

The coming tsunami of electric car demand will need many more anode megafactories and graphite

Most investors don't yet understand the tsunami of electric car demand that is just around the corner. Bloomberg New Energy Finance forecasts that by 2020 there will be over 289 different models of electric cars. Just recently Bloomberg has revised their targets now saying the same as I have said for the past 3 years. Bloomberg now says by 2022 electric cars will become price competitive with conventional cars. Previously they said by 2025. Even Volkswagen predicts that EVs will go mainstream in 2022.

By 2022 an electric car should be cheaper than a conventional car, and will be up to 10x cheaper to fuel, and up to 10x cheaper to maintain. At this point electric car sales will go through the roof as buyers will be significantly better financially owning an electric car.



The Porsche Taycan all electric car already has a 20,000 waiting list.

Majority of British car owners say they would consider buying an electric vehicle as their next car. Analysts continue to upgrade their forecasts for electric car penetration rates, the latest is JP Morgan. CNBC [reported](#) that JP Morgan forecasts “electric cars would take 35 percent of the global market by 2025 and 48 percent by 2030.”

After 2022 massive electric vehicle (EV) demand will lead to long electric car waiting lists, shortages of batteries, and shortages of key EV materials such as lithium, cobalt, nickel, and graphite. The EV battery materials supercycle will have begun.

Graphite will be one winner of the EV boom

Graphite is currently an essential element in the making of lithium ion batteries. Demand for battery grade natural graphite (and spherical graphite) for anodes used in batteries needed for consumer electronics and electric vehicles is rising rapidly, and will go exponential from 2022. Added to this will be graphite demand for more lightweight materials

made from graphite such as carbon fiber reinforced plastic used in automobiles and manufacturing components for aircraft, as well as the steel industry.

Graphite anode plants, predominately based in China, were traditionally producing 5-10,000 tpa but now four new anode mega-factories are looking to produce 60,000 to 100,000 tpa from 2020 onwards. Experts say that there is going to be supply problems for raw materials in the next 2 years for these battery megafactories. There are now 76 lithium ion battery megafactories (35 more than a year ago), and 45 are in production now. The battery megafactory is now here, and it needs raw material. The order of graphite needed in these mega factories is in the millions of tonnes. At the moment, the anode space is about 165,000 tonnes per year but you're going to need well over 1.6 million tonnes per year by 2030 if all these plans come on stream.

EV metals expert Chris Berry recently stated: "The 'pinch' in graphite is yet to be felt, but I anticipate upward pricing pressure by 2020, breathing new life into non-Chinese natural graphite development companies."

China has historically accounted for 70% of graphite production, and is now rationalizing production capacity thanks to resource depletion and environmental concerns. Some of the non-Chinese companies that may benefit from the "pinch" that we like to follow at InvestorIntel are:

Northern Graphite Corp.

[Northern Graphite Corp.](#)'s (TSXV: NGC | OTCQX: NGPHF) Bissett Creek graphite deposit is located in the southern part of Canada. The percentage of large/XL flake graphite in the Bissett Creek deposit is one of the highest in the industry which will enable the Company to focus on high margin and value added industrial markets, mainly in the US and Europe.

NovoCarbon Corp.

[NovoCarbon Corp.](#) (TSXV: GLK | OTCQB: GLKIF) is a clean technology minerals processing company, supplying high-quality carbon products for multiple applications.

ZEN Graphene Solutions Ltd.

[ZEN Graphene Solutions Ltd.](#)'s (TSXV: ZEN) Albany graphite project hosts a large and unique quality deposit of crystalline graphite

Unless you have plans to live in a cave there is no way you will not notice the battery revolution that is almost upon us in EVs, and continued need for battery materials like graphite. Megafactories are turning into an essential way of life for the future of energy storage, and investors should be taking note.

2022 is now less than 3 years away, and it takes a lot longer than 3 years to start a new mine. This means supply will struggle to meet supercycle demand post 2022 for all the key EV materials. The current trade war led downturn has given latecomers a great chance to buy at discounted valuations into the century's top trend.