

111TH CONGRESS  
2D SESSION

# S. 3585

To amend title 10, United States Code, to reform Department of Defense energy policy, and for other purposes.

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## IN THE SENATE OF THE UNITED STATES

JULY 14, 2010

Mr. UDALL of Colorado (for himself and Mr. BENNET) introduced the following bill; which was read twice and referred to the Committee on Armed Services

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## A BILL

To amend title 10, United States Code, to reform Department of Defense energy policy, 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; TABLE OF CONTENTS.**

4       (a) **SHORT TITLE.**—This Act may be cited as the  
5       “Department of Defense Energy Security Act of 2010”.

6       (b) **TABLE OF CONTENTS.**—The table of contents for  
7       this Act is as follows:

Sec. 1. Short title; table of contents.

Sec. 2. Consideration of Department of Defense energy performance plan in other Department of Defense planning.

Sec. 3. Procurement preference for goods and services derived using sustainable practices.

- Sec. 4. Renewable energy generation sources for Department of Defense energy needs.
- Sec. 5. Consideration of environmentally sustainable practices in Department energy performance plan.
- Sec. 6. Application of requirements regarding use of renewable forms of energy and energy efficient products to contractors operating Government-owned facilities and tenants and concessionaires.
- Sec. 7. Funding for energy conservation projects.
- Sec. 8. Improved building efficiency for Department of Defense facilities.
- Sec. 9. Conversion of Department of Defense fleet of non-tactical motor vehicles to electric and hybrid motor vehicles.
- Sec. 10. Research and development activities to incorporate hybrid-drive technology into current and future tactical fleet of military ground vehicles.
- Sec. 11. Development of biofuel derived from materials that do not compete with food stocks and is suitable for use as aviation fuel.
- Sec. 12. Implementation.
- Sec. 13. Waiver authority.

1 **SEC. 2. CONSIDERATION OF DEPARTMENT OF DEFENSE EN-**  
 2 **ERGY PERFORMANCE PLAN IN OTHER DE-**  
 3 **PARTMENT OF DEFENSE PLANNING.**

4 Section 2911(b) of title 10, United States Code, is  
 5 amended—

6 (1) by inserting “(1)” before “The Secretary”;

7 and

8 (2) by adding at the end the following new  
 9 paragraph:

10 “(2) The energy performance plan shall be taken into  
 11 consideration in the development of the following:

12 “(A) The National Security Strategy prescribed  
 13 by the President pursuant to section 108 of the Na-  
 14 tional Security Act of 1947 (50 U.S.C. 404a).

15 “(B) The annual report of the Secretary of De-  
 16 fense submitted to the President and Congress pur-  
 17 suant to section 113 of this title.



1 concerned, all paper used by the Department of Defense  
 2 shall contain at least 30 percent post-consumer fiber con-  
 3 tent.”.

4 (b) CLERICAL AMENDMENT.—The table of sections  
 5 at the beginning of such subchapter is amended by adding  
 6 at the end the following new item:

“2922g. Procurement preference for goods and services derived using sustain-  
 able practices.”.

7 **SEC. 4. RENEWABLE ENERGY GENERATION SOURCES FOR**  
 8 **DEPARTMENT OF DEFENSE ENERGY NEEDS.**

9 (a) DEPARTMENT OF DEFENSE RENEWABLE EN-  
 10 ERGY GOALS.—Section 2911(e) of title 10, United States  
 11 Code, is amended—

12 (1) by redesignating paragraph (2) as para-  
 13 graph (3); and

14 (2) by inserting after paragraph (1) the fol-  
 15 lowing new paragraph (2):

16 “(2) Of the amounts of electric energy produced or  
 17 procured from renewable energy sources to achieve the  
 18 goals in section 203(a) of the Energy Policy Act of 2005  
 19 (42 U.S.C. 15852(a)) for fiscal year 2011 and each subse-  
 20 quent fiscal year, and in paragraph (1)(A)—

21 “(A) at least 50 percent shall be produced or  
 22 procured from renewable energy sources that became  
 23 fully operational after January 1, 1999; and

1           “(B) at least 20 percent shall be produced or  
2           procured from renewable energy sources that became  
3           fully operational after September 30, 2009.”.

4           (b) IMPLEMENTATION PLAN.—Not later than 90  
5           days after the date of the enactment of this Act, the Sec-  
6           retary of Defense shall submit to Congress a plan for  
7           meeting the goals described in paragraph (2) of section  
8           2911(e) of title 10, United States Code (as amended by  
9           subsection (a) of this section), in conformance with the  
10          requirements of that paragraph.

11 **SEC. 5. CONSIDERATION OF ENVIRONMENTALLY SUSTAIN-**  
12                                   **ABLE PRACTICES IN DEPARTMENT ENERGY**  
13                                   **PERFORMANCE PLAN.**

14          Section 2911(e) of title 10, United States Code, is  
15          amended—

16               (1) in paragraph (4), by inserting “and hybrid-  
17               electric drive” after “alternative fuels”;

18               (2) by redesignating paragraph (9) as para-  
19               graph (11) and paragraphs (5) through (8) as para-  
20               graphs (6) through (9), respectively;

21               (3) by inserting after paragraph (4) the fol-  
22               lowing new paragraph (5):

23                       “(5) Opportunities for the high-performance  
24                       construction, lease, operation, and maintenance of  
25                       buildings.”; and

1           (4) by inserting after paragraph (9) (as redesignated by paragraph (2)) the following new paragraph:

2           “(10) The value of incorporating electric, hybrid-electric, and high-efficiency vehicles into vehicle  
3           fleets.”.

4           **SEC. 6. APPLICATION OF REQUIREMENTS REGARDING USE**  
5           **OF RENEWABLE FORMS OF ENERGY AND ENERGY EFFICIENT PRODUCTS TO CONTRACTORS OPERATING GOVERNMENT-OWNED FACILITIES AND TENANTS AND CONCESSIONAIRES.**

6           Section 2915 of title 10, United States Code, is amended by adding at the end the following new section:

7           “(f) APPLICATION TO CONTRACTORS OPERATING GOVERNMENT-OWNED FACILITIES AND TENANTS AND CONCESSIONAIRES.—(1) The Secretary of Defense shall  
8           require that any contract described in paragraph (2) entered into by the Secretary of a military department or  
9           the head of a Defense Agency after September 30, 2010,  
10           includes a provision requiring the non-Federal party to the  
11           contract to comply with the requirements of this section  
12           regarding use of renewable forms of energy and energy  
13           efficient products.  
14           efficient products.  
15           efficient products.  
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25           efficient products.

1 “(2) Paragraph (1) applies to the following contracts:

2 “(A) A contract providing for contractor oper-  
3 ation of a Government-owned facility of the Depart-  
4 ment of Defense.

5 “(B) A contract involving a permit, lease, li-  
6 cense, or other legally binding obligation between the  
7 Department and a tenant or concessionaire.

8 “(3) The Secretary of Defense may authorize an ex-  
9 ception to paragraph (1) on a contract-by-contract basis.”.

10 **SEC. 7. FUNDING FOR ENERGY CONSERVATION PROJECTS.**

11 (a) **AUTHORIZATION TO OBLIGATE FUNDS.**—The  
12 Secretary of Defense may obligate, from amounts appro-  
13 priated pursuant to the authorization of appropriations in  
14 section 2403 of the Military Construction Authorization  
15 for Fiscal Year 2011 to carry out energy conservation  
16 projects, \$290,000,000 to carry out energy conservation  
17 projects under chapter 173 of title 10, United States  
18 Code, to accelerate implementation of the energy perform-  
19 ance plan of the Department of Defense and achievement  
20 of the energy performance goals established under section  
21 2911 of such title, as amended by this Act.

22 (b) **AUTHORIZATION OF APPROPRIATIONS TO COM-**  
23 **PENSATE FOR DEFICIENCY.**—There is authorized to be  
24 appropriated to the Secretary of Defense an amount equal  
25 to the difference between—





1 facilities. Each Department facility shall be evalu-  
2 ated at least once every four years.

3 (2) ELEMENTS.—An evaluation shall, with re-  
4 spect to each facility—

5 (A) identify, through means including a re-  
6 commissioning or retrocommissioning process,  
7 measures to improve the energy and water effi-  
8 ciency of the facility, including the efficiency  
9 of—

10 (i) lighting, heating, ventilating, and  
11 air-conditioning systems;

12 (ii) combined heat and power systems;

13 and

14 (iii) the building envelope (including  
15 insulation, roofing, and windows); and

16 (B) assess the feasibility and life cycle  
17 cost-effectiveness of—

18 (i) implementing the measures identi-  
19 fied in subparagraph (A); and

20 (ii) providing on-site renewable elec-  
21 tricity generation.

22 (3) IMPLEMENTATION OF IDENTIFIED ENERGY  
23 AND WATER EFFICIENCY MEASURES.—Not later  
24 than two years after the completion of each evalua-

1       tion under this subsection, the energy manager  
2       shall—

3               (A) implement any measure assessed under  
4               clause (i) or (ii) of paragraph (2)(B) to be fea-  
5               sible and life cycle cost-effective; and

6               (B) in implementing measures under sub-  
7               paragraph (A), bundle individual measures of  
8               varying paybacks together into combined  
9               projects.

10           (4) FOLLOW-UP ON IMPLEMENTED MEAS-  
11           URES.—For each measure implemented under para-  
12           graph (3), the energy manager shall ensure that—

13               (A) equipment, including building and  
14               equipment controls, is fully commissioned at ac-  
15               ceptance to be operating at design specifica-  
16               tions;

17               (B) a plan for appropriate operations,  
18               maintenance, and repair of the equipment is in  
19               place at acceptance and is followed;

20               (C) equipment and system performance is  
21               measured during its entire life to ensure proper  
22               operations, maintenance, and repair; and

23               (D) energy and water savings are meas-  
24               ured and verified.

1           (5) CERTAIN FACILITIES EXEMPTED.—This  
2 subsection does not apply to facilities that are sched-  
3 uled for replacement under the future-years defense  
4 program submitted to Congress during fiscal year  
5 2011 under section 221 of title 10, United States  
6 Code.

7           (6) LIFE CYCLE COST-EFFECTIVE DEFINED.—  
8 In this subsection, the term “life cycle cost-effec-  
9 tive”, with respect to a measure, means a measure,  
10 the estimated net savings of which (including sav-  
11 ings in estimated energy and water costs and oper-  
12 ations, maintenance, repair, replacement, and other  
13 direct costs) exceed the estimated costs, including  
14 the cost of the initial implementation of the measure  
15 but not financing costs, over the lifespan of the  
16 measure. The Secretary of Defense may make such  
17 modifications and provide such exceptions to the cal-  
18 culation of the payback period of a measure as the  
19 Secretary determines to be appropriate to achieve  
20 the purposes of this Act.

21           (7) AUTHORIZATION TO OBLIGATE FUNDS.—  
22 The Secretary of Defense may obligate, from funds  
23 authorized to be appropriated for the Department of  
24 Defense for fiscal year 2011 for operation and main-

1       tenance such sums as are necessary to carry out this  
2       subsection.

3           (8) RULE OF CONSTRUCTION.—This subsection  
4       shall not be construed to require or to obviate any  
5       contractor savings guarantees.

6           (9) COMMENCEMENT.—The requirement im-  
7       posed by this subsection shall commence 180 days  
8       after the date of enactment of this Act.

9           (c) INSTALLATION OF HIGH-EFFICIENCY INSULA-  
10       TION ON FACILITIES AT FORWARD OPERATING LOCA-  
11       TIONS.—The Secretary of each military department shall  
12       require the installation of high-efficiency insulation on any  
13       climate-controlled structure at a forward operating loca-  
14       tion of the Armed Forces under the jurisdiction of the Sec-  
15       retary if the Secretary determines that inclusion of high-  
16       efficiency insulation will result in a reduction in energy  
17       use and will be life cycle cost-effective.

18           (d) GOAL TO DEVELOP ON-SITE RENEWABLE ELEC-  
19       TRICITY GENERATION.—The Secretary of Defense shall  
20       ensure that, of the total energy anticipated to be consumed  
21       in a fiscal year by facilities constructed after fiscal year  
22       2020, at least 20 percent of the energy is derived from  
23       renewable electricity generation occurring on the parcels  
24       on which new facilities will be located.

1 **SEC. 9. CONVERSION OF DEPARTMENT OF DEFENSE FLEET**  
2 **OF NON-TACTICAL MOTOR VEHICLES TO**  
3 **ELECTRIC AND HYBRID MOTOR VEHICLES.**

4 (a) CONVERSION REQUIRED.—

5 (1) IN GENERAL.—Subchapter II of chapter  
6 173 of title 10, United States Code, is amended by  
7 inserting after section 2922c the following new sec-  
8 tion:

9 **“§ 2922c-1. Conversion of Department of Defense non-**  
10 **tactical motor vehicle fleet to motor vehi-**  
11 **cles using electric or hybrid propulsion**  
12 **systems**

13 “(a) DEADLINE FOR CONVERSION.—Not later than  
14 September 30, 2015, the Secretary of each military de-  
15 partment and the head of each Defense Agency shall con-  
16 vert the fleet of non-tactical motor vehicles of the depart-  
17 ment or Defense Agency that is powered by petroleum-  
18 derived fuel to motor vehicles using—

19 “(1) electric propulsion;

20 “(2) hybrid propulsion; or

21 “(3) an alternative propulsion system with at  
22 least a 30 percent net increase in energy efficiency  
23 per vehicle over the conventional propulsion system.

24 “(b) PREFERENCE.—To comply with the deadline  
25 specified in subsection (a), in procuring motor vehicles for  
26 use by a military department or Defense Agency after the

1 date of the enactment of this section, the Secretary of the  
2 military department or the head of the Defense Agency  
3 shall provide a preference for the procurement of non-tac-  
4 tical motor vehicles with a propulsion system described in  
5 paragraph (1), (2), or (3) of subsection (a), including  
6 plug-in hybrid systems, if the motor vehicles—

7           “(1) will meet the requirement or the need for  
8 the procurement; and

9           “(2) are commercially available at a cost rea-  
10 sonably comparable, on the basis of life-cycle cost, to  
11 motor vehicles containing only an internal combus-  
12 tion or heat engine using combustible fuel.

13           “(c) EXCEPTION.—This section shall not apply to  
14 motor vehicles that are on a replacement cycle greater  
15 than 10 years on the date of the enactment of this section.

16           “(d) HYBRID DEFINED.—In this section, the term  
17 ‘hybrid’, with respect to a motor vehicle, means a motor  
18 vehicle that draws propulsion energy from onboard sources  
19 of stored energy that are both—

20           “(1) an internal combustion or heat engine  
21 using combustible fuel; and

22           “(2) a rechargeable energy storage system.”.

23           “(2) CLERICAL AMENDMENT.—The table of sec-  
24 tions at the beginning of such subchapter is amend-

1 ed by inserting after the item relating to section  
2 2922c the following new item:

“2922c-1. Conversion of Department of Defense non-tactical motor vehicle fleet  
to motor vehicles using electric or hybrid propulsion systems.”.

3 (b) **EXTENSION TO CONTRACTOR-OPERATED, GOV-**  
4 **ERNMENT-OWNED VEHICLES.**—The Secretary of Defense  
5 shall require that contracts entered into by the Secretary  
6 of a military department or the head of a Defense Agency  
7 after the date of the enactment of this Act for contractor  
8 operation of Government-owned vehicles include a provi-  
9 sion requiring the contractor to comply with section  
10 2922c-1 of title 10, United States Code, as added by sub-  
11 section (a), to the same extent as the Department is re-  
12 quired to comply with such section.

13 **SEC. 10. RESEARCH AND DEVELOPMENT ACTIVITIES TO IN-**  
14 **CORPORATE HYBRID-DRIVE TECHNOLOGY**  
15 **INTO CURRENT AND FUTURE TACTICAL**  
16 **FLEET OF MILITARY GROUND VEHICLES.**

17 (a) **IDENTIFICATION OF USABLE HYBRID-DRIVE**  
18 **TECHNOLOGY.**—Not later than 90 days after the date of  
19 enactment of this Act, the Secretary of each military de-  
20 partment shall submit to Congress a report identifying hy-  
21 brid-drive technologies suitable for incorporation into the  
22 next reset and recap of motor vehicles of the current tac-  
23 tical fleet of each Armed Force under the jurisdiction of  
24 the Secretary. In identifying suitable hybrid-drive tech-

1 nologies, the Secretary shall consider the feasibility and  
 2 cost of incorporating a hybrid-drive technology into each  
 3 vehicle and the design changes and amount of time re-  
 4 quired for incorporation.

5 (b) AUTHORIZATION OF OBLIGATION.—The Sec-  
 6 retary of Defense is authorized to obligate, from funds ap-  
 7 propriated for the Department of Defense for research,  
 8 development, test, and evaluation for fiscal year 2011,  
 9 \$50,000,000 to incorporate hybrid-drive technologies iden-  
 10 tified under subsection (a) into the current tactical fleets  
 11 of the Armed Forces.

12 (c) HYBRID-DRIVE TECHNOLOGY DEFINED.—In this  
 13 section, the term “hybrid-drive technology” means a pro-  
 14 pulsion system, including the engine and drive train, that  
 15 draws energy from onboard sources of stored energy that  
 16 involve—

17 (1) an internal combustion or heat engine using  
 18 combustible fuel; and

19 (2) a rechargeable energy storage system.

20 **SEC. 11. DEVELOPMENT OF BIOFUEL DERIVED FROM MA-**  
 21 **TERIALS THAT DO NOT COMPETE WITH FOOD**  
 22 **STOCKS AND IS SUITABLE FOR USE AS AVIA-**  
 23 **TION FUEL.**

24 (a) DEVELOPMENT PLAN REQUIRED.—Not later  
 25 than 180 days after the date of the enactment of this Act,



1 the Secretary of Defense shall submit to Congress a test-  
2 ing and certification plan to develop and put into oper-  
3 ational use by September 30, 2016, a biofuel derived from  
4 materials that do not compete with food stocks and is suit-  
5 able for use as or in an aviation fuel for military purposes.

6 (b) NOTIFICATION OF OPERATIONAL AVAILABILITY  
7 OF BIOFUEL.—The Secretary shall notify Congress as  
8 soon as practicable after the Secretary determines that an  
9 aviation fuel that consists of at least 50 percent biofuels  
10 described under subsection (a) is available for operational  
11 use by the Armed Forces for military aviation purposes.

12 **SEC. 12. IMPLEMENTATION.**

13 (a) RESPONSIBLE OFFICIALS.—The Deputy Under  
14 Secretary of Defense for Installations and Environment  
15 and the Director of Operational Energy Plans and Pro-  
16 gram shall be the officials of the Department of Defense  
17 responsible for the implementation of this Act and the  
18 amendments made by this Act. Such officials shall monitor  
19 the implementation plans of the military departments and  
20 Defense Agencies and keep the Secretary of Defense in-  
21 formed of all guidance issued and activities carried out  
22 within the Department of Defense that relate to the imple-  
23 mentation of this Act and the amendments made by this  
24 Act.

1           (b) **APPLICABILITY.**—This Act and the amendments  
2 made by this Act shall apply with respect to the activities,  
3 personnel, resources, and facilities of the Department of  
4 Defense that are located within the United States as well  
5 as those facilities, regardless of whether permanent or  
6 temporary, that are located outside the United States.

7           (c) **REPORTING REQUIREMENTS.**—The Secretary of  
8 Defense shall submit to Congress a semiannual progress  
9 report on the implementation of this Act and the amend-  
10 ments made by this Act.

11 **SEC. 13. WAIVER AUTHORITY.**

12           (a) **IN GENERAL.**—The Secretary of Defense may  
13 waive the implementation or operation of a provision of  
14 this Act or an amendment made by this Act if the Sec-  
15 retary certifies to the Congress that implementation or  
16 continued operation of such provision would adversely im-  
17 pact the national security of the United States.

18           (b) **INTELLIGENCE ACTIVITY WAIVER.**—The Direc-  
19 tor of National Intelligence may, in consultation with the  
20 Secretary of Defense, exempt an intelligence activity of the  
21 United States, and related personnel, resources, and facili-  
22 ties, from a provision of this Act or an amendment made  
23 by this Act to the extent the Director and Secretary deter-

- 1 mine necessary to protect intelligence sources and methods
- 2 from unauthorized disclosure.

