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India is "far behind" in race to build battery supply chain, Epsilon says

India needs to speed up the development of a battery raw material supply chain to meet the country's ambitious electric vehicle targets, according to the country's top battery anode producer Epsilon Advanced Materials.

India is likely to build only around 100 giga-watt hours (GWh) of battery capacity by the end of the decade, enough for around 2.5 million electric vehicles, as global battery producers from Japan and South Korea focus on the US and Europe, Vikram Handa, managing director of Epsilon, told Benchmark.

"I think India is far behind. Even the US was far behind...but the Inflation Reduction Act changes everything. It makes them leapfrog even Europe. But today where we are, the sector is not getting the boost that it needs," according to Handa.

India has set a target of having 30% of its passenger car sales electric by 2030, from less than 1% last year. NITI Aayog, India's policy think tank, has estimated the country could have 80 million electric vehicles on the road by the end of the decade.

The world's fourth largest automotive market's battery supply chain will need to catch up significantly to meet that target, however. Based on current plans, India will account for less than half a percent of global battery capacity in 2030, according to Benchmark assessment.

"Indian companies will start with one or two GWhs, stabilise it and then scale up. By 2025, we should have close to 15 GWh to 20 GWh of capacity in India. By 2030 it should be north of a hundred gigawatts," Handa said.

Last month Epsilon, a producer of needle coke and synthetic graphite, said it would invest Rs 9,000 crore ($1.1 billion) in India's southern state Karnataka to set up a battery anode materials facility. A month earlier the company signed an agreement with the Finnish Minerals Group to look at building a synthetic graphite anode material production plant in Finland with a capacity of about 50,000 tonnes of anode material a year.

The projects would be a significant boost to the supply of synthetic graphite anode materials outside of China. Currently, less than 40% of the pipeline anode capacity in construction and planning outside of China is set to be synthetic graphite-based, compared with nearly 80% in China, according to Benchmark.

Expanding anode production

Epsilon will focus on supplying global battery manufacturers before demand in India materialises later in the decade, Handa said.

"I don't think we will sell more than 2,000 tonnes or 3,500 tonnes in India as that kind of offtake won't be there. The idea is to qualify with all Korean and European customers and automotive OEMs as well," Handa said, adding that he expects Indian demand for battery grade anode to pick up by 2026-27 timeframe.

The company currently manufactures 2,500 tonnes of coke, which it mainly sells to anode makers in China. The company said it will have 17,500 tonnes of coke capacity by March 2023, a volume that can make about 12,000 tonnes of synthetic graphite, Handa said.

Eventually the company is targeting 300,000 tonnes of anode materials capacity, made up of around 25% natural graphite and 75% synthetic graphite, he said.

Relying on imports

India currently does not have any active cell manufacturing for electric vehicles and mostly relies on imports from China, Taiwan and South Korea for its battery needs.

Earlier this year, India allocated subsidies to three players under the government's $2.5 billion Production Linked Incentive (PLI) scheme for battery manufacturing. These include Rajesh Exports, Ola Electric and Reliance New Solar.

While Ola, a startup backed by Softbank, was allocated 20 GWh capacity under the PLI bid for advanced chemistry cells, it is reportedly planning a 50 GWh gigafactory to support its own two-wheeler and four-wheeler plans. The company also plans to launch an electric vehicle in 2024.

In September the country's largest battery maker Exide began construction of a lithium ion cell manufacturing plant in the southern state of Karnataka in collaboration with China's SVOLT. This month rival battery maker Amara Raja announced an agreement with neighbouring state of Telangana to build a lithium ion gigafactory.

The Indian government should also focus on its own supplies of domestic resources to satisfy the rising demand for battery materials such as graphite for anodes, Handa said.

"India has a lot of graphite reserves but the government has never put them up for auction because there have been no takers and it is a net importer of graphite. There is a need for a policy shift where such resources come up for auction just like coal, iron ore and other minerals. That kind of focus for flake graphite can be explored in India," he said.

India

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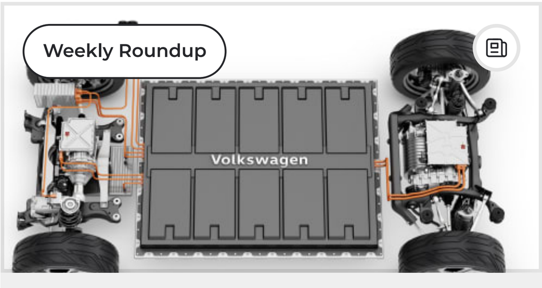

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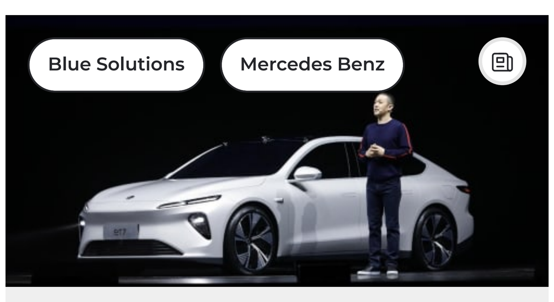
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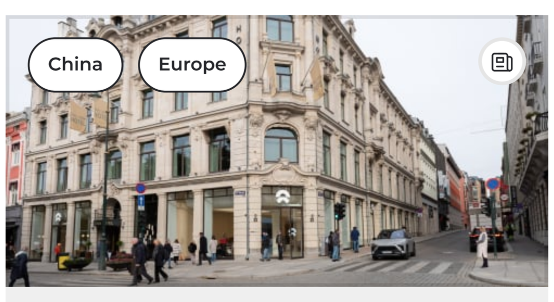
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