANT LOCATION.—The pro-  
22 totype nuclear reactor and associated plant shall be  
23 constructed at a location determined by the consor-  
24 tium through an open and transparent competitive  
25 selection process.”.

1 (b) REPORT.—

2 (1) REQUIREMENT.—Not later than 1 year  
3 after the date of enactment of this Act, the Comp-  
4 troller General shall transmit to the Congress a re-  
5 port providing a status update of the Next Genera-  
6 tion Nuclear Plant program that provides analysis  
7 of—

8 (A) its progress;

9 (B) how Federal funds appropriated for  
10 the project have been distributed and spent;  
11 and

12 (C) the current and expected participation  
13 by non-Federal entities.

14 (2) CONTENTS.—The report shall include—

15 (A) an analysis of the proposed facility's  
16 technical capabilities and remaining techno-  
17 logical development challenges, and a cost esti-  
18 mate and construction schedule;

19 (B) an assessment of the advantages and  
20 disadvantages of funding a pilot-scale research  
21 reactor project in lieu of a full-scale commercial  
22 power reactor;

23 (C) an assessment of alternative construc-  
24 tion sites proposed by private industry;

1           (D) an assessment of the extent to which  
2 the Department of Energy is working with in-  
3 dustry and the Nuclear Regulatory Commission  
4 to ensure that the Next Generation Nuclear  
5 Plant program meets industry expectations for  
6 long-term application of technologies and ad-  
7 dresses potential licensing procedures for de-  
8 ployment;

9           (E) an assessment of the known or antici-  
10 pated challenges to securing private non-Fed-  
11 eral cost share funds and any measures to over-  
12 come these challenges, including any alternative  
13 funding approaches such as front loading the  
14 Federal share;

15           (F) an assessment of project risks, includ-  
16 ing those related to—

17               (i) project scope, schedule, and re-  
18 sources;

19               (ii) the formation of partnerships or  
20 agreements between the Department and  
21 the private sector necessary for the  
22 project's success; and

23               (iii) the Department's capabilities to  
24 identify and manage such risks; and

1 (G) an assessment of what is known about  
2 the potential impact of natural gas and other  
3 fossil fuel prices on private entity participation  
4 in the project.

5 **SEC. 12. TECHNICAL STANDARDS COLLABORATION.**

6 (a) IN GENERAL.—The Director of the National In-  
7 stitute of Standards and Technology shall establish a nu-  
8 clear energy standards committee (in this section referred  
9 to as the “technical standards committee”) to facilitate  
10 and support, consistent with the National Technology  
11 Transfer and Advancement Act of 1995, the development  
12 or revision of technical standards for new and existing nu-  
13 clear power plants and advanced nuclear technologies.

14 (b) MEMBERSHIP.—

15 (1) IN GENERAL.—The technical standards  
16 committee shall include representatives from appro-  
17 priate Federal agencies and the private sector, and  
18 be open to materially affected organizations involved  
19 in the development or application of nuclear energy-  
20 related standards.

21 (2) CO-CHAIRS.—The technical standards com-  
22 mittee shall be co-chaired by a representative from  
23 the National Institute of Standards and Technology  
24 and a representative from a private sector standards  
25 organization.

1 (c) DUTIES.—The technical standards committee  
2 shall, in cooperation with appropriate Federal agencies—

3 (1) perform a needs assessment to identify and  
4 evaluate the technical standards that are needed to  
5 support nuclear energy, including those needed to  
6 support new and existing nuclear power plants and  
7 advanced nuclear technologies;

8 (2) formulate, coordinate, and recommend pri-  
9 orities for the development of new technical stand-  
10 ards and the revision of existing technical standards  
11 to address the needs identified under paragraph (1);

12 (3) facilitate and support collaboration and co-  
13 operation among standards developers to address the  
14 needs and priorities identified under paragraphs (1)  
15 and (2);

16 (4) as appropriate, coordinate with other na-  
17 tional, regional, or international efforts on nuclear  
18 energy-related technical standards in order to avoid  
19 conflict and duplication and to ensure global com-  
20 patibility; and

21 (5) promote the establishment and maintenance  
22 of a database of nuclear energy-related technical  
23 standards.

24 (d) AUTHORIZATION OF APPROPRIATIONS.—There  
25 are authorized to be appropriated \$1,000,000 for each of

1 fiscal years 2011 through 2013 to the Director of the Na-  
2 tional Institute for Standards and Technology for activi-  
3 ties under this section.

4 **SEC. 13. EVALUATION OF LONG-TERM OPERATING NEEDS.**

5 (a) IN GENERAL.—The Secretary of Energy shall  
6 enter into an arrangement with the National Academies  
7 to conduct an evaluation of the scientific and technological  
8 challenges to the long-term maintenance and safe oper-  
9 ation of currently deployed nuclear power reactors up to  
10 and beyond the specified design-life of reactor systems.

11 (b) REPORT.—Not later than 1 year after the date  
12 of enactment of this Act, the Secretary shall transmit to  
13 the Congress, and make publically available, the results  
14 of the evaluation undertaken by the Academies pursuant  
15 to subsection (a).

16 **SEC. 14. AVAILABLE FACILITIES DATABASE.**

17 The Secretary of Energy shall prepare a database of  
18 non-Federal user facilities receiving Federal funds that  
19 may be used for unclassified nuclear energy research.  
20 The Secretary shall make this database accessible on the  
21 Department of Energy's website.

22 **SEC. 15. NUCLEAR WASTE DISPOSAL.**

23 To the extent consistent with the requirements of  
24 current law, the Department of Energy shall be respon-  
25 sible for disposal of high-level radioactive waste or spent



1 nuclear fuel generated by reactors under the programs au-  
2 thorized in this Act, or the amendments made by this Act.

Passed the House of Representatives November 30,  
2010.

Attest:

*Clerk.*

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

**H. R. 5866**

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**AN ACT**

To amend the Energy Policy Act of 2005 requiring the Secretary of Energy to carry out initiatives to advance innovation in nuclear energy technologies, to make nuclear energy systems more competitive, to increase efficiency and safety of civilian nuclear power, and for other purposes.