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(Original Signature of Member)

116TH CONGRESS
2D SESSION

H. R. _____

To promote the domestic exploration, research, development, and processing of critical minerals to ensure the economic and national security of the United States, and for other purposes.

IN THE HOUSE OF REPRESENTATIVES

Mr. WALTZ (for himself and Mr. GOSAR) introduced the following bill; which was referred to the Committee on _____

A BILL

To promote the domestic exploration, research, development, and processing of critical minerals to ensure the economic and national security of the United States, and for other purposes.

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

SECTION 1. SHORT TITLE AND TABLE OF CONTENTS.

(a) SHORT TITLE.—This Act may be cited as the ''American Critical Mineral Exploration and Innovation Act of 2020''.

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

SEC. 2. DEFINITIONS.

In this Act:

(1) BYPRODUCT.—The term ''byproduct'' means a critical mineral—

(A) the recovery of which depends on the production of a host mineral that is not designated as a critical mineral; and

(B) that exists in sufficient quantities to be recovered during processing or refining.

(2) CRITICAL MINERAL.—

(A) IN GENERAL.—The term ''critical mineral'' means any mineral, element, substance, or material designated as critical by the Secretary under section 102.

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

(i) oil, natural gas, or any other fossil fuels; or

(ii) water, ice, or snow.

(3) CRITICAL MINERAL MANUFACTURING.—The term ''critical mineral manufacturing'' means—

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

(B) the fabrication, assembly, or production using a critical mineral, 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.

(4) 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. 5304).

(5) SECRETARY.—The term ''Secretary'' means the Secretary of the Interior.

(6) 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.

(7) LEAD AGENCY.—The term ''lead agency'' means the agency with primary responsibility for issuing a mineral exploration or mine permit for a project.

(8) MINERAL EXPLORATION OR MINE PERMIT.—The term ''mineral exploration or mine permit'' means—

(A) an authorization of the Bureau of Land Management or the Forest Service, as applicable, for a premining activity that requires

analysis under the National Environmental Policy Act of 1969 (42 U.S.C. 4321 et seq.);

(B) a plan of operations issued by—

(i) the Bureau of Land Management under subpart 3809 of part 3800 of title 43, Code of Federal Regulations (or successor regulations); or

(ii) the Forest Service under subpart A of part 228 of title 36, Code of Federal Regulations (or successor regulations); or

(C) a permit for a project located in an area described in section 3503.13 of title 43, Code of Federal Regulations (or successor regulations).

(9) PROJECT.—The term ''project'' means a project relating to, or incidental to mineral exploration, mining, beneficiation, processing, or reclamation activities—

(A) on a mining claim, millsite claim, or tunnel site claim for any locatable mineral; or

(B) in conjunction with any Federal mineral (other than coal and oil shale) that is leased under—

(i) the Mineral Leasing Act for Acquired Lands (30 U.S.C. 351 et seq.); or

(ii) section 402 of Reorganization Plan Numbered 3 of 1946 (5 U.S.C. App.).

TITLE I—CRITICAL MINERAL PRODUCTION

SEC. 101. POLICY.

(a) SENSE OF CONGRESS.—Congress finds the following:

(1) The assured supply of critical minerals and the resiliency of their supply chains are essential to the economic prosperity and national defense of the United States.

(2) The United States is heavily dependent on foreign sources of critical minerals and on foreign supply chains resulting in the potential for strategic vulnerabilities to both the economy and the military.

(3) As deployment of clean energy technologies and emissions control devices increase, the demand for critical minerals will grow significantly.

(4) The United States is import-reliant for 31 of the 35 minerals designated as critical by the Department of the Interior and relies completely on imports to supply its demand for 14 of these minerals.

(5) Over the past two decades China has produced more than 80 percent of the world's production of rare-earth elements and processed chemicals.

(b) SENSE OF CONGRESS.—It is the sense of Congress that to break from China's control on the mineral supply chain, the United States should support significant research and development activities to drive innovation in domestic critical minerals production, promote responsible development of critical minerals, and encourage international collaboration to limit the impact of mineral supply disruptions.

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

(1) by amending paragraph (3) to read as follows:

''(3) establish an analytical and forecasting capability for identifying critical mineral demand, supply, and other factors 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'' at the end; and

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

''(7) facilitate the availability, development, and environmentally responsible production of domestic resources to meet national material or critical mineral needs;

''(8) avoid duplication of effort, prevent unnecessary paperwork, and minimize 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;

''(9) strengthen—

''(A) educational and research capabilities at not lower than the secondary school level; and

''(B) workforce training for exploration and development of critical minerals and critical mineral manufacturing;

''(10) bolster international cooperation through technology transfer, information sharing, and other means;

''(11) promote the efficient production, use, and recycling of critical minerals;

''(12) develop alternatives to critical minerals; and

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

(d) 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 to read as follows:

''(b) DEFINITIONS.—In this Act:

''(1) CRITICAL MINERAL.—The term 'critical mineral' has the meaning given such term in section 2 of the American Critical Mineral Exploration and Innovation Act of 2020.

''(2) MATERIALS.—The term 'materials' means substances, including minerals, of current or potential use that will be needed to supply the industrial, military, and essential civilian needs of the United States in the production of goods or services, including those which are primarily imported or for which there is a prospect of shortages or uncertain supply, or which present opportunities in terms of new physical properties, use, recycling, disposal or substi-

tution, with the exclusion of food and of energy fuels used as such.''.

(e) CRITICAL MINERALS INTERAGENCY SUBCOMMITTEE.—

(1) IN GENERAL.—The Critical Minerals Subcommittee of the National Science and Technology Council (referred to in this section as ''Subcommittee'') shall coordinate Federal science and technology efforts to ensure secure and reliable supplies of critical minerals to the United States.

(2) PURPOSES.—The purposes of the Subcommittee shall be—

(A) to advise and assist the Committee on Homeland and National Security and the National Science and Technology Council on United States policies, procedures, and plans as it relates to critical minerals, including—

(i) Federal research, development, and deployment efforts to optimize methods for extractions, concentration, separation and purification of conventional, secondary, and unconventional sources of critical minerals;

(ii) efficient use and reuse of critical minerals;

(iii) the critical minerals workforce of the United States; and

(iv) United States private industry investments in innovation and technology transfer from federally funded science and technology;

(B) to identify emerging opportunities, stimulate international cooperation, and foster the development of secure and reliable supply chains of critical minerals;

(C) to ensure the transparency of information and data related to critical minerals; and

(D) to provide recommendations on coordination and collaboration among the research, development, and deployment programs and activities of Federal agencies to promote a secure and reliable supply of critical minerals necessary to maintain national security, economic well-being, and industrial production.

(3) RESPONSIBILITIES.—In carrying out paragraphs (1) and (2), the Subcommittee may, taking into account the findings and recommendations of relevant advisory committees—

(A) provide recommendations on how Federal agencies may improve the topographic, geo-

logic, and geophysical mapping of the United States and improve the discoverability, accessibility, and usability of the resulting and existing data, to the extent permitted by law and subject to appropriate limitation for purposes of privacy and security; assess the progress towards developing critical minerals recycling and reprocessing technologies, and technological alternatives to critical minerals;

(B) examine options for accessing and developing critical minerals through investment and trade with our allies and partners and provide recommendations;

(C) evaluate and provide recommendations to incentivize the development and use of advances in science and technology in the private industry;

(D) assess the need for and make recommendations to address the challenges the United States critical minerals supply chain workforce faces, including aging and retiring personnel and faculty; public perceptions about the nature of mining and mineral processing; and foreign competition for United States talent;

(E) develop, and update as necessary, a strategic plan to guide Federal programs and activities to enhance scientific and technical capabilities across critical mineral supply chains, including a roadmap that identifies key research and development needs and coordinates on-going activities for source diversification, more efficient use, recycling, and substitution for critical minerals; as well as cross-cutting mining science, data science techniques, materials science, manufacturing science and engineering, computational modeling, and environmental health and safety research and development; and

(F) report to the appropriate Committees of Congress on activities and findings under this section.

SEC. 102. CRITICAL MINERAL DESIGNATIONS.

(a) DRAFT.—The Secretary, acting through the Director of the United States Geological Survey, shall publish in the Federal Register for public comment a draft—

(1) description of the methodology used to identify critical minerals;

(2) list of minerals, elements, substances, and materials that qualify as critical minerals; and

(3) list of critical minerals recoverable as by-products.

(b) FINAL.—Not later than 45 days after the date on which the public comment period described in paragraph (1) ends, the Secretary, acting through the Director of the United States Geological Survey, shall publish in the Federal Register—

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

(2) a list of critical minerals; and

(3) a list of critical minerals recoverable as by-products.

(c) CRITERIA.—

(1) IN GENERAL.—The Secretary shall designate a mineral, element, substance, or material as a critical mineral for the purposes of this subsection if the Secretary determines, in consultation with the Secretaries of Defense, Commerce, Agriculture, and Energy, and the United States Trade Representative that——

(A) such mineral, element, substance, or material is essential to the economic or national security of the United States;

(B) the supply chain of such mineral, element, substance, or material is vulnerable to disruption (including restrictions associated with foreign political risk, abrupt demand growth, military conflict, violent unrest, anti-competitive or protectionist behaviors, and other risks throughout the supply chain); and

(C) such mineral, element, substance, or material serves an essential function in the manufacturing of a product (including energy technology-, defense-, currency-, agriculture-, consumer electronics-, and health care-related applications), the absence of which would have significant consequences for the economic or national security of the United States.

(2) DETERMINATION BY ANOTHER AGENCY.—The Secretary may designate a mineral, element, substance, or material determined by another Federal agency to be strategic and critical to the defense or national security of the United States.

(d) SUBSEQUENT REVIEW.—The Secretary, in consultation with the Secretaries of Defense, Commerce, Agriculture, and Energy and the United States Trade Representative, shall review the methodology and list under subsection (b) not less frequently than every 3 years and

may revise such determinations as the Secretary, in consultation with Secretaries of Defense, Commerce, Agriculture, and Energy and the United States Trade Representative, determines appropriate.

(e) QUANTITATIVE DATA.—The Secretary, in making a determination under this subsection, shall to the extent possible, use quantitative methods to make such determination.

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

(g) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated to the Secretary $1,000,000 for each of fiscal years 2021 through 2030 to carry out this section.

SEC. 103. RESOURCE ASSESSMENT.

(a) IN GENERAL.—Not later than 4 years after the date of enactment of this Act, in consultation with applicable States, State geological surveys, local governments and academic, industry, and other entities, the Secretary shall complete a comprehensive national resource 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; and

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

(b) SUPPLEMENTARY INFORMATION.—In carrying out this section, the Secretary shall carry out surveys and field work (including drilling, remote sensing, geophysical surveys, topographical and geological mapping, and geochemical sampling and analysis) to supplement existing information and datasets available for determining the existence of critical minerals in the United States.

(c) PUBLIC ACCESS.—Subject to applicable law, to the maximum extent practicable, the Secretary shall make all data and metadata collected from the comprehensive national assessment carried out under subsection (a) publicly and electronically accessible.

(d) 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 governments and Indian tribes conducting critical mineral resource assessments on non-Federal land.

(e) PRIORITIZATION.—

(1) IN GENERAL.—The Secretary may sequence the completion of resource assessments for each critical mineral such that critical minerals considered to be most critical under the methodology established under section 102 are completed first.

(2) INTERIM REPORTS.—During the period beginning not later than 1 year after the date of enactment of this Act and ending on the date of 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 Secretary sequences the assessments; or

(B) describes the progress of the assessments if the Secretary does not sequence the assessments.

(f) UPDATES.—The Secretary may periodically update the assessments 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 sur-

veys, academic institutions, trade associations, or other persons.

(g) ADDITIONAL SURVEYS.—The Secretary shall complete a resource assessment for each additional mineral, element, substance, or material subsequently designated as a critical mineral under section 102 not later than 2 years after such designation.

(h) REPORT.—Not later than 2 years after the date of enactment of this Act, the Secretary shall submit to Congress a report describing the status of geological surveying of Federal land for any mineral, element, substance, or material commodity—

(1) for which the United States was dependent on a foreign country for more than 25 percent of the United States supply, as depicted in the report issued by the United States Geological Survey entitled ''Mineral Commodity Summaries 2020''; but

(2) that is not designated as a critical mineral under section 102.

(i) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated to the Secretary $50,000,000 for each of fiscal years 2021 through 2030 to carry out this section.

SEC. 104. PERMITTING.

(a) SENSE OF CONGRESS.—It is the sense of Congress that—

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

(2) to the maximum extent practicable, the critical mineral needs of the United States should be satisfied by minerals, elements, substances, and materials responsibly produced and recycled in the United States; and

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

(b) COORDINATION ON PERMITTING PROCESS.—

(1) IN GENERAL.—To improve the quality and timeliness of decisions, the lead agency shall, to the maximum extent practicable, with respect to a project on Federal land described in paragraph (2), complete Federal permitting and review processes with maximum efficiency and effectiveness, while supporting vital economic growth, by—

(A) establishing and adhering to timelines and schedules for the consideration of, and final decisions regarding, applications, operating plans, leases, licenses, permits, and other use

authorizations for mineral-related activities on Federal land;

(B) establishing clear, quantifiable, and temporal permitting performance goals and tracking progress against those goals;

(C) engaging in early collaboration among agencies, project sponsors, and affected stakeholders—

(i) to incorporate and address the interests of those parties; and

(ii) to minimize delays;

(D) ensure transparency and accountability by using cost-effective information technology to collect and disseminate information regarding individual projects and agency performance;

(E) engaging in early and active consultation with State, local, and Indian Tribal governments to avoid conflicts or duplication of effort, resolve concerns, and allow for concurrent, rather than sequential, State, local, Tribal, and Federal environmental and regulatory reviews;

(F) provide demonstrable improvements in the performance of Federal permitting and review processes, including lower costs and more timely decisions;

(G) expand and institutionalize permitting and review process improvements that have proven effective;

(H) develop mechanisms to better communicate priorities and resolve disputes among agencies at the national, regional, State, and local levels; and

(I) developing other practices to improve regulatory processes, such as preapplication procedures.

(2) PROJECTS DESCRIBED.—A project is described by this paragraph if such project is—

(A) a project to produce a critical mineral, including as a byproduct or from tailing;

(B) an exploration project with respect to which the presence of a byproduct is a reasonable expectation, based on known mineral companionality, geologic formation, mineralogy, or other factors or

(C) a project that demonstrates that the byproduct is of sufficient grade that, if combined with the production of a host mineral, is economical to recover, as determined by the applicable Secretary.

(3) CONSIDERATIONS.—In carrying out paragraph (1), the lead agency shall consider deferring to, and relying on, baseline data, analyses, and reviews performed by State agencies with jurisdiction over the proposed project.

(4) MEMORANDUM OF AGREEMENT.—The lead agency with respect to a critical mineral project, in consultation with any other Federal agency with jurisdiction over such project, may establish a memorandum of agreement with the project sponsor, State and local governments, and other entities such lead agency determines appropriate to carry out the activities described in this subsection.

(5) TIME LIMIT FOR PERMITTING PROCESS.—Notwithstanding any other provision of law, and except with agreement of the project sponsor, the total period for all necessary Federal reviews and permit consideration for a project reasonably expected to produce critical minerals may not exceed 30 months.

(c) DETERMINATION UNDER NATIONAL ENVIRONMENTAL POLICY ACT.—

(1) IN GENERAL.—To the extent that the National Environmental Policy Act of 1969 (42 U.S.C. 4321 et seq.) applies to the issuance of any mineral exploration or mine permit, the lead agency may

deem the requirements of such Act satisfied if the lead agency determines that a State or Federal agency acting under State or Federal law has addressed the following factors:

(A) The environmental impact of the action to be conducted under the permit.

(B) Possible adverse environmental effects of actions under the permit.

(C) Possible alternatives to issuance of the permit.

(D) The relationship between long- and short-term uses of the local environment and the maintenance and enhancement of long-term productivity.

(E) Any irreversible and irretrievable commitment of resources that would be involved in the proposed action.

(2) PUBLICATION.—The lead agency shall publish a determination under paragraph (1) not later than 90 days after receipt of an application for the permit.

(3) VERIFICATION.—The lead agency shall publish a determination that the factors under paragraph (1) have been sufficiently addressed and public participation has occurred with regard to any au-

thorizing actions before issuing any mineral exploration or mine permit.

(d) SCHEDULE FOR PERMITTING PROCESS.—For any project for which the lead agency cannot make the determination described in (c), at the request of a project sponsor, the lead agency, cooperating agencies, and any other agencies involved with the mineral exploration or mine permitting process shall enter into an agreement with the project sponsor that sets time limits for each part of the permitting process, including—

(1) the decision on whether to prepare an environmental impact statement or similar analysis required under the National Environmental Policy Act of 1969 (42 U.S.C. 4321 et seq.);

(2) a determination of the scope of any environmental impact statement or similar analysis required under such Act;

(3) the scope of, and schedule for, the baseline studies required to prepare an environmental impact statement or similar analysis required under such Act;

(4) preparation of any draft environmental impact statement or similar analysis required under such Act;

(5) preparation of a final environmental impact statement or similar analysis required under such Act;

(6) any consultations required under applicable law;

(7) submission and review of any comments required under applicable law;

(8) publication of any public notices required under applicable law; and

(9) any final or interim decisions.

(e) ADDRESSING PUBLIC COMMENTS.—As part of the review process under the National Environmental Policy Act of 1969 (42 U.S.C. 4321 et seq.), the lead agency may not address any agency or public comments that were not submitted—

(1) during a public comment period or consultation period provided during the permitting process; or

(2) as otherwise required by law.

(f) REVIEW AND REPORT.—Not later than 1 year after the date of enactment of this Act, the Secretary and the Secretary of Agriculture shall submit to Congress a report that—

(1) identifies additional measures (including regulatory and legislative proposals, as appropriate)

that would increase the timeliness of permitting activities for the exploration and development of domestic critical minerals;

(2) identifies options (including cost recovery paid by permit applicants, as appropriate) for ensuring adequate staffing and training of Federal entities and personnel responsible for the consideration of applications, operating plans, leases, licenses, permits, and other use authorizations for critical mineral-related activities on Federal land;

(3) quantifies the amount of time typically required (including range derived from minimum and maximum durations, mean, median, variance, and any other statistical measure or representation the Secretary and the Secretary of Agriculture determine appropriate) to complete each step (including those aspects outside the control of the executive branch, such as judicial review, applicant decisions, or State and local government involvement) associated with the development and processing of applications, operating plans, leases, licenses, permits, and other use authorizations for critical mineral-related activities on Federal land; and

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

(g) PERFORMANCE METRIC.—Not later than 90 days after the date of submission of the report under subsection (e), the Secretary and the Secretary of Agriculture, after providing public notice and an opportunity to comment, shall develop and publish a performance metric for evaluating the progress made by the executive branch to expedite the permitting of activities that will increase exploration for, and development of, domestic critical minerals, while maintaining environmental standards.

(h) ANNUAL REPORTS.—Beginning with the first budget submission by the President under section 1105 of title 31, United States Code, after publication of the performance metric required under subsection (f), and annually thereafter, the Secretaries of Agriculture and of the Interior shall jointly submit to Congress a report that—

(1) summarizes the implementation of recommendations, measures, and options identified in paragraphs (1) and (2) of subsection (f);

(2) using the performance metric under subsection (d), describes progress made by the executive branch, as compared to the baseline established pursuant to subsection (c)(3), on expediting the permitting of activities that will increase exploration for, and development of, domestic critical minerals; and

(3) compares the United States to other countries in terms of permitting efficiency and any other criteria relevant to the globally competitive critical minerals industry.

(i) INDIVIDUAL PROJECTS.—Using data from the Secretaries of Agriculture and of the Interior generated under subsection (g), the Director of the Office of Management and Budget shall prioritize inclusion of individual critical mineral projects on the website operated by the Office of Management and Budget in accordance with section 1122 of title 31, United States Code.

(j) REPORT OF SMALL BUSINESS ADMINISTRATION.—Not later than 1 year and 300 days after the date of enactment of this Act, the Administrator of the Small Business Administration shall submit to the Committees on Small Business and Natural Resources of the House of Representatives and Small Business and Entrepreneurship and Energy and Natural Resources of the Senate a report that assesses the performance of Federal agencies with respect to—

(1) complying with chapter 6 of title 5, United States Code, in promulgating regulations applicable to the critical minerals industry; and

(2) performing an analysis of regulations applicable to the critical minerals industry that may be

outmoded, inefficient, duplicative, or excessively burdensome.

(k) APPLICATION.—Section 41001(6)(A) of the FAST Act (42 U.S.C. 4370m(6)(A)) is amended by inserting ''(including critical mineral manufacturing (as defined in section [section 2 of the _____ Act]))'' after ''manufacturing''.

SEC. 105. FEDERAL REGISTER PROCESS.

(a) DEPARTMENTAL REVIEW.—Absent any extraordinary circumstance, and except as otherwise required by law, the Secretary and the Secretary of Agriculture shall ensure that each Federal Register notice described in subsection (b) shall be—

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

(2) published in final form in the Federal Register not later than 45 days after the date of initial preparation of the notice.

(b) PREPARATION.—The preparation of Federal Register notices required by law associated with the issuance of a critical mineral exploration or mine permit shall be delegated to the organizational level within the agency responsible for issuing the critical mineral exploration or mine permit.

(c) TRANSMISSION.—All Federal Register notices regarding official document availability, announcements of meetings, or notices of intent to undertake an action shall be originated in, and transmitted to the Federal Register from, the office in which, as applicable—

(1) the documents or meetings are held; or

(2) the activity is initiated.

SEC. 106. DEPARTMENT OF ENERGY CRITICAL MINERALS RESEARCH AND DEVELOPMENT PROGRAM.

(a) IN GENERAL.—The Secretary of Energy shall carry out a crosscutting research and development program to accelerate innovation in advanced critical minerals development strategies and technologies for the purpose of making better use of domestic resources and eliminating national reliance on minerals and mineral materials that are subject to supply disruptions.

(b) EXECUTION.—In carrying out this program, the Secretary of Energy shall—

(1) develop innovative technologies and practices to diversify commercially viable domestic sources of critical minerals and identify new uses for co-products and by-products;

(2) advance new mapping and mining technologies and techniques that can accelerate the robust characterization of domestic critical minerals

resources, including advanced critical mineral extraction, production, separation, alloying, or processing technologies that can decrease the energy intensity, potential environmental impact and costs of those activities;

(3) identify and develop alternative minerals, metals, and replacement materials that lessen the need for critical minerals, particularly those available in abundance within the United States and not subject to supply disruptions, and design new systems to use these alternatives;

(4) advance new technologies and techniques to support the economically viable manufacturing, recycling, and reuse of critical minerals; and

(5) develop advanced theoretical, computational, and experimental tools necessary to support the crosscutting basic research and development needs of diverse critical minerals stakeholders.

(c) LEVERAGING.—In carrying out the program under subsection (a) the Secretary of Energy shall leverage resources and expertise across the Department and from—

(1) Federal agencies;

(2) National Laboratories;

(3) critical mineral producers;

(4) critical mineral processors;

(5) critical mineral manufacturers;

(6) trade associations;

(7) academic institutions;

(8) small businesses; and

(9) other relevant entities or individuals.

(d) STANDARD OF REVIEW.—Not later than 2 years after the date of the enactment of this Act the Secretary of Energy shall conduct a review of activities carried out under this program described in subsection (a) to determine the achievement of technical milestones established in subsection (f).

(e) PROHIBITION.—No funds allocated to the program described in subsection (a) may be obligated or expended for commercial application of energy technology.

(f) CRITICAL MINERALS CONSORTIUM.—

(1) IN GENERAL.—Not later than 1 year after the date of enactment of this Act, the Secretary of Energy shall establish and operate a Critical Minerals Consortium (referred to in this section as the ''Consortium'') for the purpose of supporting the program under subsection (a) by providing, to the maximum extent practicable, a centralized entity for multidisciplinary, collaborative, critical minerals research and development.

(2) MEMBERSHIP.—The members of the Consortium shall be representatives from relevant Federal agencies, the National Laboratories, institutions of higher education, multi-institutional collaborations, and other appropriate entities.

(3) ACTIVITIES.—The Consortium shall—

(A) develop and implement a multi-year program plan which includes the determination of technical goals and milestones and prioritizes leveraging of the user facilities, high performance computing capabilities, and expertise of the Department of Energy and the National Laboratories; and

(B) submit an annual report to the Secretary of Energy summarizing the activities of the Consortium which includes an evaluation of the Consortium's role in the achievement of technical milestones determined in subparagraph (A).

(4) COORDINATION.—The Secretary of Energy shall ensure the coordination of, and avoid unnecessary duplication of, the activities of the Consortium with the activities of other research entities of the Department, institutions of higher education, and the private sector.

(5) DURATION.—The Consortium established under this subsection shall receive support for a period of not more than 5 years, subject to the availability of appropriations.

(6) RENEWAL.—Upon the expiration of any period of support of the Consortium, the Secretary of Energy may renew support for the Consortium, on a merit-reviewed basis, for a period of not more than 5 years.

(7) TERMINATION.—Consistent with the existing authorities of the Department, the Secretary of Energy may terminate the Consortium for cause during the performance period.

(g) REPORTS.—Not later than 2 years after the date of enactment of this Act, and annually thereafter, the Secretary of Energy shall submit to Congress a report summarizing the activities, findings, and progress of the program.

(h) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated to the Secretary of Energy $135,000,000 for each of fiscal years 2021 through 2030 to carry out this section.

SEC. 107. CRITICAL MINERALS RESEARCH DATABASE.

(a) IN GENERAL.—The Secretary of Energy, in consultation with the Director of the National Science Foun-

dation, shall support the development of a web-based platform to provide access to a database of computed information on known and predicted critical minerals and related mineral materials properties and computational tools in order to—

(1) accelerate breakthroughs in critical minerals discovery and design;

(2) strengthen the foundation for new mining technologies and advanced manufacturing; and

(3) drive the development of advanced materials for applications that span the Department's missions in energy, environment, and national security.

(b) PROGRAM.—In carrying out this section, the Secretary of Energy shall—

(1) conduct cooperative research with industry, academia, and other research institutions to facilitate the design of novel materials, including critical materials and substitutes for critical materials;

(2) leverage existing high performance computing systems to conduct high throughput calculations and develop computation and data mining algorithms for the prediction of mineral properties, including a focus on critical minerals;

(3) leverage and support basic research in mineralogy and mineral chemistry to enhance the under-

standing, prediction, and manipulation of critical minerals; and

(4) manage and make available to researchers accessible, curated, standardized, secure, and privacy protected data sets from the public and private sectors for the purposes of critical minerals research and development activities.

(c) COORDINATION.—To carry out this section, the Secretary of Energy shall leverage programs, facilities, and activities across the Department.

(d) SECURITY.—In carrying out the activities authorized by this section, the Secretary of Energy, in consultation with the Director of the National Science Foundation, shall ensure proper security controls are in place to protect proprietary or sensitive data, as appropriate.

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 the Energy Information Administration, academic institutions, and others 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 or other 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 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 determines 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) 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;

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

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

(F) a discussion of reasonably foreseeable international trends associated with the discovery, production, consumption, use, costs of production, and recycling of each critical min-

eral as well as the development of alternatives to critical minerals; and

(G) 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 or firm 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 or firm 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.

(c) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated to the Secretary $4,000,000 for each of fiscal years 2021 through 2030 to carry out this section.

SEC. 109. EDUCATION AND WORKFORCE.

(a) WORKFORCE ASSESSMENT.—

(1) IN GENERAL.—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, the Director of the National Science Foundation, the institutions of higher education described in paragraph (2), and employers in the critical minerals sector, shall submit to Congress an assessment of the domestic availability of technically trained personnel necessary for critical mineral exploration, development, assessment, production, manufacturing, recycling, analysis, forecasting, education, and research, including an analysis of—

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

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

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

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

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

(F) 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

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

(2) INSTITUTIONS OF HIGHER EDUCATION.—The institutions of higher education described in this paragraph are—

(A) institutions of higher education with substantial expertise in mining; and

(B) institutions of higher education with significant expertise in minerals research, including fundamental research into alternatives.

(b) CURRICULUM STUDY.—

(1) IN GENERAL.—The Secretary and the Secretary of Labor shall jointly enter into an arrangement 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, production, manufacturing, and research, including fundamental research into alternatives, and recycling;

(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 do-

mestic critical mineral exploration, development, production, manufacturing, and research, including fundamental research into alternatives, and recycling;

(C) to develop guidelines for proposals from institutions of higher education with substantial capabilities in the required disciplines for activities to improve the critical mineral supply chain and advance the capacity of the United States to increase domestic critical mineral exploration, research, development, production, manufacturing, and recycling; 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 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) PROGRAM.—

(1) ESTABLISHMENT.—The Secretary and the Secretary of Labor shall jointly conduct a competitive grant program under which institutions of high-

er 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;

(C) equipment necessary for integrated critical mineral innovation, training, and workforce development programs; and

(D) research of critical minerals and their applications, particularly concerning the manufacture of critical components vital to national security.

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

SEC. 110. NATIONAL GEOLOGICAL AND GEOPHYSICAL DATA PRESERVATION PROGRAM.

Section 351(k) of the Energy Policy Act of 2005 (42 U.S.C. 15908(k)) is amended by striking "$30,000,000

for each of fiscal years 2006 through 2010'' and inserting ''$5,000,000 for each of fiscal years 2021 through 2030, to remain available until expended''.

SEC. 111. ADMINISTRATION.

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

(b) 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.),''.

(c) SAVINGS CLAUSES.—

(1) IN GENERAL.—Nothing in this Act or an amendment made by this Act modifies any requirement or authority provided by—

(A) the matter under the heading ''GEOLOGICAL SURVEY'' of the first section of the Act of March 3, 1879 (43 U.S.C. 31(a)); or

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

(2) EFFECT ON DEPARTMENT OF DEFENSE.—Nothing in this Act or an amendment made by this Act affects the authority of the Secretary of Defense with respect to the work of the Department of De-

fense on critical material supplies in furtherance of the national defense mission of the Department of Defense.

(3) SECRETARIAL ORDER NOT AFFECTED.—This Act shall not apply to any mineral described in Secretarial Order No. 3324, issued by the Secretary on December 3, 2012, in any area to which the order applies.

TITLE II—CRITICAL MINERALS TECHNOLOGY DEVELOPMENT SUPPORT

SEC. 201. TECHNOLOGY GRANTS.

(a) IN GENERAL.—The Secretary shall establish a competitive grant program to conduct studies, research, and demonstration projects relating to the production of critical minerals, including—

(1) studies of mining, mineral extraction efficiency, and related processing technology;

(2) reclamation technology and practices for active mining operations;

(3) the development of remining systems and technologies that facilitate reclamation that fosters the recovery of resources at abandoned mine sites;

(4) investigations of mineral resource extraction methods that reduce environmental and human impacts;

(5) reducing dependence on foreign energy and mineral supplies;

(6) enhancing the competitiveness of United States energy and mineral technology exports;

(7) the extraction or processing of coinciding mineralization, including rare earth elements, within coal, coal processing byproduct, overburden or coal residue;

(8) enhancing technologies and practices related to mitigation of acid mine drainage, reforestation, and revegetation in the reclamation of land and water resources adversely affected by mining;

(9) meeting challenges of extreme mining conditions, such as deeper deposits or offshore or cold region mining; and

(10) mineral economics, including analysis of supply chains, future mineral needs, and unconventional mining resources.

(b) MINIMUM AMOUNT FOR MINING SCHOOLS.—Of amounts expended pursuant to this section, not less than 70 percent shall be expended to enhance and support min-

ing and mineral engineering programs at mining schools in the United States.

(c) PUBLIC PARTICIPATION.—The Secretary shall consult with relevant stakeholders and provide a significant opportunity for participation by undergraduate and graduate students at mining schools.

(d) AUTHORIZATION OF APPROPRIATIONS.—There is authorized to be appropriated to carry out this title $10,000,000 for each of fiscal years 2021 through 2030.

(e) MINING SCHOOL.—In this title, the term ''mining school'' means a mining, metallurgical, or mineral engineering program or department accredited by the Accreditation Board for Engineering and Technology, Inc., that is located at an institution of higher education (as that term is defined in section 631(a) of the Higher Education Act of 1965 (20 U.S.C. 1132(a))) in the United States.

TITLE III—MANAGEMENT OF FEDERAL MINERAL RESOURCES

SEC. 301. ECONOMIC AND NATIONAL SECURITY ANALYSIS.

(a) RESOURCE ASSESSMENTS REQUIRED.—Federal lands and waters may not be withdrawn from entry under the mining laws or operation of the mineral leasing and mineral materials laws unless a quantitative and qualitative geophysical and geological mineral resource assessment of the impacted area has been completed during the

10-year period ending on the date of such withdrawal or has been certified as current by the Director of the United States Geological Survey.

(b) NEW INFORMATION.—If a resource assessment completed by the Director of the United States Geological Survey, including a resource assessment conducted pursuant to section 103, shows that a previously undiscovered deposit is present in an area that has been withdrawn from entry under the mining laws or operation of the mineral leasing and mineral materials laws pursuant to—

(1) section 204 of the Federal Land Policy and Management Act of 1976 (43 U.S.C. 1714), the Secretary shall update the existing Resource Management Plan for such area; or

(2) chapter 3203 of title 54, United States Code, the Secretary shall provide recommendations to the President on appropriate measures to reduce unnecessary impacts that the withdrawal may have on critical mineral exploration, development, and other mining activities.

(c) RESOURCE MANAGEMENT PLANS.—Before a resource management plan under the Federal Land Policy and Management Act of 1976 (43 U.S.C. 1701 et seq.) is updated or completed, the Secretary or Secretary of Ag-

riculture, as applicable, shall, in consultation with the Director of the United States Geological Survey:

(1) Review a quantitative and qualitative mineral resource assessment that was completed or updated during the 10-year period ending on the date the resource management plan is updated or completed or is certified as current by the Director of the United States Geological Survey for the geographic area affected by the resource management plan; and

(2) In consultation with the Departments of Commerce and Defense, consider the economic, strategic and national security value of mineral deposits in the impacted geographic area affected by the resource management plan.

(d) PREVIOUSLY UNDISCOVERED DEPOSIT.—In this section, the term ''previously undiscovered deposit'' means a deposit that has been previously evaluated by the United States Geological Survey and found to be of low mineral potential but upon subsequent evaluation is determined to have economically recoverable quantities of a critical mineral.

SEC. 302. CONGRESSIONAL APPROVAL.

(a) MORATORIA.—Notwithstanding any other provision of law, the Secretary may not declare a moratorium

on issuing leases, claims, or permits on Federal lands, including on the Outer Continental Shelf, for the mining of critical minerals, or related activities unless such moratorium is authorized by an Act of Congress.

(b) LIMITATION.—Notwithstanding any other provision of law, the Secretary may not withdraw Federal lands and waters from entry under the mining laws or operation of the mineral leasing and mineral materials laws for the mining of critical minerals without Congressional approval if such withdrawal—

(1) exceeds 5,000 acres in a single withdrawal; or

(2) is of a parcel the exterior boundary of which is less than 50 miles away from the exterior boundary of another parcel that was withdrawn during the one year period ending on the date of withdrawal of the parcel at issue.