The Pentagon’s Next Power Play and the Top 10 Critical Mineral Companies It May Be Watching

written by Tracy Hughes | August 20, 2025

In the high-stakes contest of global power, critical minerals – such as rare earths, graphite, cobalt, lithium – have become strategic levers for nations. For decades, the United States and Europe grew quietly dependent on China’s near-monopoly over these supply chains. Now, rising trade tensions have changed the game. Beijing has begun weaponizing exports – imposing controls on graphite, gallium, and other key inputs – sending the West scrambling for alternatives. Washington’s response has been sweeping: new tariffs, “friend-shoring” deals with allies, and even resorting to Cold War-era emergency laws that place speed ahead of protocol in securing industrial capacity.

Nowhere is this shift clearer than in critical minerals. Under the Defense Production Act (DPA) and related authorities, the U.S. government is intervening directly in markets to spur domestic production of materials vital to defense, energy, and high-tech manufacturing. This marks a break from free-market orthodoxy. As one analyst observed, it’s almost *“Chinese-style”* industrial policy – an ironic turn for a nation that long preached laissez-faire. But officials argue the stakes are too high: America cannot afford to wait a decade for private capital to resolve supply risks in defense and clean energy.

MP Materials: The Precedent-Setting Deal

Consider **MP Materials Corp. (NYSE: MP)**, owner of the Mountain Pass rare earth mine. In July 2025, the Pentagon struck a deal unprecedented in U.S. industrial policy. The Department of Defense quietly purchased $400 million of MP's preferred stock – instantly becoming its largest shareholder – and guaranteed a ten-year floor price around double prevailing market levels for the magnet metals neodymium-praseodymium (NdPr). In essence, the government is underwriting MP's new magnet factory and committing to buy its *entire* output of rare earth magnets at an inflated price. This is **not** a loan or subsidy; it's an equity stake coupled with a long-term offtake contract.

To expedite the deal, the administration dusted off a seldom-used DPA provision from the Cold War era, effectively sidestepping normal procurement rules. The move drew criticism from free-market watchdogs – some likened it to Beijing's heavy-handed interventions – but it underscores a hard truth: the U.S. has decided it cannot wait for market forces to fix a strategic vulnerability. Beijing's recent export curbs were a Sputnik moment, exposing that America's industrial base lacked resiliency. Washington's answer was to act decisively, even if it meant bucking orthodoxy.

For MP shareholders, the Pentagon partnership is game-changing. Analysts expect MP's rare earth oxide capacity to expand from about 3,000 to 10,000 tonnes annually by decade's end. With the U.S. government effectively pledging to absorb production, revenue visibility has transformed. A guaranteed floor price shields MP from price swings, funding expansion and making cash flows more predictable. We are watching a commodity miner turn into a *strategic national asset*. Its valuation could start to

resemble a defense contractor's more than a miner's – along with the scrutiny that comes from taking Uncle Sam's dollar. Governance hawks are already eyeing this precedent-setting deal and its implications for market fairness.

Importantly, Washington needs MP Materials to succeed. This opening move will set the tone for future deals. (The Pentagon has already committed US$258 million to Australia's Lynas Rare Earths for a Texas separation plant—evidence that MP is no one-off.) One thing is clear: the United States will not rely on unfriendly powers for the minerals that underpin fighter jets, EVs, and the power grid. "Washington just fired the starter's pistol," says Tracy Hughes, Executive Director of the Critical Minerals Institute (CMI). "MP Materials is merely the first proof point; everyone in the critical minerals industry must now realize that the Pentagon is prepared to write equity cheques and lock in pricing to secure the metals America needs." In short, MP may be the first beneficiary, but it will not be the last.

Selection Criteria: Who Might Be Next?

So who might be next in line for a deal with Uncle Sam? Below we identify ten publicly listed companies that could attract the U.S. Department of Defense's eye – and wallet – in the near future. These firms span the **critical minerals** spectrum and align with several key criteria:

- **Strategic Importance:** Each company is tied to minerals on the Critical Minerals Institute's Top 24 Watchlist for 2025, including multiple of the Institute's Top Five – **rare earth elements, copper, gallium, uranium,** and **cobalt**. In short, they work in materials deemed essential for

industrial and national security.

- **Government Engagement:** Many have already received DoD or DOE grants, loans, or contracts since 2022 — a strong signal of confidence. Prior funding under the DPA or via state programs suggests these companies are viewed as promising partners in securing supply chains.
- **Allied-Friendly and Domestic Projects:** All are based in, or operating in, the U.S. or allied nations (Canada, Australia, Chile). Washington is prioritizing "friend-shoring" — sourcing from partners rather than geopolitical rivals — and is prepared to support projects in friendly jurisdictions.
- **Stage and Scale:** These candidates are at an advanced stage of development or expansion. Most have either producing assets or well-defined projects that could deliver new supply within a few years. In many cases, an injection of capital or an offtake guarantee could accelerate a ramp-up critical to U.S. needs.
- **Public Market Presence:** All companies are publicly traded, meaning any government partnership could unlock immediate value for investors and demonstrate to Wall Street that critical minerals ventures can be lucrative when aligned with national strategy.

In applying these criteria, we cast a global net. The list below includes companies in rare earths, lithium, graphite, uranium, and cobalt — reflecting the top priorities for Western supply-chain security. Notably, we exclude MP Materials itself, since it has already secured its landmark deal. The focus now is on the *next wave* — the potential "hit list" of critical minerals players poised to become strategic national assets.

Ten Critical Minerals Companies Likely on the DoD’s Radar

#1. **Ramaco Resources, Inc. (NASDAQ: METC) – Rare Earths from Coal**

This Kentucky-based coal company made headlines with an unlikely pivot: extracting rare-earth elements from coal seams. In 2023, Ramaco announced the discovery of a major rare-earth deposit at its Brook Mine property in Sheridan, Wyoming. The estimated resource of 1.7 million tons of rare-earth oxides embedded in coal and clay is strategically significant – potentially one of America’s largest unconventional REE deposits. In July 2025, Ramaco broke ground on what is slated to be the first new U.S. rare-earth mine in over 70 years. The project has garnered robust support: the Department of Energy’s National Energy Technology Laboratory helped fund early research, and Wyoming’s government awarded a $6.1 million grant to kick-start a pilot rare-earth processing plant. Ramaco’s approach of extracting medium-to-heavy rare earths from coal by-products is pioneering. While average REE concentrations are lower than traditional mines, the value per ton could be attractive with advanced processing. The Brook Mine’s timeline – pilot production by 2026, commercial facility thereafter – aligns with U.S. ambitions to re-shore refining capacity urgently. The presence of former officials (even a retired U.S. senator) on Ramaco’s board underscores its political connectivity. If Ramaco can demonstrate viable rare-earth output from coal – essentially turning coal waste into a strategic asset – it stands as a model for innovation. The Pentagon has identified China’s REE “magnet-supply chokehold” as a national-security risk. A domestic source like Ramaco, backed by state and federal support, could well attract further DoD investment to ensure this unconventional mine reaches its full potential.

#2. **Lynas Rare Earths Ltd. (ASX: LYC) – Non-China Rare Earth Champion**

Australia's Lynas is currently the world's largest rare-earth producer outside China, mining REEs from its Mount Weld deposit and processing them in Malaysia. Lynas has already landed on Washington's radar in a big way: in 2022 the DoD awarded Lynas $120 million to build a heavy-rare-earth separation plant in Texas, and this year that contract was boosted to about $258 million as costs rose. This plant, slated to open by 2026, will be the first of its kind in the U.S., capable of separating the more elusive heavy REEs like dysprosium and terbium. For the Pentagon, partnering with Lynas is a two-pronged strategic win. First, it strengthens an ally's capacity – Australia is a stalwart partner, and Lynas's rise was originally financed by Japan to break China's stranglehold in 2010. Second, it jump-starts U.S. domestic processing without waiting to develop new mines. Lynas will ship concentrate from Australia to feed the Texas facility, ensuring a secure supply chain from mine to magnet. Lynas's role in U.S. strategy is so central that it was explicitly cited when Australian and British firms were made eligible for U.S. defense funding under new legislation. The company has had its challenges – its Malaysian refinery faced environmental hurdles – but it remains a cornerstone of non-Chinese rare-earth supply. If Lynas successfully delivers the Texas plant, it wouldn't be surprising to see additional U.S. support for Lynas expansions or partnerships (perhaps even downstream magnet production) to further integrate it into American supply lines. Lynas also exemplifies "friend-shoring": leveraging an allied nation's resources and expertise to solve a critical vulnerability. Given that rare earths (especially the magnet "core four") remain front and center on every critical list, Lynas's continued success is a bellwether. It's already on the DoD's payroll, and it stands as a likely recurring partner as the U.S. solidifies its Mine-to-Magnet value chain.

#3. **Albemarle Corporation (NYSE: ALB) – Lithium Leader with Domestic Ambitions**

Albemarle is the world's largest lithium producer, a U.S.-based company with a truly global footprint – from Chile's Atacama salar to the only active U.S. lithium mine (Silver Peak, Nevada). Albemarle is unique on this list because it's a big-cap, profitable enterprise, not a junior miner. Yet it has become a target for U.S. strategic funding as lithium's importance soars. In September 2023, the Pentagon awarded Albemarle a $90 million grant to help reopen its Kings Mountain lithium mine in North Carolina. Those funds, provided under the DPA using Inflation Reduction Act money, will go toward mining equipment and site development. This follows a $149.7 million DOE grant in 2022 to build a lithium processing plant in North Carolina. Lithium is critical for EV batteries and grid storage, and U.S. demand is projected to vastly outstrip domestic mine output for the foreseeable future. Kings Mountain was idled decades ago when cheaper foreign supply undercut it; now Washington is paying to resurrect it. Albemarle aims to have Kings Mountain producing by late 2026, marking the first newly reactivated U.S. lithium source in years. The company is also exploring a major lithium-clay project in Nevada and expanding processing in the U.S. By de-risking these projects, the government signals that domestic lithium will be met with public-private cooperation, making Albemarle both a beneficiary and a linchpin of U.S. critical-mineral policy.

#4. Neo Performance Materials Inc. (TSX: NEO | OTCQX: NOPMF) – Heavy Rare Earth Magnet Producer & Gallium Powerhouse

Neo is the rarest of hybrids: a 30-year specialist that can **both** separate heavy rare-earth oxides and refine gallium—two supply chains Beijing has lately put in the crosshairs. Its new US$75 million magnet complex in Narva, Estonia shipped first sintered-magnet samples to a Tier-1 EV motor customer in April 2025 and

began volume production in May; early orders command a US$10–30-per-kg premium as automakers and defense primes seek ex-China metal. Adjacent pilot circuits are being installed to deliver dysprosium- and terbium-rich oxides, creating the West's first integrated heavy-REE magnet hub.

Just as strategically, Neo is North America's sole recycler-upgrader of high-purity gallium, operating a refinery in Peterborough, Ontario, that converts scrap and low-grade feed into semiconductor-grade metal. With China having restricted gallium exports in 2024–25, Neo's capacity has become indispensable for LED, power-electronics, and radar producers; management notes "strong demand and higher prices" drove a 22 percent jump in Q2-2025 adjusted EBITDA.

Feedstock security and capital remain the gating items. A U.S. DoD offtake or cost-share could unlock a planned North-American magnet plant, marry Neo's gallium and rare earth expertise under one umbrella, and give the Pentagon first-call access to the heavy-REE magnet producer and gallium refiner operating entirely outside China's orbit.

#5. **Ucore Rare Metals Inc. (TSXV: UCU | OTCQX: UURAF) – RapidSX™ Refinery for a Mine-to-Magnet Revival**

Fresh from a US $18.4 million Phase 2 award—the Pentagon's largest single tranche yet for a rare earth processor—Ucore is racing to complete its Strategic Metals Complex (SMC) at England Airpark in Alexandria, Louisiana. The first commercial RapidSX™ module will come online in 2026 at 2 000 t/y of separated oxides and is pre-engineered to expand to 5 000 t/y by 2028—enough to cover roughly one-third of projected U.S. magnet demand outside China.

At the heart of the project is RapidSX™, a column-based system that strips out neodymium, praseodymium, dysprosium, and terbium

up to ten times faster and with a far smaller footprint than legacy solvent extraction. The process is feedstock-agnostic: Ucore has offtake options ranging from Australian concentrates to North-American monazite and future supply from its own Bokan Mountain deposit in Alaska, giving defense planners flexibility while delivering the first independent U.S. heavy-REE refinery since 2002.

#6. **Energy Fuels Inc. (NYSE-A: UUUU | TSX: EFR) — America's Uranium Champion Becomes a One-Stop Critical Minerals Hub**
Utah-based Energy Fuels has produced roughly two-thirds of all U.S. uranium since 2017, making it the country's undisputed #1 domestic source of U_3O_8—an advantage anchored by White Mesa, the nation's only operating conventional uranium mill. Recent output underscores that dominance: the Pinyon Plain mine shipped 638,700 lb of ore in Q2-2025 alone, well ahead of plan, while higher uranium prices and federal fuel contracts have pushed the company's 2025 production guidance up another 22 percent.

White Mesa is now evolving into a vertically integrated critical minerals refinery. Phase 1 circuits already upgrade monazite into 1,000 t/y of mixed rare earth carbonate; Phase 2, in permitting, would lift capacity to ~13,000 t and enable full separation of NdPr, dysprosium, and terbium oxides—exactly the heavy elements that China is threatening to weaponize. The mill is stockpiling feedstock and, as of August 2025, holds 37 t of separated NdPr oxide plus samarium-plus carbonate ready for downstream magnet makers.

With uranium, vanadium, and rare earths all processed on a single, licensed site, Energy Fuels offers the Pentagon and clean-energy supply chains a uniquely "all-American" answer to nuclear-fuel security and magnetic-material independence—one that could be scaled quickly if a DoD offtake or grant arrives.

#7. **Syrah Resources Ltd. (ASX: SYR) – Graphite Supplier Bridging Africa and Louisiana**
Syrah's Balama mine in Mozambique feeds a battery-grade graphite-anode plant in Vidalia, Louisiana, financed partly by a $102 million DOE loan. Construction is well advanced; first-phase capacity of about 10 000 t/year will dent China's dominance of anode material. The Pentagon, which added graphite to the National Defense Stockpile list, could underpin further expansions or secure offtake contracts to double output, making Syrah a cornerstone of non-Chinese graphite supply.

#8. **Graphite One Inc. (TSXV: GPH | OTCQX: GPHOF) – Alaska-to-Gigafactory Graphite Loop**
Graphite One controls the largest known U.S. natural-graphite resource at Graphite Creek, Alaska, plus plans for a Washington-state anode plant with integrated recycling. A $37.5 million DoD grant (July 2023) funds feasibility work, with up to $325 million in additional federal financing contingent on milestones. The project aims to deliver the first fully domestic mine-to-anode-to-recycling graphite chain by late decade, closing a glaring gap in U.S. EV and defense battery supply.

#9. **Ioneer Ltd. (ASX: INR | Nasdaq: IONR) – Rhyolite Ridge Lithium-Boron**
Ioneer's Nevada project secured a conditional DOE loan of up to $700 million in 2023—the first ATVM mining deal. Forecast to supply lithium for 370 000 EVs annually and strategic boron for magnets and armor, the mine awaits final permits after addressing an endangered wildflower. Once cleared, the Pentagon could lock in boron via offtake agreements, cementing Rhyolite Ridge as a dual-critical U.S. asset.

#10. **Jervois Global Ltd. (ASX: JRV) – Cobalt from Idaho for Defense and EVs**
Jervois's Idaho Cobalt Operations is the only primary U.S.

cobalt mine. A $15 million DoD Title III agreement (June 2023) funds drilling and refinery studies aimed at reducing dependence on Congo-China supply chains. Market prices temporarily idled the mine, but defense planners view cobalt as essential for aerospace super-alloys and next-gen batteries. Further DoD support could help restart ICO and finance a domestic refinery, securing a Top-Five critical mineral for U.S. industry.

Conclusion

The MP Materials deal has made one thing abundantly clear: Washington will no longer sit passively and trust the free market to secure critical mineral supply chains. We have entered a new era of resource policy—one in which governments willingly pick winners (and losers), invest directly in companies, and even guarantee revenues in the name of strategic resilience. For investors, the implications are profound. Firms that earn a "critical" designation and align themselves with national priorities can unlock subsidized financing, assured offtake, and fast-tracked permitting. The challenge will be converting that strategic importance into long-term shareholder value without sacrificing agility or becoming politicized.

The ten companies profiled here may be among the next beneficiaries of this grand realignment. Each tackles a choke-point—whether rare-earth magnets, battery graphite, or nuclear fuels. The Critical Minerals Institute's 24-element watchlist shows how wide the risk map has grown; it now includes staples such as steel and aluminum. Even the current Top Five (copper, uranium, gallium, rare earths, cobalt) could shift with technology advances and geopolitical shocks. Six months from now, a breakthrough in gallium refining or a crisis in nickel could reshuffle the deck.

One thing is certain: public-private alliances for supply-chain

security are here to stay. Critical mineral policy has become a global situational dashboard that demands constant coordination between governments and markets. The United States, in particular, is poised to deploy more capital—and slice through more red tape—to ensure access to the building blocks of the twenty-first-century economy. For the companies on this list, and those that follow, the moment is ripe: execute well, and they will not merely book profits; they will stand as pillars of a new industrial base, one less vulnerable to the whims of adversaries. In the contest for technological and economic leadership, that may prove to be the most valuable dividend of all.

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