

Did you know?

The rise of electric vehicles



The Electric Vehicles (EVs) market is seeing exponential growth with over 10 million units sold in 2022. In that year, electric cars accounted for 14% of all new car sales, up from around 9% in 2021 and less than 5% in 2020.

Just before the fifth anniversary of the Paris Agreement, the European Council announced its pledge to increase the EU's climate target to at least 55% net greenhouse gas emission reductions by 2030, compared to 1990 levels. As countries around the world strive to reach climate target, many are turning to EVs as a way of reducing carbon emissions, including in Southeast Asia (SEA).

Rise of EVs

As countries worldwide strive to meet their climate objectives, electric vehicles are being embraced as a means of reducing carbon emissions. The push to diversify supply chains globally, coupled with the pursuit of green technology, has created a ripe opportunity for EV production.

Southeast Asia: the push for EVs

In SEA, governments have introduced ambitious targets to drive EV growth. In the Singapore Green Plan 2030, it aims to cease registration of petrol and diesel cars by 2030, while Thailand's goal is to raise the proportion of EVs to 30 per cent of all domestic vehicle production by 2030. Meanwhile, Malaysia targets 38 per cent of vehicle sales to be EVs by 2040. Indonesia, the largest economy in SEA, aims to sell only electric-powered cars and motorbikes by 2050.

By 2025, the International Renewable Energy Agency predicts that 20% of all vehicles in the region will be electric. SEA nations are actively taking significant steps to establish their domestic industries as integral components of the EV ecosystem. This includes developing materials to enhance supply chain resilience and implementing economic policies to facilitate local adoption.

IEA: Automakers' electrification targets for EVs since 2022



400 000 EV sales from 2022-24; 1 million EV production capacity in 2025



All new models launches from 2026 to be electric; to sell **100% EVs by 2028**



Targets **fully electric production** by 2033 (brought forward by two years)



Ceased ICE vehicle production; has produced **only EVs since March 2022**



Aims to launch **30 EV models by 2030**, with a volume of more than 2 million units



Aims to have fully **electric line-up by 2030**



Annual sales of **1 million NEVs by 2023** including small EVs; 40% NEVs in total sales by 2025



600 000 EV sales over this 2023



Plans for **100% of EV sales by 2035** and 50% EV sales by 2030 in their Targets of 2030



Aims to go **all-electric by 2036**



1 500 000 BEV sales; introduce 10 additional models by 2026



Aims to go **all-electric by 2025**



Expects at least **25% of sales globally to be BEV in 2030**

Battery Manufacturing

The demand for EVs has increased over the years leading to an increase in battery manufacturing and currently, China supplies around 75% of lithium-ion batteries and 50% of battery refining materials. The most important component of electric vehicle technology is the battery. The market for EV batteries in the Indo-Pacific is expected to surpass US\$90 billion by 2028.

Battery Manufacturing

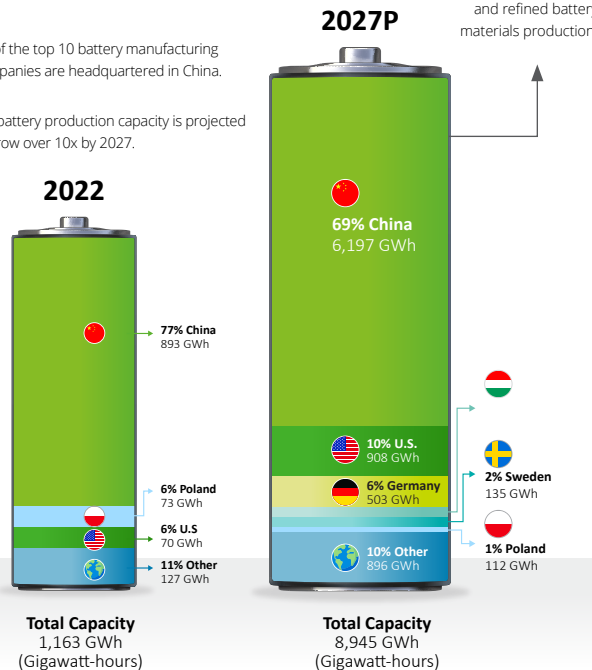
capacity by country

Global lithium-ion battery production capacity is projected to increase eightfold by 2027. Here's a look at the top countries for battery manufacturing in 2022 and 2027, based on BloombergNEF's lithium-ion supply chain rankings.

Six of the top 10 battery manufacturing companies are headquartered in China.

U.S. battery production capacity is projected to grow over 10x by 2027.

China's dominance is supported by its control over cathode, anode, and refined battery materials production.



In order to reduce reliance on China and enhance supply chains for emerging technologies, countries such as the United States are turning to Southeast Asia as an appealing alternative. Indonesia possesses abundant reserves of nickel, tin, and copper, positioning it favourably as a potential hub for battery production. Nickel Cobalt Aluminium (NCA) and Nickel Manganese Cobalt (NMC) are two widely-used battery types, with NCA utilizing 80% nickel and NMC using 33% nickel (newer NMC formulations are approaching 80% nickel). Given that most lithium-ion batteries now heavily rely on nickel, Indonesia's rich nickel deposits make it an attractive prospect for battery manufacturing.

Indonesia's President, Joko Widodo in 2020 has emphasized the importance of establishing an "industrial ecosystem for lithium batteries" within the country. In preparation for the growing demand in the battery supply chain and with Indonesia's abundant natural resources pertinent to EV development, the Indonesian government implemented a ban on raw nickel ore exports in 2020 but instead encourage investors to invest in smelters in Indonesia to process such raw materials locally for export. This decision has had a direct and immediate impact on the nickel ore supply chain as investors become highly optimistic about the future development of nickel-based EV battery businesses in Indonesia.

EV impact in Southeast Asia SEA capital market

Indonesia raised 70% of the total IPO proceeds in Southeast Asia for the first half of 2023. The IPO market of Indonesia was dominated by three listings related to EVs which contributed 40% of total IPO amount raised in SEA: nickel company - PT Trimegah Bangun Persada Tbk, minerals and EV battery materials firm - PT Merdeka Battery Materials Tbk and trading & manufacturing of EV parts - PT VKTR Teknologi Mobilitas Tbk.

VinFast Auto, an electric vehicle manufacturing unit of Vietnam's Vingroup, is delaying plans for an IPO in U.S. after a merger with SPAC Black Spade Acquisition had fell through in July 2023, as VinFast has reportedly announced a drop in revenue attributed to lower selling prices and phasing out of internal combustion vehicles as it pivoted to become a dedicated EV maker.

Other EV listed companies around the world

Tesla began trading on Tuesday, June 29, 2010 on the NASDAQ at US\$17 a share. It is now trading at US\$262 and has once hit a high of US\$407 in November 2021.

Chinese electric car maker NIO has been publicly traded since September 2018 with subsequent listings in Hong Kong Exchange and Singapore Exchange in 2022, and IPOs by other Chinese electric car makers -- such as Li Automotive and Xpeng -- have increased investor interest in NIO. Rivian Automotive, the all-electric truck maker raised US\$11.9 billion in its IPO in November 2021. Leapmotor, a seven-year-old Chinese electric vehicle maker, raised US\$800 million in its IPO in September 2022.

While waiting for more certainty around interest rates, inflation and the global geopolitical environment to whet investors' risk appetite, we can expect more IPOs in the electric vehicles industry.

Conclusion

Overall, the EV market in SEA is widely expected to accelerate in the coming years to drive a greener economy. This growth will be driven by interest from EV makers and players closely related to the part of supply chain, such as batteries, components, and infrastructure, leading to a rise in consumer demand as EV technology advances.

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