

## MIBG Sustainability Research

# Hybrids gaining traction globally, ASEAN sees EV pick-up



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### MY, ID and SG witness EV traction, global slow

Global electric car sales increased 24% to 6.7m in 1H24, forming 21% of total car sales. The sale of fully electric cars slowed to +13.9% YoY whereas plug-in hybrid electric cars accelerated by +59% YoY. Additionally, hybrid car sales also witnessed faster growth. We believe this is mainly due to saturation and end of EV subsidy in Europe, weakness in US, lack of charging infrastructure and range anxiety. Recent tariff increases on China-made cars in the US and Europe will have a further impact. ASEAN is witnessing a pick-up in electric car sales, mainly in Malaysia, Indonesia and Vietnam whereas Thailand is a mixed bag. Favourable regulations, local brands and penetration of Chinese carmakers will drive sales higher. We prefer ASEAN companies that are partnering with Chinese car makers for manufacturing and sales and battery value chain companies.

### EVs slowing in Europe, US favours hybrids

Europe including the UK reported a meagre 0.4% YoY increase in fully electric car sales with six of the 11 countries covered reported a YoY decline. The share of fully electric and hybrids has stabilised at 52% for 2023. The recent additional import duty on Chinese manufactured EV cars ranging 17.4 - 37.6% will further drag down EV sales. US fully EV was higher by 3.6% YoY, whereas hybrids increased 35.1% YoY. Range anxiety and cautious stance on fully electric cars may have led to a strong hybrid performance. This is visible in the results of Nissan, which cut its 2024 retail sales forecast due to market shift towards hybrids. China reported 14% YoY increase in fully electric cars on an increased base. China formed 61% of the global fully electric car sales.

### ASEAN EV sales increasing on a low base

ASEAN has witnessed strong EV sales in 1H24 on a lower base in most markets. Malaysia reported EV car registrations rose 142% YoY to 10,663 fully electric cars in 1H24. Indonesia reported an EV car sales surge 104% to 11,943. Singapore reported a 218% jump YoY to 6,019 EV, already surpassing its 2023 numbers. Thailand reported a strong start in Jan 2024. However, EV sales have slowed in the next 4 months. VinFast, the flagship EV brand of Vietnam, witnessed a slowdown in US sales, leading to lowering of its 2024 car sales target. For 1H24, VinFast reported global sales of 21,747 EV cars, up 26% YoY.

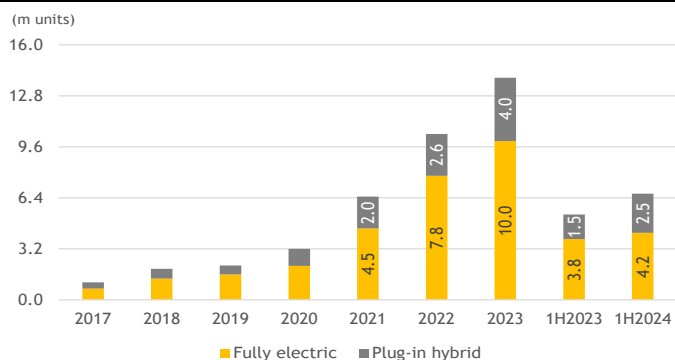
### Chinese taking over ASEAN market, regulatory push for EV increasing

Malaysia is planning to cut its fuel subsidies, which could fuel demand for EVs. Philippines has expanded its tax breaks from 2023-28 to include 2/3-wheelers, plug-in hybrids and other hybrids, other battery materials to zero import tariff. Indonesia has extended its tariff cuts for local manufacturing of EVs to end-2025. In the next 2 years, Chinese carmakers would have production capacity of about 750,000 cars annually in Thailand. Conversely, Japanese OEMs such as Honda and Suzuki are shutting their capacities in Thailand. The battery cell glut globally should benefit ASEAN making EVs more competitively priced vs petrol. We reiterate our view that ASEAN automakers, especially those with Chinese partners, could benefit from the EV rush, backed by battery minerals/ecosystem (ID and PH), a large automotive production base (TH, ID and MY) and robust demand (ID, MY, TH, and VN).

### Global EV car sales at 21% of total car sales in 1H24, up 24% YoY

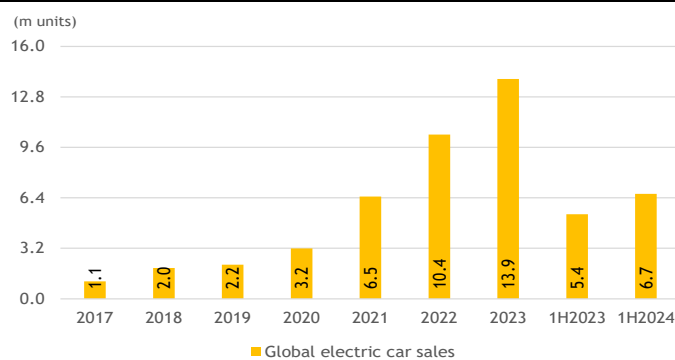
Global EV sales were 6.7m in 1H24, rising 24% YoY, according to PWC Strategy. Of this, battery electric car or fully electric car sales were 4.2m, up 10.3% YoY, whereas plug-in hybrid (PHEV) cars were 2.5m, higher by 58.7% YoY. PHEVs are powered by electric powertrain but have a gasoline engine as backup. EV cars formed 21% of the total car sales vs 22% in 1H23 and 23% in 2023. China dominated the market, accounting for 65% of EV sales, followed by the US at 11%. As a region, Europe and UK accounted for about 19.3%. IEA forecasts global EV sales to continue to rise and could reach about 17m in 2024, an increase of 21%.

**Fig 1: Global fully electric car sales of 4.2m and plug-in hybrid sales of 2.5m in 1H24....**



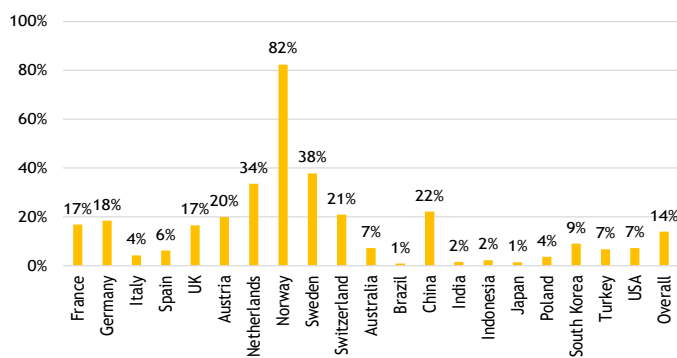
Source: BloombergNEF, PWC Strategy, Maybank IBG Research  
 Note: 2022, 2023, 1H2023, 1H2024 - PWC Strategy data is for top 20 countries

**Fig 2: ...driving electric car sales to 6.7m, YoY increase of 24% in 1H24**



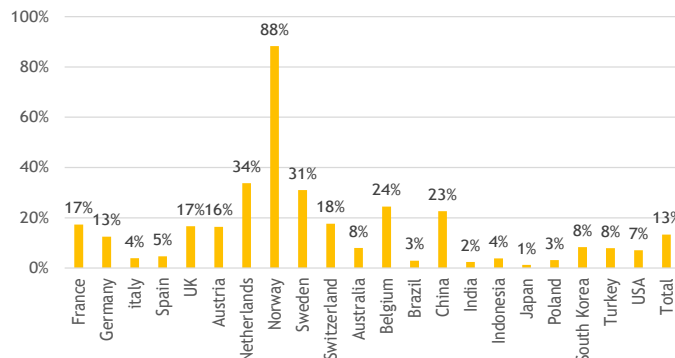
Source: BloombergNEF, PWC Strategy, Maybank IBG Research

**Fig 3: Fully electric vehicles (2023): Share of total car sales varies from 1% to 82% - Japan & Brazil at 1% and Norway at 82%**



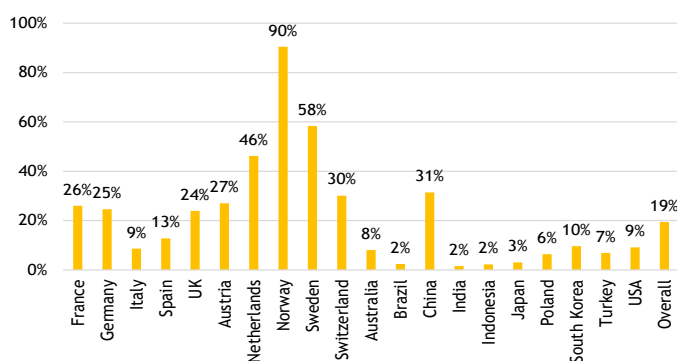
Source: PWC Strategy, Maybank IBG Research

**Fig 4: Fully electric vehicles (1H2024): share of total car sales varies from 1% to 88% - Japan at 1%, Norway at 88%**



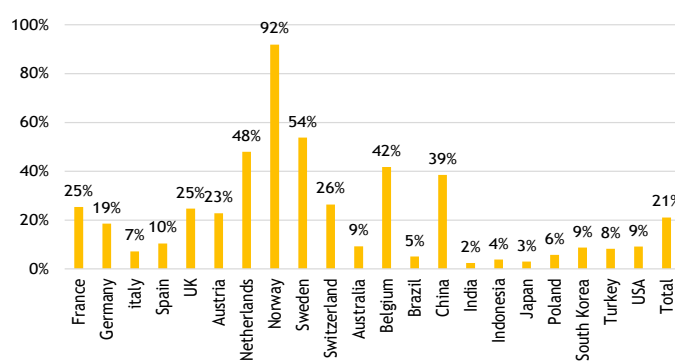
Source: PWC Strategy, Maybank IBG Research

**Fig 5: FEV+PHEV (2023): share of total car sales varies from 2% to 90% - Brazil, India & Indonesia at 2% and Norway at 90%**



Source: PWC Strategy, Maybank IBG Research

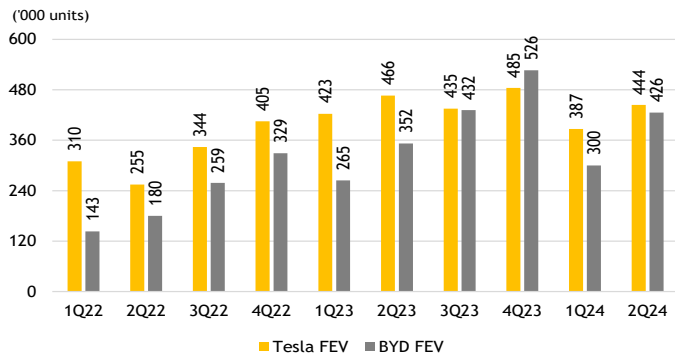
**Fig 6: FEV+PHEV cars: share of total car sales varies from 2% to 92% - India at 2%, Norway at 92%**



Source: PWC Strategy, Maybank IBG Research

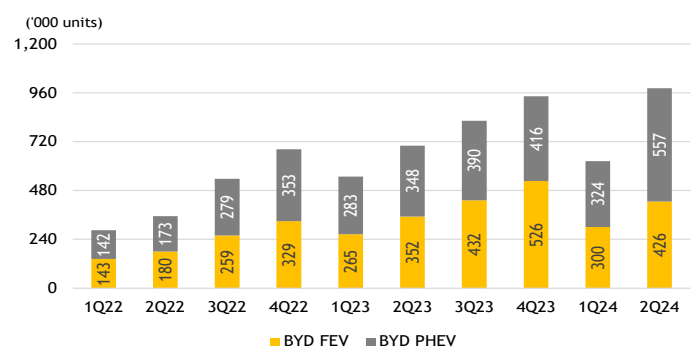
Tesla continues to lead the fully electric car market followed by BYD. For 1H24, Tesla reported a 6.5% YoY decline in car sales to 830,766 units vs a 17% YoY increase in BYD car sales to 726,153 units. BYD also offers PHEVs, which increased 39.5% YoY in 1H24 to 880,992 units. For BYD, ex-China sales totaled 13% of its sales in 1H24 vs 6% in 1H23 and 8% in 2023.

**Fig 7: Tesla ahead of BYD on fully electric car sales**



Source: Company data

**Fig 8: BYD: Reporting faster increase in PHEV in 1H24**



Source: Company data

**Hybrids gaining popularity to offset range anxiety issues**

Hybrids cars, powered by gasoline engine but also have battery backup, are regaining popularity globally as people believe that it is a good first step towards fully electric cars as it offsets range anxiety issues faced by electric cars due to lack of charging infrastructure. In 1H24, hybrid car sales increased 17.7% to 4.3m units vs a 10.3% YoY increase in fully electric cars. Hybrids formed 14% of total car sales globally vs 13% for fully electric cars. Japan is the leader in this category, clearly showcasing where the Japanese car makers on focusing on. Japanese car makers are losing ground to the Chinese due to their slow progress on fully electric cars. The US is the second-largest market in terms of hybrid car sales. Recently, Nissan cut its 2024 retail sales forecast due to market shift towards hybrids in the US.

**Fig 9: Hybrids priced higher than gasoline (USD)**

Car models	Gasoline	Hybrid	Difference
Toyota Corolla 2024	22,050	23,500	7%
Toyota RAV 4 2024	28,675	31,725	11%
Toyota Corolla Cross	23,860	28,200	18%
Honda Accord 2024	27,895	32,895	18%
Honda CRV 2024	30,100	34,350	14%
Honda Civic Sedan 2024	24,250	28,750	19%

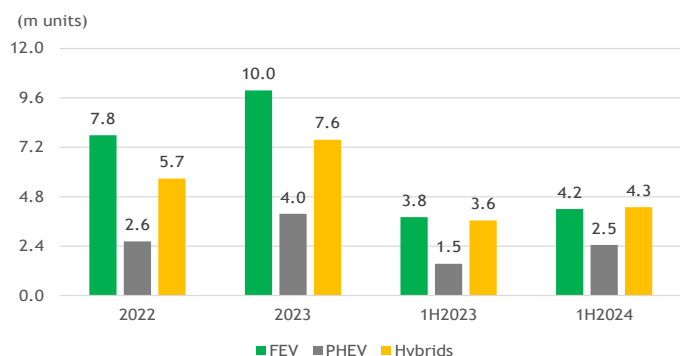
Source: Company websites

In India, the Japanese automakers, namely Suzuki and Toyota, have been lobbying to bring hybrids at the same rate of tax as EVs. Currently, EVs are taxed at 5%, hybrids at 43% and other cars at 18-43% depending on the power and length of car.

As per Suzuki’s India subsidiary Maruti Suzuki India, in Europe, there is the carbon-related tax and if one calculates the total impact of the carbon-related tax, the hybrids pay 1% higher than what the electric vehicles pay. The petrol and diesel vehicles pay roughly 6% higher than electric vehicles. In Japan, the difference is even less than that, but in the Europe it is the maximum. As per Maruti Suzuki India, coal forms about 75% of India’s power supply, making hybrid cars more environmentally friendly than pure EVs currently. As renewable energy capacity increases and coal share decreases after 2030 EVs would be more environmental friendly. In hybrids, the internal battery is charged by using the regenerative braking system. Suzuki Japan is working on launching smaller hybrids, which are cost competitive

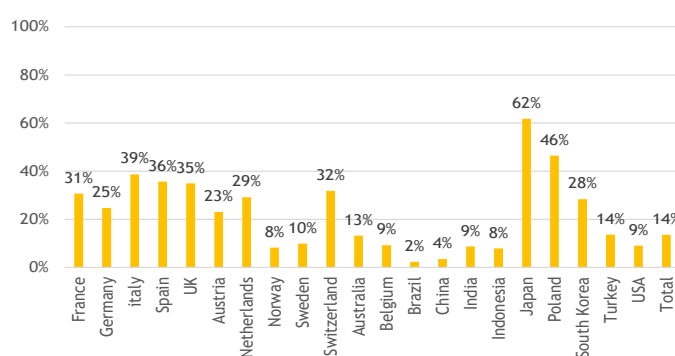
if taxes are lower. One Indian state, Uttar Pradesh, recently waived road tax on hybrids (8% on cars priced <INR1m and 10% for others). This would lower the price of Suzuki and Toyota hybrids by INR200,000-300,000.

**Fig 10: Hybrids surpassing fully electric car sales in 1H24**



Source: PWC Strategy, Maybank IBG Research

**Fig 11: 1H24: Share of total car sales varies from 2% to 62%**



Source: PWC Strategy, Maybank IBG Research

**ASEAN: FEV sales gaining momentum, regulatory push**

As per data available from five of the six key ASEAN markets, fully electric cars are witnessing good momentum YoY.

**Malaysia:** Fully electric car sales of 10,663 units for 1H24, higher by 142% YoY. The share of fully electric cars was 2.6% of total car registrations for 1H24 vs 1.6% in 2023. Hybrid car sales were at 11,722, up 22% YoY. The Malaysian government is contemplating reduction/removal of fuel subsidy. Any action on this will deliver the much-needed push for EV adoption as it will make EV more competitive to gasoline on a total cost of ownership (TCO) basis.

**Indonesia:** Fully electric car sales more than doubled YoY to 11,943 units in 1H24. Its share of total cars sold increased to 4% vs 2% in 1H23. Hybrid car sales increased 47% YoY to 24,397 units, forming 8% of total car registrations vs 4% in 1H23 and 7% in 2023. At the start of 2024, the Indonesian government extended the sales tax discount (lowering tax from 11% to 1%) on fully electric vehicles until end Dec 2024 for cars with a minimum 40% local content. It also suspended import duty on fully electric vehicles until end-Dec 2025. Chinese automakers such as BYD, Chery, SAIC, GAC Aion, etc and Vietnam domiciled VinFast are setting up facilities in Indonesia.

**Singapore:** Fully electric car sales increased 218% YoY to 6,019 units forming 32.4% of total car sales vs 14.4% in 1H23. Hybrid car sales were higher by 63% YoY to 8,922 units, at 48.1% of total sales vs 41.9% in 1H23.

**Thailand:** Fully electric car sales increased 41.8% YoY to 26,377 units YTD in April 2024. About 50% of the sales number was already recorded in Jan 2024, since then sales have slowed down. The overall car market has seen a slowdown in Thailand with sales decreasing 24% in the period from Jan to April 2024. The Thai government has set a target of sale of 175,000 cars in 2024. As per Electric Vehicle Association of Thailand (EVAT), the country has been experiencing oversupply of Chinese EVs over the last couple of years, driven by tax benefits for imports. Most large Chinese carmakers are setting up capacities totaling about 700,000 units per annum in Thailand, which will fully operate within the next 12-24 months. At the same time, many Japanese carmakers are shutting facilities for gasoline cars. Suzuki has announced shutting down its Thailand plant by end 2025 and Honda has announced closure of its facility in 2025.

**Fig 12: Chinese EV maker capacity in Thailand**

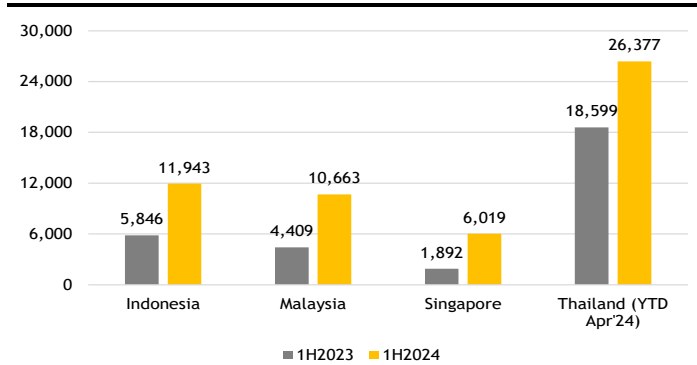
Company	units/pa
Neta	200,000
BYD	150,000
Changan	100,000-200,000
MG	100,000
GWM	80,000
GAC Aion	50,000

Source: Nikkei Asia, National Economic and Social Development Council

**Philippines:** Electric vehicle sales data is not available. The National Economic and Development Authority (NEDA) Board has announced tax breaks available to fully electric vehicles will be extended to two and three-wheeled battery electric vehicles, hybrid electric vehicles, and plug-in hybrid electric vehicles (PHEVs), including jeepneys, buses and nickel metal hydride accumulator batteries until 2028. The government aims to reach 311,700 EVs by 2028 under the business-as-usual scenario, along with establishing 7,300 EV charging stations from 2023 to 2028. As of end April 2024, there were about 563 registered charging stations.

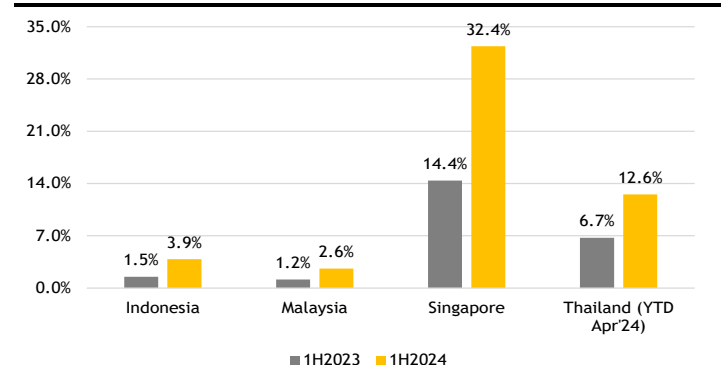
**Vietnam:** VinFast reported global sales of 21,747 units, up by 92% in 1H24. This includes deliveries from its local facilities and US-based facility. The company has lowered its 2024 target to 80,000 units from 100,000 earlier. Vietnam is also witnessing the entry of Chinese automakers to set up facilities. Chinese automakers namely Cherry, BYD, SAIC etc have announced plans to set up facilities.

**Fig 13: ASEAN: Fully electric car sales up 142-318% YoY in 1H24 across four countries**



Source: PWC Strategy, Gaikindo, MAA, Data.gov.my, Singapore Road transport, Maybank IBG Research

**Fig 14: ASEAN: FEV car sales at 2.6% to 32.4% of total car sales in 1H24**



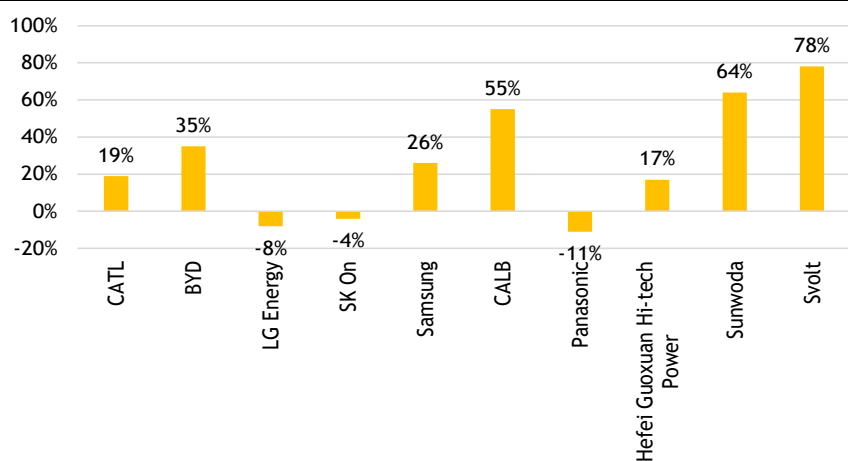
Source: PWC Strategy, Gaikindo, MAA, Data.gov.my, Singapore Road Transport, Maybank IBG Research

**Battery demand increases 23% YoY in 1H24; fears of glut loom**

Battery demand exceeded 510GWh across all end-use markets, an increase of 23% YoY for 1H24 as per Rho Motion research house. EV battery demand accounted for 72% vs 71% in 2023 followed by battery storage at 15% vs 13% in 2023; portables were at 7%, down from 9% in 2023 and others were 6%. China demand increased 29% YoY for 2Q24, accounting for about 50% of global battery demand. US and Canada increased 23% YoY in 2Q24 with demand from battery storage more than doubling. Europe was the weakest at an 8% YoY rise for 2Q24, mainly due to softness in EV sales in the region.

Among the various battery manufacturers, the Chinese companies are reporting YoY increases of 17-78% whereas some Korean companies reported a YoY decline.

**Fig 15: Demand growth for various cell manufacturers; Chinese growing at faster pace, Koreans show a decline**



Source: Rho Motion 2024

For 2024, Rho Motion forecasts battery demand to increase by 20-25% to 1.2-1.25 TWh vs 1 TWh in 2023. We believe cell prices will continue to decline along with the current glut in supply. This should be beneficial for the ASEAN region, which is seeing aggressive activity by the Chinese carmakers at the cost of the Japanese and Korean carmakers.

**Fig 16: Companies mentioned in the report**

Company	Bbg code	Curr	CP	Rating	TP
Nissan Motor Company	7201 JP	JPY	486.20	NA	NA
Vinfast Auto Ltd	VFS US	USD	3.94	NA	NA
Honda Motor	7267 JP	JPY	1,647.00	NA	NA
Suzuki Motors	7269 JP	JPY	1,760.00	NA	NA
Tesla Inc	TSLA US	USD	222.62	NA	NA
BYD Co Ltd	1211 HK	HKD	232.20	NA	NA
Maruti Suzuki India	MSIL IN	INR	13,375.00	NA	NA
SAIC Motor Corp Ltd	600104 CH	CNY	14.68	NA	NA
Guangzhou Automobile Group (GAC)	2238 HK	HKD	2.88	NA	NA
Contemporary Amperex Tech (CATL)	300750 CH	CNY	186.31	NA	NA
LG Energy	373220 KS	KRW	324,000.00	NA	NA
SK Holding co	034730 KS	KRW	149,900.00	NA	NA
CALB Group	3931 HK	HKD	13.50	NA	NA
Panasonic Holdings	6752 JP	JPY	1,246.00	NA	NA
Hefei Guoxuan High-Tech	002074 CN	CNY	19.53	NA	NA
Sunwoda Electronics	300207 CN	CNY	17.18	NA	NA

Source: Bloomberg, Maybank IBG Research

Fig 17: Coverage companies that could see potential impact from EV adoption

Companies	Bbg code	Sector	Curr	CP	Rating	TP
<b>Indonesia</b>						
Aneka Tambang	ANTM IJ	Materials	IDR	1,315.00	BUY	1,900.00
Merdeka Copper	MDKA IJ	Materials	IDR	2,460.00	BUY	3,450.00
Vale Indonesia	INCO IJ	Materials	IDR	3,740.00	BUY	5,100.00
United Tractors	UNTR IJ	Industrials	IDR	25,800.00	BUY	28,000.00
<b>Malaysia</b>						
Bermaz Auto	BAUTO MK	Automotive	MYR	2.43	BUY	3.04
MBM Resources	MBM MK	Automotive	MYR	5.30	HOLD	4.69
Sime Darby Bhd	SIME MK	Consumer Discretionary	MYR	2.60	BUY	3.44
Tan Chong Motor	TCM MK	Automotive	MYR	0.79	HOLD	0.85
Press Metal Ind.	PMAH MK	Industrials	MYR	5.36	BUY	6.10
Greatech Technology	GREATEC MK	Technology	MYR	5.31	BUY	6.50
Yinson Holdings	YNS MK	Oil & gas	MYR	2.39	BUY	4.78
Solarvest Holdings	SOLAR MK	Energy	MYR	1.70	BUY	1.84
<b>Philippines</b>						
Ayala Corp	AC PM	Industrials	PHP	586.00	BUY	1,000.00
<b>Singapore</b>						
ComfortDelGro	CD SP	Transport	SGD	1.40	BUY	1.60
<b>Thailand</b>						
AAPICO Hitech	AH TB	Automotive	THB	16.00	BUY	32.00
Somboon Advance Technology	SAT TB	Automotive	THB	11.60	BUY	20.00
Thai Stanley Electric	STANLY TB	Automotive	THB	207.00	BUY	235.00

Source: Maybank IBG Research



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