August 6, 2025

The Honorable Howard Lutnick
U.S. Department of Commerce
1401 Constitution Ave. NW
Washington, DC 20230

Re: Docket ID BIS-2025-0059; XRIN 0694-XC130

Dear Secretary Lutnick,

The Battery Materials & Technology Coalition (BMTC) applauds the Trump administration's increased focus on onshoring the production of Unmanned Aircraft Systems (UAS), also known as drones. We appreciate the opportunity to provide comments to the Department of Commerce (DOC) Bureau of Industry and Security (BIS) on the Section 232 National Security Investigation of UAS and Their Parts and Components and look forward to being a resource to you and your team throughout this investigation and beyond.

Drones play an increasingly important role in modern warfare, which reflects a broader shift in how militaries are adopting advanced technologies. The war in Ukraine has rapidly transformed how drones are utilized on the battlefield, which has boosted the urgency of procuring drones for militaries around the world. Because of operational and tactical advantages such as real-time intelligence, surveillance, and reconnaissance (ISR), precision strike capabilities, and the ability to stay airborne for long periods of time, drones are revolutionizing and excelling tasks which were previously performed by human warfighters.

The global market for military drones is expected to experience significant growth in the coming years, transitioning from a $15.8 billion market in 2025 to $22.8 billion by 2030.[1] In the United States alone, the military drone market is expected to double over a seven-year period, from $5.1 billion in 2023 to $10.71 billion in 2030.[2] This forecasted increase in demand in the U.S. aligns with the defense policies championed by the Trump administration. In July 2025, Defense Secretary Pete Hegseth issued a memo titled "Unleashing U.S. Military Drone Dominance", which outlined a plan for every Army squad to be armed with a drone by the end of fiscal year 2026.[3]

Advanced battery systems are foundational to the performance, endurance, and survivability of drones used by the U.S. military. Batteries serve as the primary energy source for drones, powering propulsion systems, avionics, payloads, and communications equipment. This includes battery capabilities that support powering onboard payloads — including electro-optical/infrared sensors, radar, and signals intelligence equipment — as well as secure communication links, GPS, and autonomous navigation systems. These systems demand reliable and sustained electrical output,

[1] Markets and Markets. Military Drone (UAV) Market Size, Share & Trends, 2025 to 2030. May 2025.
[2] Fortune Business Insights. Military Drone Market Size. July 2025.
[3] Breaking Defense. Hegseth Orders Military to 'Unleash' Use of Small Drones in New Memo. July 2025.

even in contested electromagnetic or low-temperature environments.

In addition, battery energy density directly impacts flight duration, range, and operational flexibility. Continued improvements in lithium-based chemistries will continue to allow for greater endurance and lower acoustic and thermal signatures—key advantages for intelligence, surveillance, and reconnaissance operations. The modular design of most military UAS also allows for quick battery replacement and redeployment, supporting multi-sortie mission profiles.

However, the current dependence on foreign sources for batteries and components presents clear national security risks. Strengthening domestic capabilities across the battery value chain—from raw material extraction to mineral processing to battery assembly—will enhance military readiness and reduce critical vulnerabilities in drones' operations. In our role as a leading voice for the domestic battery supply chain, BMTC understands these sectors firsthand and recognizes the urgent need to take steps to counter one of our primary foreign adversaries with unnecessarily outsized control over these global markets – China.

China dominates the global supply chain for many critical minerals – including those for batteries such as graphite, lithium, manganese, nickel, and cobalt – and abuses its production capability by creating more supply than demand. China's control goes beyond U.S. definitions for critical minerals, with dominance over global silicon and recycled battery materials as well - both of which are essential to the security of the battery supply chain.

In addition, China has established a commanding lead in the growth of the global drone industry, across commercial and consumer sectors. This leadership is fueled by China's exceptional manufacturing scale, vertically integrated supply chains, and aggressive pricing strategies that have significantly undercut international competitors. Chinese manufacturers are responsible for an estimated 80% to 90% of all commercial and consumer drones sold worldwide. At the forefront is Shenzhen-based Da Jiang Innovations (DJI), which alone holds between 70% and 80% of the global civilian drone market. Within the United States, Chinese-made drones account for over 90% of those used by public safety agencies, with DJI systems representing the overwhelming majority.[4] China's dominance is further evidenced by its export volume; nearly five million drones were exported in 2023, contributing to a total export value of more than $15 billion over the past five years.[5] Chinese drones are widely adopted across regions including Southeast Asia, Europe, Africa, and the Americas, solidifying China's role as both the largest producer and exporter of unmanned aerial systems globally. This dominance is supported by substantial government initiatives such as export subsidies, R&D funding, and favorable procurement policies tied to national industrial strategies like "Made in China 2025" and "Military-Civil Fusion."[6]

Furthermore, China's grip extends throughout the entire supply chain. In addition to batteries, Chinese companies lead the global market for essential drone components, such as motors, sensors, and flight controllers. Notably, over 70% of the world's drone motors and lithium-ion battery packs are manufactured in China.[7] This vertical integration enables rapid scaling and the ability to provide comprehensive solutions at prices that are typically 30% to 50% lower than U.S. and European competitors.

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[4] DJI. Congress Wants To Cut Off China-Made Drones. September 2024
[5] China's Ministry of Industry and Information Technology (MIIT), 2024.
[6] Mercator Institute for China Studies (MERICS). Made in China 2025. 2020.
[7] Drone Industry Insights. Global Drone Supply Chain Disrupted: Crisis and Opportunity. May 2025.

The widespread use of Chinese drones has triggered significant national security concerns, particularly regarding the potential for sensitive data to be managed by servers based in or controlled from China. Investigations and assessments from U.S. defense and security agencies have highlighted risks tied to possible software vulnerabilities, encrypted data transmission, and embedded surveillance features. All these risks are heightened when drones are used in proximity to critical infrastructure or in government operations.

It is well known that China engages in hostile market practices by manipulating the price of products throughout the global battery supply chain. It is BMTC's belief that China is replicating the same playbook in the global drone supply chain. Via both government and industry efforts, China employs a variety of demand and supply side policies, subsidies, and other military and economic actions in a concerted effort to deter the maturation of foreign competitors. As part of its effort to establish global dependence, China has established creative footholds across the globe that grant it an immense influence and control over these global markets, often to circumvent U.S. protections against China or to even access U.S. public incentives. These factors not only make China a prime target for the Section 232 investigation but also several additional countries - such as Morocco, Indonesia, and the DRC - in which China establishes significant and troubling satellite operations to circumvent U.S. restrictions.

As part of the U.S. effort to combat China's dominance of the global battery and drone markets, domestic sourcing requirements utilized by the Pentagon are playing an important role. Provisions enacted in recent iterations of the National Defense Authorization Act (NDAA) have served as vital signals to spur the growth of the domestic market, most notably Section 848 of the FY20 NDAA, Section 154 of the FY24 NDAA, and Section 883 of the FY25 NDAA. These provisions, among others, prohibit DOD from procuring drones and components from FEOCs or sourcing batteries from several Chinese entities, and mandates the development of a domestic battery procurement framework in partnership with allies. Once in full effect, these policies, coupled with Section 232 tariffs, can better level the playing field and boost U.S. competitiveness with China in the global battery and drone markets.

It is crucial that the U.S. establish supply chains that are anchored by high labor standards, resistant to geopolitical disruptions, and reduce dependence on China. In addition to this investigation, Commerce could consider implementing novel mechanisms to identify when Chinese industry subverts existing guardrails that seek to prevent certain products from entering U.S. markets. Strategic cooperation with our allies is also paramount to establishing new and fortified supply chains. Only through productive, collaborative partnerships can the U.S. secure independent supply chains for critical materials that are unavailable domestically.

Section 232 tariffs are a critical tool to counteract foreign threats and protect U.S. national security. Given that drones are increasingly important to our defense and security needs, this effort is an important step forward. BMTC thanks you for your attention to this and looks forward to working with you on this initiative.

Sincerely,
Ben Steinberg
Battery Materials & Technology Coalition