



26 JAN, 2023

So many cars, nowhere to charge

The Star, Malaysia



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Malaysia needs more infrastructure and incentives to boost EV adoption

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PETALING JAYA: Electric vehicle (EV) sales are on the rise and while that is a good thing, there is growing concern over the lack of infrastructure to support these relatively environment-friendly vehicles.

Experts and stakeholders said the number of charging port stations should be increased to keep up with the higher sales of EVs.

They also called on the government to roll out more incentives to further develop the segment.

Universiti Teknologi PETRONAS Centre of Automotive Research and Electric Mobility researcher Mohd Syaifuddin Mohd said there is a need for more fast-charging infrastructure to be placed at R&R (rest and recreation) facilities along highways, petrol stations and hypermarket parking lots.

"This can address the issue of 'range anxiety' whereby drivers are afraid of being stranded for long periods due to a lack of fast-charging infrastructure, while also encouraging much larger EV adoption by the public.

"More expensive EVs with larger battery packs can travel farther on a single charge, but their steep prices are a deterrent.

"The charge time also depends on the size of the battery pack, charging power output, as well as to which percentage you are charging your EV to," said the university's mechanical engineering department lecturer.

For a 48 kilowatt per hour (kWh) battery pack, Mohd Syaifuddin said



Juicing their ride: Electrical vehicle users charging their cars in Cyberjaya. — AZHAR MAHFUF/The Star

a charge from 30% to 100% could take the entire night on a regular household power outlet.

"Fast chargers at higher power capacities can however charge one's battery pack to about 80% in under an hour.

"The reason for it charging up to 80% and (taking) longer to reach 100% is because of the lowering of the charging current due to higher internal resistance and lower charging efficiency," he said.

He added that this is similar to how balloons become progressively

harder to inflate once they approach their maximum size.

Malay Vehicle Importers and Traders Association of Malaysia vice-president Raja Petra Marudin Raja Nordin said there are many factors to consider when building EV charging stations.

"Power supply limitations are a major criterion when it comes to building charging stations in existing locations such as showrooms.

"Building them can also be quite tedious as we need to ensure that the power supply in a particular

spot is not limited," he said.

He added that premises would have to apply for power increments if their existing power supply is insufficient to handle such stations.

"The possibility of an increment is also dependent on the availability of the nearest power substation," said Raja Petra Marudin, adding that the authorities should address this issue.

BMW Group Malaysia managing director and chief executive officer Hans de Visser said a consolidated platform is needed to allow EV

users to identify, reserve and access charging facilities nationwide.

"Currently, an EV owner has to access multiple apps on their digital devices in order to access charging sites. This should be streamlined to one main app providing a gateway to multiple sites.

"Additionally, incentives to encourage charging point operators are needed to encourage more companies to invest and create public charging infrastructure for EVs here," he said.

He added that BMW Group Malaysia delivered over 1,500 EVs in Malaysia, comprising the BMW i3s, BMW iX3, BMW i4, and the MINI Electric.

de Visser said the group also provided its customers with access to over 610 charging locations nationwide, with the number continuing to rise.

"Moving forward, we will also be looking to announce more partnerships to provide increased charging access for our customers this year, including at Tenaga Nasional Bhd Electron sites," he said.

Research house RHB Research had earlier said that the EV segment was expected to remain bright in 2023, given how more new models from manufacturers such as BMW, Kia, Peugeot and Toyota would be entering the domestic market.

Research unit Fitch Solutions had also forecast that passenger EV sales in Malaysia would jump 45.6% in 2023 to 4,449 units.

According to Malaysian Automotive Association president Datuk Aishah Ahmad, 2,093 EVs were registered in December last year.