

Nevada battery recycler wins \$2B loan from Energy Department

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Energy Secretary Jennifer Granholm gets into the passenger seat after test driving a Ford F-150 Lighting all electric vehicle during a visit to the Washington Auto Show in Washington, Wednesday, Jan. 25, 2023. Credit: AP Photo/Andrew Harnik

A Nevada company that recycles batteries for electric vehicles has won a

\$2 billion green energy loan from the Biden administration.

Redwood Materials, a recycling venture founded by the former chief technology officer at Tesla Inc., secured the conditional loan from the Energy Department's Advanced Technology Vehicles Manufacturing program, which helped Tesla more than a decade ago.

Energy Secretary Jennifer Granholm announced the grant Thursday at Redwood's facility in Nevada with Gov. Joe Lombardo, where they spoke from a stage to dozens of employees.

"This region is leading the way to a broader story of what is happening in the country," Granholm said, pointing to a map of 80 manufacturing or supply chain companies that are expanding or opening in the U.S. Most have been announced in response to the infrastructure law President Joe Biden signed in 2021 and [the climate law he signed last year](#), she said.

Battery recycling will help the U.S. establish its own electric-vehicle supply chain, a major goal of the Biden administration as it seeks to move away from gas-powered cars in the larger fight against climate change. Biden also has promoted domestic production of critical minerals used in EVs and other electronics, as part of the climate fight and to counter China's longtime dominance in the supply chain.

The Energy Department said its conditional commitment demonstrates its intent to finance the Nevada project, but several steps remain before officials approve a final loan.

Redwood Materials was founded in 2017 by Jeffrey "JB" Straubel, Tesla's former chief technology officer. It now has more than 300 employees who recycle used batteries and has supply contracts with Ford and with Panasonic, which makes batteries for Tesla.

Straubel said the company already has more material than it can process from spent consumer batteries from lawnmowers, cellphones and toothbrushes, as well as production scraps from lithium-ion battery manufacturing.

The company says it can recover more than 95% of the elements in a spent battery, including lithium, nickel, cobalt, manganese, and copper. The metals are then used to make anode and cathode components for new battery cells.

Redwood Materials "is going to play this outsized role in bringing the batteries supply chain home—because you're focused on the pieces that we don't have in the United States," Granholm told employees at Thursday's event. "You guys are making history in this."

Redwood Materials is expected to create about 3,400 construction jobs and employ about 1,600 full-time workers, the department said.

Redwood Materials' history in Nevada started under former Republican Gov. Brian Sandoval, who was in attendance on Thursday. It continued under Democratic Gov. Steve Sisolak before the loan was conditionally approved under Lombardo, who acknowledged he was a latecomer to negotiations. The investments and subsequent jobs help fulfill a campaign pledge by Lombardo and past governors to diversify Nevada's casino and tourism-based economy.

"This is what we're going to have to do to have success in the state of Nevada," Lombardo said. "We can't have all our eggs in one basket."

In December, the Nevada Governor's Office of Economic Development awarded \$105 million in tax incentives to Redwood, the second-largest capital investment in the office's history, behind Tesla.

Last month, the Energy Department announced a conditional loan of \$700 million to an Australian company to mine lithium in northern Nevada as the U.S. seeks domestic supplies for the key component in electric vehicle batteries.

Redwood also has announced plans to build a \$3.5 billion battery manufacturing and recycling factory in South Carolina.

Once fully operational, the battery materials campus in McCarran, Nevada, outside Reno, will be the first domestic facility to support production of anode copper foil and cathode active materials for a lithium-ion battery manufacturing process. The process would recycle end-of-life battery and production scrap and remanufacture it into critical materials, [the Energy Department said in a blog post](#).

Straubel, Redwood's CEO, told The Associated Press last year that recycling battery materials will help the U.S. establish its own electric-vehicle supply chain. China now dominates the EV supply chain, including critical minerals needed for EV batteries.

"Redwood fills a critical gap in that whole piece, and our goal is to close the loop on all the materials that we've already mined and produced into products, keep them in the regions where they were bought and are being used," Straubel told the AP. "Every battery that we can recycle is one battery worth of materials that we don't need to mine again."

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