

116TH CONGRESS  
1ST SESSION

# S. 1317

To facilitate the availability, development, and environmentally responsible production of domestic resources to meet national material or critical mineral needs, and for other purposes.

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## IN THE SENATE OF THE UNITED STATES

MAY 2, 2019

Ms. MURKOWSKI (for herself, Mr. MANCHIN, Mr. SULLIVAN, and Ms. MCSALLY) introduced the following bill; which was read twice and referred to the Committee on Energy and Natural Resources

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## A BILL

To facilitate the availability, development, and environmentally responsible production of domestic resources to meet national material or critical mineral needs, 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 “American Mineral Se-  
5 curity Act”.

6 **SEC. 2. DEFINITIONS.**

7 In this Act:

8 (1) CRITICAL MINERAL.—

1 (A) IN GENERAL.—The term “critical min-  
2 eral” means any mineral, element, substance, or  
3 material designated as critical by the Secretary  
4 under section 4.

5 (B) EXCLUSIONS.—The term “critical  
6 mineral” does not include—

7 (i) fuel minerals, including oil, natural  
8 gas, or any other fossil fuels; or

9 (ii) water, ice, or snow.

10 (2) CRITICAL MINERAL MANUFACTURING.—The  
11 term “critical mineral manufacturing” means—

12 (A) the exploration, development, mining,  
13 production, processing, refining, alloying, sepa-  
14 ration, concentration, magnetic sintering, melt-  
15 ing, or beneficiation of critical minerals within  
16 the United States;

17 (B) the fabrication, assembly, or produc-  
18 tion, within the United States, of equipment,  
19 components, or other goods with energy tech-  
20 nology-, defense-, agriculture-, consumer elec-  
21 tronics-, or health care-related applications; or

22 (C) any other value-added, manufacturing-  
23 related use of critical minerals undertaken with-  
24 in the United States.

1           (3) INDIAN TRIBE.—The term “Indian tribe”  
 2           has the meaning given the term in section 4 of the  
 3           Indian Self-Determination and Education Assistance  
 4           Act (25 U.S.C. 5304).

5           (4) SECRETARY.—The term “Secretary” means  
 6           the Secretary of the Interior.

7           (5) STATE.—The term “State” means—

8                   (A) a State;

9                   (B) the District of Columbia;

10                  (C) the Commonwealth of Puerto Rico;

11                  (D) Guam;

12                  (E) American Samoa;

13                  (F) the Commonwealth of the Northern  
 14                  Mariana Islands; and

15                  (G) the United States Virgin Islands.

16 **SEC. 3. POLICY.**

17           (a) IN GENERAL.—Section 3 of the National Mate-  
 18           rials and Minerals Policy, Research and Development Act  
 19           of 1980 (30 U.S.C. 1602) is amended in the second sen-  
 20           tence—

21                   (1) by striking paragraph (3) and inserting the  
 22           following:

23                   “(3) establish an analytical and forecasting ca-  
 24           pability for identifying critical mineral demand, sup-  
 25           ply, and other factors to allow informed actions to

1 be taken to avoid supply shortages, mitigate price  
2 volatility, and prepare for demand growth and other  
3 market shifts;”;

4 (2) in paragraph (6), by striking “and” after  
5 the semicolon at the end; and

6 (3) by striking paragraph (7) and inserting the  
7 following:

8 “(7) facilitate the availability, development, and  
9 environmentally responsible production of domestic  
10 resources to meet national material or critical min-  
11 eral needs;

12 “(8) avoid duplication of effort, prevent unnec-  
13 essary paperwork, and minimize delays in the ad-  
14 ministration of applicable laws (including regula-  
15 tions) and the issuance of permits and authoriza-  
16 tions necessary to explore for, develop, and produce  
17 critical minerals and to construct critical mineral  
18 manufacturing facilities in accordance with applica-  
19 ble environmental and land management laws;

20 “(9) strengthen—

21 “(A) educational and research capabilities  
22 at not lower than the secondary school level;  
23 and

1           “(B) workforce training for exploration  
2           and development of critical minerals and critical  
3           mineral manufacturing;

4           “(10) bolster international cooperation through  
5           technology transfer, information sharing, and other  
6           means;

7           “(11) promote the efficient production, use, and  
8           recycling of critical minerals;

9           “(12) develop alternatives to critical minerals;  
10          and

11          “(13) establish contingencies for the production  
12          of, or access to, critical minerals for which viable  
13          sources do not exist within the United States.”.

14          (b) CONFORMING AMENDMENT.—Section 2(b) of the  
15          National Materials and Minerals Policy, Research and De-  
16          velopment Act of 1980 (30 U.S.C. 1601(b)) is amended  
17          by striking “(b) As used in this Act, the term” and insert-  
18          ing the following:

19          “(b) DEFINITIONS.—In this Act:

20                 “(1) CRITICAL MINERAL.—The term ‘critical  
21                 mineral’ means any mineral, element, substance, or  
22                 material designated as critical by the Secretary  
23                 under section 4 of the American Mineral Security  
24                 Act.

25                 “(2) MATERIALS.—The term”.

1 **SEC. 4. CRITICAL MINERAL DESIGNATIONS.**

2 (a) DRAFT METHODOLOGY AND LIST.—The Sec-  
3 retary, acting through the Director of the United States  
4 Geological Survey (referred to in this section as the “Sec-  
5 retary”), shall publish in the Federal Register for public  
6 comment—

7 (1) a description of the draft methodology used  
8 to identify a draft list of critical minerals; and

9 (2) a draft list of minerals, elements, sub-  
10 stances, and materials that qualify as critical min-  
11 erals.

12 (b) AVAILABILITY OF DATA.—If available data is in-  
13 sufficient to provide a quantitative basis for the method-  
14 ology developed under this section, qualitative evidence  
15 may be used to the extent necessary.

16 (c) FINAL METHODOLOGY AND LIST.—After review-  
17 ing public comments on the draft methodology and the  
18 draft list of critical minerals published under subsection  
19 (a) and updating the methodology and list as appropriate,  
20 not later than 45 days after the date on which the public  
21 comment period with respect to the draft methodology and  
22 draft list closes, the Secretary shall publish in the Federal  
23 Register—

24 (1) a description of the final methodology for  
25 determining which minerals, elements, substances,  
26 and materials qualify as critical minerals; and

1 (2) the final list of critical minerals.

2 (d) DESIGNATIONS.—

3 (1) IN GENERAL.—For purposes of carrying out  
4 this section, the Secretary shall maintain a list of  
5 minerals, elements, substances, and materials des-  
6 ignated as critical, pursuant to the final method-  
7 ology published under subsection (c), that the Sec-  
8 retary determines—

9 (A) are essential to the economic or na-  
10 tional security of the United States;

11 (B) the supply chain of which is vulnerable  
12 to disruption (including restrictions associated  
13 with foreign political risk, abrupt demand  
14 growth, military conflict, violent unrest, anti-  
15 competitive or protectionist behaviors, and other  
16 risks throughout the supply chain); and

17 (C) serve an essential function in the man-  
18 ufacturing of a product (including energy tech-  
19 nology-, defense-, currency-, agriculture-, con-  
20 sumer electronics-, and health care-related ap-  
21 plications), the absence of which would have  
22 significant consequences for the economic or na-  
23 tional security of the United States.

24 (2) INCLUSIONS.—Notwithstanding the criteria  
25 under subsection (c), the Secretary may designate

1 and include on the list any mineral, element, sub-  
2 stance, or material determined by another Federal  
3 agency to be strategic and critical to the defense or  
4 national security of the United States.

5 (3) REQUIRED CONSULTATION.—The Secretary  
6 shall consult with the Secretaries of Defense, Com-  
7 merce, Agriculture, and Energy and the United  
8 States Trade Representative in designating minerals,  
9 elements, substances, and materials as critical under  
10 this subsection.

11 (e) SUBSEQUENT REVIEW.—

12 (1) IN GENERAL.—The Secretary, in consulta-  
13 tion with the Secretaries of Defense, Commerce, Ag-  
14 riculture, and Energy and the United States Trade  
15 Representative, shall review the methodology and list  
16 under subsection (c) and the designations under sub-  
17 section (d) at least every 3 years, or more frequently  
18 as the Secretary considers to be appropriate.

19 (2) REVISIONS.—Subject to subsection (d)(1),  
20 the Secretary may—

21 (A) revise the methodology described in  
22 this section;

23 (B) determine that minerals, elements,  
24 substances, and materials previously determined



1           to be critical minerals are no longer critical  
2           minerals; and

3           (C) designate additional minerals, ele-  
4           ments, substances, or materials as critical min-  
5           erals.

6           (f) NOTICE.—On finalization of the methodology and  
7           the list under subsection (c), or any revision to the meth-  
8           odology or list under subsection (e), the Secretary shall  
9           submit to Congress written notice of the action.

10   **SEC. 5. RESOURCE ASSESSMENT.**

11           (a) IN GENERAL.—Not later than 4 years after the  
12           date of enactment of this Act, in consultation with applica-  
13           ble State (including geological surveys), local, academic,  
14           industry, and other entities, the Secretary shall complete  
15           a comprehensive national assessment of each critical min-  
16           eral that—

17           (1) identifies and quantifies known critical min-  
18           eral resources, using all available public and private  
19           information and datasets, including exploration his-  
20           tories; and

21           (2) provides a quantitative and qualitative as-  
22           sessment of undiscovered critical mineral resources  
23           throughout the United States, including probability  
24           estimates of tonnage and grade, using all available

1 public and private information and datasets, includ-  
2 ing exploration histories.

3 (b) SUPPLEMENTARY INFORMATION.—In carrying  
4 out this section, the Secretary may carry out surveys and  
5 field work (including drilling, remote sensing, geophysical  
6 surveys, topographical and geological mapping, and geo-  
7 chemical sampling and analysis) to supplement existing in-  
8 formation and datasets available for determining the exist-  
9 ence of critical minerals in the United States.

10 (c) PUBLIC ACCESS.—Subject to applicable law, to  
11 the maximum extent practicable, the Secretary shall make  
12 all data and metadata collected from the comprehensive  
13 national assessment carried out under subsection (a) pub-  
14 lically and electronically accessible.

15 (d) TECHNICAL ASSISTANCE.—At the request of the  
16 Governor of a State or the head of an Indian tribe, the  
17 Secretary may provide technical assistance to State gov-  
18 ernments and Indian tribes conducting critical mineral re-  
19 source assessments on non-Federal land.

20 (e) PRIORITIZATION.—

21 (1) IN GENERAL.—The Secretary may sequence  
22 the completion of resource assessments for each crit-  
23 ical mineral such that critical minerals considered to  
24 be most critical under the methodology established  
25 under section 4 are completed first.

1           (2) REPORTING.—During the period beginning  
2           not later than 1 year after the date of enactment of  
3           this Act and ending on the date of completion of all  
4           of the assessments required under this section, the  
5           Secretary shall submit to Congress on an annual  
6           basis an interim report that—

7                   (A) identifies the sequence and schedule  
8                   for completion of the assessments if the Sec-  
9                   retary sequences the assessments; or

10                   (B) describes the progress of the assess-  
11                   ments if the Secretary does not sequence the  
12                   assessments.

13       (f) UPDATES.—The Secretary may periodically up-  
14       date the assessments conducted under this section based  
15       on—

16                   (1) the generation of new information or  
17                   datasets by the Federal Government; or

18                   (2) the receipt of new information or datasets  
19                   from critical mineral producers, State geological sur-  
20                   veys, academic institutions, trade associations, or  
21                   other persons.

22       (g) ADDITIONAL SURVEYS.—The Secretary shall  
23       complete a resource assessment for each additional min-  
24       eral or element subsequently designated as a critical min-

1 eral under section 4(e)(2) not later than 2 years after the  
2 designation of the mineral or element.

3 (h) REPORT.—Not later than 2 years after the date  
4 of enactment of this Act, the Secretary shall submit to  
5 Congress a report describing the status of geological sur-  
6 veying of Federal land for any mineral commodity—

7 (1) for which the United States was dependent  
8 on a foreign country for more than 25 percent of the  
9 United States supply, as depicted in the report  
10 issued by the United States Geological Survey enti-  
11 tled “Mineral Commodity Summaries 2019”; but

12 (2) that is not designated as a critical mineral  
13 under section 4.

14 **SEC. 6. PERMITTING.**

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

17 (1) critical minerals are fundamental to the  
18 economy, competitiveness, and security of the United  
19 States;

20 (2) to the maximum extent practicable, the crit-  
21 ical mineral needs of the United States should be  
22 satisfied by minerals responsibly produced and recy-  
23 cled in the United States; and

1           (3) the Federal permitting process has been  
2           identified as an impediment to mineral production  
3           and the mineral security of the United States.

4           (b) PERFORMANCE IMPROVEMENTS.—To improve  
5           the quality and timeliness of decisions, the Secretary (act-  
6           ing through the Director of the Bureau of Land Manage-  
7           ment) and the Secretary of Agriculture (acting through  
8           the Chief of the Forest Service) (referred to in this section  
9           as the “Secretaries”) shall, to the maximum extent prac-  
10          ticable, with respect to critical mineral production on Fed-  
11          eral land, complete Federal permitting and review proc-  
12          esses with maximum efficiency and effectiveness, while  
13          supporting vital economic growth, by—

14                (1) establishing and adhering to timelines and  
15                schedules for the consideration of, and final deci-  
16                sions regarding, applications, operating plans, leases,  
17                licenses, permits, and other use authorizations for  
18                mineral-related activities on Federal land;

19                (2) establishing clear, quantifiable, and tem-  
20                poral permitting performance goals and tracking  
21                progress against those goals;

22                (3) engaging in early collaboration among agen-  
23                cies, project sponsors, and affected stakeholders—

24                        (A) to incorporate and address the inter-  
25                        ests of those parties; and

1 (B) to minimize delays;

2 (4) ensuring transparency and accountability by  
3 using cost-effective information technology to collect  
4 and disseminate information regarding individual  
5 projects and agency performance;

6 (5) engaging in early and active consultation  
7 with State, local, and Indian tribal governments to  
8 avoid conflicts or duplication of effort, resolve con-  
9 cerns, and allow for concurrent, rather than sequen-  
10 tial, reviews;

11 (6) providing demonstrable improvements in the  
12 performance of Federal permitting and review proc-  
13 esses, including lower costs and more timely deci-  
14 sions;

15 (7) expanding and institutionalizing permitting  
16 and review process improvements that have proven  
17 effective;

18 (8) developing mechanisms to better commu-  
19 nicate priorities and resolve disputes among agencies  
20 at the national, regional, State, and local levels; and

21 (9) developing other practices, such as  
22 preapplication procedures.

23 (c) REVIEW AND REPORT.—Not later than 1 year  
24 after the date of enactment of this Act, the Secretaries  
25 shall submit to Congress a report that—

1           (1) identifies additional measures (including  
2       regulatory and legislative proposals, as appropriate)  
3       that would increase the timeliness of permitting ac-  
4       tivities for the exploration and development of do-  
5       mestic critical minerals;

6           (2) identifies options (including cost recovery  
7       paid by permit applicants) for ensuring adequate  
8       staffing and training of Federal entities and per-  
9       sonnel responsible for the consideration of applica-  
10      tions, operating plans, leases, licenses, permits, and  
11      other use authorizations for critical mineral-related  
12      activities on Federal land;

13          (3) quantifies the amount of time typically re-  
14      quired (including range derived from minimum and  
15      maximum durations, mean, median, variance, and  
16      other statistical measures or representations) to  
17      complete each step (including those aspects outside  
18      the control of the executive branch, such as judicial  
19      review, applicant decisions, or State and local gov-  
20      ernment involvement) associated with the develop-  
21      ment and processing of applications, operating  
22      plans, leases, licenses, permits, and other use au-  
23      thorizations for critical mineral-related activities on  
24      Federal land, which shall serve as a baseline for the  
25      performance metric under subsection (d); and

1 (4) describes actions carried out pursuant to  
2 subsection (b).

3 (d) PERFORMANCE METRIC.—Not later than 90 days  
4 after the date of submission of the report under subsection  
5 (c), the Secretaries, after providing public notice and an  
6 opportunity to comment, shall develop and publish a per-  
7 formance metric for evaluating the progress made by the  
8 executive branch to expedite the permitting of activities  
9 that will increase exploration for, and development of, do-  
10 mestic critical minerals, while maintaining environmental  
11 standards.

12 (e) ANNUAL REPORTS.—Beginning with the first  
13 budget submission by the President under section 1105  
14 of title 31, United States Code, after publication of the  
15 performance metric required under subsection (d), and an-  
16 nually thereafter, the Secretaries shall submit to Congress  
17 a report that—

18 (1) summarizes the implementation of rec-  
19 ommendations, measures, and options identified in  
20 paragraphs (1) and (2) of subsection (c);

21 (2) using the performance metric under sub-  
22 section (d), describes progress made by the executive  
23 branch, as compared to the baseline established pur-  
24 suant to subsection (c)(3), on expediting the permit-



1       ting of activities that will increase exploration for,  
2       and development of, domestic critical minerals; and  
3       (3) compares the United States to other coun-  
4       tries in terms of permitting efficiency and any other  
5       criteria relevant to the globally competitive critical  
6       minerals industry.

7       (f) INDIVIDUAL PROJECTS.—Using data from the  
8       Secretaries generated under subsection (e), the Director  
9       of the Office of Management and Budget shall prioritize  
10      inclusion of individual critical mineral projects on the  
11      website operated by the Office of Management and Budget  
12      in accordance with section 1122 of title 31, United States  
13      Code.

14      (g) REPORT OF SMALL BUSINESS ADMINISTRA-  
15      TION.—Not later than 1 year and 300 days after the date  
16      of enactment of this Act, the Administrator of the Small  
17      Business Administration shall submit to the applicable  
18      committees of Congress a report that assesses the per-  
19      formance of Federal agencies with respect to—

20           (1) complying with chapter 6 of title 5, United  
21      States Code (commonly known as the “Regulatory  
22      Flexibility Act”), in promulgating regulations appli-  
23      cable to the critical minerals industry; and

24           (2) performing an analysis of regulations appli-  
25      cable to the critical minerals industry that may be

1 outmoded, inefficient, duplicative, or excessively bur-  
 2 densome.

3 (h) APPLICATION.—Section 41001(6)(A) of the  
 4 FAST Act (42 U.S.C. 4370m(6)(A)) is amended in the  
 5 matter preceding clause (i) by inserting “(including crit-  
 6 ical mineral manufacturing (as defined in section 2 of the  
 7 American Mineral Security Act))” after “manufacturing”.

8 **SEC. 7. FEDERAL REGISTER PROCESS.**

9 (a) DEPARTMENTAL REVIEW.—Absent any extraor-  
 10 dinary circumstance, and except as otherwise required by  
 11 law, the Secretary and the Secretary of Agriculture shall  
 12 ensure that each Federal Register notice described in sub-  
 13 section (b) shall be—

14 (1) subject to any required reviews within the  
 15 Department of the Interior or the Department of  
 16 Agriculture; and

17 (2) published in final form in the Federal Reg-  
 18 ister not later than 45 days after the date of initial  
 19 preparation of the notice.

20 (b) PREPARATION.—The preparation of Federal Reg-  
 21 ister notices required by law associated with the issuance  
 22 of a critical mineral exploration or mine permit shall be  
 23 delegated to the organizational level within the agency re-  
 24 sponsible for issuing the critical mineral exploration or  
 25 mine permit.

1 (c) TRANSMISSION.—All Federal Register notices re-  
2 garding official document availability, announcements of  
3 meetings, or notices of intent to undertake an action shall  
4 be originated in, and transmitted to the Federal Register  
5 from, the office in which, as applicable—

6 (1) the documents or meetings are held; or

7 (2) the activity is initiated.

8 **SEC. 8. RECYCLING, EFFICIENCY, AND ALTERNATIVES.**

9 (a) ESTABLISHMENT.—The Secretary of Energy (re-  
10 ferred to in this section as the “Secretary”) shall conduct  
11 a program of research and development—

12 (1) to promote the efficient production, use,  
13 and recycling of critical minerals throughout the  
14 supply chain; and

15 (2) to develop alternatives to critical minerals  
16 that do not occur in significant abundance in the  
17 United States.

18 (b) COOPERATION.—In carrying out the program, the  
19 Secretary shall cooperate with appropriate—

20 (1) Federal agencies and National Laboratories;

21 (2) critical mineral producers;

22 (3) critical mineral processors;

23 (4) critical mineral manufacturers;

24 (5) trade associations;

25 (6) academic institutions;

1 (7) small businesses; and

2 (8) other relevant entities or individuals.

3 (c) ACTIVITIES.—Under the program, the Secretary  
4 shall carry out activities that include the identification and  
5 development of—

6 (1) advanced critical mineral extraction, pro-  
7 duction, separation, alloying, or processing tech-  
8 nologies that decrease the energy consumption, envi-  
9 ronmental impact, and costs of those activities, in-  
10 cluding—

11 (A) efficient water and wastewater man-  
12 agement strategies;

13 (B) technologies and management strate-  
14 gies to control the environmental impacts of  
15 radionuclides in ore tailings; and

16 (C) technologies for separation and proc-  
17 essing;

18 (2) technologies or process improvements that  
19 minimize the use, or lead to more efficient use, of  
20 critical minerals across the full supply chain;

21 (3) technologies, process improvements, or de-  
22 sign optimizations that facilitate the recycling of  
23 critical minerals, and options for improving the rates  
24 of collection of products and scrap containing critical

1 minerals from post-consumer, industrial, or other  
2 waste streams;

3 (4) commercial markets, advanced storage  
4 methods, energy applications, and other beneficial  
5 uses of critical minerals processing byproducts;

6 (5) alternative minerals, metals, and materials,  
7 particularly those available in abundance within the  
8 United States and not subject to potential supply re-  
9 strictions, that lessen the need for critical minerals;  
10 and

11 (6) alternative energy technologies or alter-  
12 native designs of existing energy technologies, par-  
13 ticularly those that use minerals that—

14 (A) occur in abundance in the United  
15 States; and

16 (B) are not subject to potential supply re-  
17 strictions.

18 (d) REPORTS.—Not later than 2 years after the date  
19 of enactment of this Act, and annually thereafter, the Sec-  
20 retary shall submit to Congress a report summarizing the  
21 activities, findings, and progress of the program.

22 **SEC. 9. ANALYSIS AND FORECASTING.**

23 (a) CAPABILITIES.—In order to evaluate existing crit-  
24 ical mineral policies and inform future actions that may  
25 be taken to avoid supply shortages, mitigate price vola-

1 tility, and prepare for demand growth and other market  
 2 shifts, the Secretary, in consultation with the Energy In-  
 3 formation Administration, academic institutions, and oth-  
 4 ers in order to maximize the application of existing com-  
 5 petencies related to developing and maintaining computer-  
 6 models and similar analytical tools, shall conduct and pub-  
 7 lish the results of an annual report that includes—

8           (1) as part of the annually published Mineral  
 9       Commodity Summaries from the United States Geo-  
 10      logical Survey, a comprehensive review of critical  
 11      mineral production, consumption, and recycling pat-  
 12      terns, including—

13                (A) the quantity of each critical mineral  
 14                domestically produced during the preceding  
 15                year;

16                (B) the quantity of each critical mineral  
 17                domestically consumed during the preceding  
 18                year;

19                (C) market price data or other price data  
 20                for each critical mineral;

21                (D) an assessment of—

22                      (i) critical mineral requirements to  
 23                      meet the national security, energy, eco-  
 24                      nomic, industrial, technological, and other

1 needs of the United States during the pre-  
2 ceding year;

3 (ii) the reliance of the United States  
4 on foreign sources to meet those needs  
5 during the preceding year; and

6 (iii) the implications of any supply  
7 shortages, restrictions, or disruptions dur-  
8 ing the preceding year;

9 (E) the quantity of each critical mineral  
10 domestically recycled during the preceding year;

11 (F) the market penetration during the pre-  
12 ceding year of alternatives to each critical min-  
13 eral;

14 (G) a discussion of international trends as-  
15 sociated with the discovery, production, con-  
16 sumption, use, costs of production, prices, and  
17 recycling of each critical mineral as well as the  
18 development of alternatives to critical minerals;  
19 and

20 (H) such other data, analyses, and evalua-  
21 tions as the Secretary finds are necessary to  
22 achieve the purposes of this section; and

23 (2) a comprehensive forecast, entitled the “An-  
24 nual Critical Minerals Outlook”, of projected critical

1 mineral production, consumption, and recycling pat-  
2 terns, including—

3 (A) the quantity of each critical mineral  
4 projected to be domestically produced over the  
5 subsequent 1-year, 5-year, and 10-year periods;

6 (B) the quantity of each critical mineral  
7 projected to be domestically consumed over the  
8 subsequent 1-year, 5-year, and 10-year periods;

9 (C) an assessment of—

10 (i) critical mineral requirements to  
11 meet projected national security, energy,  
12 economic, industrial, technological, and  
13 other needs of the United States;

14 (ii) the projected reliance of the  
15 United States on foreign sources to meet  
16 those needs; and

17 (iii) the projected implications of po-  
18 tential supply shortages, restrictions, or  
19 disruptions;

20 (D) the quantity of each critical mineral  
21 projected to be domestically recycled over the  
22 subsequent 1-year, 5-year, and 10-year periods;

23 (E) the market penetration of alternatives  
24 to each critical mineral projected to take place



1 over the subsequent 1-year, 5-year, and 10-year  
2 periods;

3 (F) a discussion of reasonably foreseeable  
4 international trends associated with the dis-  
5 covery, production, consumption, use, costs of  
6 production, and recycling of each critical min-  
7 eral as well as the development of alternatives  
8 to critical minerals; and

9 (G) such other projections relating to each  
10 critical mineral as the Secretary determines to  
11 be necessary to achieve the purposes of this sec-  
12 tion.

13 (b) PROPRIETARY INFORMATION.—In preparing a re-  
14 port described in subsection (a), the Secretary shall en-  
15 sure, consistent with section 5(f) of the National Materials  
16 and Minerals Policy, Research and Development Act of  
17 1980 (30 U.S.C. 1604(f)), that—

18 (1) no person uses the information and data  
19 collected for the report for a purpose other than the  
20 development of or reporting of aggregate data in a  
21 manner such that the identity of the person or firm  
22 who supplied the information is not discernible and  
23 is not material to the intended uses of the informa-  
24 tion;

1           (2) no person discloses any information or data  
2       collected for the report unless the information or  
3       data has been transformed into a statistical or ag-  
4       gregate form that does not allow the identification of  
5       the person or firm who supplied particular informa-  
6       tion; and

7           (3) procedures are established to require the  
8       withholding of any information or data collected for  
9       the report if the Secretary determines that with-  
10      holding is necessary to protect proprietary informa-  
11      tion, including any trade secrets or other confiden-  
12      tial information.

13 **SEC. 10. EDUCATION AND WORKFORCE.**

14       (a) **WORKFORCE ASSESSMENT.**—Not later than 1  
15   year and 300 days after the date of enactment of this Act,  
16   the Secretary of Labor (in consultation with the Secretary,  
17   the Director of the National Science Foundation, institu-  
18   tions of higher education with substantial expertise in  
19   mining, institutions of higher education with significant  
20   expertise in minerals research, including fundamental re-  
21   search into alternatives, and employers in the critical min-  
22   erals sector) shall submit to Congress an assessment of  
23   the domestic availability of technically trained personnel  
24   necessary for critical mineral exploration, development, as-  
25   sessment, production, manufacturing, recycling, analysis,

1 forecasting, education, and research, including an analysis  
2 of—

3 (1) skills that are in the shortest supply as of  
4 the date of the assessment;

5 (2) skills that are projected to be in short sup-  
6 ply in the future;

7 (3) the demographics of the critical minerals in-  
8 dustry and how the demographics will evolve under  
9 the influence of factors such as an aging workforce;

10 (4) the effectiveness of training and education  
11 programs in addressing skills shortages;

12 (5) opportunities to hire locally for new and ex-  
13 isting critical mineral activities;

14 (6) the sufficiency of personnel within relevant  
15 areas of the Federal Government for achieving the  
16 policies described in section 3 of the National Mate-  
17 rials and Minerals Policy, Research and Develop-  
18 ment Act of 1980 (30 U.S.C. 1602); and

19 (7) the potential need for new training pro-  
20 grams to have a measurable effect on the supply of  
21 trained workers in the critical minerals industry.

22 (b) CURRICULUM STUDY.—

23 (1) IN GENERAL.—The Secretary and the Sec-  
24 retary of Labor shall jointly enter into an arrange-  
25 ment with the National Academy of Sciences and the

1 National Academy of Engineering under which the  
2 Academies shall coordinate with the National  
3 Science Foundation on conducting a study—

4 (A) to design an interdisciplinary program  
5 on critical minerals that will support the critical  
6 mineral supply chain and improve the ability of  
7 the United States to increase domestic, critical  
8 mineral exploration, development, production,  
9 manufacturing, research, including fundamental  
10 research into alternatives, and recycling;

11 (B) to address undergraduate and grad-  
12 uate education, especially to assist in the devel-  
13 opment of graduate level programs of research  
14 and instruction that lead to advanced degrees  
15 with an emphasis on the critical mineral supply  
16 chain or other positions that will increase do-  
17 mestic, critical mineral exploration, develop-  
18 ment, production, manufacturing, research, in-  
19 cluding fundamental research into alternatives,  
20 and recycling;

21 (C) to develop guidelines for proposals  
22 from institutions of higher education with sub-  
23 stantial capabilities in the required disciplines  
24 for activities to improve the critical mineral  
25 supply chain and advance the capacity of the

1 United States to increase domestic, critical min-  
2 eral exploration, research, development, produc-  
3 tion, manufacturing, and recycling; and

4 (D) to outline criteria for evaluating per-  
5 formance and recommendations for the amount  
6 of funding that will be necessary to establish  
7 and carry out the program described in sub-  
8 section (c).

9 (2) REPORT.—Not later than 2 years after the  
10 date of enactment of this Act, the Secretary shall  
11 submit to Congress a description of the results of  
12 the study required under paragraph (1).

13 (c) PROGRAM.—

14 (1) ESTABLISHMENT.—The Secretary and the  
15 Secretary of Labor shall jointly conduct a competi-  
16 tive grant program under which institutions of high-  
17 er education may apply for and receive 4-year grants  
18 for—

19 (A) startup costs for newly designated fac-  
20 ulty positions in integrated critical mineral edu-  
21 cation, research, innovation, training, and work-  
22 force development programs consistent with  
23 subsection (b);

1 (B) internships, scholarships, and fellow-  
 2 ships for students enrolled in programs related  
 3 to critical minerals;

4 (C) equipment necessary for integrated  
 5 critical mineral innovation, training, and work-  
 6 force development programs; and

7 (D) research of critical minerals and their  
 8 applications, particularly concerning the manu-  
 9 facture of critical components vital to national  
 10 security.

11 (2) RENEWAL.—A grant under this subsection  
 12 shall be renewable for up to 2 additional 3-year  
 13 terms based on performance criteria outlined under  
 14 subsection (b)(1)(D).

15 **SEC. 11. NATIONAL GEOLOGICAL AND GEOPHYSICAL DATA**  
 16 **PRESERVATION PROGRAM.**

17 Section 351(k) of the Energy Policy Act of 2005 (42  
 18 U.S.C. 15908(k)) is amended by striking “\$30,000,000  
 19 for each of fiscal years 2006 through 2010” and inserting  
 20 “\$5,000,000 for each of fiscal years 2020 through 2029,  
 21 to remain available until expended”.

22 **SEC. 12. ADMINISTRATION.**

23 (a) IN GENERAL.—The National Critical Materials  
 24 Act of 1984 (30 U.S.C. 1801 et seq.) is repealed.

1 (b) CONFORMING AMENDMENT.—Section 3(d) of the  
 2 National Superconductivity and Competitiveness Act of  
 3 1988 (15 U.S.C. 5202(d)) is amended in the first sentence  
 4 by striking “, with the assistance of the National Critical  
 5 Materials Council as specified in the National Critical Ma-  
 6 terials Act of 1984 (30 U.S.C. 1801 et seq.),”.

7 (c) SAVINGS CLAUSES.—

8 (1) IN GENERAL.—Nothing in this Act or an  
 9 amendment made by this Act modifies any require-  
 10 ment or authority provided by—

11 (A) the matter under the heading “**GEO-**  
 12 **LOGICAL SURVEY**” of the first section of the  
 13 Act of March 3, 1879 (43 U.S.C. 31(a)); or

14 (B) the first section of Public Law 87–626  
 15 (43 U.S.C. 31(b)).

16 (2) EFFECT ON DEPARTMENT OF DEFENSE.—  
 17 Nothing in this Act or an amendment made by this  
 18 Act affects the authority of the Secretary of Defense  
 19 with respect to the work of the Department of De-  
 20 fense on critical material supplies in furtherance of  
 21 the national defense mission of the Department of  
 22 Defense.

23 (3) SECRETARIAL ORDER NOT AFFECTED.—  
 24 This Act shall not apply to any mineral described in  
 25 Secretarial Order No. 3324, issued by the Secretary

1       of the Interior on December 3, 2012, in any area to  
2       which the order applies.

3   **SEC. 13. AUTHORIZATION OF APPROPRIATIONS.**

4       There is authorized to be appropriated to carry out  
5   this Act \$50,000,000 for each of fiscal years 2020 through  
6   2029.

