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, and for other purposes.

IN THE SENATE OF THE UNITED STATES

Ms. Murkowski (for herself, Mr. Wyden, Mr. Udall of Colorado, Mr. Heller, Mr. Enzi, Mrs. Hagan, Mr. Thune, Mr. Coons, Mr. Hoeven, Ms. Landrieu, Mr. Coats, Mr. Begich, Mr. Risch, Ms. Klobuchar, Mr. Blunt, Mr. Franken, and Mr. Crapo) introduced the following bill; which was read twice and referred to the Committee on

A BILL

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, and for other purposes.

Be it enacted by the Senate and House of Representa-
tives of the United States of America in Congress assembled,

SECTION 1. SHORT TITLE; TABLE OF CONTENTS.

(a) Short Title.—This Act may be cited as the “Critical Minerals Policy Act of 2013”.

1 2 3 4 5
(b) TABLE OF CONTENTS.—The table of contents of this Act is as follows:

Sec. 1. Short title; table of contents.
Sec. 2. Definitions.

TITLE I—DESIGNATIONS AND POLICIES

Sec. 101. Designations.
Sec. 102. Policy.
Sec. 103. Resource assessment.
Sec. 104. Study.
Sec. 105. Agency review and reports.
Sec. 106. Recycling, efficiency, and supply.
Sec. 107. Alternatives.
Sec. 108. Analysis and forecasting.
Sec. 109. Education and workforce.
Sec. 110. International cooperation.

TITLE II—MINERAL-SPECIFIC ACTIONS

Sec. 201. Administration.
Sec. 203. Lead.
Sec. 204. Lithium.
Sec. 205. Thorium.
Sec. 206. Nontraditional sources for rare earth elements.

TITLE III—MISCELLANEOUS

Sec. 301. Repeal; authorization offset.
Sec. 302. Administration.
Sec. 303. Authorization of appropriations.

3 SEC. 2. DEFINITIONS.

In this Act:

(1) CRITICAL MINERAL.—

(A) IN GENERAL.—The term “critical mineral” means any mineral or element designated as critical pursuant to section 101.

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

(i) fuel minerals, including oil, natural gas, or any other fossil fuels; or
(ii) water, ice, or snow.

(2) **Critical Mineral Manufacturing.**—The term “critical mineral manufacturing” means—

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

(B) the fabrication, assembly, or production, within the United States, of equipment, components, or other goods with energy technology-, defense-, agriculture-, consumer electronics-, or health care-related applications; or

(C) any other value-added, manufacturing-related use of critical minerals undertaken within the United States.

(3) **Indian Tribe.**—The term “Indian tribe” has the meaning given the term in section 4 of the Indian Self-Determination and Education Assistance Act (25 U.S.C. 450b).

(4) **Military Equipment.**—The term “military equipment” means equipment used directly by the Armed Forces to carry out military operations.

(5) **Rare Earth Element.**—

(A) **In General.**—The term “rare earth element” means the chemical elements in the
periodic table from lanthanum (atomic number 57) up to and including lutetium (atomic number 71).

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

(6) SECRETARY.—

(A) TITLE I.—In title I, the term “Secretary” means the Secretary of the Interior.

(B) TITLE II.—In title II, the term “Secretary” means the Secretary of Energy.

(7) STATE.—The term “State” means—

(A) a State;

(B) the District of Columbia;

(C) the Commonwealth of Puerto Rico;

(D) Guam;

(E) American Samoa;

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

(G) the United States Virgin Islands.
TITLE I—DESIGNATIONS AND POLICIES

SEC. 101. DESIGNATIONS.

(a) DRAFT METHODOLOGY.—Not later than 90 days after the date of enactment of this Act, the Secretary shall publish in the Federal Register for public comment a draft methodology for determining which minerals qualify as critical minerals based on an assessment of whether the minerals are—

(1) subject to potential supply restrictions (including restrictions associated with foreign political risk, abrupt demand growth, military conflict, and anti-competitive or protectionist behaviors); and

(2) important in use (including energy technology-, defense-, agriculture-, consumer electronics-, and health care-related applications).

(b) AVAILABILITY OF DATA.—If available data is insufficient to provide a quantitative basis for the methodology developed under this section, qualitative evidence may be used to the extent necessary.

(c) FINAL METHODOLOGY.—After reviewing public comments on the draft methodology under subsection (a) and updating the draft methodology as appropriate, not later than 270 days after the date of enactment of this Act, the Secretary shall publish in the Federal Register
a description of the final methodology for determining which minerals qualify as critical minerals.

(d) DESIGNATIONS.—

(1) IN GENERAL.—For purposes of carrying out this title, the Secretary shall maintain a list of minerals and elements designated as critical, pursuant to the methodology under subsection (c), which shall not exceed 20 minerals and elements at any given time.

(2) INITIAL LIST.—Subject to paragraph (1), not later than 1 year after the date of enactment of this Act, the Secretary shall publish in the Federal Register an initial list of minerals designated as critical pursuant to the final methodology under subsection (c) for the purpose of carrying out this title.

(e) SUBSEQUENT REVIEW.—

(1) IN GENERAL.—The Secretary shall review the methodology and designations under subsections (c) and (d) at least every 5 years, or more frequently if considered appropriate by the Secretary.

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

(A) revise the methodology described in this section;
(B) determine that minerals previously determined to be critical minerals are no longer critical minerals; and

(C) designate additional minerals as critical minerals.

(f) NOTICE.—On finalization of the methodology under subsection (e), the list under subsection (d), or any revision to the methodology or list under subsection (e), the Secretary shall submit to Congress written notice of the action.

SEC. 102. POLICY.

(a) IN GENERAL.—Section 3 of the National Materials and Minerals Policy, Research and Development Act of 1980 (30 U.S.C. 1602) is amended in the second sentence—

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

“(3) establish an analytical and forecasting capability for identifying critical mineral demand, supply, and other market dynamics relevant to policy formulation to allow informed actions to be taken to avoid supply shortages, mitigate price volatility, and prepare for demand growth and other market shifts;”;

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

(3) in paragraph (7), by striking the period at the end and inserting a semicolon; and

(4) by adding at the end the following:

“(8) encourage Federal agencies to facilitate the availability, development, and environmentally responsible production of domestic resources to meet national critical material or mineral needs;

“(9) avoid duplication of effort, prevent unnecessary paperwork, and minimize unnecessary delays in the administration of applicable laws (including regulations) and the issuance of permits and authorizations necessary to explore for, develop, and produce critical minerals and to construct critical mineral manufacturing facilities in accordance with applicable environmental and land management laws;

“(10) strengthen educational and research capabilities and workforce training;

“(11) bolster international cooperation through technology transfer, information sharing, and other means;

“(12) promote the efficient production, use, and recycling of critical minerals;
“(13) develop alternatives to critical minerals;
and
“(14) establish contingencies for the production of, or access to, critical minerals for which viable sources do not exist within the United States.”.

(b) CONFORMING AMENDMENT.—Section 2(b) of the National Materials and Minerals Policy, Research and Development Act of 1980 (30 U.S.C. 1601(b)) is amended by striking “(b) As used in this Act, the term” and inserting the following:

“(b) DEFINITIONS.—In this Act:


“(2) MATERIALS.—The term”.

SEC. 103. RESOURCE ASSESSMENT.

(a) IN GENERAL.—Not later than 4 years after the date of enactment of this Act, in consultation with applicable State (including geological surveys), local, academic, industry, and other entities, the Secretary shall complete, using established resource assessment methodologies and authorities of the United States Geological Survey, a comprehensive national assessment of each critical mineral that—
(1) identifies and quantifies known critical mineral resources, using all available public and private information and datasets, including exploration histories;

(2) estimates the cost of production of the critical mineral resources identified and quantified under this section, using all available public and private information and datasets, including exploration histories;

(3) provides a quantitative and qualitative assessment of undiscovered critical mineral resources throughout the United States on land available for mineral production, including probability estimates of tonnage and grade, using all available public and private information and datasets, including exploration histories; and

(4) provides qualitative information on the environmental attributes of the critical mineral resources identified under this section.

(b) Supplementary Information.—In carrying out this section, the Secretary (acting through the Director of the United States Geological Survey) may carry out, consistent with applicable law, surveys necessary or appropriate to supplement existing information and datasets
available for determining the existence of critical minerals
in the United States.

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

(d) **PRIORITIZATION.**—

(1) **IN GENERAL.**—The Secretary may sequence
the completion of resource assessments for each criti-
cal mineral such that critical minerals considered to
be most critical under the methodology established
under section 101 are completed first.

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

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

(B) describes the progress of the assess-
ments if the Secretary does not sequence the
assessments.
(c) Updates.—The Secretary may periodically update the assessment conducted under this section based on—

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

(2) the receipt of new information or datasets from critical mineral producers, State geological surveys, academic institutions, trade associations, or other entities or individuals.

SEC. 104. STUDY.

The Secretary shall enter into an arrangement with the National Academy of Sciences (referred to in this section as the “Academy”) under which the Academy shall provide an update of the 1999 report of the Academy entitled “Hardrock Mining on Federal Lands,” prepared pursuant to section 120 of the Department of the Interior and Related Agencies Appropriations Act, 1999 (Public Law 105–277; 112 Stat. 2681–257), including an examination of—

(1) regulatory changes implemented since 1999 and the extent to which the changes address recommendations made in the report;

(2) additional steps that can be taken—

(A) to improve the quality and timeliness of final decisions on applications, operating
plans, leases, licenses, permits, and other use
authorizations for hardrock mining activities on
Federal land;

(B) to prevent unnecessary or undue degr-
adation of Federal land; and

(C) to improve inspection and enforcement
of hardrock mine and related sites on Federal
land; and

(3) the number and location of abandoned
hardrock mines.

SEC. 105. AGENCY REVIEW AND REPORTS.

(a) PERFORMANCE IMPROVEMENTS.—To improve
the quality and timeliness of decisions, the Secretary (act-
ing through the Director of the Bureau of Land Manage-
ment) and the Secretary of Agriculture (acting through
the Chief of the Forest Service) (referred to in this section
as the “Secretaries”) shall, to the maximum extent prac-
ticable, with respect to critical mineral production on Fed-
eral land—

(1) ensure that Federal permitting and review
processes inform decisionmakers and affected com-
munities about the potential positive and negative
impacts of proposed mining activities;

(2) ensure that mining activities are carried out
in a manner that is consistent with protecting the
public health, welfare, safety, national security, and
environment of the United States; and

(3) execute Federal permitting and review proc-
esses, consistent with available resources, with max-
imum efficiency and effectiveness, while ensuring the
health, safety, and security of communities and the
environment and supporting vital economic growth,
by—

(A) setting and adhering to timelines and
schedules for completion of reviews and for in-
spection and enforcement activities;

(B) setting clear permitting performance
goals and tracking progress against those goals;

(C) encouraging early collaboration among
agencies, project sponsors, and affected stake-
holders to incorporate and address their inter-
ests and minimize delays;

(D) providing for transparency and ac-
countability by using cost-effective information
technology to collect and disseminate informa-
tion about individual projects and agency per-
formance;

(E) achieving early and active consultation
with State, local, and tribal governments to
avoid conflicts or duplication of effort, resolve
concerns, and allow for concurrent rather than sequential reviews;

(F) providing demonstrable improvements in the performance of Federal permitting and review processes, including lower costs, more timely decisions, and a healthier and cleaner environment;

(G) expanding and institutionalizing permitting and review process improvements that have proven effective;

(H) developing mechanisms to better communicate priorities and resolve disputes among agencies at the national and regional levels; and

(I) developing other practices, such as pre-application procedures.

(b) REVIEW AND REPORT.—Not later than 180 days after the date of receipt of the report of the study under section 104, the Secretaries shall submit to Congress a report that—

(1) describes the recommendations from the study under section 104 that the Secretaries have existing legal authority for and intend to implement, including estimated timelines for the implementation;
(2) identifies additional measures (including regulatory and legislative proposals, as appropriate) that would—

(A) increase the effectiveness and operational efficiency of agency management of permitting activities for the exploration and development of domestic critical minerals; and

(B) improve the effectiveness of environmental analysis and inspection and enforcement activities relating to critical mineral-related activities on Federal land;

(3) identifies options (including cost recovery paid by applicants) for ensuring adequate staffing (including training programs) of Federal entities responsible for—

(A) the consideration of applications, operating plans, leases, licenses, permits, and other use authorizations for critical mineral-related activities on Federal land; and

(B) environmental analysis and inspection and enforcement activities with respect to the critical mineral-related activities;

(4) in coordination with the heads of other appropriate Federal agencies, assesses whether Federal laws (including regulations and tax provisions) or
policies are adversely affecting or are enhancing the
global competitiveness of, or investment in, the do-
mestic critical minerals industry, including the crit-
ical minerals manufacturing industry;

(5) quantifies the amount of time typically re-
quired to complete each step associated with the de-
velopment and processing of applications, operating
plans, leases, licenses, permits, and other use au-
thorizations for critical mineral-related activities on
Federal land; and

(6) describes actions taken pursuant to sub-
section (a).

(c) ANNUAL REPORTS.—Beginning with the first
budget submission by the President under section 1105
of title 31, United States Code, after submission to Con-
gress of the report under subsection (b), and for the next
10 annual budget submissions thereafter, the Secretaries
shall submit to Congress a report on—

(1) the implementation of recommendations,
measures, and options identified in paragraphs (1)
through (3) of subsection (b);

(2) achievement of, or progress towards, the
target levels of performance developed under sub-
section (d);

(3) actions taken under subsection (a); and
(4) the quantity, type, and estimated value (by mineral type) of—

(A) critical minerals produced on Federal land; and
(B) all hardrock minerals produced on Federal land.

(d) METRICS OF AGENCY PERFORMANCE.—

(1) ESTABLISHMENT.—Not later than 180 days after the date of the submission of the report under subsection (b), the Secretaries, after public notice and comment, shall develop and publish target levels of performance for agency management of activities associated with the exploration for and development of domestic critical minerals in accordance with applicable laws, against which actual achievement or progress can be compared, in—

(A) the timeliness of decisions, taking into consideration the evaluation described in subsection (b)(5);
(B) cost savings; and
(C) improved health and environmental performance.

(2) INCORPORATION IN ANNUAL PERFORMANCE PLANS.—The Secretaries shall use the target levels of performance under paragraph (1) as performance
goals in the appropriate agency performance plans under section 1115 of title 31, United States Code.

(e) JUDICIAL REVIEW.—

(1) IN GENERAL.—Nothing in this section affects the judicial review of an agency action under any provision of law.

(2) CONSTRUCTION.—This section—

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

(B) does not create any right or benefit, substantive or procedural, enforceable at law or equity by a party against the United States (including an agency, instrumentality, officer, or employee) or any other person.

(f) ADMINISTRATION.—Nothing in this section relieves the Secretary of the Interior or the Secretary of Agriculture of any obligation or duty under any other applicable law (including regulations).

SEC. 106. RECYCLING, EFFICIENCY, AND SUPPLY.

(a) ESTABLISHMENT.—The Secretary of Energy shall conduct a program of research and development to promote the efficient production, use, and recycling of critical minerals throughout the supply chain.

(b) COOPERATION.—In carrying out the program, the Secretary of Energy shall cooperate with appropriate—
(1) Federal agencies and National Laboratories;
(2) critical mineral producers;
(3) critical mineral processors;
(4) critical mineral manufacturers;
(5) trade associations;
(6) academic institutions;
(7) small businesses; and
(8) other relevant entities or individuals.

(e) Activities.—Under the program, the Secretary of Energy shall carry out activities that include the identification and development of—

(1) advanced critical mineral extraction, production, separation, alloying, or processing technologies that decrease the energy consumption, environmental impact, and costs of those activities, including—

(A) efficient water and wastewater management strategies;

(B) technologies and management strategies to control the environmental impacts of radionuclides in ore tailings; and

(C) technologies for separation and processing;
(2) technologies or process improvements that minimize the use, or lead to more efficient use, of critical minerals across the full supply chain;

(3) technologies, process improvements, or design optimizations that facilitate the recycling of critical minerals, and options for improving the rates of collection of products and scrap containing critical minerals from post-consumer, industrial, or other waste streams;

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

(5) alternative minerals, metals, and materials, particularly those available in abundance within the United States and not subject to potential supply restrictions, that lessen the need for critical minerals.

(d) REPORT.—Not later than 3 years after the date of enactment of this Act, the Secretary of Energy shall submit to Congress a report summarizing the activities, findings, and progress of the program.

SEC. 107. ALTERNATIVES.

(a) ESTABLISHMENT.—The Secretary of Energy shall conduct a program of research, development, demonstration, and commercial application to promote the development of alternatives to critical minerals.
(b) COOPERATION.—In carrying out the program, the Secretary of Energy shall cooperate with appropriate—

(1) Federal agencies (including National Laboratories);

(2) critical mineral producers;

(3) critical mineral manufacturers;

(4) trade associations;

(5) academic institutions;

(6) small businesses; and

(7) other relevant entities or individuals.

(c) ACTIVITIES.—To lessen the need for critical minerals, the program under this section shall carry out activities that include the identification and development of—

(1) alternative minerals, metals, and minerals used in energy technologies, particularly those that are available in abundance in the United States and are not subject to potential supply restrictions; and

(2) alternative energy technologies or alternative designs of existing energy technologies, particularly those that use minerals in abundance in the United States and are not subject to potential supply restrictions.

(d) REPORT.—Not later than 3 years after the date of enactment of this Act, the Secretary of Energy shall
submit to Congress a report summarizing the activities, findings, and progress of the program under this section.

SEC. 108. ANALYSIS AND FORECASTING.

(a) CAPABILITIES.—In order to evaluate existing critical mineral policies and inform future actions that may be taken to avoid supply shortages, mitigate price volatility, and prepare for demand growth and other market shifts, the Secretary, in consultation with academic institutions, the Energy Information Administration, and others in order to maximize the application of existing competencies related to developing and maintaining computer models and similar analytical tools, shall conduct and publish the results of an annual report that includes—

(1) as part of the annually-published Mineral Commodity Summaries from the United States Geological Survey, a comprehensive review of critical mineral production, consumption, and recycling patterns, including—

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

(B) the quantity of each critical mineral domestically consumed during the preceding year;
(C) market price data for each critical mineral;

(D) an assessment of—

(i) critical mineral requirements to meet the national security, energy, economic, industrial, technological, and other needs of the United States during the preceding year;

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

(iii) the implications of any supply shortages, restrictions, or disruptions during the preceding year;

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

(F) the market penetration during the preceding year of alternatives to each critical mineral;

(G) a discussion of applicable international trends associated with the discovery, production, consumption, use, costs of production, prices, and recycling of each critical mineral as well as the development of alternatives to critical minerals; and
(H) such other data, analyses, and evaluations as the Secretary finds are necessary to achieve the purposes of this section; and

(2) a comprehensive forecast, entitled the “Annual Critical Minerals Outlook”, of projected critical mineral production, consumption, and recycling patterns, including—

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

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

(C) market price projections for each critical mineral, to the maximum extent practicable and based on the best available information;

(D) an assessment of—

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

(ii) the projected reliance of the United States on foreign sources to meet those needs; and
(iii) the projected implications of potential supply shortages, restrictions, or disruptions;

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

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

(G) a discussion of reasonably foreseeable international trends associated with the discovery, production, consumption, use, costs of production, prices, and recycling of each critical mineral as well as the development of alternatives to critical minerals; and

(H) such other projections relating to each critical mineral as the Secretary determines to be necessary to achieve the purposes of this section.

(b) PROPRIETARY INFORMATION.—In preparing a report described in subsection (a), the Secretary shall ensure, consistent with section 5(f) of the National Materials and Minerals Policy, Research and Development Act of 1980 (30 U.S.C. 1604(f)), that—
(1) no person uses the information and data collected for the report for a purpose other than the development of or reporting of aggregate data in a manner such that the identity of the person who supplied the information is not discernible and is not material to the intended uses of the information;

(2) no person discloses any information or data collected for the report unless the information or data has been transformed into a statistical or aggregate form that does not allow the identification of the person who supplied particular information; and

(3) procedures are established to require the withholding of any information or data collected for the report if the Secretary determines that withholding is necessary to protect proprietary information, including any trade secrets or other confidential information.

SEC. 109. EDUCATION AND WORKFORCE.

(a) WORKFORCE ASSESSMENT.—Not later than 1 year and 300 days after the date of enactment of this Act, the Secretary of Labor (in consultation with the Secretary of the Interior, the Director of the National Science Foundation, and employers in the critical minerals sector) shall submit to Congress an assessment of the domestic availability of technically trained personnel necessary for crit-
ical mineral assessment, production, manufacturing, recycling, analysis, forecasting, education, and research, including an analysis of—

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

(2) skills that are projected to be in short supply in the future;

(3) the demographics of the critical minerals industry and how the demographics will evolve under the influence of factors such as an aging workforce;

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

(5) opportunities to hire locally for new and existing critical mineral activities;

(6) the sufficiency of personnel within relevant areas of the Federal Government for achieving the policies described in section 3 of the National Materials and Minerals Policy, Research and Development Act of 1980 (30 U.S.C. 1602); and

(7) the potential need for new training programs to have a measurable effect on the supply of trained workers in the critical minerals industry.

(b) CURRICULUM STUDY.—

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

(A) to design an interdisciplinary program on critical minerals that will support the critical mineral supply chain and improve the ability of the United States to increase domestic, critical mineral exploration, development, and manufacturing;

(B) to address undergraduate and graduate education, especially to assist in the development of graduate level programs of research and instruction that lead to advanced degrees with an emphasis on the critical mineral supply chain or other positions that will increase domestic, critical mineral exploration, development, and manufacturing;

(C) to develop guidelines for proposals from institutions of higher education with substantial capabilities in the required disciplines to improve the critical mineral supply chain and advance the capacity of the United States to increase domestic, critical mineral exploration, development, and manufacturing; and
(D) to outline criteria for evaluating performance and recommendations for the amount of funding that will be necessary to establish and carry out the grant program described in subsection (c).

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

(c) GRANT PROGRAM.—

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

(A) startup costs for newly designated faculty positions in integrated critical mineral education, research, innovation, training, and workforce development programs consistent with subsection (b);

(B) internships, scholarships, and fellowships for students enrolled in programs related to critical minerals; and
(C) equipment necessary for integrated critical mineral innovation, training, and work-
force development programs.

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

SEC. 110. INTERNATIONAL COOPERATION.

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

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

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

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

(3) to increase the recycling of, and deployment of alternatives to, critical minerals;
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(4) to assist in the development and transfer of
critical mineral extraction, processing, and manufac-
turing technologies that would have a beneficial im-
pact on world commodity markets and the environ-
ment;

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

(6) to facilitate the collection of information
necessary for analyses and forecasts conducted pur-
suant to section 108.

TITLE II—MINERAL-SPECIFIC
ACTIONS

SEC. 201. ADMINISTRATION.

Nothing in this title or an amendment made by this
title affects the methodology or designations established
under section 101.

SEC. 202. COBALT.

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

(1) use in energy technologies (including, for
purposes of this section, rechargeable batteries, cata-
lysts, photovoltaic cells, permanent magnets, and
fuel cells);
(2) use in alloys with military equipment, civil aviation, and electricity generation applications; and
(3) use as coal-to-gas and coal-to-liquid catalysts.

(b) CATEGORIES.—Research under this section shall be conducted in—
(1) a fundamental category, including laboratory and literature research; and
(2) an applied category, including plant and field research.

(c) REPORT.—Not later than 2 years after the date of enactment of this Act, the Secretary shall submit to Congress a report describing—
(1) the research programs carried out under this section;
(2) the findings of the programs; and
(3) future research efforts planned.

SEC. 203. LEAD.

(a) IN GENERAL.—The Secretary shall support research programs that focus on advanced lead manufacturing processes, including programs that—
(1) contribute to the establishment of a secure, domestic supply of lead;
(2) produce technologies that represent an environmental improvement compared to conventional production processes; or

(3) produce technologies that attain a higher efficiency level compared to conventional production processes.

(b) COORDINATION.—In carrying out the programs under subsection (a), the Secretary shall coordinate with other entities to promote the development of environmentally responsible lead manufacturing, including—

(1) other Federal agencies;

(2) States with affected interests;

(3) manufacturers;

(4) energy technology manufacturers, including producers of batteries and other energy storage technologies; and

(5) any others considered appropriate by the Secretary.

SEC. 204. LITHIUM.

Subtitle E of title VI of the Energy Independence and Security Act of 2007 (42 U.S.C. 17241 et seq.) is amended by adding at the end the following:
"SEC. 657. GRANTS FOR LITHIUM PRODUCTION RESEARCH AND DEVELOPMENT."

“(a) Definition of Eligible Entity.—In this section, the term ‘eligible entity’ means—

“(1) a private partnership or other entity that is—

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

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

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

“(3) a consortium of entities described in paragraphs (1) and (2).

“(b) Grants.—The Secretary shall provide grants to eligible entities for research, development, demonstration, and commercial application of domestic industrial processes that are designed to enhance domestic lithium production for use in advanced battery technologies, as determined by the Secretary.

“(c) Use.—An eligible entity shall use a grant provided under this section to develop or enhance—

“(1) domestic industrial processes that increase lithium production, processing, or recycling for use in advanced lithium batteries; or
“(2) industrial processes associated with new formulations of lithium feedstock for use in advanced lithium batteries.”.

SEC. 205. THORIUM.

(a) Study.—The Secretary, in consultation with the Nuclear Regulatory Commission, shall conduct a study on the technical, economic, and policy issues (including non-proliferation) associated with establishing a licensing pathway for the complete thorium nuclear fuel cycle (including mining, milling, processing, fabrication, reactors, disposal, and decommissioning) that—

(1) identifies the gaps in the technical knowledge that could lead to a licensing pathway; and

(2) considers technologies and applications for any thorium byproducts of critical mineral production or processing.

(b) Cooperation.—In conducting the study under subsection (a), the Secretary shall cooperate with appropriate—

(1) trade associations;

(2) equipment manufacturers;

(3) National Laboratories;

(4) institutions of higher education; and

(5) other applicable entities.
(c) **REPORT.**—Not later than 2 years after the date of enactment of this Act, the Secretary shall submit to Congress a report summarizing the findings of the study.

**SEC. 206. NONTRADITIONAL SOURCES FOR RARE EARTH ELEMENTS.**

(a) **IN GENERAL.**—The Secretary shall conduct a program to identify, research, and develop rare earth elements from nontraditional sources that—

(1) identifies and assesses the technological feasibility of extracting rare earth elements from nontraditional sources;

(2) develops advanced rare earth element processing technologies to increase the economic viability and improve the environmental impact of recovering rare earth elements from identified nontraditional sources; and

(3) provides technical assistance to industrial partners to develop and demonstrate rare earth element recovery from identified nontraditional sources.

(b) **REPORT.**—Not later than 2 years after the date of enactment of this Act the Secretary shall submit to Congress a report summarizing the activities, findings, and progress of the program.
TITLE III—MISCELLANEOUS

SEC. 301. REPEAL; AUTHORIZATION OFFSET.

(a) Repeal.—

(1) In general.—The National Critical Materials Act of 1984 (30 U.S.C. 1801 et seq.) is repealed.

(2) Conforming amendment.—Section 3(d) of the National Superconductivity and Competitiveness Act of 1988 (15 U.S.C. 5202(d)) is amended in the first sentence by striking “, with the assistance of the National Critical Materials Council as specified in the National Critical Materials Act of 1984 (30 U.S.C. 1801 et seq.),”.

(b) Authorization Offset.—Section 207(c) of the Energy Independence and Security Act of 2007 (42 U.S.C. 17022(c)) is amended by inserting before the period at the end the following: “, except that the amount authorized to be appropriated to carry out this section not appropriated as of the date of enactment of the Critical Minerals Policy Act of 2013 shall be reduced by $60,000,000”.

SEC. 302. ADMINISTRATION.

Nothing in this Act or an amendment made by this Act modifies any requirement or authority provided by the matter under the heading “GEOLOGICAL SURVEY” of
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the first section of the Act of March 3, 1879 (43 U.S.C.
SEC. 303. AUTHORIZATION OF APPROPRIATIONS.
There is authorized to be appropriated to carry out this Act and the amendments made by this Act $60,000,000, of which—

(1) $2,000,000 may be used to carry out section 101, to remain available until expended;

(2) $20,000,000 may be used to carry out the amendment made by section 103, to remain available until expended;

(3) $2,000,000 may be used to carry out section 104, to remain available until expended;

(4) $8,000,000 may be used to carry out section 105, to remain available until expended;

(5) $1,5000,000 for each of fiscal years 2014 and 2015 may be used to carry out each of sections 106 and 107, to remain available until expended;

(6) $4,000,000 for each of fiscal years 2014 and 2015 may be used to carry out section 108, to remain available until expended; and

(7) $2,000,000 for each of fiscal years 2014 and 2015 may be used to carry out section 109, to remain available until expended;
(8) $500,000 for each of fiscal years 2014 and 2015 may be used to carry out section 110, to remain available until expended;

(9) $1,000,000 for each of fiscal years 2014 and 2015 may be used to carry out each of sections 202, 203, 204, and 206 and the amendments made by those sections; and

(10) $1,000,000 may be used to carry out section 205, to remain available until expended.