

COMMODITIES

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First Cobalt pioneers cobalt production for electric cars in North America

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LONDON (Reuters) - First Cobalt said on Monday it expects to start making cobalt sulphate around the turn of the year and become North America's first producer of the component crucial for batteries used in electric vehicles.

The Canadian company's plans for its cobalt refinery in Ontario, would be a step towards helping North America reduce reliance on China, which dominates the supply chain for rechargeable lithium-ion batteries.

Electric vehicle sales have collapsed this year due to the coronavirus outbreak, but sales are likely to accelerate over coming years as governments around the world clamp down on polluting fossil fuels such as diesel and gasoline.

First Cobalt commissioned a feasibility study which showed the refinery producing an annualised 1,000 tonnes of cobalt or 5,000 tonnes of cobalt sulphate by late 2020 or early 2021.

The second phase of the project would mean the refinery producing 5,000 tonnes of cobalt or 25,000 tonnes of cobalt sulphate by the fourth quarter of 2021, which would be a significant proportion of the global refined cobalt market.

“The strong outlook for electric vehicles, the push by automakers to develop shorter supply chains and the projected refinery economics create an excellent opportunity,” said First Cobalt’s Chief Executive Trent Mell.

“(The study) is an important milestone in our efforts to disrupt the existing concentrated cobalt supply chain.”

Benchmark Mineral Intelligence analyst Caspar Rawles said 5,000 tonnes of cobalt would be enough for 335,000 electric vehicles if the cathode part of the battery was made up of 6 parts nickel, 2 parts cobalt and 2 part manganese.

Rawles calculates that same amount would be sufficient for about 700,000 electric vehicles if the cathode comprised 8 parts nickel, 1 part cobalt and 1 part manganese, a chemistry expected to become more common for electric vehicle batteries.

The feedstock for the refinery would be cobalt hydroxide produced by mining giant Glencore in the Democratic Republic of Congo where most of the world's cobalt comes from and where it is a byproduct of copper production.

Before the coronavirus lockdowns in producing countries, global supplies of cobalt for this year were estimated at around 135,000 tonnes.

The study estimates costs of producing cobalt at First Cobalt's refinery at \$2.72 a lb, or nearly \$6,000 a tonne. Cobalt metal prices on the London Metal Exchange currently stand at \$30,000 a tonne. Cobalt sulphate and hydroxide are typically priced at the discount to the metal.

The project will need initial capital of \$56 million.

“Discussions are underway with Glencore on commercial arrangements, financing and allocation of project economics; third party and government funding opportunities also under review,” First Cobalt said.

Cobalt extends the life of lithium-ion batteries, which auto firms typically guarantee for eight to 10 years. It also minimises the risk of electrical fires.

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