

Concerns over energy security drive Southeast Asia's EV market to new heights

Key Takeaways:

- Global EV sales exceeded 20 million units in 2025, accounting for around 25% of global new car sales, and are projected to reach around 23 million units or 28% of global sales in 2026
- China dominates the EV ecosystem, producing nearly 75% of global EVs and more than 80% of battery cells worldwide
- EV adoption is increasingly driven not only by climate goals, but also by energy-security concerns amid oil-price volatility and geopolitical tensions
- Southeast Asia is emerging as one of the fastest-growing EV regions, supported by government incentives and affordable Chinese EV models
- Thailand became the second-largest EV market in ASEAN in 2025, with EV sales rising around 70% to roughly 140,000 units, equivalent to nearly one-quarter of total new car sales
- Thailand's EV 3.5 scheme and 30@30 target are accelerating the country's transition from a traditional automotive production base toward an ASEAN EV hub
- The long-term challenge is whether Thailand can move beyond vehicle assembly into higher-value industries such as batteries, electronics, semiconductors, software, and local supply chains

Global EV Market: EVs Are Becoming Mainstream

As the global electric vehicle (EV) industry continues to expand rapidly Southeast Asia is emerging as one of the fastest-growing markets, supported by government incentives and affordable Chinese EV models.

EVs have moved from being a niche product for early adopters to become part of the mainstream automotive market. Globally, the International Energy Agency (IEA) is projecting that EV sales will rise to around 23 million units in 2026, after surpassing 20 million units in 2025. As sales rise production is shifting away from internal combustion engines towards batteries, software, supply-chain control, and production efficiency.

The transition to electric vehicles is increasingly viewed not only as a climate policy, but also as part of national energy-security strategies. The transition to EV has become not a matter of convenience and cost saving for consumers, but a matter of national security as it will reduce dependence on imported fossil fuels. The IEA estimates that in 2025 EV adoption reduced global oil demand by around 1.7 million barrels per day, with the figure potentially rising to around 5 million barrels per day by 2030.

China's Dominance Reshapes the Global Automotive Industry

China is not only the world's largest EV market, but also the dominant producer of EVs and batteries, accounting for nearly 75% of global EV production and more than 80% of global battery cell production.

Chinese automakers such as BYD, XPeng, and NIO are highly competitive thanks to integrated supply chains, policy support, aggressive pricing, and rapid technological innovation and they have been expanding rapidly into global markets, especially Southeast Asia, due to their affordability and broad model availability. In the first quarter of 2026 in Thailand EV registrations overtook traditional internal combustion engine (ICE) passenger car sales for the first time.

This move towards EV is reshaping the automotive industry ecosystem. Compared with traditional ICE vehicles, EVs require fewer mechanical components, reducing the importance of engines and transmission systems.

This creates both opportunities and risks for traditional automotive producers, including Thailand, where many suppliers still depend heavily on engine-related components.

To maintain its position as a leading global producer of automobiles, Thailand's government introduced tax and incentive policies to attract investment in EV production in 2022 and has set a target of 30% – 30 percent of the car fleet to be EV by 2030. Vietnam is promoting EV adoption through support for VinFast and registration-fee reductions while Malaysia, Singapore, and the Philippines have also introduced EV tax incentives and charging infrastructure policies. Meanwhile Indonesia is leveraging its large nickel reserves to build an EV battery ecosystem.

These developments suggest ASEAN is becoming not only an EV consumer market, but also an increasingly important production and investment base for global and Chinese automakers.

Thailand's EV Market: Rapid Growth, but Challenges Remain

Thailand's booming EV market has been supported by government incentives, lower-cost Chinese EVs, wider model availability, and improving charging infrastructure gained additional momentum due to the energy shock. However, Thailand's EV market still needs the support of charging networks, after-sales services, insurance systems, and domestic supply chains.

Thailand's Long-Term Challenge: Moving Beyond Assembly

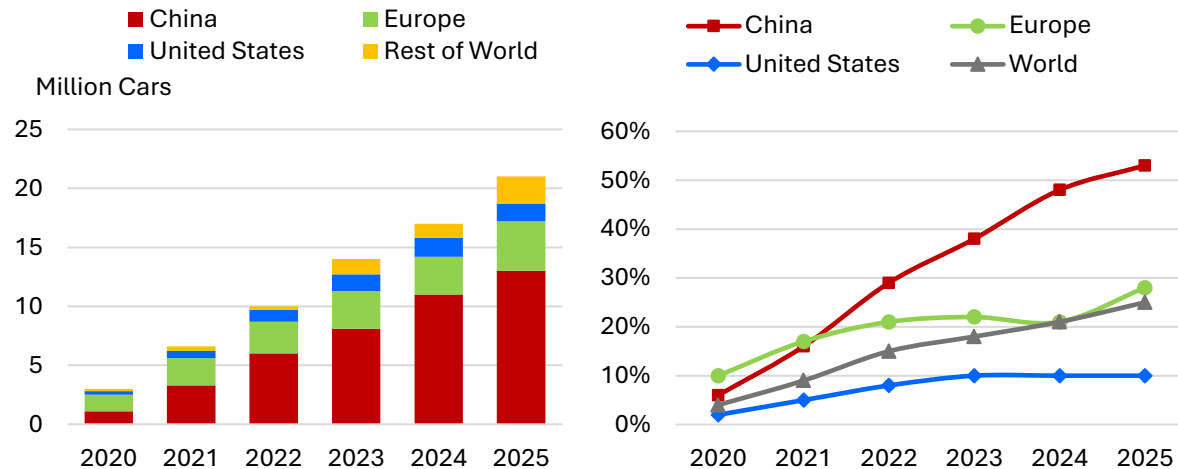
For Thailand's automobile manufacturing industry, investment has been flowing into vehicle assembly, batteries, and charging infrastructure and this has supported industrial activity during a period of global uncertainty. However, Thailand needs to move beyond being primarily an assembly base to the high value production of batteries, semiconductors, software, AI systems, and next-generation mobility technologies. Countries and companies that control these higher-value segments will become the long-term winners of the EV era. Thailand therefore needs to deepen local supply chains, upgrade domestic suppliers, develop skilled labor, strengthen technological capabilities, and build a complete EV ecosystem.

Thailand also needs a strategy for end-of-life vehicle management and battery recycling. As EV adoption accelerates, Thailand will face a growing number of retired batteries and vehicles that require proper collection, recycling, and disposal systems. Developing a domestic battery-recycling ecosystem could help

recover critical minerals such as lithium, nickel, and cobalt, strengthening resource security, reducing environmental risks, and creating new industrial opportunities within the broader circular economy.

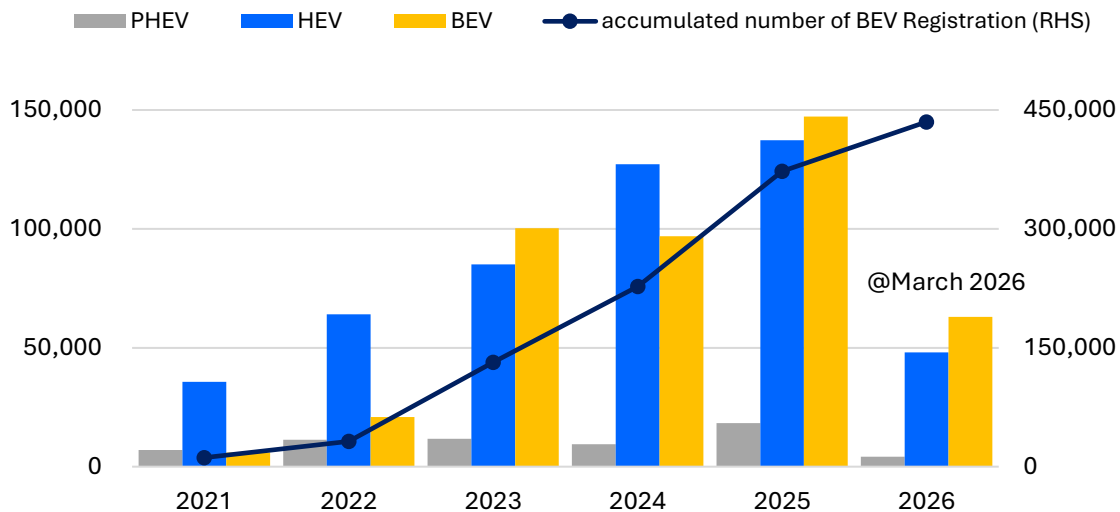
Ultimately, Thailand's success in the EV era will be determined not by how many vehicles it assembles, but by how much technology, innovation, and value it can capture across the industry's entire value chain.

Chart1: Electric car sales globally and sales share for selected regions



Source: International Energy Agency.

Chart2: Accumulated number of BEV Registration (Cars)



Source: Electric Vehicle Association of Thailand.

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