# China controls production of Batteries for Electric Vehicles

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Lithium is a critical metal, which is required in Batteries for Electric Vehicles. It is likely to become a constraint in expansion of the electric vehicles industries and their wider use.

**China: Buying Australian Lithium Mines:** After a pro-China government took over in Canberra, China is attempting to buy Lithium mining companies in Australia.

*Australian Prime Minister:*

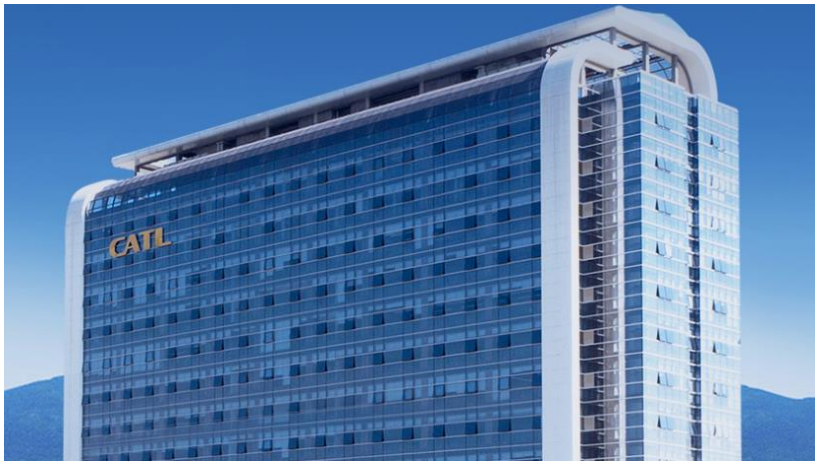
*Anthony Albanese*

In one such deal, China's Tianqi Lithium and IGO's joint venture are bidding for the Australian lithium miner - Essential Metals.

**China Dominates the Production of Lithium Batteries**: China controls about 75% of all battery cell manufacturing capacity and 90% of battery anode and electrolyte production in 2022.

The EV makers all over the world, depend on China for their battery requirements.

For example, China's Contemporary Amperex Technology Co. Limited (**CATL**) supplies EV batteries to most of the EV makers in Europe and America. It has five R&D centers including one in Munich, Germany. It has 13 production bases including one each in Erfurt, Germany and Debrecen, Hungry.




Ningde, China: **The Beginning**: Zeng started as a chemist in TDK, a Japanese company's plant in China. In 1999, he along with some other chemists, started a company for manufacturing Lithium-Cobalt batteries for mobile phones and portable consumer products. The group sold the company to TDK in $100 million in 2005.

**Chinese Government Support for Starting CATL:** In 2011, the Chinese government declared a subsidy of as much as $19,300, for a EV made by a foreign car maker, to a car buyer, provided the foreign car-maker transfers crucial technology to a Chinese company. TDK sold a stake of 85% to CATL, a new Company, owned by a group of Chinese investors led by Zeng. In 2015, a different group of Chinese investors bought the remaining 15% from TDK.

Today TDK has a market capitalization of $16 billion, while CATL, which has become the world's largest maker of Batteries for EVs, has a market capitalization of $240 billion.

**Raw Materials through the help of Chinese Government**: The Chinese government has helped CATL get raw materials, it requires. In 2012, CATL was given, in Qinghai province, dried-out salt lake beds with thick underground brine laden with lithium. China's **Policy Bank**, which provides funds to risky projects, considered to be important for China by Beijing, provided $100 million to CATL for the project. In addition, Qinghai government provided $33 million from 2015-17 to CATL.

China helped another Chinese firm acquire an American mining company, which mined Cobalt reserves of the Democratic Republic of Congo (DRC). In addition,

Kisanfu a new Cobalt and Copper mine, is being built in DRC by a Chinese company, in which CATL has 25% share at $137.5 million.

**Nurturing Chinese Tech Companies to become Global by the Chinese government**: Like other tech companies, CATL was also supported through:

- Large subsidies
- A captive market
- Soft Regulatory Treatment: Example: The Chinese standards required a nail test. A rival showed that when a nail was driven through a CATL battery cell, it exploded in fire. The Chinese Govt changed the Standard and eliminated the nail test.

The Chinese government also ensured that CATL stayed in Chinese hands by providing funds, through its **Policy Bank**, as required.

Today the worth of CATL is more than the combined worth of GM and Ford. Its founder and Chairman, Robin Zeng, is worth $60 billion

**Chinese Government Support to INCREASE the SALE of CATL Batteries:** The Chinese government again came forward to help CATL by providing a subsidy to an electric car, **only if** the battery was made in China by a Chinese company. Thus in 2016, when GM EVs were sold in China with batteries made in China by LG, a South Korean company, the subsidy was not given. GM, then, shifted to CATL batteries.
CATL is highly profitable. Even then the Chinese Government continues to provide subsidies of as much as 25% of its profits to it.
Today, for producing EV batteries, China has a capacity which is 14 times that of USA.

**President Trump's Efforts for Onshoring**: President Trump moved the US to shore up more Lithium extraction in USA so that the US battery-making industry grows. But much of the mined material is still sent to China for processing.

Toyota's 1.3 billion plant in North Carolina: It will have a capacity of making battery packs for 200,000 cars a year. It will go into production in 2025.

The capacity of the Toyota plant may be later augmented to produce battery packs for 1.2 million cars.

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