

# Surprise! Electric Vehicle global sales continue to rise in spite of pandemic...

COVID-19 is causing huge disruptions to the global economy. Today I look at how COVID-19 (coronavirus) is impacting global electric vehicle (EV) sales and the EV metals supply chain. This includes a review of the EV metals: lithium, cobalt, graphite, nickel, neodymium and praseodymium

## Global electric vehicle (EV) sales

Somewhat surprisingly global electric car sales actually rose by 16% in February, compared to February 2019. The results were a mixed bag. China's electric car sales plummeted 65% YoY and Europe sales boomed, rising a massive 111% YoY.

China usually makes up about 50% of global EV sales, and in February 2020 much of China was locked down due to coronavirus. This explains the dramatic fall in sales. Europe may follow to some degree in March EV sales, as coronavirus then moved to Europe during March, and China improved.

Also in March, we have seen a number of high profile EV manufacturers such as Tesla and Volkswagen close down some of their factories. This will impact March and April sales to some degree.

Tesla temporarily suspended production at Fremont and New York, but said superchargers, Nevada Gigafactory and their service centers would remain open. Tesla even started sourcing ventilators and donated hundreds of ventilators to California and New York City, as they began Model Y deliveries in the US.

My expectation is we will see weaker March EV sales from Europe, but stronger from China. As the coronavirus fades away

(hopefully before mid 2020) we will see very strong EV sales by H2, 2020 and into 2021.

**Tesla Model Y US deliveries began in March 2020 amid the coronavirus chaos**



### **Impact on EV metals**

The key EV metals (lithium, cobalt, graphite, nickel, and NdPr) have all been slightly but not severely impacted by COVID-19.

### ***Demand***

Demand has surprisingly remained solid helped by the strong February global electric car sales. Demand temporarily shifted in February towards Europe as China slowed. I expect this to reverse somewhat in March and April. Despite generally overall solid EV metals demand so far in 2020, many of the EV metals are still working off oversupply from 2019, which has led to lower prices for lithium, cobalt, and nickel in early 2020. Nickel has also been more impacted by the global slowdown, given its key demand is for stainless steel.

## **Supply**

Whilst most mines have remained open there have been some logistical supply issues as well as some government shutdowns. For example Argentina temporarily closed its mining sector which temporarily impacted several lithium miners operating in Argentina. The ban has now been lifted for miners deemed as “essential”. Chile and Australia have remained open. The DRC has remained open, as has Namibia despite some cautions they may close.

With regards to logistics and processing, China’s supply chain has been only mildly impacted, as not all of China was shutdown.

## **EV subsidies**

We began 2020 with new German subsidies as well as tougher emission targets in Europe and China. This has helped 2020 EV sales. In March we had two significant new announcements:

- March 11, 2020 – The UK extended EV subsidies through to the 2022-23 financial year, with a grant of up to 35% of the vehicle’s value, capped at £3,500 (\$4,500).
- March 31, 2020 – China decided to extend the validity period of the subsidies on new energy purchases and NEV purchase tax exemption for two years.

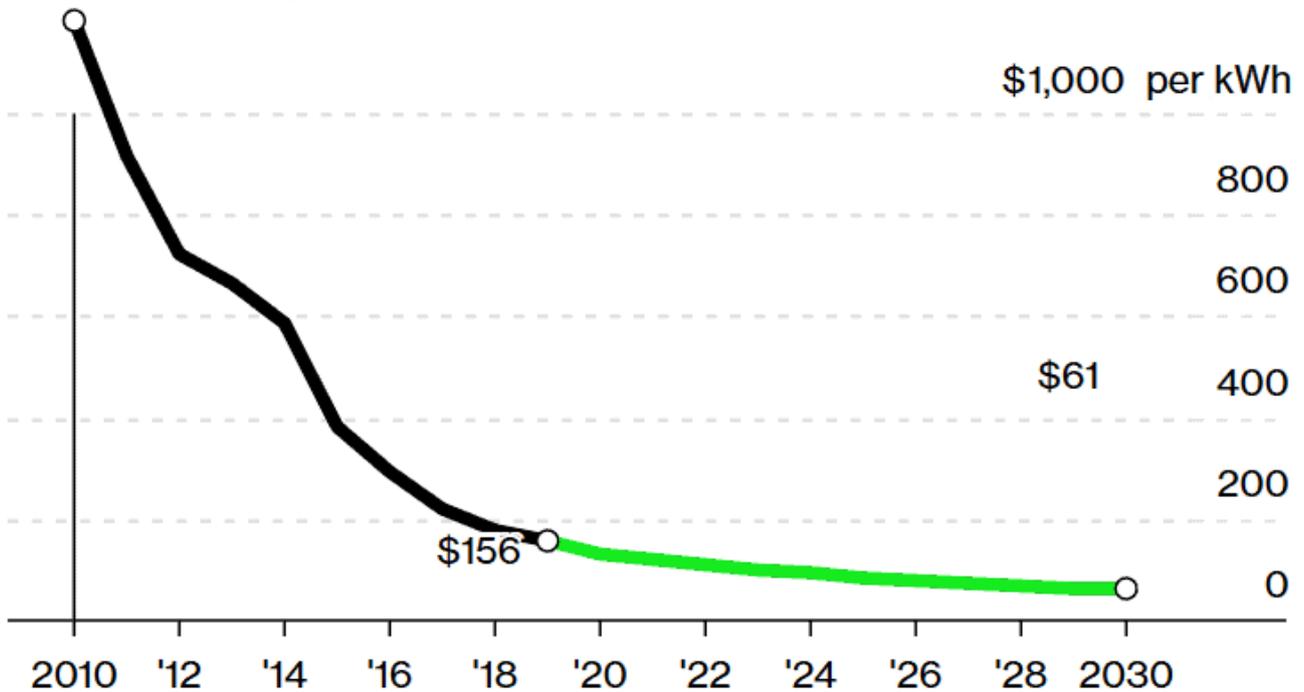
Note: The new Chinese 2 year subsidy extension news is still not widely known, and it will be a very significant boost to the Chinese EV sector.

**Lithium-ion battery prices forecast by Bloomberg to fall to USD 100/kWh by 2023 making electric cars purchase price competitive to conventional cars by 2023**

## Charging Ahead

The cost of lithium-ion batteries continue to fall each year

real projected



Source: BloombergNEF

Note: 2019 USD prices

Source

### Closing remarks

Despite the world currently being in or close to a recession, the EV sector has been doing surprisingly well. At least as far as EV sales and EV metals demand and supply. In terms of pricing, the EV metals are lower and the EV metal miners have also been heavily sold off.

Given that the share market has priced most EV metal miners very low, the EV trend remains strong, and EV subsidies have been extended or increased; I expect once the fear of coronavirus passes the EV and EV metals sector will rebound very strongly.

EV/Internal Combustion Engine (ICE) purchase price parity is just around the corner (2022-23). This means it will soon be the same price or cheaper to own an EV, with all the benefits

of much lower running and service costs. Investors would be wise to take a second look at the sector before it booms again soon.