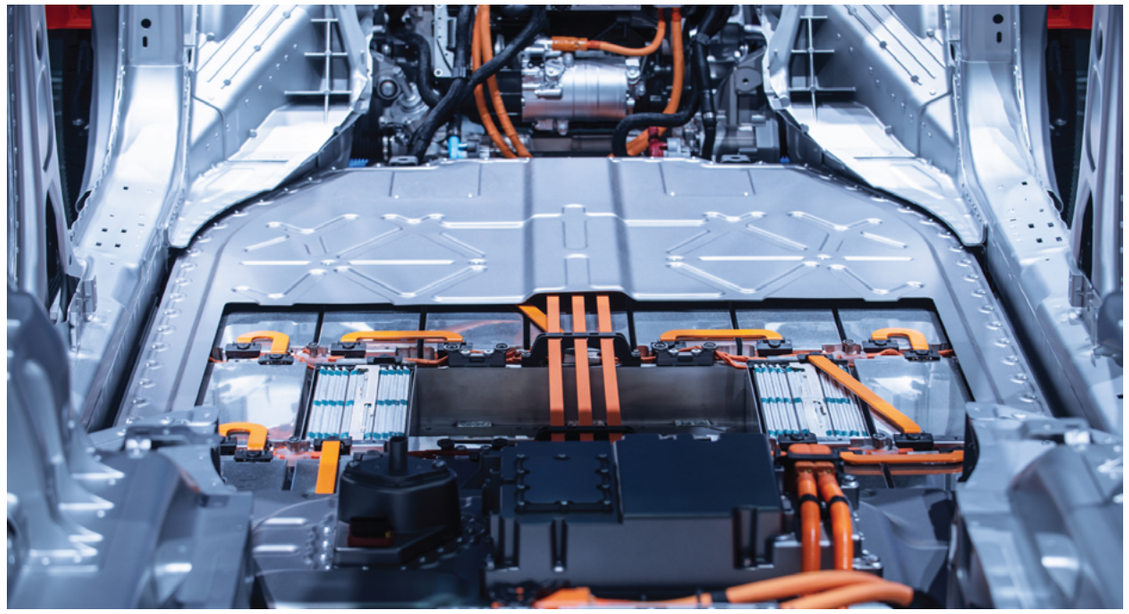
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By AVERY LARKIN



A New Infusion for Domestic Mineral and Battery Supply Chains

The latest round of Battery Materials Processing and Battery Manufacturing and Recycling grants will award $500 million to a range of domestic projects.

With the goal of curbing the U.S.' reliance on China and other mineral-producing countries, the U.S. Department of Energy (DOE) recently rolled out $500 million in new grants. The infusion will be allocated to seven different projects and focuses on expanding critical mineral and material processing, battery manufacturing and recycling capacity in the U.S., according to the DOE.

"For too long, America has depended on foreign actors for critical materials essential to modern life that underpin our economy, energy security, and national security," said U.S. Secretary of Energy Chris Wright, in a statement. The ultimate goal is to bring "critical materials production and processing back to the United States."

This new round of grants marks the third round of funding from DOE's Battery Materials Processing and Battery Manufacturing and Recycling programs, which support battery materials processing, recycling, and manufacturing projects. The programs support demonstration projects, construction of commercial-scale facilities and retrofitting or retooling existing facilities.

The Need is Real

The production of advanced batteries depends heavily on critical minerals like lithium, cobalt, nickel, copper, manganese and graphite, "whose extraction and processing are predominantly under Chinese control," *Battery Technology* reports. Citing recent data, it says China holds approximately 94% of the market share for LFP (lithium iron phosphate) battery production capacity and provides 70% of global processed lithium production.

All told, the U.S. imports nearly three-quarters of its lithium-ion batteries from China, which holds a "commanding position in the global battery supply chain," the Council on Strategic Risks adds, "[and controls] a substantial share of the entire value chain from upstream mineral extraction and refinement to downstream anode, cathode, and finished battery production."

This dominance has become increasingly problematic with the 2024 National Defense Authorization Act prohibiting the Defense Department from "procuring batteries containing Chinese-sourced materials beginning in October 2027," *Battery Technology* adds, "creating urgency for domestic supply chain development."

Who Gets the Funding?

According to *Reuters*, the DOE received hundreds of applications for this third round of funding from its Battery Materials Processing and Battery Manufacturing and Recycling programs. Those chosen "were most promising and had the highest return for Americans in the most-needed areas of the battery ecosystem," said Audrey Robertson, the department's assistant secretary.

Among the recipients:

- Lilac Solutions will receive $100 million for a direct lithium extraction processing facility on Utah's Great Salt Lake. The company expects to open the facility by 2028 and produce 5,000 metric tons per year of the metal, Reuters reports.

- Jervois, which controls a large cobalt deposit in Idaho, will also receive $100 million to build the country's only refinery for that metal, used to make batteries, electronics and a range of weapons.

- Nth Cycle, a battery recycler backed by Trafigura, is receiving $100 million for a facility to process battery metal scrap known as black mass.

Reuters says DOE is also giving $50 million each to Princeton NuEnergy, which reprocesses cathode battery parts; Arcanum Ventures, which makes chemicals for battery electrolytes; and Coreshell Technologies, which is developing battery anodes made with silicon.

"Coreshell Technologies will receive $50 million to establish U.S. manufacturing capacity for silicon-anode Li-ion electrodes and cells, replacing imported graphite with domestically sourced metallurgical silicon," *Mining Technology* reports, noting that the project combines Coreshell's silicon-anode technology with dry-coating cathode technology, and is focused on establishing the first U.S. gigafactory dedicated to silicon-anode battery production.

The latest awards add to around $40 billion in provisional U.S. government funding for mineral projects since 2022, with the funding spanning grants, loans, equity investments and other forms of support. "The DOE said the first two funding rounds had already awarded $1.82 billion to 14 projects," *Mining Technology* adds, "covering lithium, graphite, battery components and recycled materials."