

111TH CONGRESS
2^D SESSION

S. 3521

To provide for the reestablishment of a domestic rare earths materials production and supply industry in the United States, and for other purposes.

IN THE SENATE OF THE UNITED STATES

JUNE 22, 2010

Ms. MURKOWSKI introduced the following bill; which was read twice and referred to the Committee on Energy and Natural Resources

A BILL

To provide for the reestablishment of a domestic rare earths materials production and supply industry in the United States, 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 “Rare Earths Supply
5 Technology and Resources Transformation Act of 2010”
6 or the “RESTART Act”.

7 **SEC. 2. FINDINGS.**

8 Congress makes the following findings:

9 (1) Significant quantities of rare earths are
10 used in the production of clean energy technologies,

1 including advanced automotive propulsion batteries,
2 electric motors, high-efficiency light bulbs, solar pan-
3 els, and wind turbines. These technologies are used
4 to advance the United States energy policy of reduc-
5 ing dependence on foreign oil and decreasing green-
6 house gas emissions through expansion of cleaner
7 sources of energy.

8 (2) Many modern defense technologies such as
9 radar and sonar systems, precision-guided weapons,
10 cruise missiles, and lasers cannot be built, as de-
11 signed and specified, without the use of rare earths
12 and materials produced from them.

13 (3) Rare earths also provide core functionality
14 to a variety of high technology applications in com-
15 puting, pollution abatement, power generation, water
16 treatment, oil refining, metal alloying, communica-
17 tions, health care, agriculture, and other sectors.

18 (4) Though at least 15 percent of the world's
19 rare earth reserves are located within the United
20 States, the country now depends upon imports for
21 nearly 100 percent of its rare earth needs because
22 there are virtually no active rare earth producers in
23 the United States. More than 97 percent of all rare
24 earths for world consumption are produced in China.

1 (5) The ability—and willingness—of China to
2 export rare earths is eroding due to its growing do-
3 mestic demand, its enforcement of environmental
4 law on current producers, and its mandate to con-
5 solidate the industry by decreasing its number of
6 mining permits. The Chinese Ministry of Industry
7 and Information Technology draft rare earths plan
8 for 2009 to 2015 proposes an immediate ban on the
9 export of dysprosium, terbium, thulium, lutetium,
10 and yttrium, the so-called “heavy” rare earths, and
11 a restriction on the exports of all other, light, rare
12 earth metals to a level well below that sufficient to
13 satisfy the demand of Japan in 2008 alone for such
14 metals.

15 (6) Furthermore, the United States has limited
16 rare earth production, remains entirely dependent on
17 overseas refineries for further elemental and alloy
18 processing, and does not currently maintain a “stra-
19 tegic reserve” of rare earth compounds, metals, or
20 alloys.

21 (7) Rare earths should qualify as materials ei-
22 ther strategic or critical to national security. The
23 United States Government should facilitate the do-
24 mestic reintroduction of a globally competitive rare
25 earth industry that is self-sufficient in the United

1 States domestic market with multiple sources of
2 mining, processing, alloying, and manufacturing.

3 (8) This self-sufficiency requires an uninter-
4 rupted supply of strategic materials critical to na-
5 tional security and innovative commercial product
6 development, including rare earths, to support the
7 clean energy and defense supply chains.

8 (9) The United States currently cannot reclaim
9 valuable rare earths and permanent magnets from
10 scrapped military or consumer products, industrial
11 materials or equipment, which allows entities in
12 other countries to identify and recover such mate-
13 rials for resale to United States manufacturers at
14 considerable cost.

15 (10) There is an urgent need to identify the
16 current global market situation regarding rare
17 earths, the strategic value placed on them by foreign
18 nations including China, and the supply-chain
19 vulnerabilities related to rare earths and products
20 containing rare earths.

21 **SEC. 3. ACTIONS TO PROMOTE RARE EARTH DEVELOP-**
22 **MENT.**

23 (a) POLICY.—It is the policy of the United States
24 that each Federal agency shall take appropriate actions,
25 to the extent consistent with applicable law, to expedite

1 permitting and projects that will increase exploration for,
2 and development of, domestic rare earths.

3 (b) RARE EARTH POLICY TASK FORCE.—

4 (1) ESTABLISHMENT.—There is established
5 within the Department of the Interior a task force
6 to be known as the “Rare Earth Policy Task Force”
7 (referred to in this section as the “Task Force”),
8 which shall report to the President through the Sec-
9 retary of the Interior.

10 (2) COMPOSITION.—The Task Force shall be
11 composed of the following:

12 (A) The Secretary of the Interior (or a
13 designee), who shall serve as chair of the Task
14 Force.

15 (B) The Secretary of Energy (or a des-
16 ignee).

17 (C) The Secretary of Agriculture (or a des-
18 ignee).

19 (D) The Secretary of Defense (or a des-
20 ignee).

21 (E) The Secretary of Commerce (or a des-
22 ignee).

23 (F) The Secretary of State (or a designee).

24 (G) The Director of the Office of Manage-
25 ment and Budget (or a designee).

1 (H) The Chairman of the Council on Envi-
2 ronmental Quality (or a designee).

3 (I) Such other members as the Secretary
4 of the Interior considers appropriate.

5 (c) DUTIES.—The Task Force shall—

6 (1) monitor and assist Federal agencies in expe-
7 diting the review and approval of permits or other
8 actions, as necessary, to accelerate the completion of
9 projects that will increase investment in, exploration
10 for, and development of domestic rare earths pursu-
11 ant to the Federal Land Policy and Management
12 Act of 1976 (43 U.S.C. 1701 et seq.), the Act of
13 June 4, 1897 (commonly known as the “Organic Act
14 of 1897” (16 U.S.C. 473–482, 551), the National
15 Forest Management Act of 1976 (16 U.S.C. 1600 et
16 seq.), and any other applicable statutory authorities
17 related to domestic mining operations;

18 (2) assist Federal agencies in reviewing laws
19 (including regulations) and policies that discourage
20 investment in, exploration for, and development of
21 domestic rare earths pursuant to Federal Land Pol-
22 icy and Management Act of 1976, the Act of June
23 4, 1897, the National Forest Management Act of
24 1976, and any other applicable statutory authorities
25 related to domestic mining operations; and

1 (3) take such other actions to otherwise in-
2 crease investment in, exploration for, and develop-
3 ment of domestic rare earths as the Task Force con-
4 siders appropriate.

5 (d) ANNUAL REPORTS.—At least once each year, the
6 Task Force shall submit to the President, the Committee
7 on Natural Resources of the Senate, the Committee on
8 Energy and Commerce of the House of Representatives,
9 and the Committee on Natural Resources of the House
10 of Representatives a report setting forth the following:

11 (1) A description of the results of the coordi-
12 nated and expedited review of permits or other ac-
13 tions to promote investment in, exploration for, and
14 development of domestic rare earths, and an identi-
15 fication of the procedures and actions that have
16 proven to be the most useful and appropriate in co-
17 ordinating and expediting the review of projects that
18 will increase investment in, exploration for, and de-
19 velopment of domestic rare earths.

20 (2) An identification of the substantive and pro-
21 cedural requirements of Federal, State, tribal, and
22 local laws (including regulations) and Executive or-
23 ders that are inconsistent with, duplicative of, or
24 structured so as to restrict effective implementation
25 of the projects described in paragraph (1).

1 (3) Such recommendations as the Task Force
2 considers appropriate to advance the policy set forth
3 in subsection (a).

4 (e) JUDICIAL REVIEW.—

5 (1) IN GENERAL.—Nothing in this section shall
6 be construed to affect any judicial review of an agen-
7 cy action under any other provision of law.

8 (2) CONSTRUCTION.—This section—

9 (A) is intended to improve the internal
10 management of the Federal Government; and

11 (B) does not create any right or benefit,
12 substantive or procedural, enforceable at law or
13 equity by a party against the United States (in-
14 cluding an agency, instrumentality, officer, or
15 employee of the United States) or any other
16 person.

17 **SEC. 4. ASSESSMENT OF RARE EARTH SUPPLY CHAIN VUL-**
18 **NERABILITY.**

19 (a) ASSESSMENT.—Not later than 180 days after the
20 date of the enactment of this Act, the Secretary of the
21 Interior and the Secretary of Energy shall jointly, in con-
22 sultation with the Secretary of Defense, the Secretary of
23 Commerce, the Secretary of State, and the United States
24 Trade Representative—

1 (1) undertake an assessment of the domestic
2 rare earth supply chain;

3 (2) determine pursuant to such assessment
4 which rare earth elements are critical to clean en-
5 ergy technologies and the national and economic se-
6 curity of the United States; and

7 (3) submit to Congress a report setting forth
8 the results of such assessment and determination.

9 (b) ESTABLISHMENT OF STOCKPILE.—Not later than
10 one year after the date of the enactment of this Act, the
11 Secretary of the Interior and the Secretary of Energy shall
12 jointly, in consultation with the Secretary of Defense, the
13 Secretary of Commerce, the Secretary of State, and the
14 United States Trade Representative, submit to Congress
15 a report setting forth the following:

16 (1) An assessment whether or not the rare
17 earth materials determined to be critical to clean en-
18 ergy technologies and the national and economic se-
19 curity of the United States pursuant to subsection
20 (a)(2) should be procured and placed in a stockpile.

21 (2) An assessment whether or not adequate
22 legal authorities exist to procure and place in a
23 stockpile the rare earth materials so determined to
24 be critical to clean energy technologies and the na-
25 tional and economic security of the United States.

1 (3) Recommendations on the criteria to be uti-
2 lized in determining the commencement and termi-
3 nation of the stockpiling of such rare earth mate-
4 rials.

5 (c) STOCKPILE DEFINED.—In this section, the term
6 “stockpile” means a strategic reserve of rare earth oxides,
7 and storable forms of rare earths and alloys for purposes
8 of clean energy technology and the national and economic
9 security of the United States.

10 **SEC. 5. LOAN GUARANTEES FOR THE DOMESTIC RARE**
11 **EARTH SUPPLY CHAIN.**

12 (a) REPORT TO INDUSTRY.—Not later than 90 days
13 after the date of the enactment of the Act, the Secretary
14 of Energy shall issue a report to industry describing avail-
15 able mechanisms for obtaining government loan guaran-
16 tees for purposes of reestablishing a domestic rare earth
17 supply chain.

18 (b) DEPARTMENT OF ENERGY SUPPORT.—Not later
19 than 90 days after the date of the enactment of the Act,
20 the Secretary of Energy shall issue guidance for the rare
21 earth industry on obtaining loan guarantees under title
22 XVII of the Energy Policy Act of 2005 (Public Law 109–
23 58; 22 U.S.C. 16511 et seq.) and the American Recovery
24 and Reinvestment Act of 2009 (Public Law 111–16) for
25 purposes of supporting the reestablishment of mining, sep-

1 aration, purification, metal processing, refining, alloying,
2 and manufacturing operations in the United States relat-
3 ing to rare earths that will support the domestic clean en-
4 ergy technology and defense supply chains.

5 **SEC. 6. DEFENSE-RELATED PRODUCTION OF RARE EARTHS.**

6 (a) SENSE OF CONGRESS.—It is the sense of Con-
7 gress that—

8 (1) the United States faces a shortage of key
9 rare earth materials that form the backbone of both
10 the defense and energy supply chains; and

11 (2) the urgent need to reestablish a domestic
12 rare earth supply chain warrants a prioritization of
13 projects under the Defense Production Act of 1950
14 (50 U.S.C. App. 2061 et seq.) to support the rees-
15 tablishment of such a supply chain.

16 (b) REPORT.—Not later than 180 days after the date
17 of the enactment of this Act, the Secretary of Defense
18 shall submit to Congress a report describing past, current,
19 and future projects under the Defense Production Act of
20 1950 to support the domestic rare earth supply chain. If
21 no such project is in process or planned as of the date
22 of the report, the report shall include a justification for
23 the lack of projects to support a domestic rare earth sup-
24 ply chain, particularly projects to establish or support do-

1 mestic manufacturing capability in critical segments of the
2 rare earth market.

3 **SEC. 7. SUPPORT FOR DOMESTIC RARE EARTH SUPPLY**
4 **CHAIN.**

5 It is the sense of Congress that, in order to reestab-
6 lish the security of rare earth supplies within the United
7 States, and associated technologies—

8 (1) there is a pressing need to support innova-
9 tion, training, and workforce development in the do-
10 mestic rare earth supply chain;

11 (2) the Department of Energy, the Department
12 of the Interior, the Department of Commerce, and
13 the Department of Defense should each, utilizing
14 funds available to such department for basic re-
15 search and development, provide funds to academic
16 institutions, Government laboratories, corporate re-
17 search and development, not-for-profit research and
18 development, and industry associations in support of
19 innovation, training, and workforce development in
20 the domestic rare earth supply chain; and

21 (3) in providing funds under paragraph (2), the
22 Department of Energy, the Department of the Inte-
23 rior, the Department of Commerce, and the Depart-
24 ment of Defense should give priority to academic in-
25 stitutions, Government laboratories, corporations,

1 not-for-profit entities, and industry associations that
2 will utilize domestically produced rare earths and as-
3 sociated materials.

4 **SEC. 8. RESTRICTIONS.**

5 (a) LIMITATION ON DIVESTMENT OF FACILITIES
6 CREATED.—No recipient of appropriated funds for the
7 purposes of supporting the reestablishment of a domestic
8 rare earth supply chain, may divest any resources or as-
9 sets funded, whether in whole or in part, by such appro-
10 priated funds to any foreign-owned or controlled entity
11 without the concurrence of the Secretary of Energy, the
12 Secretary of Defense, and the Secretary of Commerce.

13 (b) ENHANCING NATIONAL SECURITY.—Any recipi-
14 ent of appropriated funds obtained in connection with the
15 reestablishment of a domestic rare earth supply chain
16 shall be subject to the provisions of section 2538 of title
17 10, United States Code, in the utilization of such funds,
18 including with respect to any rare earth-related material
19 sold by such recipient in the commercial marketplace.

20 **SEC. 9. DEFINITIONS.**

21 In this Act:

22 (1) ALLOY.—The terms “alloy” means a partial
23 or complete solid solution of one or more elements
24 in a metallic matrix.

1 (2) ALLOYING.—The term “alloying” means the
2 melting of metal to create a metallic matrix.

3 (3) CLEAN ENERGY TECHNOLOGY.—The term
4 “clean energy technology” means a technology re-
5 lated to the production, use, transmission, storage,
6 control, or conservation of energy that will—

7 (A) reduce the need for additional energy
8 supplies by using existing energy supplies with
9 greater efficiency or by transmitting, distrib-
10 uting, or transporting energy with greater effec-
11 tiveness through the infrastructure of the
12 United States;

13 (B) diversify the sources of energy supply
14 of the United States to strengthen energy secu-
15 rity and to increase supplies with a favorable
16 balance of environmental effects if the entire
17 technology system is considered; or

18 (C) contribute to a stabilization of atmos-
19 pheric greenhouse gas concentrations through
20 reduction, avoidance, or sequestration of en-
21 ergy-related emissions.

22 (4) PROCESS.—The term “process”, in the case
23 of a rare earth oxide, means the conversion of the
24 oxide into usable rare earth metals and specialty al-

1 loys and powders for domestic magnet and other
2 manufacturing.

3 (5) RARE EARTH.—The term “rare earth”—

4 (A) means the chemical elements in the
5 periodic table from lanthanum (atomic number
6 57) up to and including lutetium (atomic num-
7 ber 71); and

8 (B) includes the chemical elements yttrium
9 and scandium.

10 (6) REFINE.—The term “refine”, in the case of
11 a rare earth extracted from rock, means the separa-
12 tion and purification of the rare earth to commercial
13 grades of oxides or other salts such as oxalates or
14 chlorides.

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