Sustainability Mobility:
Pioneering Public Transport Solutions for Malaysia's Future
The EV Story

05 September 2024 | 📍 Persidangan Permulaan Rancangan Malaysia Ketiga Belas, Mövenpick Hotel and Convention Centre, KLIA, Sepang

Presented by: Aishah Daniyal,
Executive Secretary of Malaysia Zero Emission Vehicle Association (MyZEVA)

MYZEVA
Malaysia Zero Emission Vehicle Association

21 SEPTEMBER 2021

MyZEVA was founded to **promote** the use of **Battery Electric Vehicles** to **reduce carbon emissions** and advocate for the **adoption of zero-emission vehicles** across Malaysia.

08 FOUNDER MEMBERS

myEVOC, TNB, Volvo, BMW, PEKEMA, Bermaz, Toyota, and Charge n' Go

WORK CENTERS & ACHIEVEMENT

1. **Influence policy to push for vehicle availability**
   - Continuous engagement with government agencies & industry

Achievement: Submission of white paper of fuel restructuring to the government (2022)

2. **Increase public awareness**
   - Basic EV information, Charging infrastructure, EV safety

Achievement: Organize media trip to East Coast (Nov 2023), Assist the government in promoting the purchase of electric 2-Wheelers (2023-to-date), Assist *Jabatan Bomba dan Penyelamat (JBPM)* in EV fire blanket usage safety video (2024)

3. **Ease deployment of charging infrastructure**
   - Ease of highway access, High-rise buidling

Achievement: Contribute to EVCS Safety Guideline by *Suruhanjaya Tenaga* (2021), Contribute to PlanMalaysia and JBPM on EV charging Bay Guideline (2023)

4. **MyZEVA as regional & national industry thought leader**
   - Research, Data and information center

Achievement: Quarterly EV and charger database (to-date), Quarterly ASEAN EV database (to-date)

CHALLENGES IN MALAYSIA'S EV ECOSYSTEM

Malaysia **lagged behind** in terms of the EV ecosystem and **required infrastructure**, with a notable **lack of a unified voice** from the industry.

MyZEVA UNITES EV ECOSYSTEM

MyZEVA **brings together** OEMs, EV owners, and Charging Point Operators (CPOs) to **help the government** create better **EV-friendly policies.**

As of today, we have 54 registered members covering the main segments of the EV ecosystem

POWER UTILITY

TENAGA NASIONAL

sarawak energy

EV OEM / IMPORTER

MITSUBISHI MOTORS · PEKEMA · BMW · TOYOTA · RENAULT · TESLA · BAuto · HICOM AUTOMOTIVE · EON · GOAUTO · HONDA

BUS & LIGHT VEHICLE SEGMENT

GML · Scomi Group · CAM · HAP SENG TRUCKS DISTRIBUTION

2W IMPORTER & SOLUTION PROVIDER

EBIXON · blueshark

CHARGE POINT OPERATOR

chargEV · PIPEV · gentari · ChargeSini · VSD Automation · EVGURU · chargEV · CHARGE GO · GO TO-U · EVPOWER · EVLUTION · EV CHARGING EVERYWHERE · GHARGE+

EV CHARGING STATION CONTRACTOR, SOLUTION & EQUIPMENT SUPPLIER

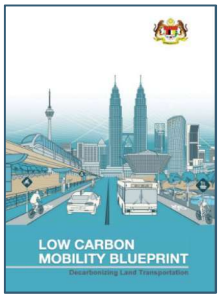
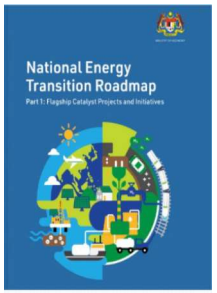
KINETA · SWICHTEC · KVC · HAILWAN · AGMOEV · REACTIVE ENERGY · AMTEL · MH MUN HEAN · JuiceUP · SIEMENS · BATERIKU.COM · CHARGE SINGH · ECO RIDE · my evolution · REX · FIRE FIGHTER · POWERBEE · HUAWEI

RESEARCH INSTITUTE

mrc malaysia motordata research consortium sdn bhd · UNIVERSITI MALAYSIA PAHANG · accenture · MiGHT · Deloitte.

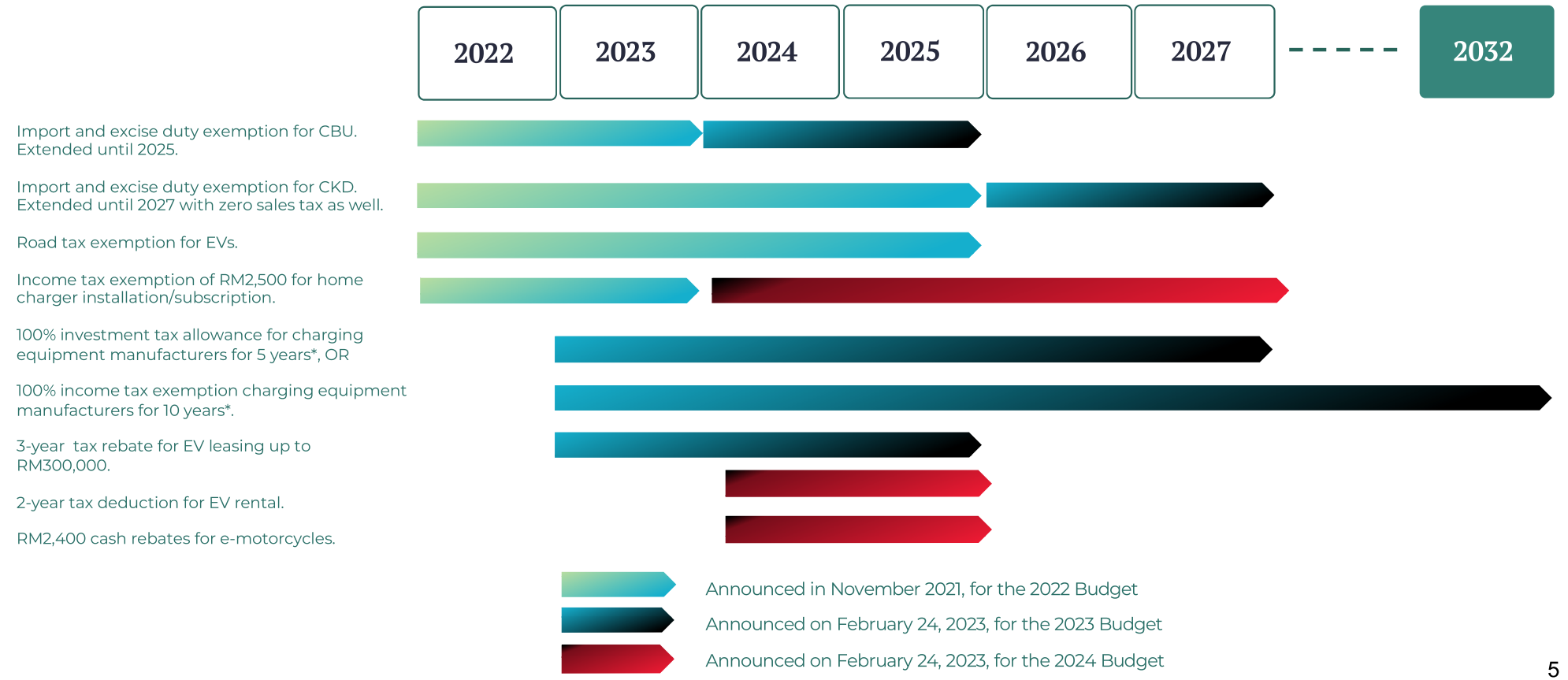
The Malaysian government is very committed to achieving net zero emissions by revising the target for EV sales* upward in these documents.

*EV in the TIV i.e, EV in the annual automotive sale

		2030	2040	2050
	Published 2021	15%	-	-
	Published 2022	-	38%	-
	Published 2023	20%	50%	80%

EVs on the road ~ 780,000

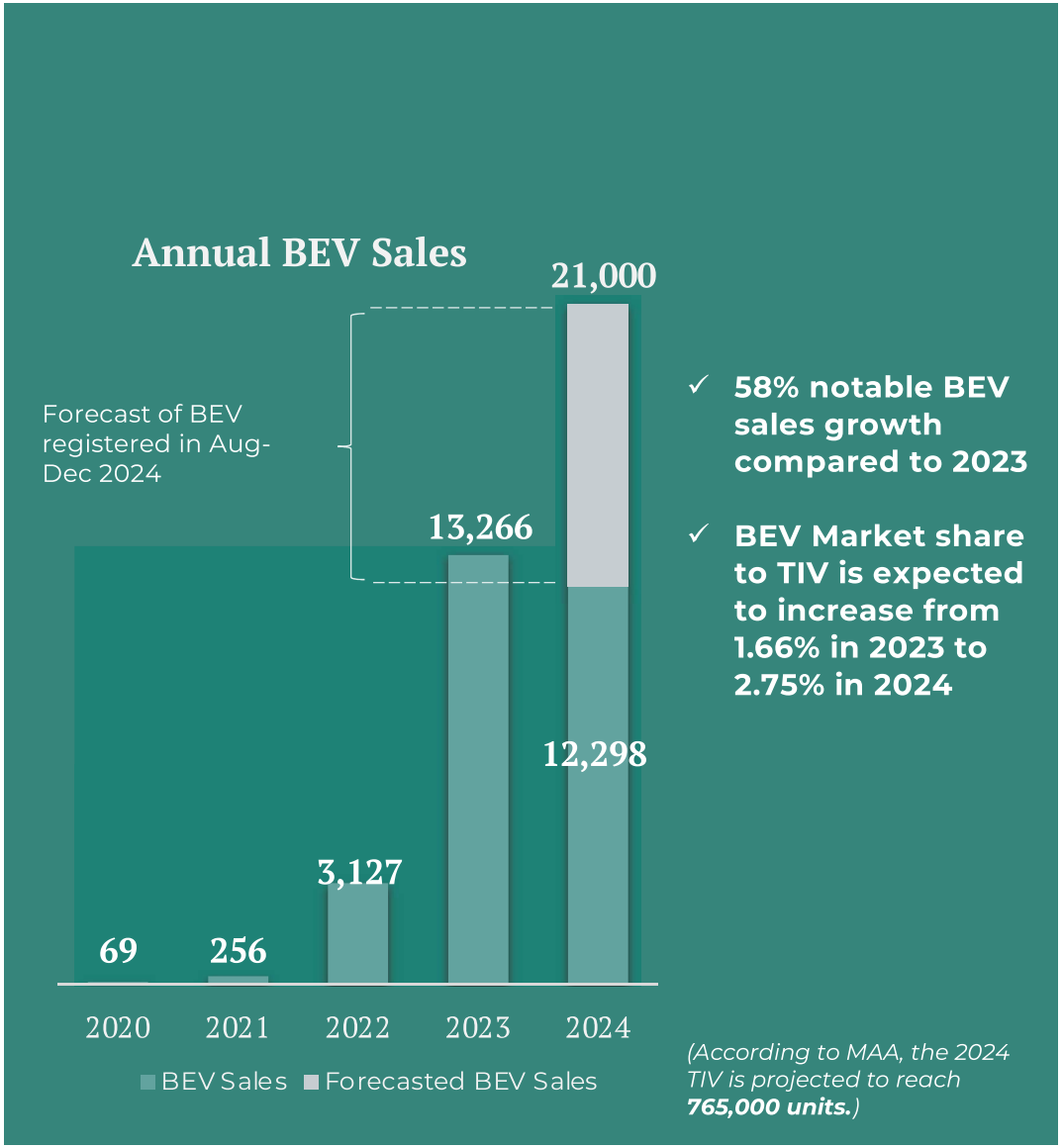
The target is strengthened by various incentives in annual budget announcement



Source: *MyZEVA Analysis*

The market responded very well.

We forecast the total EV on the road in the country will be 38,000 unit.



- ✓ **58% notable BEV sales growth compared to 2023**
- ✓ **BEV Market share to TIV is expected to increase from 1.66% in 2023 to 2.75% in 2024**

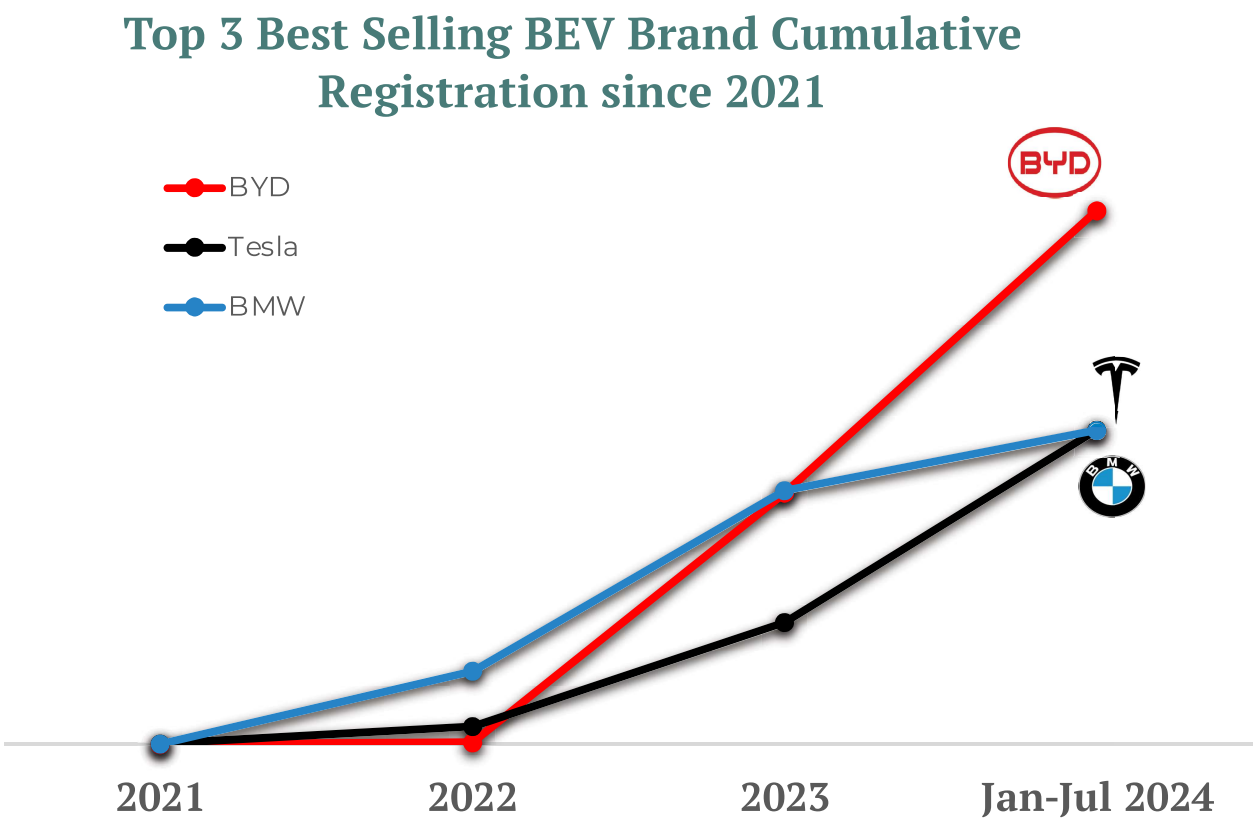
*(According to MAA, the 2024 TIV is projected to reach **765,000 units.**)*

***Source**: Jan – June 2024 data.gov.my[1] July 2024 AgmoEV[2] Malaysia Automotive Association[3] Internal MyZEVA Analysis[4]*

The presence of over 30 BEV brands in Malaysia indicates a dynamic and competitive market with top global brand

No.	BEV Brand	Market Share
1	BYD	32.73%
2	TESLA	19.28%
3	BMW	19.25%
4	MERCEDES BENZ	4.76%
5	VOLVO	3.76%
6	PORSCHE	3.49%
7	MINI	3.32%
8	GREAT WALL	2.96%
9	HYUNDAI	2.32%
10	SMART	1.84%
11	MG	1.04%
12	AUDI	0.80%
13	LOTUS	0.67%
14	NETA	0.65%
15	CHERY	0.63%
16	NISSAN	0.54%
17	KIA	0.49%
18	WESTSTAR MAXUS	0.46%
19	RENAULT	0.38%
20	JAGUAR	0.15%

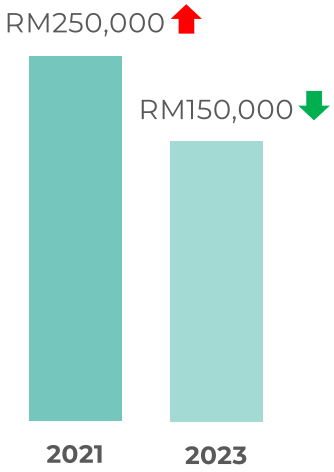
Others: Honda, Higer, MG, Renault, Toyota, Volkswagen, Polestar, Fiat, Cam, Vinfast



Source: *Jan – June 2024 data.gov.my[1] July 2024 AgmoEV[2] Internal MyZEVA Analysis[3]*

Driving down costs: Empowering Malaysia's shift to sustainable mobility

Past & Current Prices of EVs



Two years ago (**2021**), most EVs were priced above RM250,000. High initial costs made EVs less accessible to the average consumer.

In **2023**, significant price reductions, with some models available at RM100,000, have increased affordability and encouraged more consumers to consider EVs.

Future Outlook

Upcoming Affordable Models

PROTON e.MAS

PERODUA

Both local manufacturers are expected to introduce more affordable EV models in 2024 and 2025

These models will be targeted at the mass market, further driving the adoption of EVs in Malaysia.

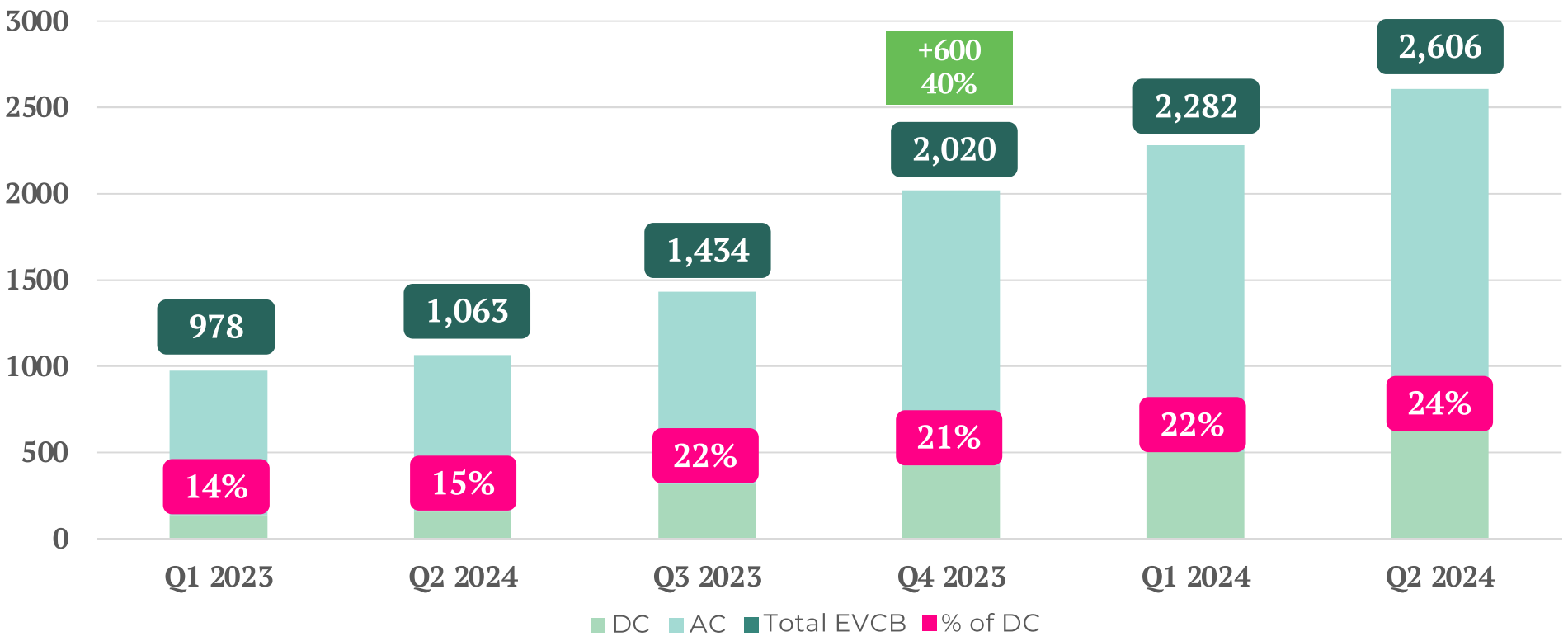
To support the target of EV sales, Malaysia government also aims to establish 10,000 charging bays by 2025

	2022	2023	2024	2025	Total
DC Fast Charger (Across Highways)	60	220	250	170	700
DC Fast Charger (Non- Highways)	140	170	220	270	800
					Achievement to-date: 613 ~ 41%
AC Charger (Main Destination)	760	1,130	1,430	2,430	5,750
AC Charger (On Street Parking)	40	480	1,100	1,130	2,750
					Achievement to-date: 1, 993 ~ 23%

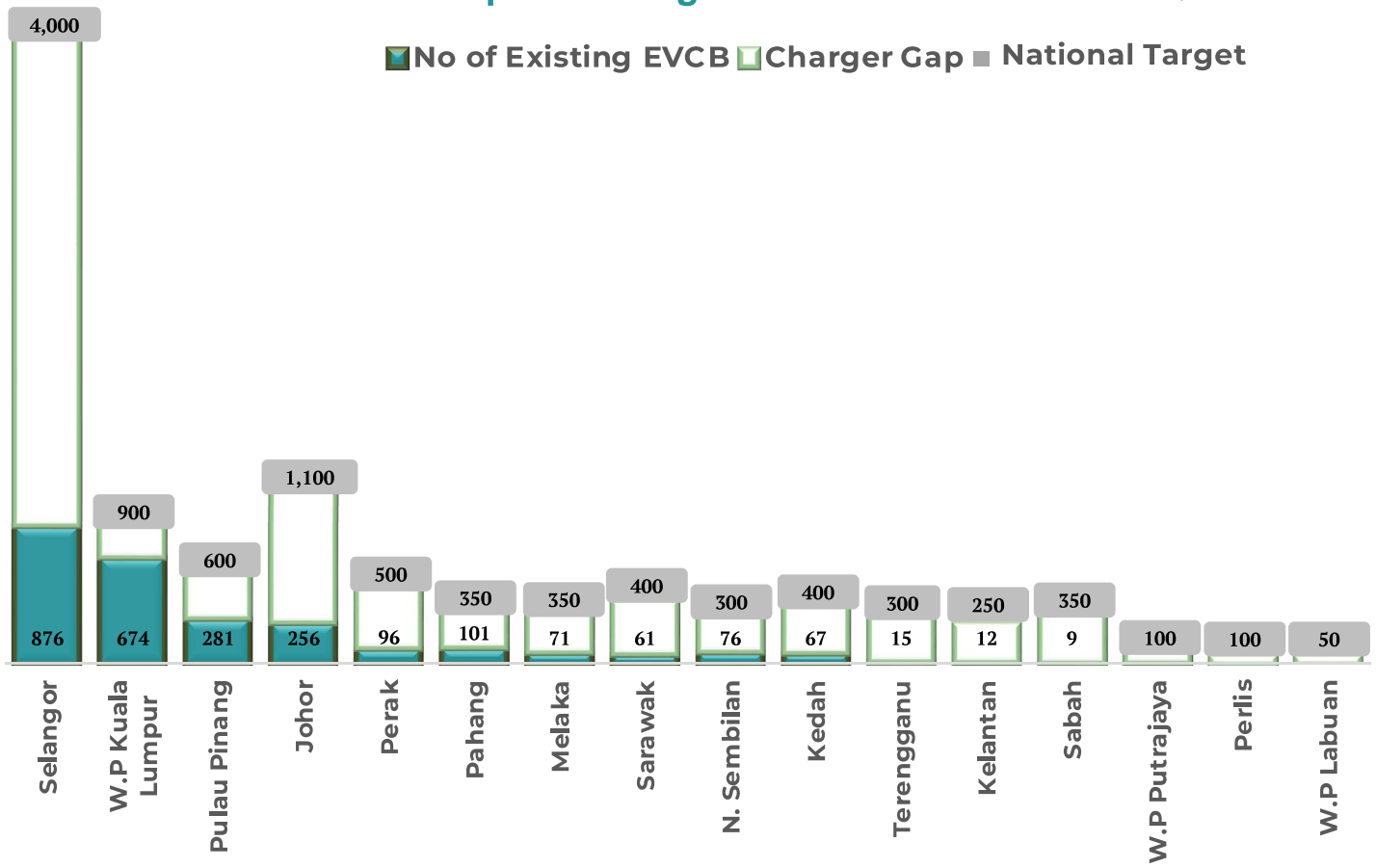
Destination: Hotel, Office Buildings, Shopping Malls, Recreation Centers | Data as of Mevnet as of 15 July 2024

The quarter-on-quarter growth is affected by government policies

Annual and quarterly growth of EV charging development in Malaysia



EVCB Development Progress Across States as of Q2 2024



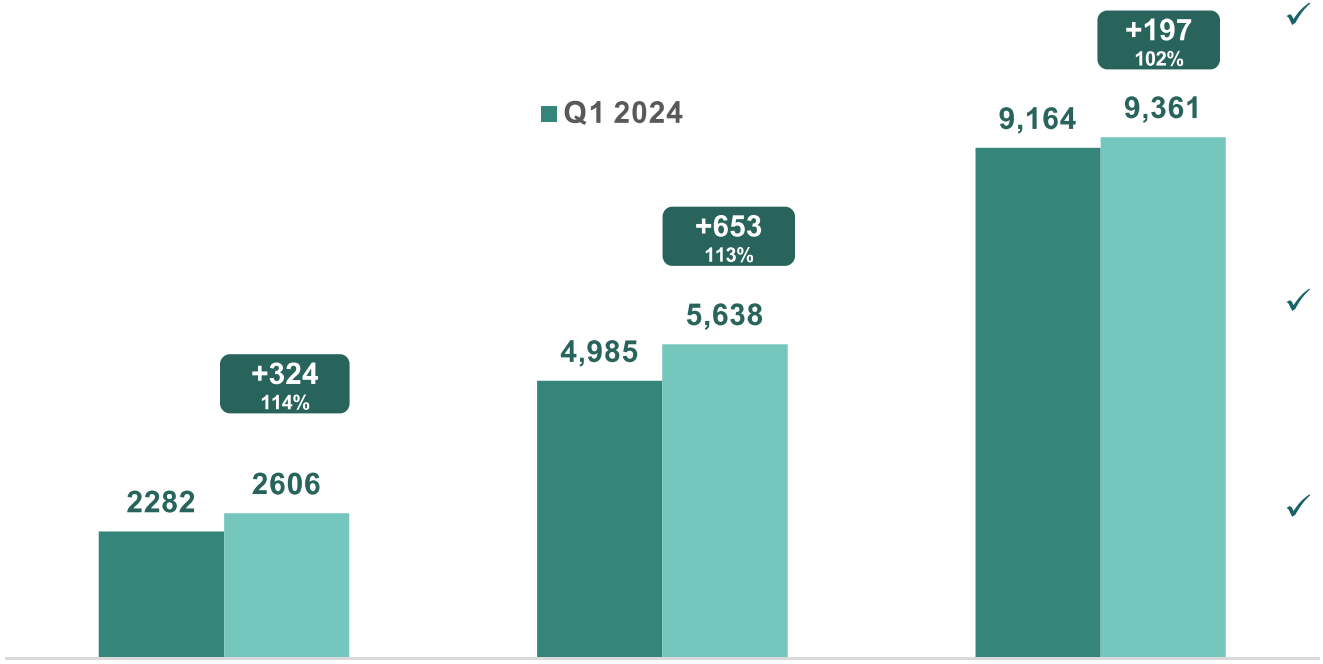
Source: planmalaysia.gov.my/mevnet[1] MyZEVA internal Analysis[2]

While the government has outlined EV charging targets for each state, many regions are lagging behind.

Selangor has the highest EV charging numbers but only represents 22% of the targeted installation

A huge potential for Malaysia to match the neighboring countries for chargers deployment

Quarterly growth of EV charging development in ASEAN Country



Charger : EV ratio	1:11	1:5	1:6.7

- ✓ **Malaysia** saw the **highest growth rate of 114%** in EV charging development, with a current ratio of **1:11** to total BEV on the road as of **July 2024** (29,256 units).
- ✓ **Thailand** has the **highest number of BEV on the road** (~180,000 units) in the **1H 2024.**
- ✓ LTA has reported that there were **16,378 BEV on the road** as of **July 2024**, accounting for **2.6%** of all **new vehicle registrations** during that period in **Singapore.**

Source:
BloombergNEF[1] planmalaysia.gov.my/MEVNet[2] Internal MyZEVA Analysis[3] Land Transport Authority[4]

We are confident that the current multi-ministerial committee setting is effective

Governance Structure of NEVSC and NEVTF:

National EV Steering Committee (NEVSC)

YBM MITI — Chair

MITI & MIDA — Secretariat

Members (Minister or Senior Government Official nominated by the Minister)

1. MITI
2. MOF
3. MOT
4. KE
5. KPKT
6. KKR
7. MOSTI
8. NRECC

National EV Task Force (NEVTF)

KSU MITI — Chair

MIDA — Secretariat

Members (Nominated Officer)

1. MITI – MIDA, MARii, MPC, JSM, SIRIM
2. MOF – LAKSANA
3. MOT – JPJ
4. KPKT – PLANMalaysia
5. KKR – JKR, LLM
6. MOSTI – NanoMalaysia, MIGHT
7. NRECC – MGTC, DOE, ST, TNB
8. KPDN

- MARii — Vendors & Skills
- MOF — Government Fleet
- MITI — Import License
- NRECC/ MGTC — Infrastructure Planning
- KPT/UTM — Research & Local Talent
- KPT/ PlanMalaysia — EVSC Installations Procedures
- JSM/MARii — Standards
- MOSTI/Nano Malaysia — ICE to EV Conversion
- ST/TNB — CPO Operation

Source: *Ministry of Investment, Trade and Industry*

Benefit of EV is beyond the green agenda

Real Carbon Reduction

12% carbon reduction from petrol fueled car (mining to disposal)[1]

High-Skilled Automotive Industry

Rebooting the automotive industry and its ecosystem

Empowering Rakyat towards Green

Coupled with energy efficiency motivation and solar roof top incentives scheme, EV provides option for Rakyat towards combating global warming.

Monetize the Excess Power Capacity

Every building that have excess power capacity can leverage the parking spots for EV charging bay, especially AC.

Vehicle-to-X technology

Future EVs with V-2-Load or V-2-Building or Vehicle-2-Building allows for efficient usage of solar energy

Huge Potential on Used EV Battery

EV battery repurposed for energy storage, thus promoting energy efficiency with the use of building rooftop solar.

[1]**Source**: *MDPI Sustainability. Estimation of Greenhouse Gas Emissions of Petrol, Biodiesel and Battery Electric Vehicles in Malaysia based on Life Cycle Approach. Soki Kosai. Sazalina Zakaria. 10 May 2022*

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Questions on EV ?

- What are the models available?
- How long should I charge my EV?
- How can we install EV Charger for our office?
- How can I become a charge point operator?
- Would EV increase my electricity bills?
- Where can I charge my EV?
- Is EV safe in Malaysia environment?

Contact us:
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https://www.myzeva.org

Thank you.