

Indonesia: Electric Motorcycle Industry

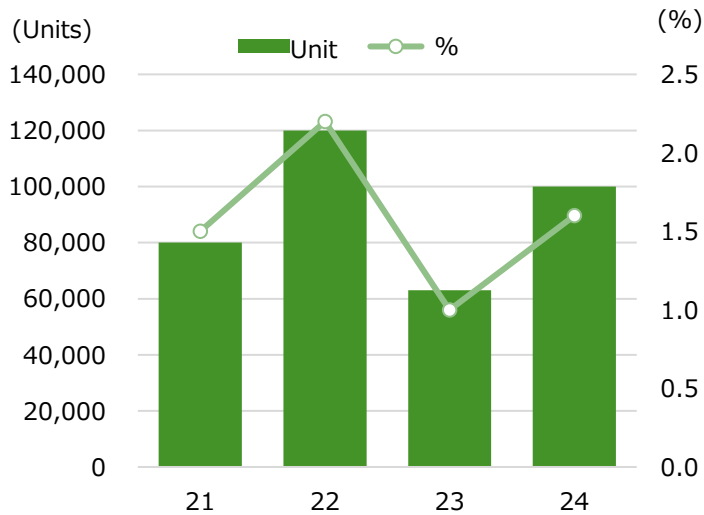
■ Overview: 2024 Electric Motorcycle Sales Surge, but Share Remains Low

- As motorcycle electrification advances globally as part of environmental initiatives, Indonesia—home to ASEAN's largest motorcycle market—is also promoting electric motorcycle adoption. Backed by policy support, electric motorcycle sales showed substantial growth in 2024. However, the EV ratio remains low, indicating significant room for expansion.
- The government has set a policy goal to transition all new motorcycle sales to electric models by 2040 as part of its electrification targets for motorcycles. For automobiles, the goal is full electrification by 2050. The motorcycle target is set 10 years earlier than for automobiles because the electrification of motorcycles, the primary mode of transportation in the country, is urgently needed as an air pollution countermeasure.

■ Sales of BEV Motorcycles and Tricycles

- The government has implemented various preferential measures to promote electric motorcycle adoption. As part of these incentives, it began providing subsidies for electric motorcycle purchases in March 2023. The subsidy policy includes requirements such as a local parts sourcing rate for eligible products, aiming to stimulate demand while simultaneously encouraging supply-side improvements.
- Amid this policy support, electric motorcycle sales have expanded. According to the International Energy Agency (IEA), sales of battery-powered electric two- and three-wheelers reached 100,000 units in 2024, an increase of approximately 60% compared to the previous year.
- However, the EV ratio for two- and three-wheelers in 2024 remained at just 1.6% (Figure 1).

Figure 1: BEV Two-Wheelers and Three-Wheelers Sales Volume, EV Ratio

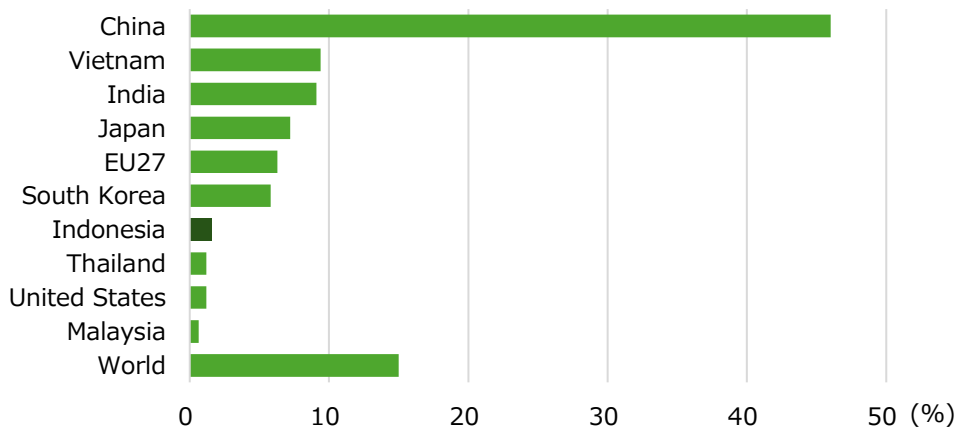


(source : International Energy Agency data)

■ EV Penetration Rate by Country

- The 2024 EV ratio (1.6%) slightly exceeds Thailand's but remains low globally (Figure 2).
- With high motorcycle ownership rates and mobility accounting for approximately 20% of carbon dioxide emissions, there is significant potential for electric motorcycle adoption.

Figure 2: EV Ratio for Two-Wheeled and Three-Wheeled Vehicles by Country and Status (2024)



(source : International Energy Agency data)

■ Major Companies

- While Honda and Yamaha dominate the majority of Indonesia's motorcycle market, local companies like Viar and Gesits are strengthening their presence in the electric motorcycle market (Figure 3).
- Additionally, Chinese manufacturers are entering the market. Amid efforts to promote local production, such as setting local procurement rates as subsidy eligibility requirements, they are also launching local manufacturing. YADEA is constructing a large-scale production base with an annual capacity of 3 million units, scheduled to begin operations in 2026.

Figure 3: Major Local Companies

Gesits	State-backed, promoting domestic battery production
Smoot	Swappable batteries, partnership with Grab
Volta	Parent company is an IT firm; growing with eco-conscious design and affordable pricing
Selis	Pioneer in the field, focusing on low-cost models
Alva	High-end segment, design-focused

(source : various reports)

■ Goals and Challenges

- The government has set a target to fully electrify all new motorcycle sales by 2040. Meanwhile, the electrification target for new car sales is set for around 2050. The reason for aiming for earlier electrification of motorcycles than cars is that, with mobility accounting for about 20% of carbon dioxide emissions, the electrification of motorcycles—which constitute over 80% of transportation—is an urgent priority. Additionally, the fact that charging infrastructure development is more feasible for motorcycles earlier is cited as another reason for prioritizing motorcycle electrification.
- However, as mentioned earlier, the adoption rate of electric motorcycles remains low, and there are still significant challenges to widespread adoption. One such challenge is consumer anxiety regarding battery issues like sustainability and charging. In Indonesian urban areas where motorcycles are the primary mode of transportation, daily travel distances can reach up to 100 kilometers. Yet, the current range of electric motorcycles on the market is only around 60 to 100 kilometers. This leaves lingering concerns for daily commuting use.
- Amidst this, companies are addressing the charging issue. Honda has introduced electric motorcycles with swappable batteries.

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