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## **Trump Could Oversee an EV ‘Battery Boom’ – or Bust.**

The incoming administration is expected to make key decisions that will mold the electric vehicle supply chain.

By Hannah Northey, Mike Lee, David Ferris  
November 12, 2024

President-elect Donald Trump is known for attacking electric vehicle “mandates,” but what’s less clear is how he will affect the EV supply chain, from mining to recycling.

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Given that any chain is only as strong as its weakest link, the election raises questions about what will happen to America’s budding, multibillion-dollar EV supply sector as it transitions from Biden’s whole-of-government support toward Trump’s disdain for regulations and federal spending on clean energy.

The stakes are high for emissions and the trajectory of the transportation sector. The battery supply chain is a continuum from the mine, to the making of obscure films and powders, to the synthesis of battery cells and packs, to the assembly of vehicles. The U.S. has invested \$200 billion in the effort, but nearly every part of the process is in its very earliest stages and highly reliant on government tax credits, grants and loans for their survival, said Nick Nigro, founder of the EV analytical firm Atlas Public Policy.

“The way this has to work, it has to work in concert,” Nigro said. “When you take little pieces of that supply chain out of the equation, you can reexpose vulnerabilities that make it really hard for these companies to do business.”

Possibly insulating the industry from Trump twists is that ongoing activity — from mining to the construction and planning of EV battery plants — is largely occurring in Republican congressional districts.

Simon Moores, CEO of Benchmark Mineral Intelligence, said \$110 billion has already been invested in EV supply chains, mostly downstream, creating a

blueprint for the sector. About 60 percent of individual gigafactories and 80 percent of the investments are moving forward in red states, he added.

“The U.S. battery boom will happen under Trump and his administration,” said Moores. “With [Tesla CEO] Elon Musk by his side, you would imagine that the U.S. has to now turn into a mining country under Donald Trump. Maybe it’s the Republican states that turn into mining states under Trump.”

Jay Turner, a professor at Wellesley College in Massachusetts, agreed a boom is underway that is largely occurring in conservative-leaning areas. Of the 15 EV battery factories announced or expanded after the Inflation Reduction Act was passed in 2022, eight are in planning and seven are now under construction, Turner said. Of those EV battery factories, 13 are located in Republican congressional districts.

What’s less clear, said Turner, is how executive and congressional policies going forward will chill that activity, especially if lawmakers take a sledgehammer and not a scalpel to tweaking tax incentives for EVs in coming months.

“It’s not so much about the money the government has given out to date, it’s whether new legislation could undo the [Inflation Reduction Act’s tax credits that companies are counting on],” said Turner. “That’s the big carrot that brought those companies to the United States.”

Trump EV chill?

Demand for EV batteries could fall as much as 20 percent by 2030 compared to previous estimates if Trump follows through on some of his campaign promises, according to Iola Hughes, head of research at Rho Motion, a United Kingdom-based EV and battery information services company that is part of Benchmark Mineral Intelligence. Trump is expected to alter the regulatory

landscape for EVs, starting with EPA tailpipe emissions for cars built in model year 2027, which currently pushes strongly toward EV adoption, added Hughes.

The former president could also impose tariffs on imported materials and go after tax breaks for EVs and other Inflation Reduction Act provisions. The consensus from many policymakers and manufacturers is that negative impacts on the EV battery supply chain likely wouldn't be fully felt until 2027, even if Trump acts on Day 1, according to Hughes.

“EV sales will continue to grow in the country as adoption is fully underway, however, the pace at which this occurs will be altered,” she said. “Eyes will now be on the agenda set out by this administration in the early days. The election result brings the chances of these actions being taken into play but does not guarantee they will.”

Hughes said the close relationship between Musk and the Trump campaign has not signaled positive effects for the larger industry. She noted that Musk has previously indicated he believes Tesla's advantage over its competitors would mean an unassisted EV market would benefit Tesla the most.

“Musk has also been much stronger on ambition for autonomous vehicles in recent years as the key growth driver for Tesla,” said Hughes. “With Tesla searching for regulatory approval for its new Cybercab vehicle and Full Self-Driving software in the coming months, this may be a more likely focus for Musk and any potential influence over the incoming administration” than EVs.

Spokespeople for Trump and Musk did not respond to request for comment.

### Ripple effect for mining

Considering policies in Trump's first term, mining could be the part of the EV supply chain that gets the biggest boon from the change in presidential power.

“We will undoubtedly see a more pro-mining administration in the White House,” said Peter Bryant, a strategist with the consultancy firm Clareo who advises global mining companies. “However, we don’t know how that will manifest.”

Moore with Benchmark said Trump’s actions on critical minerals go back to 2017, when he issued an executive order to reduce the nation’s reliance on other countries to obtain them.

“There’s very much an opportunity for the Trump administration to stand up and say, ‘We started this and now we’re going to finish it,’” he said.

Mining boosters are already in talks with Trump’s transition team pushing for faster permitting, rollbacks of rules that hinder mines, more access to public lands and changes to the Inflation Reduction Act to ensure domestic mining companies can benefit from lucrative production tax credits.

But Trump’s opposition to rules and funding that would boost EVs could have ripple effects in demand for critical minerals.

One challenge is parsing what those effects will look like because mines are connected to global markets and affected by everything from price swings to permitting, geology, community support, logistics, access to skilled workers and financing.

Adam Webb, head of battery raw materials at Benchmark, said demand for raw materials used in lithium-ion batteries is expected to be lower in the U.S. than had previously been forecast due to expected lower EV sales under the incoming Trump administration.

He pointed to Rho Motion’s scenario analysis that showed a 20 percent drop in demand for EV batteries by 2030 compared to the current outlook.

That softening could have a ripple effect on the U.S. mining sector — but it could be muted given the industry is small and demand for those materials is booming around the world.

Today, the U.S. EV market accounts for about 8 percent of global lithium demand, 3 percent of global nickel demand, 7 percent of global cobalt demand and 6 percent of natural graphite demand. Hughes' forecast for weakened demand for U.S. batteries, said Webb, wouldn't be significant enough to undercut the glowing global appetite for those raw materials and, therefore, the impetus behind U.S. projects.

“There is still incentive to develop mines producing these materials in the U.S. as there is currently not enough domestic supply to meet domestic demand,” he said. “This situation is not expected to change under a Trump administration.”

### Wild cards

This summer, more than a dozen Republican moderates urged congressional leaders to keep intact some of the climate law's incentives.

Turner, the professor at Wellesley College, said of the \$83 billion the private sector has committed to the battery supply chain since the Inflation Reduction Act passed, \$70 billion is going to Republican-led districts, with the remaining \$13.1 billion going to Democratically controlled areas. Turner and his students share data on a website, dubbed the Big Green Machine.

While there's no doubt the U.S. will see an EV battery boom under Trump, the bigger question is how big it will be, he said.

Of considerable consequence is what happens with the Inflation Reduction Act's advanced manufacturing tax credit, 45X, which will provide the biggest pot of money for battery companies, said Turner.

One incentive that is most vulnerable is the one that's perhaps most visible: the \$7,500 tax credit that car buyers can get for purchasing an EV. Trump could try to persuade Congress to kill it, or could on his own change the tax credit's rules.

The fate of those credits matters not just because of their impact on Americans' pocketbooks, but because they underscore Biden's effort to supplant China's dominance of the battery supply chain. In order for vehicles to qualify for the credit, automakers must make battery cells in the U.S. and get an ever-escalating amount of crucial materials from the U.S. or its allies.

Loren McDonald, chief analyst at Paren, an EV data consultancy, pointed to Musk, who in the past has suggested that ending the consumer tax credit would only minimally harm Tesla while sapping the EV efforts of traditional automakers.

"It's probably one of the easiest things to dismantle, and also something Musk has not been in favor of," said McDonald.

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