After Recent Lithium Discovery, Can India Work with Tesla to Develop a Vertical EV Ecosystem

written by Matt Bohlsen | March 10, 2023
With the discovery of a lithium deposit in India, there is a potential for India to achieve energy independence to create its own Electric Vehicle ("EV") vertical ecosystem from lithium mining to lithium refining to EV battery manufacturing and finally EV production.

The writing is on the wall for the internal combustion engine ("ICE") vehicle. Bloomberg reported yesterday that global ICE car sales peaked in 2017 and have been declining ever since. They state that in 2022, Global "*combustion vehicle sales were down almost 20% from the peak, to 69 million, and plug-in vehicles jumped to 10.4 million.*" The global EV sales boom is being led by China, Europe, and USA, but what about India?

All the stars are starting to line up for India to rapidly develop an EV ecosystem

India is the fourth largest and one of the fastest-growing car markets globally. India has horrendous pollution in its capital cities and is a very large importer of oil. So clearly India has every reason to develop a homegrown EV ecosystem, including EV manufacturing, battery manufacturing, and lithium mining.

India plans to go electric this decade

What about EV sales in India, home to over 1.4 billion people

and approximately 17.7% of the world's population? The country is desperately in need of electric cars to help control crippling air pollution.

India targets 30% of private cars, 70% of commercial vehicles, and 80% of two and three-wheelers to be electric by 2030.

Bloomberg reported EV sales in India in 2022 were almost 50,000, up from 21,000 in 2021, for a yearly 138% increase. 50,000 out of the total 3,780,870 car market is only 1.3% market share, or roughly where China was in 2015 when I wrote a prescient article titled "Chinese Electric Vehicle Companies About To Boom". This suggests that India is set for explosive growth in EV sales this decade, similar to what China experienced in the past 8 years. Car OEMs are all jostling to become the leading EV seller in India as they know that India is already the world's fourth largest car market where car sales grew by 23% in 2022.

Can India follow China and become a leading EV manufacturing nation?

Given India is a large and growing car market, it makes sense that the country will emerge this decade to become a leading country for EV manufacturing. Local car manufacturers such as Tata Motors will need to gain market share quickly or find they will be replaced by Chinese imports from BYD Co and SAIC/MG. BYD already publicly stated they plan to achieve a 40% market share of EV sales in India by 2030.

Given that India wants to become self-reliant in energy security and EVs greatly accelerate the move away from oil reliance, it becomes obvious that India will now rapidly accelerate EV adoption. Prime Minister Modi's words give a clue to India's strategy when he stated in August 2022: "*It is a certainty that with the strengthening of supply, demand,* and ecosystem, the EV

sector is going to progress." Notice Modi mentions supply and ecosystem. This is because Modi wants to build up India's homegrown electric vehicle supply chain and ecosystem.

Fortune India quotes Modi stating:

> *"Electric vehicles are no longer 'extra vehicles'," Modi adds. He also dubs this rapid electrification – both on two and four-wheelers – as a 'silent revolution', stemming from the fact that electric vehicles do not generate any noise in their use."*

India is blessed with an abundance of talented software engineers and as many people say EVs are just "software on wheels".

India discovers 5.9 million tonnes of Inferred lithium deposits which could potentially kick-start a new lithium industry in India

As announced in February 2023, India has found a lithium deposit in the country's north in Jammu and Kashmir ("J&K") and delineated a 5.9 million tonne Inferred resource. The report states:

> *"Geological Survey of India for the first time established Lithium inferred resources (G3) of 5.9 million tonnes in the Salal-Haimana area of the Reasi district of Jammu and Kashmir, over 650 km north of Indian national capital New Delhi."*

Assuming the discovery is 5.9 million tonnes of lithium carbonate equivalent, then it is not a large discovery but rather a good start. We will have to wait to hear more details regarding the resource size and also the grades.

The significance of the discovery for India is there is now a potential pathway for India to achieve energy independence. It would take several years but India could potentially one day mine and refine its own lithium, and make its own lithium-ion batteries and EVs, all inside India. That would align very nicely with PM Modi's "Made in India" strategy.

The next steps for India will be to build the lithium mines and then the lithium refining capability. The latter will most likely require expertise from outside of India. China would be the logical place but India may prefer to not go that route. Then there is Tesla (NASDAQ: TSLA) which is currently building a new lithium refinery in the US. Could Tesla JV with India to process the lithium and build batteries? It would make a lot of sense.

Another possibility would be a JV with a lithium chemicals company such as Albemarle Corporation (NYSE:ALB), assuming they have any interest.

Tesla and India could be a match made in heaven

Source: iStock Tesla pic & India flag

Closing remarks

Almost all the pieces of the puzzle are coming into place for

India to become energy independent and the next great EV manufacturing hub after China. Lithium production and lithium-ion battery manufacturing would set India up to establish its own vertically integrated stationary energy storage (energy independence) and EV industries.

The Indian government has set EV adoption targets as high as 80% by 2030, demand for EVs exists in India today, the country has the talent to develop the EV ecosystem, and now has a potentially significant Indian lithium source. All that is needed now is the necessary expertise to build out an EV supply chain from mine to the car.

Allowing Tesla to open a gigafactory in India would be a natural next step. For that to happen India only needs to allow Tesla to sell their cars in India without charging import tariffs. So far Tesla and India have not been able to agree on terms despite discussions for several years; however, during that time Tesla and China have pioneered the way in which it can work in China. Tesla has the expertise and India has the talent and now some lithium.

Sounds like it could be the right timing for a win-win deal for both Tesla and India.