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2^D SESSION

H. R. 6160

IN THE SENATE OF THE UNITED STATES

SEPTEMBER 29, 2010

Received; read twice and referred to the Committee on Energy and Natural
Resources

AN ACT

To develop a rare earth materials program, to amend the
National Materials and Minerals Policy, Research and
Development Act of 1980, 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,*

1 **SECTION 1. SHORT TITLE; TABLE OF CONTENTS.**

2 (a) **SHORT TITLE.**—This Act may be cited as the
 3 “Rare Earths and Critical Materials Revitalization Act of
 4 2010”.

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

Sec. 1. Short title; table of contents.

Sec. 2. Definitions.

TITLE I—RARE EARTH MATERIALS

Sec. 101. Rare earth materials program.

Sec. 102. Rare earth materials loan guarantee program.

TITLE II—NATIONAL MATERIALS AND MINERALS POLICY,
 RESEARCH, AND DEVELOPMENT

Sec. 201. Amendments to National Materials and Minerals Policy, Research
 and Development Act of 1980.

Sec. 202. Repeal.

7 **SEC. 2. DEFINITIONS.**

8 In this Act:

9 (1) **APPROPRIATE CONGRESSIONAL COMMIT-**
 10 **TEES.**—The term “appropriate Congressional com-
 11 mittees” means the Committee on Science and Tech-
 12 nology of the House of Representatives and the
 13 Committee on Commerce, Science, and Transpor-
 14 tation and the Committee on Energy and Natural
 15 Resources of the Senate.

16 (2) **DEPARTMENT.**—The term “Department”
 17 means the Department of Energy.

18 (3) **RARE EARTH MATERIALS.**—The term “rare
 19 earth materials” means any of the following chem-

1 ical elements in any of their physical forms or chem-
2 ical combinations:

- 3 (A) Scandium.
- 4 (B) Yttrium.
- 5 (C) Lanthanum.
- 6 (D) Cerium.
- 7 (E) Praseodymium.
- 8 (F) Neodymium.
- 9 (G) Promethium.
- 10 (H) Samarium.
- 11 (I) Europium.
- 12 (J) Gadolinium.
- 13 (K) Terbium.
- 14 (L) Dysprosium.
- 15 (M) Holmium.
- 16 (N) Erbium.
- 17 (O) Thulium.
- 18 (P) Ytterbium.
- 19 (Q) Lutetium.

20 (4) SECRETARY.—The term “Secretary” means
21 the Secretary of Energy.

22 **TITLE I—RARE EARTH** 23 **MATERIALS**

24 **SEC. 101. RARE EARTH MATERIALS PROGRAM.**

25 (a) ESTABLISHMENT OF PROGRAM.—

1 (1) IN GENERAL.—There is established in the
2 Department a program of research, development,
3 demonstration, and commercial application to assure
4 the long-term, secure, and sustainable supply of rare
5 earth materials sufficient to satisfy the national se-
6 curity, economic well-being, and industrial produc-
7 tion needs of the United States.

8 (2) PROGRAM ACTIVITIES.—The program shall
9 support activities to—

10 (A) better characterize and quantify virgin
11 stocks of rare earth materials using theoretical
12 geochemical research;

13 (B) explore, discover, and recover rare
14 earth materials using advanced science and
15 technology;

16 (C) improve methods for the extraction,
17 processing, use, recovery, and recycling of rare
18 earth materials;

19 (D) improve the understanding of the per-
20 formance, processing, and adaptability in engi-
21 neering designs of rare earth materials;

22 (E) identify and test alternative materials
23 that can be substituted for rare earth materials
24 in particular applications;

25 (F) engineer and test applications that—

- 1 (i) use recycled rare earth materials;
2 (ii) use alternative materials; or
3 (iii) seek to minimize rare earth mate-
4 rials content;

5 (G) collect, catalogue, archive, and dissemi-
6 nate information on rare earth materials, in-
7 cluding scientific and technical data generated
8 by the research and development activities sup-
9 ported under this section, and assist scientists
10 and engineers in making the fullest possible use
11 of the data holdings; and

12 (H) facilitate information sharing and col-
13 laboration among program participants and
14 stakeholders.

15 (3) IMPROVED PROCESSES AND TECH-
16 NOLOGIES.—To the maximum extent practicable, the
17 Secretary shall support new or significantly im-
18 proved processes and technologies as compared to
19 those currently in use in the rare earth materials in-
20 dustry.

21 (4) EXPANDING PARTICIPATION.—The Sec-
22 retary shall encourage—

23 (A) multidisciplinary collaborations among
24 program participants; and

1 (B) extensive opportunities for students at
2 institutions of higher education, including insti-
3 tutions listed under section 371(a) of the High-
4 er Education Act of 1965 (20 U.S.C.
5 1067q(a)).

6 (5) CONSISTENCY.—The program shall be con-
7 sistent with the policies and programs in the Na-
8 tional Materials and Minerals Policy, Research and
9 Development Act of 1980 (30 U.S.C. 1601 et seq.).

10 (6) INTERNATIONAL COLLABORATION.—In car-
11 rying out the program, the Secretary may collabo-
12 rate, to the extent practicable, on activities of mu-
13 tual interest with the relevant agencies of foreign
14 countries with interests relating to rare earth mate-
15 rials.

16 (b) PLAN.—

17 (1) IN GENERAL.—Within 180 days after the
18 date of enactment of this Act and biennially there-
19 after, the Secretary shall prepare and submit to the
20 appropriate Congressional committees a plan to
21 carry out the program established under subsection
22 (a).

23 (2) SPECIFIC REQUIREMENTS.—The plan shall
24 include a description of—

1 (A) the research and development activities
2 to be carried out by the program during the
3 subsequent 2 years;

4 (B) the expected contributions of the pro-
5 gram to the creation of innovative methods and
6 technologies for the efficient and sustainable
7 provision of rare earth materials to the domes-
8 tic economy;

9 (C) the criteria to be used to evaluate ap-
10 plications for loan guarantees under section
11 1706 of the Energy Policy Act of 2005;

12 (D) any projects receiving loan guarantee
13 support under such section and the status of
14 such projects;

15 (E) how the program is promoting the
16 broadest possible participation by academic, in-
17 dustrial, and other contributors; and

18 (F) actions taken or proposed that reflect
19 recommendations from the assessment con-
20 ducted under subsection (c) or the Secretary's
21 rationale for not taking action pursuant to any
22 recommendation from such assessment for
23 plans submitted following the completion of the
24 assessment under such subsection.

1 (3) CONSULTATION.—In preparing each plan
2 under paragraph (1), the Secretary shall consult
3 with appropriate representatives of industry, institu-
4 tions of higher education, Department of Energy na-
5 tional laboratories, professional and technical soci-
6 eties, and other entities, as determined by the Sec-
7 retary.

8 (c) ASSESSMENT.—

9 (1) IN GENERAL.—After the program has been
10 in operation for 4 years, the Secretary shall offer to
11 enter into a contract with the National Academy of
12 Sciences under which the National Academy shall
13 conduct an assessment of the program under sub-
14 section (a).

15 (2) INCLUSIONS.—The assessment shall include
16 the recommendation of the National Academy of
17 Sciences that the program should be—

18 (A) continued, accompanied by a descrip-
19 tion of any improvements needed in the pro-
20 gram; or

21 (B) terminated, accompanied by a descrip-
22 tion of the lessons learned from the execution of
23 the program.

1 (3) AVAILABILITY.—The assessment shall be
2 made available to Congress and the public upon
3 completion.

4 **SEC. 102. RARE EARTH MATERIALS LOAN GUARANTEE PRO-**
5 **GRAM.**

6 (a) AMENDMENT.—Title XVII of the Energy Policy
7 Act of 2005 (42 U.S.C. 16511 et seq.) is amended by add-
8 ing at the end the following new section:

9 **“SEC. 1706. TEMPORARY PROGRAM FOR RARE EARTH MA-**
10 **TERIALS REVITALIZATION.**

11 “(a) IN GENERAL.—As part of the program estab-
12 lished in section 101 of the Rare Earths and Critical Ma-
13 terials Revitalization Act of 2010, the Secretary is author-
14 ized, only to the extent provided in advance in a subse-
15 quent appropriations act, to make guarantees under this
16 title for the commercial application of new or significantly
17 improved technologies (compared to technologies currently
18 in use in the United States at the time the guarantee is
19 issued) for the following categories of projects:

20 “(1) The separation and recovery of rare earth
21 materials from ores or other sources.

22 “(2) The preparation of rare earth materials in
23 oxide, metal, alloy, or other forms needed for na-
24 tional security, economic well-being, or industrial
25 production purposes.

1 “(3) The application of rare earth materials in
2 the production of improved—

3 “(A) magnets;

4 “(B) batteries;

5 “(C) refrigeration systems;

6 “(D) optical systems;

7 “(E) electronics; and

8 “(F) catalysis.

9 “(4) The application of rare earth materials in
10 other uses, as determined by the Secretary.

11 “(b) TIMELINESS.—The Secretary shall seek to mini-
12 mize delay in approving loan guarantee applications, con-
13 sistent with appropriate protection of taxpayer interests.

14 “(c) COOPERATION.—To the maximum extent prac-
15 ticable, the Secretary shall cooperate with appropriate pri-
16 vate sector participants to achieve a complete rare earth
17 materials production capability in the United States with-
18 in 5 years after the date of enactment of the Rare Earths
19 and Critical Materials Revitalization Act of 2010.

20 “(d) DOMESTIC SUPPLY CHAIN.—In support of the
21 objective in subsection (c) to achieve a rare earth materials
22 production capability in the United States that includes
23 the complete value chain described in paragraphs (1)
24 through (4) of subsection (a), the Secretary may not
25 award a guarantee for a project unless the project’s pro-

1 ponent provides to the Secretary an assurance that the
 2 loan or guarantee shall be used to support the separation,
 3 recovery, preparation, or manufacturing of rare earth ma-
 4 terials in the United States for customers within the
 5 United States unless insufficient domestic demand for
 6 such materials results in excess capacity.

7 “(e) SUNSET.—The authority to enter into guaran-
 8 tees under this section shall expire on September 30,
 9 2015.”.

10 (b) TABLE OF CONTENTS AMENDMENT.—The table
 11 of contents of the Energy Policy Act of 2005 is amended
 12 by inserting after the item relating to section 1705 the
 13 following new item:

“Sec. 1706. Temporary program for rare earth materials revitalization.”.

14 **TITLE II—NATIONAL MATERIALS**
 15 **AND MINERALS POLICY, RE-**
 16 **SEARCH, AND DEVELOPMENT**

17 **SEC. 201. AMENDMENTS TO NATIONAL MATERIALS AND**
 18 **MINERALS POLICY, RESEARCH AND DEVEL-**
 19 **OPMENT ACT OF 1980.**

20 (a) PROGRAM PLAN.—Section 5 of the National Ma-
 21 terials and Minerals Policy, Research and Development
 22 Act of 1980 (30 U.S.C. 1604) is amended—

23 (1) by striking “date of enactment of this Act”
 24 each place it appears and inserting “date of enact-

1 ment of the Rare Earths and Critical Materials Re-
2 vitalization Act of 2010”;

3 (2) in subsection (b), by striking “Federal Co-
4 ordinating Council for Science, Engineering, and
5 Technology” and inserting “National Science and
6 Technology Council,”;

7 (3) in subsection (c)—

8 (A) by striking “the Federal Emergency”
9 and all that follows through “Agency, and”;

10 (B) by striking “appropriate shall” and in-
11 sserting “appropriate, shall”;

12 (C) by striking paragraph (1);

13 (D) in paragraph (2), by striking “in the
14 case” and all that follows through “sub-
15 section,”;

16 (E) by redesignating paragraph (2) as
17 paragraph (1); and

18 (F) by amending paragraph (3) to read as
19 follows:

20 “(2) assess the adequacy, accessibility, and sta-
21 bility of the supply of materials necessary to main-
22 tain national security, economic well-being, and in-
23 dustrial production.”;

24 (4) by striking subsections (d) and (e); and

1 (5) by redesignating subsection (f) as sub-
2 section (d).

3 (b) POLICY.—Section 3 of such Act (30 U.S.C. 1602)
4 is amended—

5 (1) by striking “The Congress declares that it”
6 and inserting “It”; and

7 (2) by striking “The Congress further declares
8 that implementation” and inserting “Implementa-
9 tion”.

10 (c) IMPLEMENTATION.—Section 4 of such Act (30
11 U.S.C. 1603) is amended—

12 (1) by striking “For the purpose” and all that
13 follows through “declares that the” and inserting
14 “The”; and

15 (2) by striking “departments and agencies,”
16 and inserting “departments and agencies to imple-
17 ment the policies set forth in section 3”.

1 **SEC. 202. REPEAL.**

2 Title II of Public Law 98–373 (30 U.S.C. 1801 et
3 seq.; 98 Stat. 1248), also known as the National Critical
4 Materials Act of 1984, is repealed.

Passed the House of Representatives September 29,
2010.

Attest:

LORRAINE C. MILLER,

Clerk.