

Some potential winners from the White House commitment to 'Securing a Made in America Supply Chain for Critical Minerals' Announcement

Could this be the moment the USA finally takes some actions towards supporting critical minerals supply chains? The big news in the world of securing domestic supplies of critical minerals for the USA last week were two key announcements by the White House:

- *FACT SHEET: Securing a Made in America Supply Chain for Critical Minerals – Biden-Harris Administration, Companies Announce Major Investments to Expand Domestic Critical Minerals Supply Chain, Breaking Dependence on China and Boosting Sustainable Practices.*
- *DOE Releases First-Ever Comprehensive Strategy to Secure America's Clean Energy Supply Chain – DOE Report Includes Over 60 Actions to Enhance Supply Chain Resiliency, Spur Domestic Manufacturing Capacity, and Create Millions of Good Paying Jobs for American Workers.*

Additionally, the first article linked above refers to earlier reports (E.g: America's Supply Chains) and states: "the reports recommended expanding domestic mining, production, processing, and recycling of critical minerals and materials – all with a laser focus on boosting strong labor, environmental and environmental justice, community engagement, and Tribal consultation standards."

The takeaway here is that investors looking to benefit from the new White House initiatives need to look for U.S. domestic critical mineral projects, processing projects, and recycling projects. A U.S. processing project would include Energy Fuels Inc. (NYSE American: UUUU | TSX: EFR) rare earths processing at their White Mesa mill in Utah, USA. Today I will focus on the U.S. critical minerals projects.

China has dominated the critical minerals supply chain, leaving the U.S. vulnerable this decade

After many years of talk and very limited action, it appears the USA may finally be waking up to the need to urgently support and facilitate domestic U.S. critical minerals supply chains. Those of us involved in the manufacturing industry know that for years China has been buying up and controlling the critical minerals' supply chains. The consequences are that China now completely dominates the supply chains for lithium-ion batteries, electric vehicles, wind energy, and solar energy. These are multi-trillion-dollar industries, but if you cannot access the raw materials then you cannot produce a product. We saw that in 2021, with semiconductor shortages slowing the U.S. auto industry, and we are seeing it again now with lithium-ion battery shortages leading to a limited supply of domestically produced EVs, despite enormous consumer demand. Tesla has an estimated 1.3 million pre-orders for its Cybertruck but has delayed production until 2023 due to not having enough lithium-ion batteries.

Green energy from solar, wind, and nuclear will increasingly power electric vehicles



Companies that may benefit from U.S. support of the critical minerals industry

Looking through the White House announcement gives us several clues:

1. “These minerals—such as **rare earth elements, lithium, and cobalt**.....As the world transitions to a clean energy economy, global demand for these critical minerals is set to skyrocket by 400-600 percent over the next several decades, and, for minerals such as **lithium and graphite** used in electric vehicle (EV) batteries, demand will increase by even more—as much as 4,000 percent.....will also discuss **\$3 billion** in BIL funding to invest in refining battery materials such as **lithium, cobalt, nickel, and graphite**“
2. “President Biden will announce that the Department of Defense’s Industrial Base Analysis and Sustainment program has awarded MP Materials Corp. (NYSE: MP) **\$35 million** to separate and process heavy rare earth elements at its facility in Mountain Pass, California.”
3. “Berkshire Hathaway Energy Renewables (BHE Renewables) will announce that this spring, they will break ground

on a new demonstration facility in Imperial County, California, to test the commercial viability of their sustainable lithium extraction process from geothermal brine.....In addition to BHE Renewables, Controlled Thermal Resources (CTR) and EnergySource Minerals have established operations in Imperial County to extract lithium from geothermal brine.”

4. “Redwood Materials will discuss a pilot, in partnership with Ford and Volvo, for collection and recycling of end-of-life lithium-ion batteries at its Nevada based facilities to extract lithium, cobalt, nickel, and graphite.”
5. “Tesla intends to source high-grade nickel for EV batteries from Talon Metals’ Tamarack nickel project.”
6. “DOE, DOD, and the Department of State signed a memorandum of agreement (MOA) to better coordinate stockpiling activities to support the U.S. transition to clean energy and national security needs.”

The winners of the U.S. critical minerals policy should be those with projects in the USA which are focused on critical minerals (rare earths, lithium, cobalt, nickel, graphite), critical minerals processing and critical minerals recycling. Needless to say, they will need to pass environmental and permitting rules and support local communities and American jobs.

Of the companies mentioned above, MP Materials and Talon Metals are the only two that are listed. BHE Renewables, Controlled Thermal Resources (CTR), EnergySource Minerals, and Redwood Materials are all private companies.

MP Materials Corp.

MP Materials Corp. (NYSE: MP) owns and operates the Mountain Pass open pit rare earths mine facility, located in Mountain Pass, California, USA. Mountain Pass plans to have an output containing 5,000 metric tons of neodymium and praseodymium

(NdPr), starting in ~2022. MP Materials also plan to have their own Heavy Rare Earth separation facility at their Mountain Pass Mine. As discussed above MP Materials have now been awarded a DoD contract (refer to the US\$35 million in point 2 above). MP Materials Chairman and CEO, James Litinsky, stated: "The ability to mine, process, and refine rare earths at Mountain Pass is foundational to a national effort to secure the U.S. rare earth supply chain.....We thank the Department of Defense for its confidence and support."

MP Material's stage III plan is to develop a rare earth metal, alloy and permanent magnet manufacturing facility in Fort Worth, Texas. MP Materials has an agreement to supply General Motors (GM) with magnets to be used in EV motors for the Hummer EV, Cadillac Lyriq, Chevrolet Silverado EV, and more than a dozen models using GM's Ultium platform.

Talon Metals Corp.

Talon Metals Corp. (TSX: TLO) has a JV with Rio Tinto (ASX: RIO) at their Tamarack nickel-copper-cobalt Project in Minnesota, USA. Talon owns 50% but can earn-in to a 60% share of the Project. Talon recently announced a 5-year nickel supply agreement with Tesla (NASDAQ: TSLA).

Other critical mineral companies with USA projects

Lithium – Lithium Americas Corp. (NYSE: LAC | TSX: LAC), Standard Lithium Ltd. (TSXV: SLI | NYSE.A: SLI), Piedmont Lithium Inc. (NASDAQ: PLL | ASX: PLL) (have a supply deal with Tesla), Cypress Development Corp. (TSXV: CYP | OTCQX: CYDVF), Ioneer Ltd (ASX: INR), Albemarle Corporation (NYSE: ALB).

Cobalt – Jervois Global Limited (ASX: JRV | TSXV: JRV), Electra Battery Materials Corporation (TSXV: ELBM | OTCQX: ELBMF) (previously First Cobalt), Global Energy Metals Corporation (TSXV: GEMC | OTCQB: GBLEF).

Graphite – Westwater Resources, Inc. (NYSE American: WWR),

Syrah Resources Limited (ASX: SYR) (spherical graphite plant planned for USA).

Nickel – Global Energy Metals Corporation (TSXV: GEMC | OTCQB: GBLEF).

Rare Earths – Lynas Rare Earths Limited (ASX: LYC) (rare earths processing plant planned for USA).

Li-ion batteries – Magnis Energy Technologies Limited (ASX: MNS) – New York battery factory.

Li-ion battery recycling – Li-Cycle Holdings Corp. (NYSE: LICY) – Partnership with GM and LGES's Ultium JV for a battery recycling facility in Ohio.

Closing remarks

In addition to the above-mentioned companies with U.S. projects it should be noted that allied countries such as Canada and Australia will also be needed to help supply critical materials. Several of these companies can be found here in our InvestorIntel member's page.

The USA's domestic production of green energy and the associated need for critical materials supplies has long been a major weak point for the USA to compete with China. It does look like the USA is finally taking some **actions** to catch up, albeit still about a decade behind China.

Investors can look to play this catch-up trend, and as we saw with Tesla, if you invest early the sky is the limit.

Disclosure: The author is long Tesla (NASDAQ: TSLA), MP Materials (NYSE: MP), Lithium Americas (TSX: LAC), Piedmont Lithium (ASX: PLL), Jervois Global (TSXV: JRV), Electra Battery Materials (TSXV: ELBM), Syrah Resources (ASX: SYR), Lynas Rare Earths (ASX: LYC), and Magnis Energy Technologies (ASX: MNS).