Tesla to make EV battery cathodes without cobalt

Tesla will make electric vehicle batteries with cobalt-free cathodes, it announced during its Battery Day event today. The announcement came as part of the company's move to make batteries in-house instead of purchasing them. Musk didn't give a timeline for going to a zero-cobalt battery.

Cobalt is the most expensive material used in batteries, so eliminating it from the mix was expected help to electric vehicles become as affordable as those that run on gas. Tesla now says it can make a $25,000 electric vehicle — $10,000 less than its cheapest model — because of the improvements it's made to its batteries, including axing cobalt.

"It's absolutely critical that we make cars that people can people can actually afford," Musk said today. "Affordability is key to how we scale."

The "blood diamond of batteries."
Cobalt has also been called the "blood diamond of batteries." That's because it's been mined in a way that's endangered child workers and wrecked the environment in the Democratic Republic of Congo. A lawsuit filed against Tesla, Apple, Alphabet, Dell, and Microsoft in December by an international human rights group alleges that the companies make their products with cobalt mined by young children. Tesla started working with Chinese battery company Contemporary Amperex Technology Ltd. (CATL) to develop batteries that use little-to-no cobalt, Reuters first reported in May.

Working with a different kind of battery will come with new challenges. The push to use less cobalt has driven up demand

for another metal replacing it in batteries: nickel. Musk urged mining companies to dig up more nickel during a July earnings call and did so again during Battery Day. “In order to scale, we really need to make sure that we’re not constrained by total nickel availability. I actually spoke with the CEOs of the biggest mining company in the world and said, ‘Please make more nickel, it’s very important,” Musk said today.

Nickel is mined in more places around the world than cobalt, but its extraction has polluted indigenous peoples’ lands in Russia. As a result, indigenous activists have pushed Musk to refuse to purchase the material from the mining company Norilsk Nickel, Grist reports.

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