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# 2022 Invocation of the Defense Production Act for Large-Capacity Batteries: In Brief

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## 2022 Invocation of the Defense Production Act for Large-Capacity Batteries: In Brief

On March 31, 2022, President Joseph R. Biden issued Presidential Determination No. 2022-11, invoking authorities under Section 303 of the Defense Production Act (DPA) and directing the Department of Defense (DOD) to strengthen the U.S. domestic industrial base for large-capacity batteries used in “the automotive, e-mobility, and stationary storage sectors.” As justification, the President cited the need to ensure “a robust, resilient, sustainable, and environmentally responsible domestic industrial base” as a critical component of clean energy manufacturing supply chains and a clean energy economy.

The Defense Production Act (DPA) of 1950 (P.L. 81-774, 50 U.S.C. §4501 et seq.), as amended, confers upon the President a broad set of authorities to influence domestic industry in the interest of national defense. The authorities can be used across the federal government to shape the domestic industrial base so that, when called upon, it is capable of providing essential materials and goods needed for the national defense. Though initially passed in response to the Korean War, the DPA is historically based on the War Powers Acts of World War II. Gradually, Congress has expanded the term *national defense*, as defined in the DPA. Based on this definition, the scope of DPA authorities now extends beyond shaping U.S. military preparedness and capabilities, as the authorities may also be used to enhance and support domestic preparedness, response, and recovery from natural hazards, terrorist attacks, and other national emergencies.

The March 31 Presidential Determination authorizes the Secretary of Defense to exercise specific authorities in order to support mining and processing of strategic and critical materials for the production of large-capacity batteries for the “automotive, e-mobility, and stationary storage sectors.” In particular, the Determination directs the Secretary of Defense to support (1) feasibility studies for “mature mining, beneficiation, and value-added processing projects” for such critical materials; (2) byproduct and co-product production at existing mining and other industrial facilities; and (3) improvements to increase productivity, workforce safety, and sustainability in critical minerals mining, beneficiation, and processing. The exercise of these authorities is subject to funding available in the Defense Production Act Fund (DPA Fund), for which DOD serves as fund manager. The Presidential Determination does not authorize activities beyond those in Section 303 of the DPA, including authorities to issue prioritized federal contracts and allocate materials essential to the national defense under Title I.

President Biden’s invocation of the DPA may be viewed within the context of strategic and critical material supply chain concerns, and related actions taken by the executive branch and Congress. For example, both the DOD and the Department of Energy (DOE) have recently made recommendations related to the exercise of DPA authorities to promote domestic mining of critical and strategic minerals. In a 2022 report, the DOE set out strategies the federal government could follow, including use of the DPA, to develop domestic supply chains related to the production of magnets produced with certain critical minerals. The report also recommended that Congress consider directly appropriate funding to DOE to implement DPA Title III actions to support a clean energy transition. DOD similarly recommended use of DPA Title III actions to support this transition.

Congress may consider performing oversight or otherwise monitoring how DOD implements this Determination and evaluating potentially relevant issues, including use of allocations available in the DPA Fund and potential consequences for public lands and tribal communities adjacent to the mining activities.

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## Introduction

On March 31, 2022, President Joseph R. Biden issued Presidential Determination No. 2022-11, invoking authorities in Section 303 of the Defense Production Act (DPA) of 1950 (P.L. 81-774, 50 U.S.C. §4501 et seq.) and directing the Department of Defense (DOD) to strengthen the U.S. domestic industrial base for large-capacity batteries (i.e., those used in electric vehicles and for grid-connected electricity storage).<sup>1</sup> As justification, the President cited the need to ensure “a robust, resilient, sustainable, and environmentally responsible domestic industrial base to meet the requirements of the clean energy economy.” The President noted that “the United States depends on unreliable foreign sources for many of the strategic and critical materials necessary for the clean energy transition.... Demand for such materials is projected to increase exponentially as the world transitions to a clean energy economy” and to reduce reliance on foreign sources of critical materials, including lithium, nickel, cobalt, graphite, and manganese.<sup>2</sup>

This In Brief provides an overview of the DPA and presidential delegations of its authorities; discusses actions authorized by the March 2022 Presidential Determination (hereinafter the Presidential Determination); examines potential limitations associated with these authorizations; and provides an overview of recent executive and congressional actions relevant to the invocation of the DPA for critical minerals necessary for large-capacity battery production. It also explores considerations for Congress regarding the implementation, limitation, or expansion of the Presidential Determination.

## Brief Overview of the Defense Production Act (DPA)

The DPA confers broad presidential authorities to mobilize domestic industry in service of a statutorily defined conception of national defense.<sup>3</sup> These authorities can be used across the federal government to shape the domestic industrial base so that, when called upon, private industry and other entities are capable of providing the essential materials and goods needed for national defense.<sup>4</sup>

Gradually, Congress has expanded the definition of *national defense* for purposes of the DPA.<sup>5</sup> The scope of DPA authorities now extends beyond shaping U.S. military preparedness and capabilities, and has been used to enhance and support domestic preparedness, response, and recovery from natural hazards, terrorist attacks, and other national emergencies.<sup>6</sup>

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<sup>1</sup> Presidential Determination Pursuant to Section 303 of the Defense Production Act (DPA) of 1950, as Amended, 87 *Federal Register* 19775, April 6, 2022 (hereinafter “Presidential Determination Pursuant to Section 303”).

<sup>2</sup> *Ibid.*; The White House, “Fact Sheet: President Biden’s Plan to Respond to Putin’s Price Hike at the Pump,” March 31, 2022, at <https://www.whitehouse.gov/briefing-room/statements-releases/2022/03/31/fact-sheet-president-bidens-plan-to-respond-to-putins-price-hike-at-the-pump/>; the White House, “Background Press Call by Senior Administration Officials on President Biden’s Plan to Respond to Putin’s Price Hike at the Pump,” March 31, 2022, at <https://www.whitehouse.gov/briefing-room/press-briefings/2022/03/31/background-press-call-by-senior-administration-officials-on-president-bidens-plan-to-respond-to-putins-price-hike-at-the-pump/>.

<sup>3</sup> Section 702(14) of the DPA; 50 U.S.C. §4552(14).

<sup>4</sup> For a detailed discussion on the history and authorities of the DPA, see CRS Report R43767, *The Defense Production Act of 1950: History, Authorities, and Considerations for Congress*, by Heidi M. Peters.

<sup>5</sup> See *ibid.*, pp. 4-5 for a discussion of the evolving scope of “national defense” as defined in the DPA.

<sup>6</sup> “The term ‘national defense’ means programs for military and energy production or construction, military or critical infrastructure assistance to any foreign nation, homeland security, stockpiling, space, and any directly related activity. Such term includes emergency preparedness activities conducted pursuant to title VI of The Robert T. Stafford Disaster

Current DPA authorities include, but are not limited to:

- **Title I: Priorities and Allocations**, which allows the President to require persons (including businesses and corporations) to prioritize and accept contracts for materials and services as necessary to promote the national defense;
- **Title III: Expansion of Productive Capacity and Supply**, which allows the President to incentivize the domestic industrial base to expand the production and supply of critical materials and goods. Incentives include loans, loan guarantees, direct purchases and purchase commitments, and the authority for the federal government to procure and install equipment in private industrial facilities. (further detail on these authorities is provided below); and
- **Title VII: General Provisions**, which includes several distinct authorities, including the authority to establish voluntary agreements with private industry; the authority to block proposed or pending foreign corporate mergers, acquisitions, or takeovers that threaten national security;<sup>7</sup> and the authority to employ persons of outstanding experience and ability and to establish a volunteer pool of industry executives who could be called to government service in the interest of the national defense.<sup>8</sup>

## Selected Authorities Under Title III of the DPA

Title III authorities help to ensure that the nation has an adequate supply of, or the ability to produce, essential materials and goods necessary for the national defense. Using Title III authorities, the President may provide financial incentives to develop, maintain, modernize, restore, and expand the production capacity of domestic sources for critical components, critical technology items, materials, and industrial resources essential for the execution of the national security strategy.<sup>9</sup> The President also may use Title III authorities to ensure that critical components, critical technology items, essential materials, and industrial resources are available from reliable sources when needed to meet defense requirements during peacetime, graduated mobilization, and national emergency.<sup>10</sup>

## Presidential Determinations

The DPA affords significant discretion to the President to exercise Title III and other DPA authorities. However, in the absence of a related national emergency declared by Congress or the President, the DPA, including Title III, generally requires that the President determine certain

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Relief and Emergency Assistance Act [42 U.S.C. §5195 et seq.] and critical infrastructure protection and restoration.” Section 702(14) of the DPA; 50 U.S.C. §4552(14).

<sup>7</sup> The Committee on Foreign Investment in the United States (CFIUS), which operates pursuant to Section 721 of the DPA, reviews foreign investment transactions to determine if (1) they threaten to impair the national security; (2) the foreign investor is controlled by a foreign government; or (3) the transaction could affect homeland security or would result in control of any critical infrastructure that could impair the national security. The President has the authority to block proposed or pending foreign investment transactions that threaten to impair the national security. This authority is generally considered separate and distinct from other DPA provisions. See 50 U.S.C. §4565; 31 C.F.R. chap. VIII. See CRS In Focus IF10952, *CFIUS Reform Under FIRRMA*, by James K. Jackson and Cathleen D. Cimino-Isaacs.

<sup>8</sup> For a comprehensive overview of the DPA see CRS Report R43767, *The Defense Production Act of 1950: History, Authorities, and Considerations for Congress*, by Heidi M. Peters.

<sup>9</sup> Section 107(a) of the DPA; 50 U.S.C. §4517. Many of these terms are defined further in 50 U.S.C. §4552.

<sup>10</sup> Section 107(b)(1) of the DPA; 50 U.S.C. §4517.

conditions are met prior to invoking many DPA authorities.<sup>11</sup> For example, except in periods of such an emergency, to issue loan guarantees, the President must determine that loans and loan guarantees are the most “cost-effective, expedient, and practical alternative” to meet the intended need, and that no other reasonable means exists to do so.<sup>12</sup>

DPA presidential determinations do not expire unless the President expressly indicates so in the determination, or the determination is otherwise amended or revoked. The DPA does not require the President to report these determinations to the public. However, the President must provide notice to the Senate Committee on Banking, Housing, and Urban Affairs and the House Committee on Financial Services before using certain authorities under Section 303(a) of the DPA.<sup>13</sup>

### Section 303 of the DPA

Section 303 provides several authorities through which the President may incentivize the domestic industrial base to expand the production and supply of critical materials and goods, including:

- Direct purchases and purchase commitments of industrial resources or critical technology items for use or resale;
- Encouragement of “exploration, development, and mining of critical and strategic materials, and other material”;
- Development of productive capacity; and
- Increased use of certain emerging technologies.<sup>14</sup>

To enter into contracts as a means of using these authorities, the President must determine in writing that:

- The material is “essential to the national defense”;
- U.S. industry “cannot reasonably be expected to provide the capability for the needed” material in a timely manner without use of Section 303; and
- Actions “are the most cost effective, expedient, and practical alternative method” for meeting national defense needs.<sup>15</sup>

The President may waive these requirements and other limitations under Section 303(a)(7) during national emergencies, or if he or she finds that “action is necessary to avert an industrial resource or critical technology item shortfall that would severely impair national defense capability.”<sup>16</sup>

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<sup>11</sup> See, for example, Sections 301(a)(2), 302(b)(2), and 303(a)(5) of the DPA; 50 U.S.C. §§4531(a)(2), 4532(b)(2), 4533(a)(5).

<sup>12</sup> See, for example, Sections 301(a)(2)(C); 50 U.S.C. §4531(a)(2)(C), which requires presidential determinations that “the loan guarantee is the most cost effective, expedient, and practical alternative for meeting the needs of the Federal Government” before the President may invoke the DPA to issue loan guarantees, and Section 302(b)(2)(B); 50 U.S.C. §4532(b)(2)(B), which requires the President to determine that “without the loan, United States industry cannot reasonably be expected to provide the needed capacity, technological processes, or materials in a timely manner,” before the President may provide direct loans through the DPA. When authorized, these determinations may be issued by the designated delegate.

<sup>13</sup> Section 303(a)(6)(A) of the DPA; 50 U.S.C. §4533(a)(6)(A).

<sup>14</sup> Section 303(a)(1)(A)-(D) of the DPA; 50 U.S.C. §4533(a)(1)(A)-(D).

<sup>15</sup> Section 303(a)(5) of the DPA; 50 U.S.C. §4533(a)(5).

<sup>16</sup> Section 303(a)(7) of the DPA; 50 U.S.C. §4533(a)(7).

## Recent Delegation of DPA Authorities

Over time, Presidents have chosen to delegate some DPA authorities to department and agency heads. Most recently, President Barack Obama did so through Executive Order (E.O.) 13603 in 2012.<sup>17</sup> E.O. 13603 identified the “head of each agency engaged in procurement for national defense” and delegated to each the majority of authorities provided to the President under Titles I and III of the DPA.<sup>18</sup> Notably, E.O. 13603 also delegated Section 303 authority “to encourage the exploration, development, and mining of strategic and critical materials and other materials” to the Secretaries of Defense and the Interior.<sup>19</sup>

Prior to 2020, DOD generally exercised DPA authorities, particularly prioritization authorities under Title I of the DPA, more frequently than other executive branch agencies.<sup>20</sup> In addition to the Department’s frequent use of Title I prioritization authorities, DOD has maintained a longstanding DPA Title III program office “dedicated to ensuring the timely availability of essential domestic industrial resources to support national defense and homeland security requirements.”<sup>21</sup> The office generally focuses on facilitating DPA Title III investment actions for military purposes. Other executive agencies can and have made use of DPA authorities, particularly in response to the COVID-19 pandemic.<sup>22</sup> Observers have noted that the Department of Energy (DOE) and the Department of the Interior, also cited in the 2022 Determination, have less frequent direct experience with carrying out activities under DPA authorities generally and Title III authorities specifically.<sup>23</sup>

## President Biden’s 2022 Determination

### DPA Actions Authorized

The Presidential Determination authorizes DOD to use some Section 303 authorities to support “sustainable and responsible domestic mining, beneficiation, and value-added processing of

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<sup>17</sup> Executive Order 13603, “National Defense Resource Preparedness,” 77 *Federal Register* 16651, March 22, 2012.

<sup>18</sup> Sections 301-304, 305(b), 307-308, and 310-312 of E.O. 13603.

<sup>19</sup> In statute, see Section 303(a)(1)(B) of the DPA; 50 U.S.C. §4533(a)(1)(B). The President delegated this authority to the Secretary of Defense and the Secretary of the Interior in consultation with the Secretary of Defense as the National Defense Stockpile Manager, in Section 306 of E.O. 13603.

<sup>20</sup> For example, in the 2020 Report to Congress of the Defense Production Act Committee, DOD indicated that it places approximately 300,000 priority rated contracts and orders (i.e., “rated orders”) per year. See Federal Emergency Management Agency, “The Defense Production Act Committee Report to Congress,” calendar year 2020 report to Congress, September 20, 2021, p. 10, at [https://www.fema.gov/sites/default/files/documents/fema\\_DPAC-report-Defense-production-act-committee\\_2020.pdf](https://www.fema.gov/sites/default/files/documents/fema_DPAC-report-Defense-production-act-committee_2020.pdf).

<sup>21</sup> Department of Defense, “Assessments & Investments: Defense Production Act (DPA) Title III,” at <https://www.businessdefense.gov/ai/dpat3/index.html>.

<sup>22</sup> For more information, see U.S. Government Accountability Office (GAO), *Defense Production Act: Opportunities Exist to Increase Transparency and Identify Future Actions to Mitigate Medical Supply Chain Issues*, GAO-21-108, November 19, 2020, at <https://www.gao.gov/products/gao-21-108>; GAO, *COVID-19: Agencies Are Taking Steps to Improve Future Use of Defense Production Act Authorities*, GAO-22-105380, at <https://www.gao.gov/products/gao-22-105380>.

<sup>23</sup> Department of Defense, “Title III of the Defense Production Act,” p. 2, at [https://www.energy.gov/sites/prod/files/2014/03/f14/2\\_seaford\\_roundtable.pdf](https://www.energy.gov/sites/prod/files/2014/03/f14/2_seaford_roundtable.pdf); Department of Energy, *America’s Strategy to Secure the Supply Chain for a Robust Clean Energy Transition*, Department of Energy Response to Executive Order 14017, “America’s Supply Chains,” February 24, 2022, at <https://www.energy.gov/policy/articles/americas-strategy-secure-supply-chain-robust-clean-energy-transition>.



strategic and critical materials for the production of large-capacity batteries for the automotive, e-mobility, and stationary storage sectors” because these materials “are essential to the national defense.”<sup>24</sup>

The Secretary of Defense must implement this broad directive by supporting, among other activities:

- feasibility studies for “mature mining, beneficiation, and value-added processing projects” for such critical materials;
- byproduct and co-product production at existing mining and other industrial facilities; and
- improvements to increase productivity, workforce safety, and sustainability in critical minerals mining, beneficiation, and processing.<sup>25</sup>

DOD must also consult the Secretaries of the Interior, Agriculture, and Energy in carrying out these activities and is required to issue annual reports to the President and Congress on whether the domestic industrial base for critical materials for battery production warrants continued use of Section 303 authorities.

Although the Presidential Determination permits DOD to enter into contracts to implement Section 303 authorities, the President also appears to have waived certain requirements of the DPA for purposes of implementing the 2022 Determination.<sup>26</sup> For example, the waivers may allow DOD to execute contracts without following certain requirements for these contracts (e.g., a prohibition on the government from reselling purchased commodities below certain prices).<sup>27</sup> The practical implication of these waivers, made under Section 303(a)(7) of the DPA, with regard to DOD’s authority to enter into contracts remains unknown, as there are no public contracts yet available to show whether or how the waiver has affected contracts in practice.

## Limitations on DOD Action

The Presidential Determination does not appear to authorize all economic activities covered by Section 303. For instance, the President would have to make additional determinations and findings to authorize the Secretary of Defense to make subsidy payments on any relevant domestically produced materials.<sup>28</sup>

Further, the Presidential Determination does not allow the Secretary of Defense to use Title III authorities beyond those in Section 303. To implement other Title III authorities, the President and Congress must take additional actions. For example, to issue loan guarantees or direct loans, the relevant budget authority must be specifically included in an appropriations act.<sup>29</sup>

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<sup>24</sup> Presidential Determination Pursuant to Section 303.

<sup>25</sup> *Ibid.*

<sup>26</sup> *Ibid.*

<sup>27</sup> *Ibid.* Section 303(a)(7)(B) of the DPA authorizes the President to waive requirements, including the requirement in Section 303(a)(3) that “[n]o commodity purchased under this subsection shall be sold at less than—(A) the established ceiling price for such commodity, except that minerals, metals, and materials shall not be sold at less than the established ceiling price, or the current domestic market price, whichever is lower; or (B) if no ceiling price has been established, the higher of—(i) the current domestic market price for such commodity; or (ii) the minimum sale price established for agricultural commodities owned or controlled by the Commodity Credit Corporation, as provided in section 407” of the Agricultural Act of 1949 (7 U.S.C. §1427).

<sup>28</sup> Section 303(c)(1) of the DPA; 50 U.S.C. §4533(c)(1).

<sup>29</sup> Section 301(a)(3)(A) of the DPA; 50 U.S.C. §4531(a)(3)(A).



Additionally, the President would need to make additional determinations that would affirm the ability of the borrower to repay the loan and the absence of other available credit on reasonable terms for the intended purpose.<sup>30</sup>

Practical limitations may also constrain implementation. In particular, the exercise of Section 303 authorities is subject to funding available in the Defense Production Act Fund (DPA Fund).<sup>31</sup> The DPA Fund primarily supports standing DOD Title III activities. As account manager under E.O. 13603, DOD exercises considerable discretion over how fund appropriations are used—a source of prior dispute with Congress.<sup>32</sup>

## Strategic and Critical Materials

President Biden’s invocation of the DPA may be viewed within the context of strategic and critical material supply-chain concerns, and recent related actions taken by the executive branch and Congress. In addition, some Members of Congress had urged the President to invoke DPA authorities to address domestic energy supply shortages by promoting domestic production and processing of critical minerals.<sup>33</sup> Other Members of Congress urged the President to invoke the DPA to secure other energy resources through other means that were not reflected in the Presidential Determination—for example, by using the DPA to promote oil refinery enhancements,<sup>34</sup> or increase domestic manufacturing capacity for electric heat pumps.<sup>35</sup> Still other Members of Congress have asked the President not to invoke the DPA to address domestic mineral supply, citing implications for the environment and tribal communities.<sup>36</sup>

<sup>30</sup> Sections 301(a)(2)(B)-(G) of the DPA; 50 U.S.C. §4531(a)(2)(B)-(G).

<sup>31</sup> Section 304(c) of the DPA; 50 U.S.C. §4534(c).

<sup>32</sup> In the American Rescue Plan Act of 2021 (P.L. 117-7), Congress appropriated \$10 billion to a new account for the Department of Health and Human Services to implement pandemic-related Title III actions, in part to bypass DOD control over the fund, as explained by Chairwoman of the House Committee on Financial Services Maxine Waters:

The Committee also expects that the funds provided by this section will primarily be used by the Secretary of Health and Human Services (HHS). The DPA allows the President to delegate his authority under the DPA to various agencies, and he has delegated DPA authority under Title III of the Act to HHS. While the DPA has been administered by the Department of Defense, the funds made available by this section are not for support of the Defense Industrial Base, but are for medical supplies and equipment related to the COVID-19 Pandemic ... the Committee intends that the President establish a new account to allow these funds to be used...

See Chairwoman of the House Committee on Financial Services Maxine Waters, “American Rescue Plan Act of 2021,” Explanatory Statement on H.R. 1319, *Congressional Record*, daily edition, vol. 167, part 45 (March 10, 2021), p. H1281, at <https://www.congress.gov/117/crec/2021/03/10/CREC-2021-03-10-pt1-PgH1196.pdf>. For further discussion and explanation of the creation of this new HHS account for DPA Title III actions, see CRS Report R46834, *American Rescue Plan Act of 2021 (P.L. 117-2): Public Health, Medical Supply Chain, Health Services, and Related Provisions*, coordinated by Johnathan H. Duff and Kavya Sekar, pp. 19-21.

<sup>33</sup> Senator Lisa Murkowski, “Senators Murkowski, Manchin, Risch and Cassidy Urge Administration to Meet Domestic Mineral Demand, Address Supply Chain Crisis,” press release, March 11, 2022, at <https://www.murkowski.senate.gov/press/release/senators-murkowski-manchin-risch-and-cassidy-urge-administration-to-meet-domestic-mineral-demand-address-supply-chain-crisis>.

<sup>34</sup> Representative Jared Golden et al., Letter to the President regarding the use of the DPA to increase oil and gas production, March 10, 2022, at <https://golden.house.gov/sites/golden.house.gov/files/Letter%20to%20POTUS%20Invoke%20the%20DPA%20for%20Domestic%20Production%20.pdf>.

<sup>35</sup> Senator Markey et al., Letter to President Biden regarding use of the DPA to increase manufacturing capacity for technologies that reduce fossil fuel demand, March 23, 2022, at [https://www.markey.senate.gov/imo/media/doc/\(03.23\)%202022.03.23%20Executive%20Actions%20on%20EE%20%20Clean%20Tech%20Letter.pdf](https://www.markey.senate.gov/imo/media/doc/(03.23)%202022.03.23%20Executive%20Actions%20on%20EE%20%20Clean%20Tech%20Letter.pdf).

<sup>36</sup> House Natural Resources Committee, “Chair Grijalva, Rep. Lowenthal Urge Biden Administration Not to Use the Defense Production Act to Increase Mining,” press release, March 29, 2022, at <https://naturalresources.house.gov/media/press-releases/chair-grijalva-rep-lowenthal-urge-biden-administration-not-to-use-the-defense-production-act-to->

### Strategic and Critical Materials—Definitions

The terms “strategic and critical materials,” “critical and strategic materials,” “critical minerals and materials,” and “critical minerals” can be, and often are, used interchangeably.

#### Defense Production Act

The Presidential Determination under the DPA authority includes a determination that “strategic and critical materials for the production of large-capacity batteries for the automotive, e-mobility, and stationary storage sectors are essential to the national defense.”<sup>37</sup> Neither the Presidential Determination nor the DPA includes a definition of “strategic and critical materials.” However, the DPA authorizes the President to “make provision ... for the encouragement of exploration, development, and mining of critical and strategic materials, and other materials,” among other actions.<sup>38</sup> Additionally, E.O. 13603, which delegated authorities and addressed national defense policies and programs under the DPA, includes a definition of “strategic and critical materials”:

(m) “Strategic and critical materials” means materials (including energy) that (1) would be needed to supply the military, industrial, and essential civilian needs of the United States during a national emergency, and (2) are not found or produced in the United States in sufficient quantities to meet such need and are vulnerable to the termination or reduction of the availability of the material.<sup>39</sup>

#### Critical Materials Defined by the Energy Act of 2020

The Presidential Determination references five minerals associated with large capacity, rechargeable batteries (lithium, nickel, cobalt, graphite, and manganese); these minerals, among others, have been designated “critical minerals” by the U.S. Geological Survey (USGS).<sup>40</sup>

Section 7002 of the Energy Act of 2020 (Division Z, P.L. 116-260) includes a definition of “critical material”—distinct from that associated with the DPA via E.O. 13603—that makes explicit the connection between critical materials and critical minerals:

The term “critical material” means—

- (A) any non-fuel mineral, element, substance, or material that the Secretary of Energy determines—
  - (i) has a high risk of a supply chain disruption; and
  - (ii) serves an essential function in 1 or more energy technologies, including technologies that produce, transmit, store, and conserve energy; or
- (B) a critical mineral.<sup>41</sup>

Section 7002 of the Energy Act of 2020 also codifies the methodology to determine the list of critical minerals. Part of the methodology includes directing the Secretary of the Interior, acting through the Director of the USGS, to consult with the Secretaries of Defense, Commerce, Agriculture, and Energy and the United States Trade Representative during the process of finalizing the list of critical minerals.<sup>42</sup> Provisions allow the Secretary of the Interior to “designate and include on the list any 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.”<sup>43</sup>

According to the USGS, the methodology used to develop the list of critical minerals includes measures of country-level production, U.S. net import reliance,<sup>44</sup> and a qualitative assessment of importance. Another

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increase-mining. See also discussion in U.S. Congress, Senate Committee on Energy and Natural Resources, *Full Committee Hearing on Domestic Critical Mineral Supply Chains*, hearing, 117<sup>th</sup> Cong., 2<sup>nd</sup> sess., March 31, 2022.

<sup>37</sup> Presidential Determination Pursuant to Section 303.

<sup>38</sup> 50 U.S.C. §4533(a)(1)(B).

<sup>39</sup> Executive Order 13603, “National Defense Resource Preparedness,” 77 *Federal Register* 16651, March 22, 2012.

<sup>40</sup> U.S. Geological Survey (USGS), “2022 Final List of Critical Minerals,” 87 *Federal Register* 10381, February 24, 2022.

<sup>41</sup> 30 U.S.C. §1606(a)(2).

<sup>42</sup> P.L. 116-260.

<sup>43</sup> 30 U.S.C. §1606(c)(4)(B).

<sup>44</sup> According to the USGS, “Net import reliance (NIR) is calculated as the amount of imported material (including changes in stockpiles) minus exports and changes in government and industry stocks and is expressed as a percentage of domestic consumption” (Steven M. Fortier, Nedal T. Nassar, and Graham W. Lederer, et al., *Draft Critical Mineral List—Summary of Methodology and Background Information—U.S. Geological Survey Technical Input Document in*

consideration used to determine the list of critical minerals regards risks associated with mineral supply chains, or supply risk. Supply risk is defined in the methodology as “the confluence of the following three factors: the likelihood of a foreign supply disruption, the dependency of the U.S. manufacturing sector on foreign supplies, and the vulnerability of the U.S. manufacturing sector to a supply disruption.”<sup>45</sup>

## Executive Branch Recommendations and Actions: Critical Minerals and Materials

In February 2021—prior to the March 31, 2022, Presidential Determination invoking the DPA—President Biden ordered a supply chain review from multiple executive branch departments.<sup>46</sup> The resulting review, completed in June 2021, includes a DOE chapter on “Review of Large Capacity Batteries” and a DOD chapter on “Review of Critical Minerals and Materials.”<sup>47</sup> Some recommendations include use of the DPA. For example, in its review of large-capacity battery supply chains, DOE recommends:

Increase[d] support for resource mapping at the USGS and the DOE to enable informed policy and investment decisions around production and refinement of lithium and other critical materials and minerals. The Federal Government should explore using purchase price and quantity guarantees for a stockpile serving as a backstop, providing loans or guarantees through DOE’s Loan Program Office (LPO), leveraging the DPA including Title III and VII authorities to support extraction, and standing up new public financing streams.... Invest[ing] in domestic [mineral processing] ... similarly through a potential mix of purchasing guarantees, the DOE LPO, the DPA, and new financing programs in concert with [research and development] R&D investment to advance existing techniques.<sup>48</sup>

DOD also made recommendations related to the use of executive branch authorities, including those invoked in the President’s Determination issued on March 31, 2022. For example, DOD recommended that “DPA, Title III and similar authorities should be used to support domestic production in sustainable production and processing operations,” and that the government “should use [DPA Title VII] authorities to convene a government-industry working group to identify opportunities to expand sustainable domestic production, and explore opportunities to create consortiums or public-private partnerships for sustainable domestic processing of key strategic and critical materials.”<sup>49</sup>

Both DOE and DOD made additional recommendations related to critical materials and minerals, among other recommendations; executive authority to act on these recommendations lies outside that granted by the DPA. For example, some DOE recommendations include:

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*Response to Secretarial Order No. 3359*, U.S. Geological Survey, Open-File Report 2018-1021, p. 9). For additional information on NIR, see this source.

<sup>45</sup> Nedal T. Nassar and Steven M. Fortier, *Methodology and Technical Input for the 2021 Review and Revision of the U.S. Critical Minerals List*, USGS Open-File Report 2021-1045, Reston, VA, 2021, p. 3.

<sup>46</sup> Executive Order 14017, “America’s Supply Chains,” 86 *Federal Register* 11849, March 1, 2021.

<sup>47</sup> White House, *Building Resilient Supply Chains, Revitalizing American Manufacturing, and Fostering Broad-Based Growth, June 2021*, pp. 85-204, at <https://www.whitehouse.gov/wp-content/uploads/2021/06/100-day-supply-chain-review-report.pdf>.

<sup>48</sup> *Ibid.*, p. 139.

<sup>49</sup> *Ibid.*, pp. 199-200.

The Administration should pursue a whole of government approach to stimulating domestic demand and production of [electric vehicles] EVs and stationary storage through Federal purchases, consumer incentives, and standard setting.<sup>50</sup>

The Federal Energy Management Program (FEMP), housed at the DOE, should call for Federal agencies to procure stationary battery storage for Federal facilities in addition to procuring other types of stationary storage.<sup>51</sup>

[The United States should] work with allies and partners to expand global production and ensure secure global supplies.<sup>52</sup>

Some related DOD recommendations include:

The U.S. Government should incentivize domestic and foreign production, processing, and recycling of strategic and critical materials, ensuring that they adhere to strong environmental standards, meaningful community consultation including government-to-government consultation with Tribal Nations, and strong labor standards.<sup>53</sup>

Through the Department of State and the Office of the U.S. Trade Representative, the United States should engage with like-minded foreign producers of strategic and critical materials to promote a value-based approach as they consider approaches to sustainability—rather than one focused on cost-imposition—and encourage alignment of U.S. and foreign product sustainability standards.<sup>54</sup>

Subsequently, the DOE released a separate report outlining a strategy intended to secure supply chains needed for a robust clean energy transition.<sup>55</sup> This report sets out related strategies the federal government could follow, including use of the DPA to develop domestic supply chains related to the production of magnets produced with certain critical minerals.<sup>56</sup> The report also contains recommendations that could require additional authority from Congress.<sup>57</sup> They include that “Congress should consider appropriating adequate funding specifically for the purpose of enabling DOE to utilize Title III of the Defense Production Act to support the production of critical energy technologies ... and take other actions as needed to support and maintain a secure Energy Sector Industrial Base for civilian use.”<sup>58</sup>

In addition to issuing recommendations, DOD has awarded grants to companies to assist in furthering development of the domestic critical mineral supply chain, with focus on a specific group of critical materials: the 17 rare earth elements for which the United States does not currently have any industrial scale extraction capacity.<sup>59</sup> Some examples of DOD’s recent

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<sup>50</sup> Ibid., p. 135. Stationary storage refers to the use of batteries connected to the electricity grid to temporarily store energy for later use.

<sup>51</sup> Ibid., p. 138.

<sup>52</sup> Ibid., p. 140.

<sup>53</sup> Ibid., p. 195.

<sup>54</sup> Ibid., p. 201.

<sup>55</sup> U.S. Department of Energy, *America’s Strategy to Secure the Supply Chain for a Robust Clean Energy Transition*, U.S. Department of Energy Response to Executive Order 14017, “America’s Supply Chains,” February 24, 2022, [https://www.energy.gov/sites/default/files/2022-02/America%20E2%80%99s%20Strategy%20to%20Secure%20the%20Supply%20Chain%20for%20a%20Robust%20Clean%20Energy%20Transition%20FINAL.docx\\_0.pdf](https://www.energy.gov/sites/default/files/2022-02/America%20E2%80%99s%20Strategy%20to%20Secure%20the%20Supply%20Chain%20for%20a%20Robust%20Clean%20Energy%20Transition%20FINAL.docx_0.pdf).

<sup>56</sup> Ibid., p. 45.

<sup>57</sup> Ibid., p. 45.

<sup>58</sup> Ibid., p. 48.

<sup>59</sup> For more information on rare earth elements, see CRS Report R46618, *An Overview of Rare Earth Elements and Related Issues for Congress*, by Brandon S. Tracy.

activities include granting \$28.8 million to the Urban Mining Company to assist with the development of a domestic source of rare earth magnets;<sup>60</sup> \$35 million to MP Materials to assist with the construction of a rare earth element extraction facility;<sup>61</sup> and \$30.4 million to Lynas Rare Earths Ltd. for a rare earth element separation facility.<sup>62</sup>

## Related Congressional Actions: Critical Minerals

In recent years, Congress has included provisions to address critical minerals or materials in various laws, including defense authorization and appropriations acts. This section identifies selected legislation enacted in the 117<sup>th</sup> Congress as of May 17, 2022.<sup>63</sup>

### Selected Legislation Enacted in the 117<sup>th</sup> Congress

As of mid-May 2022, the 117<sup>th</sup> Congress has enacted two measures that provide support for critical minerals or critical materials mining and processing.

The Infrastructure Investment and Jobs Act (P.L. 117-58) includes multiple sections with provisions addressing critical minerals.<sup>64</sup> For example, Section 40205 directs the Secretary of Energy to fund “a facility to demonstrate the commercial feasibility of a full-scale integrated rare earth element extraction and separation facility and refinery.” Section 40206 directs the Bureau of Land Management and the Forest Service to complete the federal permitting and review processes related to critical mineral mines on federal lands with maximum efficiency. Sections 40207, 40208, and 40210 direct the Secretary of Energy to award over \$6 billion in grants related to the supply, processing, and recycling of battery critical materials and minerals. Section 40401 amends the DOE Title XVII loan guarantee program to consider projects that increase the supply of domestically produced critical minerals.<sup>65</sup>

The National Defense Authorization Act for Fiscal Year 2022 (P.L. 117-81) includes provisions directing the Secretary of Defense to create “a demonstration program on recovering rare earth elements and critical minerals from acid mine drainage and other coal byproducts.”<sup>66</sup>

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<sup>60</sup> Department of Defense, “DOD Announces \$77.3 Million in Defense Production Act Title III COVID-19 Actions,” press release, July 24, 2021, at <https://www.defense.gov/News/Releases/Release/Article/2287490/dod-announces-773-million-in-defense-production-act-title-iii-covid-19-actions/>.

<sup>61</sup> DOD, “DoD Awards \$35 Million to MP Materials to Build U.S. Heavy Rare Earth Separation Capacity,” press release, February 22, 2022, at <https://www.defense.gov/News/Releases/Release/Article/2941793/dod-awards-35-million-to-mp-materials-to-build-us-heavy-rare-earth-separation-c/>.

<sup>62</sup> DOD, “DOD Announces Rare Earth Element Award to Strengthen Domestic Industrial Base,” press release, February 1, 2021, at <https://www.defense.gov/News/Releases/Release/Article/2488672/dod-announces-rare-earth-element-award-to-strengthen-domestic-industrial-base/>.

<sup>63</sup> Earlier Congresses also have considered and enacted measures with provisions pertaining to critical minerals or materials. For instance, the 116<sup>th</sup> Congress enacted three laws mentioning critical minerals or critical materials, as used in the context discussed in this report: the National Defense Authorization Act for Fiscal Year 2020 (P.L. 116-92), the Consolidated Appropriations Act, 2021 (P.L. 116-260), and the William M. (Mac) Thornberry National Defense Authorization Act for Fiscal Year 2021 (P.L. 116-283).

<sup>64</sup> For more information on these sections, see CRS Report R47034, *Energy and Minerals Provisions in the Infrastructure Investment and Jobs Act (P.L. 117-58)*, coordinated by Brent D. Yacobucci.

<sup>65</sup> 42 U.S.C. §§16511 et seq. For more information about the program, see CRS Insight IN11432, *Department of Energy Loan Programs: Title XVII Innovative Technology Loan Guarantees*, by Phillip Brown et al.

<sup>66</sup> P.L. 117-81 Title III Operation and Maintenance, Subtitle B—Energy and Environment, Section 320. Demonstration Program on Domestic Production of Rare Earth Elements from Coal Byproducts.

## Congressional Considerations

The President exercises discretion when exercising DPA authorities. However, Congress may consider supporting, limiting, or monitoring the President’s invocation of the DPA for critical minerals mining and processing in relation to large-capacity batteries. Issues and options for Congress may include the following:

- DOD may utilize existing DPA Fund appropriations for any DPA-related projects. Congress could evaluate the sufficiency of available funding for implementation of Section 303 authorities in the Presidential Determination, and, as warranted, appropriate additional funding for federal entities responsible for carrying out related efforts. Congress also may consider whether to appropriate funds specific to critical materials mining activities to carry out Section 303 authorities under the Presidential Determination, as well as what terms and parameters are of use to attach to such funding.<sup>67</sup>
- In a 2022 report, DOE recommended that Congress consider directly appropriate funding to DOE to implement DPA Title III actions to support a clean energy transition.<sup>68</sup> Additionally, some Members of Congress have called upon the President to utilize the DPA to increase manufacturing capacity for technologies that reduce fossil fuel demand, such as “electric heat pumps, efficient electric appliances, renewable energy generation and storage, and other clean technologies.”<sup>69</sup> Congress may consider providing additional appropriations or responsibilities to agencies beyond DOD for DPA actions to secure domestic energy supplies—particularly those undertaken for both civilian and military purposes. As noted above, DOD typically undertakes projects in service to military purposes. Alternatively, Congress may opt to retain existing agency roles relevant to the exercise of DPA Title III authorities and utilization of DPA Fund appropriations.
- As of publication of this report, the President has not invoked DPA authorities beyond Section 303. Congress may consider whether to encourage the President to invoke other DPA authorities, such as Title I authorities to issue priority contracts for critical and scarce supplies or Title VII authorities to enter into voluntary agreements with private industry to help provide for the national defense. Congress may also encourage the President to utilize DPA authorities through passing legislation or resolutions. Alternatively, Congress could

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<sup>67</sup> For example, Congress could support or reject a request for additional emergency supplemental funding (White House, “FACT SHEET: White House Calls on Congress to Provide Additional Support for Ukraine,” press release, April 28, 2022, at <https://www.whitehouse.gov/briefing-room/statements-releases/2022/04/28/fact-sheet-white-house-calls-on-congress-to-provide-additional-support-for-ukraine/>).

<sup>68</sup> U.S. Department of Energy, *America’s Strategy to Secure the Supply Chain for a Robust Clean Energy Transition*, U.S. Department of Energy Response to Executive Order 14017, “America’s Supply Chains,” February 24, 2022, pp. xiv, at [https://www.energy.gov/sites/default/files/2022-02/America%20s%20Strategy%20to%20Secure%20the%20Supply%20Chain%20for%20a%20Robust%20Clean%20Energy%20Transition%20FINAL.docx\\_0.pdf](https://www.energy.gov/sites/default/files/2022-02/America%20s%20Strategy%20to%20Secure%20the%20Supply%20Chain%20for%20a%20Robust%20Clean%20Energy%20Transition%20FINAL.docx_0.pdf); Department of Energy, “DOE Releases First-Ever Comprehensive Strategy to Secure America’s Clean Energy Supply Chain,” February 24, 2022, <https://www.energy.gov/articles/doe-releases-first-ever-comprehensive-strategy-secure-americas-clean-energy-supply-chain>.

<sup>69</sup> Senator Markey et al., Letter to President Biden regarding use of the DPA to increase manufacturing capacity for technologies that reduce fossil fuel demand, March 23, 2022.



discourage the exercise of authorities in the Presidential Memorandum or pass legislation that prohibits the use of DPA authorities for such purposes.

- The DPA requires the President to notify Congress of industrial base shortfalls that warrant the invocation of Section 303(a) authorities.<sup>70</sup> Congress may consider whether changes to this level of reporting and oversight authorities are needed.
- Members of Congress disagree about the use of the DPA to increase domestic mining. As noted, some have called upon the President to exercise DPA authorities to respond to domestic energy shortages. Others have opposed the invocation of the DPA to address domestic mineral supply, as called for in the Presidential Determination, due to “the harmful impacts of mining” on public lands, water and tribal communities.<sup>71</sup> Congress may choose to monitor the consequences of DPA-related mining activities on adjacent tribal communities. Additionally, Congress could consider the desirability of requiring additional oversight or reporting on the impacts of DPA related mining on tribal communities, public lands, and water resources. Congress may additionally decide to revise the President’s authorities to implement the DPA with attention to potential risks to natural resources and tribal communities.

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<sup>70</sup> Section 303 (a)(6) of the DPA; 50 U.S.C. §4533(a)(6).

<sup>71</sup> House Natural Resources Committee, “Chair Grijalva, Rep. Lowenthal Urge Biden Administration Not to Use the Defense Production Act to Increase Mining,” press release, March 29, 2022, at <https://naturalresources.house.gov/media/press-releases/chair-grijalva-rep-lowenthal-urge-biden-administration-not-to-use-the-defense-production-act-to-increase-mining>. See also discussion in U.S. Congress, Senate Committee on Energy and Natural Resources, *Full Committee Hearing On Domestic Critical Mineral Supply Chains*, hearing, 117<sup>th</sup> Cong., 2<sup>nd</sup> sess., March 31, 2022.



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