

Malaysia's EV Landscape: Where Are We Now? A critical look at current policies, progress, and gaps in the national EV ecosystem

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Abstract

As Malaysia positions itself at the forefront of the global green transition, the adoption of Electric Vehicle (EV) has become a cornerstone of its strategy to reduce carbon emissions and foster sustainable growth. Policies such as the National Automotive Policy (NAP) 2020, the National Energy Policy 2022-2040 (NEP) and the Low Carbon Mobility Blueprint 2021-2023 (LCMB), underpin the nation's commitment to decarbonisation and its ambition to become a regional leader in energy-efficient vehicles. Malaysia is well positioned to capitalize on the EV mobility wave as it is a mature semiconductor manufacturing hub and a home-grown car industry. Malaysia as a major Oil and Gas Producer has cheap fuel for its population which is a dampener for EV adoption. However, the move to remove diesel subsidies will give EVs a boost. EV adoption is popular in places which has a density of charging stations and good post-sale maintenance support.

This paper as such uses secondary data to uncover four policy elements related to enhance EV adoption in Malaysia. Those are : 1) Purchase Incentives and Fiscal Measures - Tax exemptions and reductions; Road tax exemptions; Individual Income Tax Relief; Incentives for Local Manufacturing ; 2) Development of Charging Infrastructure - Public Charging Network Expansion; Private charging Infrastructure; Standardization and Interoperability; 3) Support for the EV Industry and Supply Chain - Investment in Local Manufacturing; Technology Transfer and R & D; Skilled Workforce Development; and 4) Addressing Consumer Concerns - Public Awareness Campaigns; Addressing Range Anxiety; Making EVs Affordable. These policy elements need to be addressed in order to enable EVs to account for 15% of the total industry volume (TIV) by 2030 and 80% by 2050, in alignment with the Low Carbon Mobility Blueprint (LCMB) and the National Energy Transition Roadmap (NETR).

Keywords: EV, carbon emissions, fiscal measures, charging infrastructure