

109TH CONGRESS
1ST SESSION

S. 1860

To amend the Energy Policy Act of 2005 to improve energy production and reduce energy demand through improved use of reclaimed waters, and for other purposes.

IN THE SENATE OF THE UNITED STATES

OCTOBER 7 (legislative day, OCTOBER 6), 2005

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

A BILL

To amend the Energy Policy Act of 2005 to improve energy production and reduce energy demand through improved use of reclaimed waters, 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 “Energy-Water Effi-
5 ciency Technology Research, Development, and Transfer
6 Program Act of 2005”.

1 **SEC. 2. ENERGY-WATER EFFICIENCY AND SUPPLY TECH-**
 2 **NOLOGY RESEARCH, DEVELOPMENT, AND**
 3 **TRANSFER PROGRAM.**

4 The Energy Policy Act of 2005 (Public Law 109–
 5 58; 119 Stat. 594) is amended by inserting after section
 6 111 the following:

7 **“SEC. 112. ENERGY-WATER EFFICIENCY AND SUPPLY TECH-**
 8 **NOLOGY RESEARCH, DEVELOPMENT, AND**
 9 **TRANSFER PROGRAM.**

10 “(a) DEFINITIONS.—In this section:

11 “(1) ADVISORY PANEL.—The term ‘Advisory
 12 Panel’ means the Energy-Water Efficiency and Sup-
 13 ply Technology Advisory Panel established under
 14 subsection (f).

15 “(2) ENERGY-WATER EFFICIENCY AND SUPPLY
 16 TECHNOLOGY.—The term ‘energy-water efficiency
 17 and supply technology’ means—

18 “(A) technologies for—

19 “(i) reducing the amount of energy re-
 20 quired to provide adequate water supplies;

21 “(ii) reducing water consumption in
 22 the production or generation of energy;

23 “(iii) the reclamation of previously un-
 24 usable water;

25 “(iv) water reuse;

1 “(v) agricultural, industrial, and mu-
2 nicipal efficiency and conservation; and

3 “(vi) water monitoring and systems
4 analysis; and

5 “(B) any other technologies identified by
6 the Secretary as necessary to carry out the pro-
7 gram.

8 “(3) LEAD LABORATORY.—The term ‘lead lab-
9 oratory’ means each of the program lead laboratories
10 designated under subsection (d)(1).

11 “(4) PROGRAM.—The term ‘program’ means
12 the energy-water efficiency and supply technology re-
13 search, development, and transfer program estab-
14 lished under subsection (b).

15 “(b) ESTABLISHMENT.—In accordance with this sec-
16 tion, the Secretary shall establish a National Laboratories
17 energy-water efficiency and supply technology research,
18 development, and transfer program that provides for the
19 conduct of research on, and the development, demonstra-
20 tion, transfer, and commercialization of, economically via-
21 ble and cost-effective energy-water efficiency and supply
22 technologies to—

23 “(1) promote the sustainable use of water for
24 energy production activities, including—

1 “(A) developing less water-intensive elec-
2 tric generation sources; and

3 “(B) developing and implementing systems
4 analyses to balance energy and water demands;

5 “(2) facilitate the widespread commercialization
6 of newly developed energy-water efficiency and sup-
7 ply technologies for use in real-world applications,
8 including the conduct of an assessment of economic
9 factors relating to the introduction and adoption of
10 energy-water efficiency and supply technologies in
11 practical applications;

12 “(3) facilitate collaboration among Federal
13 agencies to provide for the integration of research
14 on, and disclosure of information relating to, energy-
15 water efficiency and supply technologies;

16 “(4) reclaim and improve access to previously
17 unusable and nontraditional water resources; and

18 “(5) increase the amount of water available for
19 human use.

20 “(c) OTHER AGREEMENTS.—The Secretary may
21 enter into any grant, contract, cooperative agreement,
22 interagency agreement, or other transaction, as the Sec-
23 retary determines to be necessary to carry out this section.

24 “(d) PROGRAM LEAD LABORATORIES.—

1 “(1) IN GENERAL.—The program shall be car-
2 ried out by Sandia National Laboratory, New Mex-
3 ico, Oak Ridge National Laboratory, Tennessee, and
4 Lawrence Livermore National Laboratory, Cali-
5 fornia.

6 “(2) SELECTION OF UNIVERSITY PARTNERS.—
7 Each of the lead laboratories, in consultation with
8 the Advisory Panel, shall select at least 1 university
9 partner to assist in carrying out the program.

10 “(e) WATER SUPPLY TECHNOLOGY ASSESSMENT.—

11 “(1) ASSESSMENT DUTIES.—In consultation
12 with the Secretary of Agriculture, the Administrator
13 of the Environmental Protection Agency, the Sec-
14 retary of Defense, the Administrator of the National
15 Aeronautics and Space Administration, the Director
16 of the National Science Foundation, the Secretary of
17 the Interior, and other appropriate Federal agencies,
18 the Secretary, acting through the lead laboratories,
19 shall—

20 “(A) assess energy-water efficiency and
21 supply technology research being performed;

22 “(B) assess the annual amount of Federal
23 funding levels and authorizations for energy-
24 water efficiency and supply technology research;

1 “(C) assess the scope of the energy-water
2 efficiency and supply technology research per-
3 formed by other agencies;

4 “(D) assess whether and to what extent
5 Federal energy-water efficiency and supply
6 technology research is duplicative;

7 “(E) identify energy-water efficiency and
8 supply technology research and development
9 priorities; and

10 “(F) develop a technology roadmap to
11 identify critical energy-water efficiency and sup-
12 ply technology research, development, dem-
13 onstration and commercialization activities to
14 guide program activities.

15 “(2) REPORT.—Not later than 2 years after the
16 date of enactment of this section, the Secretary, act-
17 ing through the lead laboratories, shall submit to the
18 Committee on Energy and Natural Resources of the
19 Senate, the Committee on Resources of the House of
20 Representatives, and the Committee on Energy and
21 Commerce of the House of Representatives a de-
22 tailed report on the assessment conducted under
23 paragraph (1).

24 “(f) ADVISORY PANEL.—

1 “(1) IN GENERAL.—The Secretary shall estab-
2 lish an advisory panel, to be known as the ‘Energy-
3 Water Efficiency and Supply Technology Advisory
4 Panel’, to advise the Secretary on the activities car-
5 ried out under this section.

6 “(2) MEMBERSHIP.—Members of the Advisory
7 Panel shall—

8 “(A) have expertise in—

9 “(i) energy-water efficiency and sup-
10 ply technology; or

11 “(ii) legal or regulatory issues associ-
12 ated with adopting energy-water efficiency
13 and supply technologies in real-world appli-
14 cations; and

15 “(B) be representative of institutions of
16 higher education, industry, State and local gov-
17 ernments, international energy-water efficiency
18 and supply technology institutions, Federal
19 agencies, and nongovernmental organizations.

20 “(3) DUTIES.—The Advisory Panel shall—

21 “(A) periodically assess the performance of
22 energy-water efficiency and supply technology
23 research being carried out under this section;

24 “(B) advise the Secretary on research pri-
25 orities to be carried out under this section;

1 “(C) make recommendations to the Sec-
2 retary for awarding research grants and dem-
3 onstration project grants; and

4 “(D) identify legal, policy, or regulatory
5 barriers to implementing energy-water efficiency
6 and supply technologies in real-world applica-
7 tions.

8 “(g) PROGRAM GRANTS.—

9 “(1) IN GENERAL.—The Secretary shall provide
10 competitive grants to entities with expertise in the
11 conduct of energy-water efficiency and supply tech-
12 nology research, development, and demonstration
13 projects.

14 “(2) REQUIREMENTS.—The grants under para-
15 graph (1) shall be provided—

16 “(A) in consultation with the Advisory
17 Panel;

18 “(B) in coordination with the research, de-
19 velopment, demonstration, and commercializa-
20 tion activities conducted by the lead labora-
21 tories; and

22 “(C) consistent with the technology road-
23 map developed under subsection (e)(1)(F).

24 “(3) LIMITATION.—Of amounts made available
25 for grants under subsection (j)(2)(C), not more than

1 25 percent shall be provided to National Labora-
2 tories and Federal agencies.

3 “(4) CRITERIA.—The Secretary shall establish
4 criteria for the submission and review of grant appli-
5 cations and the provision of grants under paragraph
6 (1).

7 “(h) PROGRAM REVIEW.—

8 “(1) IN GENERAL.—The Secretary shall enter
9 into an arrangement with the National Academy of
10 Sciences to conduct periodic peer reviews of the pro-
11 gram.

12 “(2) REQUIREMENTS.—In conducting a review
13 under paragraph (1), the National Academy of
14 Sciences shall—

15 “(A) review the technology roadmap, tech-
16 nical milestones, and plans for technology
17 transfer developed under the program; and

18 “(B) assess the progress of the program in
19 achieving the technical milestones and plans for
20 technology transfer.

21 “(i) REPORT TO CONGRESS.—Not later than 3 years
22 after the date of enactment of this section and each year
23 thereafter, the Secretary shall submit to the Committee
24 on Energy and Natural Resources of the Senate, the Com-
25 mittee on Resources of the House of Representatives, and

1 the Committee on Energy and Commerce of the House
2 of Representatives a report that describes the activities
3 carried out under this section, including the activities car-
4 ried out under subsection (f)(3)(D).

5 “(j) AUTHORIZATION OF APPROPRIATIONS.—

6 “(1) IN GENERAL.—There are authorized to be
7 appropriated to the Secretary to carry out this sec-
8 tion, including the completion of the roadmap under
9 subsection (e)(1)(F)—

10 “(A) \$5,000,000 for fiscal year 2006; and

11 “(B) such sums as are necessary for each
12 fiscal year thereafter.

13 “(2) ALLOCATION.—Of amounts made available
14 under paragraph (1) for fiscal year 2007 and each
15 fiscal year thereafter—

16 “(A) at least 30 percent shall be distrib-
17 uted equally between the lead laboratories for
18 the conduct of activities under the program;

19 “(B) at least 10 percent shall be provided
20 to the lead laboratories to carry out subsection
21 (b)(2);

22 “(C) at least 40 percent shall be made
23 available for program grants under subsection
24 (g)(1); and

1 “(D) not more than 15 percent shall be
2 used to pay the administrative costs of carrying
3 out the program, including costs to support the
4 activities of the Advisory Panel.”.

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