

## **ELECTRIC VEHICLE AND END-OF-LIFE VEHICLE ESTIMATION IN MALAYSIA 2040**

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### **Abstract**

This paper aims to estimate the number of electric vehicles (EVs), hybrid electric vehicles (HEVs) as well as end-of-life vehicles (ELVs) generated until 2040. A system dynamics modelling method was used with integrated population expandable income and vehicle price reduction, simulated through alternative policy application scenarios. It is estimated that passenger vehicle market will be nearing saturation point in 2030 at 12 million active vehicles, while half a million ELVs are also projected to be generated in that year. In 2040, HEV is estimated to be 1.43 million units, while EV is estimated to be 43,000 units. This research also concludes that by reducing vehicle ownership tax, adapting mandatory inspection and improving emission regulation, HEV and EV can be increased by an additional 70%. The result from this study is expected to assist future research in future transportation-related pollution estimation.

### **Keywords**

Malaysia, Electric vehicles, Hybrid vehicles, Stock estimation, ELV