

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

# H. R. 5049

To establish a market-based system to regulate greenhouse gas emissions and to promote advanced energy research and technology development and deployment, and for other purposes.

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## IN THE HOUSE OF REPRESENTATIVES

MARCH 29, 2006

Mr. UDALL of New Mexico (for himself and Mr. PETRI) introduced the following bill; which was referred to the Committee on Energy and Commerce, and in addition to the Committees on Science, International Relations, and Education and the Workforce, for a period to be subsequently determined by the Speaker, in each case for consideration of such provisions as fall within the jurisdiction of the committee concerned

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## A BILL

To establish a market-based system to regulate greenhouse gas emissions and to promote advanced energy research and technology development and deployment, 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 “Keep America Com-  
5 petitive Global Warming Policy Act of 2006”.

1 **SEC. 2. DEFINITIONS.**

2 For purposes of this Act:

3 (1) ADMINISTRATOR.—The term “Adminis-  
4 trator” means the Administrator of the Environ-  
5 mental Protection Agency.

6 (2) ALLOWANCE.—The term “allowance”  
7 means a tradeable allowance issued by the Adminis-  
8 trator pursuant to section 3(b), 5(a), or 7(b).

9 (3) CARBON EQUIVALENT.—With respect to  
10 each greenhouse gas, the term “carbon equivalent”  
11 means the amount of the greenhouse gas that traps  
12 the same amount of heat as one metric ton of car-  
13 bon, as determined by the Administrator.

14 (4) COVERED FOSSIL FUEL.—The term “cov-  
15 ered fossil fuel” means coal, crude oil, natural gas,  
16 natural gas liquids, refined petroleum products, and  
17 any other fossil fuel that the Administrator deter-  
18 mines appropriate.

19 (5) DEVELOPING COUNTRIES.—The term “de-  
20 veloping countries” means the countries that are not  
21 listed in Annex I of the United Nations Framework  
22 Convention on Climate Change.

23 (6) GREENHOUSE GAS.—The term “greenhouse  
24 gas” means carbon dioxide, hydrofluorocarbons,  
25 methane, nitrous oxide, perfluorocarbons, and sulfur  
26 hexafluoride.

1           (7) NATURAL GAS.—The term “natural gas”  
2 does not include natural gas liquids.

3           (8) SEQUESTRATION.—The term “sequestra-  
4 tion” means the capture, recapture, long-term sepa-  
5 ration, isolation, or removal of greenhouse gases  
6 from the atmosphere, including through reforest-  
7 ation, forest preservation, and geological storage.

8 **SEC. 3. ESTABLISHMENT OF SYSTEM OF ALLOWANCES.**

9           (a) REGULATIONS.—The Administrator shall issue  
10 regulations not later than the second January 1 after the  
11 date of enactment of this Act to establish a system for—

12           (1) issuing, recording, and tracking allowances;

13           (2) appropriately measuring for purposes of  
14 section 6 the relative amounts of carbon that will be  
15 emitted or produced by given amounts of covered  
16 fossil fuels; and

17           (3) appropriately measuring given amounts of  
18 greenhouse gases in units of carbon equivalents.

19           (b) ISSUANCE OF ALLOWANCES.—On the third Janu-  
20 ary 1 after the date of enactment of this Act, and annually  
21 thereafter, the Administrator shall issue a number of al-  
22 lowances equal to the number of allowances that the Ad-  
23 ministrator estimates will be required to be transferred to  
24 the Administrator pursuant to section 6 during the cal-  
25 endar year beginning with that January 1. The Adminis-

1 trator shall base such estimate on the number of allow-  
2 ances that would have been transferred pursuant to sec-  
3 tion 6 had such transfers been required during each of  
4 the 3 full calendar years immediately preceding that Janu-  
5 ary 1. The Administrator shall publish in the Federal Reg-  
6 ister the number of allowances to be issued pursuant to  
7 this subsection not later than July 1 of the calendar year  
8 immediately preceding that January 1.

9 (c) SALE OR EXCHANGE OF ALLOWANCES.—Any per-  
10 son holding an allowance issued, sold, or exchanged under  
11 this Act may sell or exchange such allowance to any other  
12 person. The sale or exchange of such allowance shall be  
13 recorded in accordance with regulations issued by the Ad-  
14 ministrator. An allowance issued pursuant to subsection  
15 (b), section 5(a), or section 7(b) shall not be sold, ex-  
16 changed, or used to meet the requirements of section 6  
17 after the expiration of the 2-year period beginning on the  
18 date that the allowance is issued. The Administrator shall  
19 maintain a registry of all allowances issued, sold, or ex-  
20 changed under this Act.

21 (d) SERIAL NUMBERS.—The Administrator shall as-  
22 sign a unique serial number to each allowance issued pur-  
23 suant to subsection (b), section 5(a), and section 7(b), and  
24 shall take such action as may be necessary to prevent the  
25 counterfeiting of allowances. The Administrator shall re-

1 tire the serial number assigned to an allowance pursuant  
2 to this subsection on the date that the allowance is used  
3 to meet the requirements of section 6.

4 **SEC. 4. ALLOCATION OF ALLOWANCES.**

5 (a) SECRETARY OF ENERGY.—In each year that al-  
6 lowances are issued by the Administrator pursuant to sec-  
7 tion 3(b), the Administrator shall allocate 25 percent of  
8 such allowances to the Secretary of Energy, for use in car-  
9 rying out section 8.

10 (b) SECRETARY OF STATE.—In each year that allow-  
11 ances are issued by the Administrator pursuant to section  
12 3(b), the Administrator shall allocate 10 percent of such  
13 allowances to the Secretary of State. After consultation  
14 with such agencies as the Secretary of State determines,  
15 the Secretary of State shall use the allowances to—

16 (1) invest in low-emission and emission-free  
17 policies, technologies, and projects in developing  
18 countries; and

19 (2) assist developing countries in adopting the  
20 emission reducing policies and programs described in  
21 section 5(b).

22 (c) ADMINISTRATOR.—

23 (1) IN GENERAL.—In each year that allowances  
24 are issued by the Administrator pursuant to section  
25 3(b), the Administrator shall retain 35 percent of

1 such allowances for distribution under this sub-  
2 section.

3 (2) RULEMAKING.—The Administrator shall es-  
4 tablish, by rule, a procedure to distribute allowances  
5 without charge to the industry sectors listed in para-  
6 graph (3) in a sufficient amount to offset, but no  
7 more than offset, any expected loss of profits by that  
8 industry sector as a whole, directly attributable to  
9 the enactment of this Act. Within each of the indus-  
10 try sectors listed in paragraph (3), the allowances  
11 shall be distributed without charge to companies  
12 within the respective industry sector based on their  
13 relative historic share of greenhouse gas emissions,  
14 as determined by the Administrator.

15 (3) INDUSTRY.—Consistent with paragraph (2),  
16 the Administrator shall distribute without charge  
17 not more than 5 percent of the allowances issued by  
18 the Administrator pursuant to section 3(b) each cal-  
19 endar year to each of—

20 (A) the fossil fuel-fired electric generating  
21 industry;

22 (B) the petroleum and natural gas indus-  
23 try;

24 (C) the coal industry; and

1 (D) energy-intensive industries, as deter-  
2 mined by the Administrator, and industries that  
3 are required to transfer allowances to the Ad-  
4 ministrator under section 6(b) or (c).

5 (4) TRANSITION ASSISTANCE.—

6 (A) IN GENERAL.—The Administrator, in  
7 consultation with the Secretary of Labor, shall  
8 distribute the percentage of allowances de-  
9 scribed in subparagraph (B) each calendar year  
10 to the States. Each State shall receive allow-  
11 ances under this paragraph according to the  
12 proportion of individuals who have lost jobs in  
13 that State in the previous year as a result of  
14 the enactment of this Act as compared to all  
15 the individuals who have lost jobs in all States  
16 the previous year as a result of the enactment  
17 of this Act. Each State shall use the allowances  
18 to make—

19 (i) grants to individuals who have lost  
20 their jobs as a result of the enactment of  
21 this Act for the purpose of—

22 (I) providing training, adjust-  
23 ment assistance, and employment  
24 services to such individuals; and

1 (II) making income-maintenance  
2 and needs-related payments to such  
3 individuals; and

4 (ii) grants to local governments that  
5 represent communities that demonstrate  
6 economic losses that are directly attrib-  
7 utable to the enactment of this Act for the  
8 purpose of assisting the communities in at-  
9 tracting new employers or providing essen-  
10 tial local government services.

11 (B) PERCENTAGE OF ALLOWANCES USED  
12 FOR TRANSITION ASSISTANCE.—With respect to  
13 allowances issued in the third full calendar year  
14 beginning after the date of enactment of this  
15 Act, the percentage referred to in subparagraph  
16 (A) shall be 15 percent of the allowances issued  
17 by the Administrator pursuant to section 3(b)  
18 for that year. The percentage shall be reduced  
19 by 1.5 percentage points each calendar year  
20 thereafter.

21 (5) LOW-INCOME HOME ENERGY ASSISTANCE.—  
22 The Administrator shall distribute 5 percent of the  
23 allowances issued by the Administrator pursuant to  
24 section 3(b) each calendar year to the States. Each  
25 State shall receive allowances under this paragraph



1 equal to its share of the total of all individuals re-  
2 ceiving home energy assistance pursuant to the Low-  
3 Income Home Energy Assistance Act of 1981 (42  
4 U.S.C. 8621 et seq.) in the previous year. Each  
5 State shall use the allowances to provide home en-  
6 ergy assistance to such individuals.

7 (d) SECRETARY OF THE TREASURY.—In each year  
8 that allowances are issued by the Administrator pursuant  
9 to section 3(b), the Administrator shall allocate 25 percent  
10 of such allowances to the Secretary of the Treasury, plus  
11 the percentage not distributed under subparagraph (B) of  
12 subsection (c)(4) pursuant to the percentage reduction de-  
13 scribed in the last sentence of that subparagraph. The  
14 Secretary of the Treasury shall deposit the cash proceeds  
15 from selling the allowances pursuant to section 3(c) in the  
16 Treasury. Allowances that have been allocated or retained  
17 under subsection (a), (b), or (c) but have not been distrib-  
18 uted pursuant to such subsections at the end of the cal-  
19 endar year in which they were issued by the Administrator  
20 shall be transferred, without charge, to the Secretary of  
21 the Treasury for sale pursuant to section 3(e).

22 **SEC. 5. SAFETY VALVE ALLOWANCES.**

23 (a) SAFETY VALVE PRICE.—Beginning on the third  
24 January 1 after the date of enactment of this Act, the  
25 Secretary of the Treasury shall offer for sale an unlimited

1 number of allowances at the safety valve price. The allow-  
2 ances sold under this subsection shall be in addition to  
3 the allowances issued pursuant to section 3(b). In the  
4 third full calendar year beginning after the date of enact-  
5 ment of this Act, the safety valve price shall be \$25 per  
6 allowance. On January 1 of each calendar year thereafter,  
7 the Secretary of the Treasury shall adjust the safety valve  
8 price by the percentage increase in the Consumer Price  
9 Index for All Urban Consumers (United States city aver-  
10 age) during the 1-year period ending 2 months before the  
11 date of the adjustment plus one percent.

12 (b) POLICY COMPARABILITY CERTIFICATION.—Be-  
13 ginning in the sixth full calendar year beginning after the  
14 date of enactment of this Act and in subsequent years  
15 thereafter, the Secretary of State shall evaluate whether  
16 the 5 developing countries with the most greenhouse gas  
17 emissions, as determined by the Secretary of State in con-  
18 sultation with the Administrator, have adopted and are  
19 enforcing policies and programs to reduce greenhouse gas  
20 emissions that are comparable to the policies and pro-  
21 grams established pursuant to this Act. Based on the eval-  
22 uation completed during the previous calendar year, the  
23 Secretary of State shall provide certification to the Presi-  
24 dent on the seventh January 1 after the date of enactment  
25 of this Act and annually thereafter if the Secretary finds

1 that the 5 developing countries with the most greenhouse  
2 gas emissions have adopted and are enforcing comparable  
3 policies and programs. Not later than 30 days after the  
4 Secretary of State provides such certification, the Presi-  
5 dent shall transmit to Congress an acceptance or rejection  
6 of the Secretary of State's certification along with a report  
7 documenting substantial evidence that supports the Presi-  
8 dent's decision. If the Secretary of State provides certifi-  
9 cation pursuant to this subsection and the President ac-  
10 cepts such certification, the Secretary of the Treasury  
11 shall adjust the safety valve price, in addition to the per-  
12 centage increase due to the Consumer Price Index under  
13 subsection (a), by 2 percent, not later than 30 days after  
14 the President accepts such certification. The Secretary of  
15 the Treasury shall not increase the safety valve price  
16 under this subsection during any calendar year in which  
17 the Secretary of State has not provided certification pur-  
18 suant to this subsection or the President has not accepted  
19 such certification.

20 **SEC. 6. ALLOWANCES REQUIRED.**

21 (a) FOSSIL FUELS.—

22 (1) IMPORTED PETROLEUM FUEL PRODUCTS.—

23 Except as provided in paragraph (6) and consistent  
24 with regulations issued by the Administrator pursu-  
25 ant to section 3(a), a person shall not import into

1 the United States any refined petroleum product  
2 without transferring to the Administrator a number  
3 of allowances equal to the number of metric tons of  
4 carbon that will be emitted or produced from the  
5 amount of refined petroleum product that is im-  
6 ported into the United States by such person.

7 (2) NATURAL GAS.—

8 (A) PIPELINES.—

9 (i) PROHIBITION.—Except as provided  
10 in paragraph (6) and consistent with regu-  
11 lations issued by the Administrator pursu-  
12 ant to section 3(a), an owner or operator  
13 of a natural gas pipeline shall not accept  
14 for transportation in such pipeline any nat-  
15 ural gas without transferring to the Ad-  
16 ministrator a number of allowances equal  
17 to the number of metric tons of carbon  
18 that will be emitted or produced from the  
19 amount of natural gas accepted for trans-  
20 portation by the owner or operator.

21 (ii) EXCEPTION.—With respect to an  
22 amount of natural gas for which an owner  
23 or operator of a natural gas pipeline or a  
24 natural gas processing plant has trans-  
25 ferred allowances to the Administrator

1           pursuant to this paragraph before a subse-  
2           quent owner or operator of a natural gas  
3           pipeline accepts the natural gas for trans-  
4           portation, the subsequent owner or oper-  
5           ator shall not be required to transfer addi-  
6           tional allowances to the Administrator.

7           (B) PROCESSING PLANTS.—

8           (i) PROHIBITION.—Except as provided  
9           in paragraph (6) and consistent with regu-  
10          lations issued by the Administrator pursu-  
11          ant to section 3(a), an owner or operator  
12          of a natural gas processing plant shall not  
13          sell or dispose of natural gas or natural  
14          gas liquids without transferring to the Ad-  
15          ministrator a number of allowances equal  
16          to the number of metric tons of carbon  
17          that will be emitted or produced from the  
18          amount of natural gas or natural gas liq-  
19          uids sold or disposed of by the owner or  
20          operator.

21          (ii) EXCEPTIONS.—With respect to an  
22          amount of natural gas or natural gas liq-  
23          uids for which an owner or operator of a  
24          natural gas processing plant has trans-  
25          ferred allowances to the Administrator

1           pursuant to clause (i) before a subsequent  
2           owner or operator of a natural gas proc-  
3           essing plant sells or disposes of the natural  
4           gas or natural gas liquids, the subsequent  
5           owner or operator shall not be required to  
6           transfer additional allowances to the Ad-  
7           ministrators. With respect to an amount of  
8           natural gas for which an owner or operator  
9           of a natural gas pipeline has transferred  
10          allowances to the Administrator pursuant  
11          to subparagraph (A)(i) before an owner of  
12          a natural gas processing plant sells or dis-  
13          poses of the natural gas (including in liq-  
14          uid form), the owner or operator of the  
15          natural gas processing plant shall not be  
16          required to transfer additional allowances  
17          to the Administrator pursuant to this sub-  
18          paragraph.

19          (3) CRUDE OIL.—

20                (A) PROHIBITION.—Except as provided in  
21          paragraph (6) and consistent with regulations  
22          issued by the Administrator pursuant to section  
23          3(a), an owner or operator of a refinery shall  
24          not receive crude oil without transferring to the  
25          Administrator a number of allowances equal to

1 the number of metric tons of carbon that will  
2 be emitted or produced from the amount of  
3 crude oil that is received by the owner or oper-  
4 ator.

5 (B) EXCEPTION.—With respect to an  
6 amount of crude oil for which an owner or oper-  
7 ator of a refinery has transferred allowances to  
8 the Administrator pursuant to subparagraph  
9 (A) before a subsequent owner or operator of a  
10 refinery receives the crude oil, the subsequent  
11 owner or operator shall not be required to  
12 transfer additional allowances to the Adminis-  
13 trator.

14 (4) COAL.—

15 (A) PREPARATION PLANTS.—

16 (i) PROHIBITION.—Except as provided  
17 in paragraph (6) and consistent with regu-  
18 lations issued by the Administrator pursu-  
19 ant to section 3(a), an owner or operator  
20 of a coal preparation plant shall not sell or  
21 dispose of coal prepared at such plant  
22 without transferring to the Administrator  
23 a number of allowances equal to the num-  
24 ber of metric tons of carbon that will be  
25 emitted or produced from the amount of

1 coal sold or disposed of by the owner or  
2 operator.

3 (ii) EXCEPTION.—With respect to an  
4 amount of coal for which a person has  
5 transferred allowances to the Adminis-  
6 trator pursuant to this paragraph before a  
7 subsequent owner or operator of a coal  
8 preparation plant sells or disposes of the  
9 coal, the subsequent owner or operator  
10 shall not be required to transfer additional  
11 allowances to the Administrator.

12 (B) COAL PRODUCERS.—

13 (i) PROHIBITION.—Except as provided  
14 in paragraph (6) and consistent with regu-  
15 lations issued by the Administrator pursu-  
16 ant to section 3(a), an owner or operator  
17 of a coal mine shall not sell or dispose of  
18 coal without transferring to the Adminis-  
19 trator a number of allowances equal to the  
20 number of metric tons of carbon that will  
21 be emitted or produced from the amount of  
22 coal sold or disposed of by the owner or  
23 operator.

24 (ii) EXCEPTIONS.—With respect to  
25 coal that is being sold to an owner or oper-



1           ator of a coal preparation plant who is  
2           subject to the allowance requirement de-  
3           scribed in subparagraph (A)(i), the owner  
4           or operator of a coal mine shall not be re-  
5           quired to transfer allowances to the Ad-  
6           ministrator. With respect to an amount of  
7           coal for which an owner or operator of a  
8           coal mine has transferred allowances to the  
9           Administrator pursuant to this paragraph  
10          before a subsequent owner or operator of  
11          the coal mine sells or disposes of the coal,  
12          the subsequent owner or operator shall not  
13          be required to transfer additional allow-  
14          ances to the Administrator.

15           (C) IMPORTED COAL.—Except as provided  
16          in paragraph (6) and consistent with regula-  
17          tions issued by the Administrator pursuant to  
18          section 3(a), a person shall not import into the  
19          United States any coal without transferring to  
20          the Administrator a number of allowances equal  
21          to the number of metric tons of carbon that will  
22          be emitted or produced from the amount of coal  
23          that is imported into the United States by such  
24          person.

25           (5) OTHER FOSSIL FUELS.—

1           (A) PROHIBITION.—Except as provided in  
2 paragraph (6) and consistent with regulations  
3 issued by the Administrator pursuant to section  
4 3(a), a person shall not sell or dispose of a cov-  
5 ered fossil fuel that is not referred to in para-  
6 graph (1), (2), (3), or (4) without transferring  
7 to the Administrator a number of allowances  
8 equal to the number of metric tons of carbon  
9 that will be emitted or produced from the  
10 amount of covered fossil fuel sold or disposed of  
11 by such person.

12           (B) EXCEPTION.—With respect to an  
13 amount of covered fossil fuel for which a person  
14 has transferred allowances to the Administrator  
15 pursuant to subparagraph (A) before a subse-  
16 quent person sells or disposes of the covered  
17 fossil fuel, the subsequent person shall not be  
18 required to transfer additional allowances to the  
19 Administrator.

20           (6) EXPORT AND NONFUEL USE.—Pursuant to  
21 regulations issued by the Administrator, a person  
22 who—

23                   (A) exports an amount of covered fossil  
24 fuel; or

1 (B) sells, disposes of, or otherwise handles  
2 an amount of covered fossil fuel for a nonfuel  
3 purpose that does not result in the emission of  
4 more than a trace amount of a greenhouse gas,  
5 shall not be required to transfer allowances to the  
6 Administrator pursuant to this subsection with re-  
7 spect to that amount of covered fossil fuel.

8 (b) GREENHOUSE GASES.—

9 (1) PROHIBITION.—Pursuant to regulations  
10 issued by the Administrator, a person shall not sell  
11 or dispose of an amount of greenhouse gas other  
12 than carbon dioxide in a manner that may result in  
13 the release of such greenhouse gas in the atmos-  
14 phere without transferring to the Administrator a  
15 number of allowances equal to the amount of green-  
16 house gas sold or disposed of by such person, meas-  
17 ured in units of carbon equivalents.

18 (2) EXCEPTION.—With respect to an amount of  
19 greenhouse gas for which a person has transferred  
20 allowances to the Administrator pursuant to para-  
21 graph (1) before a subsequent person sells or dis-  
22 poses of the greenhouse gas, the subsequent person  
23 shall not be required to transfer additional allow-  
24 ances to the Administrator.

1 (c) AGRICULTURAL, INDUSTRIAL, AND MANUFAC-  
2 TURING PROCESSES.—

3 (1) PROHIBITION.—A person shall not sell or  
4 dispose of any product processed through an agricul-  
5 tural, industrial, or manufacturing process that  
6 emits a greenhouse gas without transferring to the  
7 Administrator a number of allowances equal to the  
8 amount of greenhouse gas emitted in the processing  
9 of the amount of such product sold or disposed of  
10 by such person, measured in units of carbon equiva-  
11 lents.

12 (2) EXCEPTIONS.—With respect to an amount  
13 of greenhouse gas emitted in the agricultural, indus-  
14 trial, or manufacturing processing of a product for  
15 which a person has transferred allowances to the  
16 Administrator pursuant to paragraph (1) or sub-  
17 section (b)(1) before a subsequent person sells or  
18 disposes of the product processed through the agri-  
19 cultural, industrial, or manufacturing process, the  
20 subsequent person shall not be required to transfer  
21 additional allowances to the Administrator. With re-  
22 spect to an amount of greenhouse gas emitted for  
23 which a person has transferred allowances to the  
24 Administrator pursuant to subsection (a) before a  
25 subsequent person sells or disposes of a product

1 processed through the agricultural, industrial, or  
2 manufacturing process that emitted such amount of  
3 greenhouse gas, the subsequent person shall not be  
4 required to transfer additional allowances to the Ad-  
5 ministrator.

6 (d) EXEMPTION.—

7 (1) IN GENERAL.—If the Administrator deter-  
8 mines, after public notice and comment, that it is  
9 not feasible to measure or estimate the number of  
10 allowances that a person is required to transfer to  
11 the Administrator pursuant to subsection (b) or (c),  
12 the Administrator may grant an exemption only with  
13 respect to the greenhouse gas or product processed  
14 through an agricultural, industrial, or manufac-  
15 turing process that emits greenhouse gases for which  
16 it is not feasible to measure or estimate the number  
17 of allowances required. The Administrator shall re-  
18 voke such exemption at any time if the Adminis-  
19 trator determines that it is feasible to measure or  
20 estimate the number of allowances required.

21 (2) METHANE FROM ANIMALS.—The Adminis-  
22 trator shall grant an exemption under this sub-  
23 section for the sale or disposal of methane from ani-  
24 mals until such time that the Administrator deter-  
25 mines, after notice and opportunity to be heard, that

1 it is feasible to measure or estimate the number of  
2 allowances that a person is required to transfer to  
3 the Administrator pursuant to subsection (b) with  
4 respect to the amount of methane from animals sold  
5 or disposed of by such person.

6 (3) REDUCTION IN NUMBER OF ALLOW-  
7 ANCES.—In accordance with regulations issued by  
8 the Administrator, the Administrator shall reduce  
9 the total number of allowances issued pursuant to  
10 section 3(b) by an amount that is proportional to  
11 the number of exemptions granted under paragraphs  
12 (1) and (2) of this subsection. If the Administrator  
13 revokes an exemption granted under paragraph (1)  
14 or (2), the Administrator shall readjust the total  
15 number of allowances issued pursuant to section  
16 3(b) for the calendar year following the year that  
17 the exemption is revoked.

18 (4) REDUCTION OF GREENHOUSE GAS EMIS-  
19 SIONS.—If the Administrator grants an exemption  
20 under paragraph (1) to a person otherwise required  
21 to transfer allowances to the Administrator pursuant  
22 to subsection (c), the Administrator shall encourage  
23 the reduction of greenhouse gas emissions from the  
24 agricultural, industrial, or manufacturing process for

1       which the exemption was granted on a best practices  
2       basis until the exemption is revoked.

3       (e) PENALTIES.— A person who does not transfer the  
4       required number of allowances to the Administrator pur-  
5       suant to this Act shall be liable to the Administrator a  
6       civil penalty. The civil penalty assessed by the Adminis-  
7       trator shall be equal to three times the market value of  
8       the number of allowances that the person failed to transfer  
9       to the Administrator for each day the person has so failed  
10      to transfer.

11      (f) PASS THROUGH OF COSTS.—Any Federal, State,  
12      or local authority with ratemaking regulatory authority  
13      over any entity required to submit an allowance under this  
14      Act, or any entity that the cost of that allowance is passed  
15      on to, shall allow such entity to recover the full market  
16      value of such allowances for ratemaking purposes.

17      (g) EFFECTIVE DATE.—This section shall take effect  
18      on the third January 1 after the date of enactment of this  
19      Act.

20      **SEC. 7. SEQUESTRATION.**

21      (a) SEQUESTRATION PROJECTS.—The Adminis-  
22      trator, in coordination with the Secretary of Agriculture  
23      and the Secretary of Energy, shall review proposals for  
24      domestic sequestration projects and provide approval, for  
25      purposes of subsection (b), to projects that—

1           (1) will result in greenhouse gas emission re-  
2           ductions that would not occur in the absence of the  
3           project; and

4           (2) provide for the sequestration of greenhouse  
5           gases in a manner that can be accurately and peri-  
6           odically measured, monitored, and reported in a  
7           cost-effective manner.

8           (b) ALLOWANCES.—The Administrator shall issue to  
9           the person responsible for submitting a proposal that is  
10          approved by the Administrator under subsection (a) a  
11          number of allowances equal to the amount of greenhouse  
12          gas, measured in units of carbon equivalents, that the per-  
13          son has sequestered. The allowances issued pursuant to  
14          this subsection shall be in addition to the allowances  
15          issued by the Administrator pursuant to section 3(b).

16 **SEC. 8. ADVANCED RESEARCH PROJECTS AGENCY-ENERGY.**

17          (a) ESTABLISHMENT.—

18               (1) IN GENERAL.—The Secretary of Energy  
19               shall establish in the Department of Energy the Ad-  
20               vanced Research Projects Agency-Energy (referred  
21               to in this section as “ARPA-E”), to be headed by  
22               a Director who shall be appointed by, and report to,  
23               the Secretary.

24               (2) QUALIFICATIONS.—The Director shall be an  
25               individual with—



1           (A) an advanced education degree in en-  
2           ergy technology; and

3           (B) substantial commercial research and  
4           technology development and deployment experi-  
5           ence.

6           (b) MISSION.—The mission of ARPA–E is to imple-  
7           ment a radically innovative advanced basic and applied en-  
8           ergy research and technology development and deployment  
9           program in order to increase national security, improve  
10          homeland security, reduce greenhouse gas emissions, im-  
11          prove our balance of payments, and develop alternative en-  
12          ergy sources and improve the efficiency of existing energy  
13          sources, by sponsoring a diverse portfolio of cutting-edge,  
14          high-risk, high-payoff research and development and de-  
15          ployment projects.

16          (c) PERSONNEL.—In hiring personnel for ARPA–E,  
17          the Secretary shall have the hiring and management au-  
18          thorities described in section 1101 of the Strom Thur-  
19          mond National Defense Authorization Act for Fiscal Year  
20          1999 (Public Law 105–261; 5 U.S.C. 3104 note).

21          (d) TRANSACTIONS OTHER THAN CONTRACTS AND  
22          GRANTS.—To carry out projects under this section, the  
23          Director shall have the authority to enter into transactions  
24          provided under section 646(g) of the Department of En-  
25          ergy Organization Act (42 U.S.C. 7256(g)).

1 (e) PRIZES FOR ADVANCED TECHNOLOGY ACHIEVE-  
2 MENTS.—

3 (1) IN GENERAL.—The Director may carry out  
4 a program to award cash prizes in recognition of  
5 outstanding achievements to advance the mission de-  
6 scribed in subsection (b).

7 (2) COMPETITION REQUIREMENTS.—In car-  
8 rying out this subsection, the Director shall—

9 (A) use a competitive process for the selec-  
10 tion of recipients of cash prizes; and

11 (B) conduct widely-advertised solicitation  
12 of submissions.

13 (3) MAXIMUM AMOUNT FOR ALL CASH  
14 PRIZES.—The total amount of all cash prizes award-  
15 ed for a fiscal year under this subsection may not  
16 exceed \$50,000,000.

17 (4) MAXIMUM AMOUNT OF INDIVIDUAL CASH  
18 PRIZES.—The amount of an individual cash prize  
19 awarded under this subsection may not exceed  
20 \$10,000,000 unless the amount of the award is ap-  
21 proved by the Secretary of Energy.

22 (f) ANNUAL REPORTS.—As soon as practicable after  
23 the end of each fiscal year, the Director shall submit to  
24 the Committee on Energy and Natural Resources of the  
25 Senate and the Committee on Energy and Commerce and

1 the Committee on Science of the House of Representatives  
2 a report on the progress, challenges, future milestones,  
3 and strategic plan of ARPA-E, including—

4 (1) a description of, and rationale for, any  
5 changes in the strategic plan;

6 (2) the adequacy of human and financial re-  
7 sources necessary to achieve the mission described in  
8 subsection (b); and

9 (3) in the case of cash prizes awarded under  
10 subsection (e), a description of—

11 (A) the applications of the research, tech-  
12 nology, or prototypes for which prizes were  
13 awarded;

14 (B) the total amount of the prizes that  
15 were awarded;

16 (C) the methods used for solicitation and  
17 evaluation of submissions and an assessment of  
18 the effectiveness of those methods; and

19 (D) recommendations to improve the prize  
20 program.

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