

2035 Outlook for the Global Electric Motorcycle Industry

Competitive focus is on product development capabilities that meet market needs and cost reductions for profitability

- ◆ Electric motorcycle sales and production trends and projection until 2035
- ◆ Production, sales and exports activities of leading electric motorcycle makers
- ◆ Introduction of local charging infrastructure development and core electric motorcycle models
- ◆ Overview of local purchase and production support measures of electric motorcycles



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Sales of electric motorcycles in 29 countries around the world, as calculated by FOURIN, reached a record high of 8.92 million units in 2021. However, demand dropped to 8.27 million units in 2022 and to 8.05 million units in 2023, decreasing for two consecutive years. The decline in sales was due to a drop in demand in China, which accounts for more than 80% of global electric motorcycle sales. Sales increased in China following the introduction of new standards on electric two wheelers in 2019 and the outbreak of COVID-19 in 2020 which raised demand for personal mobility. However, from 2022 onward, replacement demand has begun to subside and has shifted to cheaper electric bicycles due to the economic downturn caused by the real estate recession. As a result, electric motorcycle sales dropped from 8.34 million units in 2021 to 7.04 million units in 2022 and to 6.47 million units in 2023.

On the other hand, in India, which has introduced FAME II, a measure to accelerate the spread and production of electric vehicles, sales of electric motorcycles increased by 230,000 units compared to the previous year to 860,000 units in 2023 due to soaring gasoline prices and a series of new product launches. Additionally, in Thailand and Indonesia, which have introduced subsidies for the purchase of electric vehicles, demand for electric motorcycles is on the rise, with annual sales of around 20,000 units.

In Europe, as part of efforts toward carbon neutrality, subsidies for the purchase of electric motorcycles and tax incentives have been launched. In the coming years, in addition to stricter exhaust gas regulations, the ratio of electric vehicles is expected to increase significantly due to stricter regulations on driving internal combustion engine vehicles in urban areas.

The global electric motorcycle market is expected to grow toward 2035 due to increased demand in India, ASEAN, Europe, and elsewhere, but sales are expected to decline in China after 2030 due to declining birthrate and aging population. Under these circumstances, major Chinese electric vehicle manufacturers such as Yadea, AIMA, and Luyuan are building state-of-the-art smart factories equipped with the latest equipment and digital technology and focusing on product development that incorporates the latest battery and motor technologies that reduce costs and improve electricity consumption efficiency. They are also working to strengthen and expand their overseas business, mainly in Europe and ASEAN. In addition, Japan's Honda Motor, the world's largest motorcycle manufacturer, will ramp up its electric vehicle business in earnest by launching factories dedicated to electric motorcycles in India and Indonesia around 2027.

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1. Electric Motorcycle-related Policies Around the World

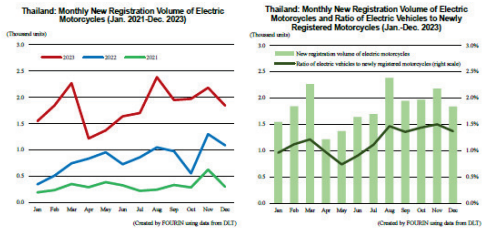
Electric motorcycle-related policies in countries around the world reflect the characteristics of each nation, such as industrial structure, financial situation, energy resources, and major forms of mobility. Leading European markets have introduced purchase subsidies and tax incentives for electric motorcycles as part of their efforts to become carbon neutral. However, since the local industry for motorcycles, which are not the main means of transportation, is small, many electric motorcycles are imported from outside the region, such as China. On the other hand, in countries such as India, Indonesia, and Thailand, motorcycles are the primary means of transportation for the general population and are used for a variety of purposes, becoming a major industry. However, increasing gasoline consumption due to the ever-increasing number of motorcycles owned has led to growing concerns of crude oil and petroleum products, putting pressure on local finances. The impact is particularly large during times of currency depreciation and rising crude oil prices. For this reason, as gasoline prices skyrocketed due to Russia's invasion of Ukraine in February 2022, and the spread of electric vehicles has become more active in developed countries. Meanwhile, countries with large motorcycle markets and industries have been implementing policies to promote the electric vehicle industry.

World (27 Countries): Policy Objectives / Purchase Subsidies / Preferential Tax Treatment for Electric Vehicle

Region	Country	Policy Objectives	Purchase Subsidies	Preferential Tax Treatment
Asia	India	Electric vehicle sales in motorcycle sector: 80% in 2030	* From June 2013, the government has been introducing subsidies for electric vehicles. The amount of the subsidy is 10% of the MSRP of the vehicle. (MSRP: 10,000 INR) (From April 2024, EMES 2024 subsidy was capped at 15,000 INR)	* Exemption from registration, sales and stamp duty
	Indonesia	Electric vehicle sales in motorcycle sector: 30% in 2030, 60% in 2040	* In 2023, electric motorcycle purchase subsidy was implemented with the maximum amount of 7 million IDR	* Reduction of consumption tax (CST) from 10% to 5%
	Thailand	Electric vehicle sales in motorcycle production (10% in 2030) (10% in 2040)	* In 2023, electric motorcycle purchase subsidy was implemented with the maximum amount of 1 million THB	* Reduction of excise tax from 5% to 1%
	Vietnam	None	* None	* Exemption from excise tax (from 10% to 5%)
	Philippines	Electric vehicle sales in motorcycle sector: 100% in 2040	* Providing incentives to vehicle manufacturers that efficiency during the period from 2023 to 2028 in order to reduce emissions	* None
	Malaysia	None	* None	* Reduction of excise tax until 2023
	Japan	Electric vehicle sales in motorcycle sector: 30% in 2030, 50% in 2040, 100% in 2050	* Purchase subsidies by the government to continue until 2025	* None
Americas	United States	* 75% requirement ratio in California state: 50% in 2025, 100% in 2035	* In addition to the CBY subsidy, 5-year and 10-year tax incentives (30% and 45% respectively) are available for electric vehicles	* Some state governments and cities offer preferential treatment such as access to carpooling lanes
	Brazil	None	None	* Exemption from registration tax and excise tax in some metropolitan areas
	Argentina	None	None	* Exemption from vehicle registration tax and excise tax in some metropolitan areas
	Colombia	None	None	* None
	Chile	None	None	* Exemption from parking fee in some metropolitan areas
Europe	France	* In March 2023, the EU decided to make new light vehicle, mid-range, and zero-emission, but no decision has been made regarding electric motorcycles	* An electric vehicle purchase subsidy (from 2000 euros) was introduced in February 2017 and continued until July 2024	* Exemption of 1% of the purchase price from taxation for the electric vehicle (compared to 2% for conventional vehicles) until 2024 and 1% until 2025
	Italy	None	* An electric vehicle subsidy program (Zuschuss) was introduced in 2017 which will continue until 2026	* Exemption from motor vehicle tax (1% to 2.5% per year) for five years from the date of introduction of electric vehicle tax
	Germany	* Sales, class, power, emission, and other criteria have been established for zero-emission vehicles from 2024 and of the 100% category in mid-April 2024	* A purchase subsidy system was introduced in 2020, and the amount of the subsidy was increased from 4,000 euros to 6,000 euros in April 2024	* Exemption from motor vehicle tax for 10 years (However, 100% of the purchase price of electric motorcycles is tax deductible)
	United Kingdom	* In March 2023, the EU decided to make new light vehicle, mid-range, and zero-emission, but no decision has been made regarding electric motorcycles	* A purchase subsidy system was introduced in 2020, and the amount of the subsidy was increased from 4,000 euros to 6,000 euros in April 2024	* Exemption from motor vehicle tax for 10 years (However, 100% of the purchase price of electric motorcycles is tax deductible)
Others	Indonesia	None	* None	* Exemption from registration tax in some metropolitan areas
	Thailand	None	* None	* Exemption from excise tax. Exemption from or reduction of stamp duty in some areas
	Malaysia	None	* None	* Exemption from registration tax in some metropolitan areas
	Japan	None	* None	* Exemption from being considered as a motorcycle
	India	None	* None	* Exemption from being considered as a motorcycle
	China	None	* None	* Exemption from being considered as a motorcycle
	South Korea	None	* None	* Exemption from being considered as a motorcycle

(Created by FOURIN using national government documents and various media reports)

DECO used to be an import and sales company for Thaiwasee electric motorcycle manufacturer Laiba Electric Power Co., Ltd., but since 2015 it has been engaged in local assembly and sales of electric scooters and related parts. As a leading manufacturer, the company was quick to benefit from Thailand's electric vehicle subsidy policy and has maintained its top position in electric motorcycle sales thanks to strong sales of its core model, the small NBLE. NBLE became the fastest growing manufacturer in 2023, with the LION SRS Z1 ranking second in sales and the HAOXIAOQI brand making fourth. The company's main model is the LION SRS Z3, which accounted for 80% of NBLE's sales in January 2024. AJ EV Bike, an electric motorcycle company, was established in 2021 by local home appliance company AJ Advance Technology. The company sells electric scooters in partnership with Yadea, the largest electric motorcycle manufacturer in China. The AJ C-LINE is its best-selling model.



Thailand: Key Specifications of Main Electric Scooters

	<DECO Hannah>	<LION SRS Z1>	<AJ C-LINE>
Model	DECO Hannah	LION SRS Z1	AJ C-LINE
Motor	1.0 kW	1.0 kW	1.0 kW
Max. output	1.0 kW	1.0 kW	1.0 kW
Max. speed	45 km/h	45 km/h	45 km/h
Weight (incl. battery)	78.30 kg	N/A	N/A
Drive type	In-wheel	In-wheel	In-wheel
Drive shaft	N/A	N/A	N/A
Charging time	4 hours	4 hours	4 hours
Warranty period	2 years	2 years	2 years

(Created by FOURIN using company PR materials and various media reports)

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