

AMENDMENT NO. _____ Calendar No. _____

Purpose: To facilitate the reestablishment of domestic, critical mineral designation, assessment, production, manufacturing, recycling, analysis, forecasting, workforce, education, research, and international capabilities in the United States.

IN THE SENATE OF THE UNITED STATES—112th Cong., 1st Sess.

S. 1619

To provide for identification of misaligned currency, require action to correct the misalignment, and for other purposes.

Referred to the Committee on _____ and
ordered to be printed

Ordered to lie on the table and to be printed

AMENDMENT intended to be proposed by _____

Viz:

1 At the end, add the following:

2 **TITLE __ —CRITICAL MINERALS**

3 **SEC. __ 01. SHORT TITLE.**

4 This title may be cited as the “Critical Minerals Pol-
5 icy Act of 2011”.

6 **SEC. __ 02. DEFINITIONS.**

7 In this title:

8 (1) APPLICABLE COMMITTEES.—The term “ap-
9 plicable committees” means—

1 (A) the Committee on Energy and Natural
2 Resources of the Senate;

3 (B) the Committee on Natural Resources
4 of the House of Representatives;

5 (C) the Committee on Energy and Com-
6 merce of the House of Representatives; and

7 (D) the Committee on Science, Space, and
8 Technology of the House of Representatives.

9 (2) CLEAN ENERGY TECHNOLOGY.—The term
10 “clean energy technology” means a technology re-
11 lated to the production, use, transmission, storage,
12 control, or conservation of energy that—

13 (A) reduces the need for additional energy
14 supplies by using existing energy supplies with
15 greater efficiency or by transmitting, distrib-
16 uting, storing, or transporting energy with
17 greater effectiveness in or through the infra-
18 structure of the United States;

19 (B) diversifies the sources of energy supply
20 of the United States to strengthen energy secu-
21 rity and to increase supplies with a favorable
22 balance of environmental effects if the entire
23 technology system is considered; or

24 (C) contributes to a stabilization of atmos-
25 pheric greenhouse gas concentrations through

1 reduction, avoidance, or sequestration of en-
2 ergy-related greenhouse gas emissions.

3 (3) CRITICAL MINERAL.—

4 (A) IN GENERAL.—The term “critical min-
5 eral” means any mineral designated as a crit-
6 ical mineral pursuant to section __11.

7 (B) EXCLUSIONS.—The term “critical
8 mineral” does not include coal, oil, natural gas,
9 or any other fossil fuels.

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

12 (A) the production, processing, refining,
13 alloying, separation, concentration, magnetic
14 sintering, melting, or beneficiation of critical
15 minerals within the United States;

16 (B) the fabrication, assembly, or produc-
17 tion, within the United States, of clean energy
18 technologies (including technologies related to
19 wind, solar, and geothermal energy, efficient
20 lighting, electrical superconducting materials,
21 permanent magnet motors, batteries, and other
22 energy storage devices), military equipment,
23 and consumer electronics, or components nec-
24 essary for applications; or

1 (C) any other value-added, manufacturing-
2 related use of critical minerals undertaken with-
3 in the United States.

4 (5) INDIAN TRIBE.—The term “Indian tribe”
5 has the meaning given the term in section 4 of the
6 Indian Self-Determination and Education Assistance
7 Act (25 U.S.C. 450b).

8 (6) MILITARY EQUIPMENT.—The term “mili-
9 tary equipment” means equipment used directly by
10 the armed forces to carry out military operations.

11 (7) RARE EARTH ELEMENT.—

12 (A) IN GENERAL.—The term “rare earth
13 element” means the chemical elements in the
14 periodic table from lanthanum (atomic number
15 57) up to and including lutetium (atomic num-
16 ber 71).

17 (B) INCLUSIONS.—The term “rare earth
18 element” includes the similar chemical elements
19 yttrium (atomic number 39) and scandium
20 (atomic number 21).

21 (8) SECRETARY.—

22 (A) SUBTITLE A.—In subtitle A, the term
23 “Secretary” means the Secretary of the Inte-
24 rior—

1 (i) acting through the Director of the
2 United States Geological Survey; and

3 (ii) in consultation with (as appro-
4 priate)—

5 (I) the Secretary of Energy;

6 (II) the Secretary of Defense;

7 (III) the Secretary of Commerce;

8 (IV) the Secretary of State;

9 (V) the Secretary of Agriculture;

10 (VI) the United States Trade

11 Representative; and

12 (VII) the heads of other applica-
13 ble Federal agencies.

14 (B) SUBTITLE B.—In subtitle B, the term
15 “Secretary” means the Secretary of Energy.

16 (9) STATE.—The term “State” means—

17 (A) a State;

18 (B) the Commonwealth of Puerto Rico;

19 and

20 (C) any other territory or possession of the
21 United States.

22 (10) VALUE-ADDED.—The term “value-added”
23 means, with respect to an activity, an activity that
24 changes the form, fit, or function of a product, serv-
25 ice, raw material, or physical good such that the re-

1 sultant market price is greater than the cost of mak-
2 ing the changes.

3 (11) WORKING GROUP.—The term “Working
4 Group” means the Critical Minerals Working Group
5 established under section __14(a).

6 **Subtitle A—Designations and**
7 **Policies**

8 **SEC. ___ 11. DESIGNATIONS.**

9 (a) DRAFT METHODOLOGY.—Not later than 30 days
10 after the date of enactment of this Act, the Secretary shall
11 publish in the Federal Register for public comment a draft
12 methodology for determining which minerals qualify as
13 critical minerals based on an assessment of whether the
14 minerals are—

15 (1) subject to potential supply restrictions (in-
16 cluding restrictions associated with foreign political
17 risk, abrupt demand growth, military conflict, and
18 anti-competitive or protectionist behaviors); and

19 (2) important in use (including clean energy
20 technology-, defense-, agriculture-, and health care-
21 related applications).

22 (b) AVAILABILITY OF DATA.—If available data is in-
23 sufficient to provide a quantitative basis for the method-
24 ology developed under this section, qualitative evidence
25 may be used.

1 (c) FINAL METHODOLOGY.—After reviewing public
2 comments on the draft methodology under subsection (a)
3 and updating that draft methodology as appropriate, the
4 Secretary shall enter into an arrangement with the Na-
5 tional Academy of Sciences and the National Academy of
6 Engineering to obtain, not later than 120 days after the
7 date of enactment of this Act—

8 (1) a review of the methodology; and

9 (2) recommendations for improving the method-
10 ology.

11 (d) FINAL METHODOLOGY.—After reviewing the rec-
12 ommendations under subsection (c), not later than 150
13 days after the date of enactment of this Act, the Secretary
14 shall publish in the Federal Register a description of the
15 final methodology for determining which minerals qualify
16 as critical minerals.

17 (e) DESIGNATIONS.—Not later than 180 days after
18 the date of enactment of this Act, the Secretary shall pub-
19 lish in the Federal Register a list of minerals designated
20 as critical, pursuant to the final methodology under sub-
21 section (d), for purposes of carrying out this title.

22 (f) SUBSEQUENT REVIEW.—The methodology and
23 designations developed under subsections (d) and (e) shall
24 be updated at least every 5 years, or in more regular inter-
25 vals if considered appropriate by the Secretary.

1 (g) NOTICE.—On finalization of the methodology
2 under subsection (d), the list under subsection (e), or any
3 update to the list under subsection (f), the Secretary shall
4 submit to the applicable committees written notice of the
5 action.

6 **SEC. ___ 12. POLICY.**

7 (a) POLICY.—It is the policy of the United States to
8 promote an adequate, reliable, domestic, and stable supply
9 of critical minerals, produced in an environmentally re-
10 sponsible manner, in order to strengthen and sustain the
11 economic security, and the manufacturing, industrial, en-
12 ergy, technological, and competitive stature, of the United
13 States.

14 (b) COORDINATION.—The President, acting through
15 the Executive Office of the President, shall coordinate the
16 actions of Federal agencies under this and other Acts—

17 (1) to encourage Federal agencies to facilitate
18 the availability, development, and environmentally
19 responsible production of domestic resources to meet
20 national critical minerals needs;

21 (2) to minimize duplication, needless paper-
22 work, and delays in the administration of applicable
23 laws (including regulations) and the issuance of per-
24 mits and authorizations necessary to explore for, de-
25 velop, and produce critical minerals and construct

1 and operate critical mineral manufacturing facilities
2 in an environmentally responsible manner;

3 (3) to promote the development of economically
4 stable and environmentally responsible domestic crit-
5 ical mineral production and manufacturing;

6 (4) to establish an analytical and forecasting
7 capability for identifying critical mineral demand,
8 supply, and other market dynamics relevant to policy
9 formulation such that informed actions can be taken
10 to avoid supply shortages, mitigate price volatility,
11 and prepare for demand growth and other market
12 shifts;

13 (5) to strengthen educational and research ca-
14 pabilities and workforce training;

15 (6) to bolster international cooperation through
16 technology transfer, information sharing, and other
17 means;

18 (7) to promote the efficient production, use,
19 and recycling of critical minerals;

20 (8) to develop alternatives to critical minerals;
21 and

22 (9) to establish contingencies for the production
23 of, or access to, critical minerals for which viable
24 sources do not exist within the United States.

1 **SEC. ____ 13. RESOURCE ASSESSMENT.**

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

8 (1) identifies and quantifies known critical min-
9 eral resources, using all available public and private
10 information and datasets, including exploration his-
11 tories;

12 (2) estimates the cost of production of the crit-
13 ical mineral resources identified and quantified
14 under this section, using all available public and pri-
15 vate information and datasets, including exploration
16 histories;

17 (3) provides a quantitative and qualitative as-
18 sessment of undiscovered critical mineral resources
19 throughout the United States, including probability
20 estimates of tonnage and grade, using all available
21 public and private information and datasets, includ-
22 ing exploration histories;

23 (4) provides qualitative information on the envi-
24 ronmental attributes of the critical mineral resources
25 identified under this section; and

1 (5) pays particular attention to the identifica-
2 tion and quantification of critical mineral resources
3 on Federal land that is open to location and entry
4 for exploration, development, and other uses.

5 (b) FIELD WORK.—If existing information and
6 datasets prove insufficient to complete the assessment
7 under this section and there is no reasonable opportunity
8 to obtain the information and datasets from nongovern-
9 mental entities, the Secretary may carry out field work
10 (including drilling, remote sensing, geophysical surveys,
11 geological mapping, and geochemical sampling and anal-
12 ysis) to supplement existing information and datasets
13 available for determining the existence of critical minerals
14 on—

15 (1) Federal land that is open to location and
16 entry for exploration, development, and other uses;

17 (2) Indian tribe land, at the request and with
18 the written permission of the Indian tribe; and

19 (3) State land, at the request and with the writ-
20 ten permission of the Governor of a State.

21 (c) TECHNICAL ASSISTANCE.—At the request of the
22 Governor of a State or an Indian tribe, the Secretary may
23 provide technical assistance to State governments and In-
24 dian tribes conducting critical mineral resource assess-
25 ments on non-Federal land.

1 (d) FINANCIAL ASSISTANCE.—The Secretary may
2 make grants to State governments, or Indian tribes and
3 economic development entities of Indian tribes, to cover
4 the costs associated with assessments of critical mineral
5 resources on State or Indian tribe land.

6 (e) REPORT.—Not later than 4 years after the date
7 of enactment of this Act, the Secretary shall submit to
8 the applicable committees a report describing the results
9 of the assessment conducted under this section.

10 (f) PRIORITIZATION.—

11 (1) IN GENERAL.—The Secretary may sequence
12 the completion of resource assessments for each crit-
13 ical mineral such that critical materials considered
14 to be most critical under the methodology estab-
15 lished pursuant to section __11 are completed first.

16 (2) REPORTING.—If the Secretary sequences
17 the completion of resource assessments for each crit-
18 ical material, the Secretary shall submit a report
19 under subsection (e) on an iterative basis over the
20 4-year period beginning on the date of enactment of
21 this Act.

22 (g) UPDATES.—The Secretary shall periodically up-
23 date the assessment conducted under this section based
24 on—

1 (1) the generation of new information or
2 datasets by the Federal government; or

3 (2) the receipt of new information or datasets
4 from critical mineral producers, State geological sur-
5 veys, academic institutions, trade associations, or
6 other entities or individuals.

7 **SEC. ___ 14. PERMITTING.**

8 (a) **CRITICAL MINERALS WORKING GROUP.—**

9 (1) **IN GENERAL.—**There is established within
10 the Department of the Interior a working group to
11 be known as the “Critical Minerals Working
12 Group”, which shall report to the President and
13 Congress through the Secretary.

14 (2) **COMPOSITION.—**The Working Group shall
15 be composed of the following:

16 (A) The Secretary of the Interior (or a
17 designee), who shall serve as chair of the Work-
18 ing Group.

19 (B) A Presidential designee from the Exec-
20 utive Office of the President, who shall serve as
21 vice-chair of the Working Group.

22 (C) The Secretary of Energy (or a des-
23 ignee).

24 (D) The Secretary of Agriculture (or a
25 designee).

1 (E) The Secretary of Defense (or a des-
2 ignee).

3 (F) The Secretary of Commerce (or a des-
4 ignee).

5 (G) The Secretary of State (or a designee).

6 (H) The United States Trade Representa-
7 tive (or a designee).

8 (I) The Administrator of the Environ-
9 mental Protection Agency (or a designee).

10 (J) The Chief of Engineers of the Corps of
11 Engineers (or a designee).

12 (b) CONSULTATION.—The Working Group shall oper-
13 ate in consultation with private sector, academic, and
14 other applicable stakeholders with experience related to—

15 (1) critical minerals exploration;

16 (2) critical minerals permitting;

17 (3) critical minerals production; and

18 (4) critical minerals manufacturing.

19 (c) DUTIES.—The Working Group shall—

20 (1) facilitate Federal agency efforts to optimize
21 efficiencies associated with the permitting of activi-
22 ties that will increase exploration and development
23 of domestic, critical minerals, while maintaining en-
24 vironmental standards;

1 (2) facilitate Federal agency review of laws (in-
2 cluding regulations) and policies that discourage in-
3 vestment in exploration and development of domes-
4 tic, critical minerals;

5 (3) assess whether Federal policies adversely
6 impact the global competitiveness of the domestic,
7 critical minerals exploration and development sector
8 (including taxes, fees, regulatory burdens, and ac-
9 cess restrictions);

10 (4) evaluate the sufficiency of existing mecha-
11 nisms for the provision of tenure on Federal land
12 and the role of the mechanisms in attracting capital
13 investment for the exploration and development of
14 domestic, critical minerals; and

15 (5) generate such other information and take
16 such other actions as the Working Group considers
17 appropriate to achieve the policy described in section
18 __12(a).

19 (d) REPORT.—Not later than 300 days after the date
20 of enactment of this Act, the Working Group shall submit
21 to the applicable committees a report that—

22 (1) describes the results of actions taken under
23 subsection (c);

24 (2) evaluates the amount of time typically re-
25 quired (including range derived from minimum and

1 maximum durations, mean, median, variance, and
2 other statistical measures or representations) to
3 complete each step (including those aspects outside
4 the control of the executive branch of the Federal
5 Government, such as judicial review, applicant deci-
6 sions, or State and local government involvement)
7 associated with the processing of applications, oper-
8 ating plans, leases, licenses, permits, and other use
9 authorizations for critical mineral-related activities
10 on Federal land, which shall serve as a baseline for
11 the performance metric developed and finalized
12 under subsections (e) and (f), respectively;

13 (3) identifies measures (including regulatory
14 changes and legislative proposals) that would opti-
15 mize efficiencies, while maintaining environmental
16 standards, associated with the permitting of activi-
17 ties that will increase exploration and development
18 of domestic, critical minerals; and

19 (4) identifies options (including cost recovery
20 paid by applicants) for ensuring adequate staffing of
21 divisions, field offices, or other entities responsible
22 for the consideration of applications, operating
23 plans, leases, licenses, permits, and other use au-
24 thorizations for critical mineral-related activities on
25 Federal land.

1 (e) DRAFT PERFORMANCE METRIC.—Not later than
2 330 days after the date of enactment of this Act, and upon
3 completion of the report required under subsection (d), the
4 Working Group shall publish in the Federal Register for
5 public comment a draft description of a performance met-
6 ric for evaluating the progress made by the executive
7 branch of the Federal Government on matters within the
8 control of that branch towards optimizing efficiencies,
9 while maintaining environmental standards, associated
10 with the permitting of activities that will increase explo-
11 ration and development of domestic, critical minerals (re-
12 ferred to in this section as the “performance metric”).

13 (f) FINAL PERFORMANCE METRIC.—Not later than
14 1 year after the date of enactment of this Act, and after
15 consideration of public comments received pursuant to
16 subsection (e), the Working Group shall publish in the
17 Federal Register a description of the final performance
18 metric.

19 (g) ANNUAL REPORT.—Not later than 2 years after
20 the date of enactment of this Act, using the performance
21 metric under subsection (f), and annually thereafter, the
22 Working Group shall submit to the applicable committees,
23 as part of the budget request of the Department of the
24 Interior for each fiscal year, each report that—

1 (1) describes the progress made by the execu-
2 tive branch of the Federal Government on matters
3 within the control of that branch towards optimizing
4 efficiencies, while maintaining environmental stand-
5 ards, associated with the permitting of activities that
6 will increase exploration and development of domes-
7 tic, critical minerals; and

8 (2) compares the United States to other coun-
9 tries in terms of permitting efficiency, environmental
10 standards, and other criteria relevant to a globally
11 competitive economic sector.

12 (h) REPORT OF SMALL BUSINESS ADMINISTRA-
13 TION.—Not later than 300 days after the date of enact-
14 ment of this Act, the Administrator of the Small Business
15 Administration shall submit to the applicable committees
16 a report that assesses the performance of Federal agencies
17 in—

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

22 (2) performing an analysis of regulations appli-
23 cable to the critical minerals industry that may be
24 outmoded, inefficient, duplicative, or excessively bur-
25 densome.

1 (i) JUDICIAL REVIEW.—

2 (1) IN GENERAL.—Nothing in this section af-
3 fects any judicial review of an agency action under
4 any other provision of law.

5 (2) CONSTRUCTION.—This section—

6 (A) is intended to improve the internal
7 management of the Federal Government; and

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

13 **SEC. ___ 15. MANUFACTURING.**

14 (a) AGREEMENT.—At the request of the Governor of
15 a State, the President (or a designee) may enter into a
16 cooperative agreement with the State for the processing
17 of permits for critical mineral manufacturing facilities (in-
18 cluding those related to wind, solar, and geothermal en-
19 ergy, efficient lighting, electrical superconducting mate-
20 rials, permanent magnet motors, and batteries and other
21 energy storage devices) under which each party to the
22 agreement identifies steps, including timelines, that the
23 party will take to optimize efficiencies, while maintaining
24 environmental standards, associated with the environ-

1 mental review and consideration of Federal and State per-
2 mits for a new critical mineral manufacturing facility.

3 (b) **AUTHORITY UNDER AGREEMENT.**—In carrying
4 out this section, the President may—

5 (1) accept from an applicant a consolidated ap-
6 plication for all permits required by the Federal
7 Government, to the extent consistent with other ap-
8 plicable law;

9 (2) facilitate memoranda of agreement between
10 Federal agencies to coordinate consideration of ap-
11 plications and permits among Federal agencies; and

12 (3) enter into memoranda of agreement with a
13 State, under which Federal and State review of per-
14 mit applications will be coordinated and concurrently
15 considered, to the maximum extent practicable.

16 (c) **STATE ASSISTANCE.**—The President may provide
17 technical, legal, or other assistance to State governments
18 to facilitate State review of applications to build new crit-
19 ical mineral manufacturing facilities.

20 **SEC. ___ 16. RECYCLING AND ALTERNATIVES.**

21 (a) **ESTABLISHMENT.**—The Secretary of Energy
22 shall conduct a program of research and development to
23 promote the efficient production, use, and recycling of,
24 and alternatives to, critical minerals.

1 (b) COOPERATION.—In carrying out the program, the
2 Secretary of Energy shall cooperate with appropriate—

3 (1) Federal agencies and National Laboratories;

4 (2) critical mineral producers;

5 (3) critical mineral manufacturers;

6 (4) trade associations;

7 (5) academic institutions;

8 (6) small businesses; and

9 (7) other relevant entities or individuals.

10 (c) ACTIVITIES.—Under the program, the Secretary
11 shall carry out activities that include the identification and
12 development of—

13 (1) advanced critical mineral production or
14 processing technologies that decrease the environ-
15 mental impact, and costs of production, of such ac-
16 tivities;

17 (2) techniques and practices that minimize or
18 lead to more efficient use of critical minerals;

19 (3) techniques and practices that facilitate the
20 recycling of critical minerals, including options for
21 improving the rates of collection of post-consumer
22 products containing critical minerals;

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

1 (5) alternative minerals, metals, and materials,
2 particularly those available in abundance within the
3 United States and not subject to potential supply re-
4 strictions, that lessen the need for critical minerals.

5 (d) REPORT.—Not later than 2 years after the date
6 of enactment of this Act and every 5 years thereafter, the
7 Secretaries shall submit to the applicable committees a re-
8 port summarizing the activities, findings, and progress of
9 the program.

10 **SEC. ___ 17. ANALYSIS AND FORECASTING.**

11 (a) CAPABILITIES.—In order to evaluate existing crit-
12 ical mineral policies and inform future actions that may
13 be taken to avoid supply shortages, mitigate price vola-
14 tility, and prepare for demand growth and other market
15 shifts, the Secretary, in consultation with academic insti-
16 tutions, the Energy Information Administration, and oth-
17 ers in order to maximize the application of existing com-
18 petencies related to developing and maintaining computer-
19 models and similar analytical tools, shall conduct and pub-
20 lish the results of an annual report that includes—

21 (1) as part of the annually published Mineral
22 Commodity Summaries from the United States Geo-
23 logical Survey, a comprehensive review of critical
24 mineral production, consumption, and recycling pat-
25 terns, including—

1 (A) the quantity of each critical mineral
2 domestically produced during the preceding
3 year;

4 (B) the quantity of each critical mineral
5 domestically consumed during the preceding
6 year;

7 (C) market price data for each critical
8 mineral;

9 (D) an assessment of—

10 (i) critical mineral requirements to
11 meet the national security, energy, eco-
12 nomic, industrial, technological, and other
13 needs of the United States during the pre-
14 ceding year;

15 (ii) the reliance of the United States
16 on foreign sources to meet those needs
17 during the preceding year; and

18 (iii) the implications of any supply
19 shortages, restrictions, or disruptions dur-
20 ing the preceding year;

21 (E) the quantity of each critical mineral
22 domestically recycled during the preceding year;

23 (F) the market penetration during the pre-
24 ceding year of alternatives to each critical min-
25 eral;

1 (G) a discussion of applicable international
2 trends associated with the discovery, produc-
3 tion, consumption, use, costs of production,
4 prices, and recycling of each critical mineral as
5 well as the development of alternatives to crit-
6 ical minerals; and

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

10 (2) a comprehensive forecast, entitled the “An-
11 nual Critical Minerals Outlook”, of projected critical
12 mineral production, consumption, and recycling pat-
13 terns, including—

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

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

20 (C) market price projections for each crit-
21 ical mineral, to the maximum extent practicable
22 and based on the best available information;

23 (D) an assessment of—

24 (i) critical mineral requirements to
25 meet projected national security, energy,

1 economic, industrial, technological, and
2 other needs of the United States;

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

6 (iii) the projected implications of po-
7 tential supply shortages, restrictions, or
8 disruptions;

9 (E) the quantity of each critical mineral
10 projected to be domestically recycled over the
11 subsequent 1-year, 5-year, and 10-year periods;

12 (F) the market penetration of alternatives
13 to each critical mineral projected to take place
14 over the subsequent 1-year, 5-year, and 10-year
15 periods;

16 (G) a discussion of reasonably foreseeable
17 international trends associated with the dis-
18 covery, production, consumption, use, costs of
19 production, prices, and recycling of each critical
20 mineral as well as the development of alter-
21 natives to critical minerals; and

22 (H) such other projections relating to each
23 critical mineral as the Secretary determines to
24 be necessary to achieve the purposes of this sec-
25 tion.

1 (b) PROPRIETARY INFORMATION.—In preparing a re-
2 port described in subsection (a), the Secretary shall ensure
3 that—

4 (1) no person uses the information and data
5 collected for the report for a purpose other than the
6 development of or reporting of aggregate data in a
7 manner such that the identity of the person who
8 supplied the information is not discernible and is not
9 material to the intended uses of the information;

10 (2) no person discloses any information or data
11 collected for the report unless the information or
12 data has been transformed into a statistical or ag-
13 gregate form that does not allow the identification of
14 the person who supplied particular information; and

15 (3) procedures are established to require the
16 withholding of any information or data collected for
17 the report if the Secretary determines that with-
18 holding is necessary to protect proprietary informa-
19 tion, including any trade secrets or other confiden-
20 tial information.

21 **SEC. ___ 18. EDUCATION AND WORKFORCE.**

22 (a) WORKFORCE ASSESSMENT.—Not later than 300
23 days after the date of enactment of this Act, the Secretary
24 of Labor (in consultation with the Secretary of the Inte-
25 rior, the Director of the National Science Foundation, and

1 employers in the critical minerals sector) shall submit to
2 Congress an assessment of the domestic availability of
3 technically trained personnel necessary for critical mineral
4 assessment, production, manufacturing, recycling, anal-
5 ysis, forecasting, education, and research, including an
6 analysis of—

7 (1) skills that are in the shortest supply as of
8 the date of the assessment;

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

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

14 (4) the effectiveness of training and education
15 programs in addressing skills shortages;

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

18 (6) the sufficiency of personnel within relevant
19 areas of the Federal Government for achieving the
20 policy described in section __12(a); and

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

24 (b) CURRICULUM STUDY.—

1 (1) IN GENERAL.—The Secretary and the Sec-
2 retary of Labor shall jointly enter into an arrange-
3 ment with the National Academy of Sciences and the
4 National Academy of Engineering under which the
5 Academies shall coordinate with the National
6 Science Foundation on conducting a study—

7 (A) to design an interdisciplinary program
8 on critical minerals that will support the critical
9 mineral supply chain and improve the ability of
10 the United States to increase domestic, critical
11 mineral exploration, development, and manufac-
12 turing;

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

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

1 crease domestic, critical mineral exploration, de-
2 velopment, and manufacturing; and

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

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

12 (c) GRANT PROGRAM.—

13 (1) ESTABLISHMENT.—The Secretary and the
14 National Science Foundation shall jointly conduct a
15 competitive grant program under which institutions
16 of higher education may apply for and receive 4-year
17 grants for—

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

23 (B) internships, scholarships, and fellow-
24 ships for students enrolled in critical mineral
25 programs; and

1 (C) equipment necessary for integrated
2 critical mineral innovation, training, and work-
3 force development programs.

4 (2) RENEWAL.—A grant under this subsection
5 shall be renewable for up to 2 additional 3-year
6 terms based on performance criteria outlined under
7 subsection (b)(1)(D).

8 **SEC. ____ 19. INTERNATIONAL COOPERATION.**

9 (a) ESTABLISHMENT.—The Secretary of State, in co-
10 ordination with the Secretary, shall carry out a program
11 to promote international cooperation on critical mineral
12 supply chain issues with allies of the United States.

13 (b) ACTIVITIES.—Under the program, the Secretary
14 may work with allies of the United States—

15 (1) to increase the global, responsible produc-
16 tion of critical minerals, if a determination is made
17 by the Secretary that there is no viable production
18 capacity for the critical minerals within the United
19 States;

20 (2) to improve the efficiency and environmental
21 performance of extraction techniques;

22 (3) to increase the recycling of, and deployment
23 of alternatives to, critical minerals;

24 (4) to assist in the development and transfer of
25 critical mineral extraction, processing, and manufac-

1 turing technologies that would have a beneficial im-
2 pact on world commodity markets and the environ-
3 ment;

4 (5) to strengthen and maintain intellectual
5 property protections; and

6 (6) to facilitate the collection of information
7 necessary for analyses and forecasts conducted pur-
8 suant to section __17.

9 **Subtitle B—Mineral-specific**
10 **Actions**

11 **SEC. __21. ADMINISTRATION.**

12 Nothing in this subtitle or an amendment made by
13 this subtitle affects the methodology or designations estab-
14 lished under section __11.

15 **SEC. __22. COBALT.**

16 (a) **AUTHORIZATION.**—The Secretary shall support
17 research programs that focus on novel uses for cobalt (in-
18 cluding energy technologies and super-alloys), including—

19 (1) use in clean energy technologies (including,
20 for purposes of this section, rechargeable batteries,
21 catalysts, photovoltaic cells, permanent magnets, and
22 fuel cells);

23 (2) use in alloys with military equipment, civil
24 aviation, and electricity generation applications; and

1 (3) use as coal-to-gas and coal-to-liquid cata-
2 lysts.

3 (b) CATEGORIES.—Research under this section shall
4 be conducted in—

5 (1) a fundamental category, including labora-
6 tory and literature research; and

7 (2) an applied category, including plant and
8 field research.

9 (c) REPORT.—Not later than 2 years after the date
10 of enactment of this Act, the Secretary shall submit to
11 the applicable committees a report describing—

12 (1) the research programs carried out under
13 this section;

14 (2) the findings of the programs; and

15 (3) future research efforts planned.

16 **SEC. ___ 23. LEAD.**

17 (a) IN GENERAL.—The Secretary shall support re-
18 search programs that focus on advanced lead manufac-
19 turing processes, including programs that—

20 (1) contribute to the establishment of a secure,
21 domestic supply of lead;

22 (2) produce technologies that represent an envi-
23 ronmental improvement compared to conventional
24 production processes; or

1 “(A) organized in accordance with Federal
2 law; and

3 “(B) engaged in lithium production for use
4 in advanced battery technologies;

5 “(2) a public entity, such as a State, tribal, or
6 local governmental entity; or

7 “(3) a consortium of entities described in para-
8 graphs (1) and (2).

9 “(b) GRANTS.—The Secretary shall provide grants to
10 eligible entities for research, development, demonstration,
11 and commercial application of domestic industrial pro-
12 cesses that are designed to enhance domestic lithium pro-
13 duction for use in advanced battery technologies, as deter-
14 mined by the Secretary.

15 “(c) USE.—An eligible entity shall use a grant pro-
16 vided under this section to develop or enhance—

17 “(1) domestic industrial processes that increase
18 lithium production, processing, or recycling for use
19 in advanced lithium batteries; or

20 “(2) industrial processes associated with new
21 formulations of lithium feedstock for use in ad-
22 vanced lithium batteries.”.

23 **SEC. ____ 25. THORIUM.**

24 (a) STUDY.—The Secretary, in consultation with the
25 Nuclear Regulatory Commission, shall conduct a study on

1 the technical, economic, and policy issues (including non-
2 proliferation) associated with establishing a licensing
3 pathway for the complete thorium nuclear fuel cycle (in-
4 cluding mining, milling, processing, fabrication, reactors,
5 disposal, and decommissioning) that—

6 (1) identifies the gaps in the technical knowl-
7 edge that could lead to a licensing pathway; and

8 (2) considers technologies and applications for
9 any thorium byproducts of critical mineral produc-
10 tion or processing.

11 (b) COOPERATION.—In conducting the study under
12 subsection (a), the Secretary shall cooperate with appro-
13 priate—

14 (1) trade associations;

15 (2) equipment manufacturers;

16 (3) National Laboratories;

17 (4) institutions of higher education; and

18 (5) other applicable entities.

19 (c) REPORT.—Not later than 2 years after the date
20 of enactment of this Act, the Secretary shall submit to
21 the applicable committees a report summarizing the find-
22 ings of the study.

23 **SEC. ____ 26. UPDATED RESOURCE INFORMATION.**

24 (a) RESOURCES.—Not later than 1 year after the
25 date of enactment of this Act, the Secretary of the Interior

1 shall complete an update of existing resource information
2 for phosphate and rare earth elements.

3 (b) CONSULTATION.—In updating resource informa-
4 tion under this section, the Secretary of the Interior shall
5 consult with—

6 (1) the heads of appropriate State geological
7 surveys;

8 (2) mineral producers;

9 (3) mineral processors;

10 (4) trade associations;

11 (5) academic institutions; and

12 (6) such other entities or individuals as the Sec-
13 retary of the Interior considers appropriate.

14 (c) LIMITATION.—

15 (1) IN GENERAL.—Resource information up-
16 dates carried out pursuant to this section shall be
17 limited to collection of existing information.

18 (2) ADMINISTRATION.—If any mineral covered
19 by this section is designated as a critical mineral
20 under section __11, this section shall not apply.

21 (d) REPORT.—Not later than 2 years after the date
22 of enactment of this Act, the Secretary of the Interior
23 shall submit to the applicable committees written notifica-
24 tion certifying that the resource information for phosphate
25 and rare earth elements is up-to-date.

1 **Subtitle C—Miscellaneous**

2 **SEC. ___ 31. OFFSETS.**

3 (a) IN GENERAL.—The following Acts are repealed:

4 (1) The National Materials and Minerals Pol-
5 icy, Research and Development Act of 1980 (30
6 U.S.C. 1601 et seq.), other than subsections (e) and
7 (f) of section 5 of that Act (30 U.S.C. 1604).

8 (2) The National Critical Materials Act of 1984
9 (30 U.S.C. 1801 et seq.).

10 (b) CONFORMING AMENDMENT.—Section 3(d) of the
11 National Superconductivity and Competitiveness Act of
12 1988 (15 U.S.C. 5202(d)) is amended in the first sentence
13 by striking “, with the assistance of the National Critical
14 Materials Council as specified in the National Critical Ma-
15 terials Act of 1984 (30 U.S.C. 1801 et seq.),”.

16 **SEC. ___ 32. ADMINISTRATION.**

17 Nothing in this title or an amendment made by this
18 title modifies any requirement or authority provided by the
19 matter under the heading “GEOLOGICAL SURVEY” of
20 the first section of the Act of March 3, 1879 (43 U.S.C.
21 31(a)).

22 **SEC. ___ 33. AUTHORIZATION OF APPROPRIATIONS.**

23 There is authorized to be appropriated to carry out
24 this title and the amendments made by this title
25 \$53,250,000, of which—

1 (1) \$500,000 may be used to carry out section
2 __11, to remain available until expended;

3 (2) \$20,000,000 may be used to carry out sec-
4 tion __13, to remain available until expended;

5 (3) \$2,000,000 may be used to carry out sec-
6 tion __14, to remain available until expended;

7 (4) \$1,000,000 for each of fiscal years 2012
8 through 2016 may be used to carry out section __16
9 and the amendment made by that section, to remain
10 available until expended;

11 (5)(A) \$1,500,000 for each of fiscal years 2012
12 and 2013 may be used to carry out section __17, to
13 remain available until expended; and

14 (B) \$750,000 for each of fiscal years 2014
15 through 2016 may be used to carry out section
16 __17;

17 (6) \$1,000,000 for each of fiscal years 2012
18 through 2016 may be used to carry out section
19 __18, to remain available until expended;

20 (7) \$500,000 for each of fiscal years 2012
21 through 2016 may be used to carry out section
22 __19, to remain available until expended;

23 (8) \$1,000,000 for each of fiscal years 2012
24 through 2014 may be used to carry out sections

1 __22, __23, __24, and __25 and the amendments
2 made by those sections; and
3 (9) \$1,000,000 may be used to carry out sec-
4 tion __26, to remain available until expended.