

Market Potential of PHEV

Plug-In Hybrid Electric Vehicle

in Indonesia

PHEV as a Strategic Bridge in Electrification

What is PHEV?

- Combines electric motor and internal combustion engine
- Can run on **electric-only** for short ranges (40–90 km), but uses fuel for longer drives

Why PHEV Matters

- Solves **range anxiety** while still cutting emissions significantly
- Practical in markets with **inconsistent charging infrastructure**
- Can use **domestically produced biofuels or synthetic fuels** if available

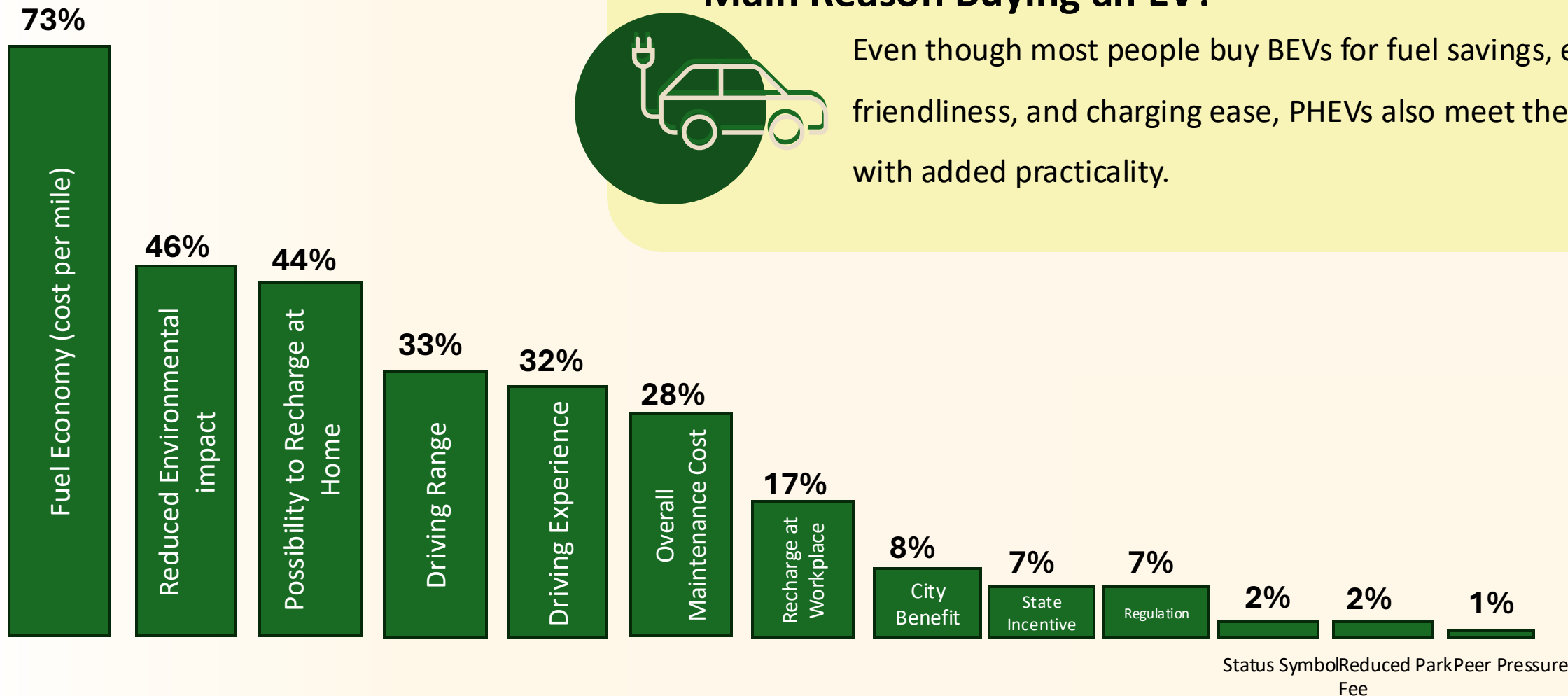
Example:

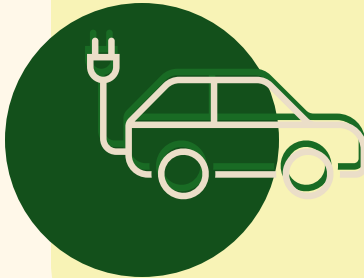
Volvo XC60 Recharge – 81km electric range (WLTP), total over 900km

Solution for:

- Countries like Indonesia with urban-rural disparity
- Fleets transitioning towards full electrification

PHEV or EV ?

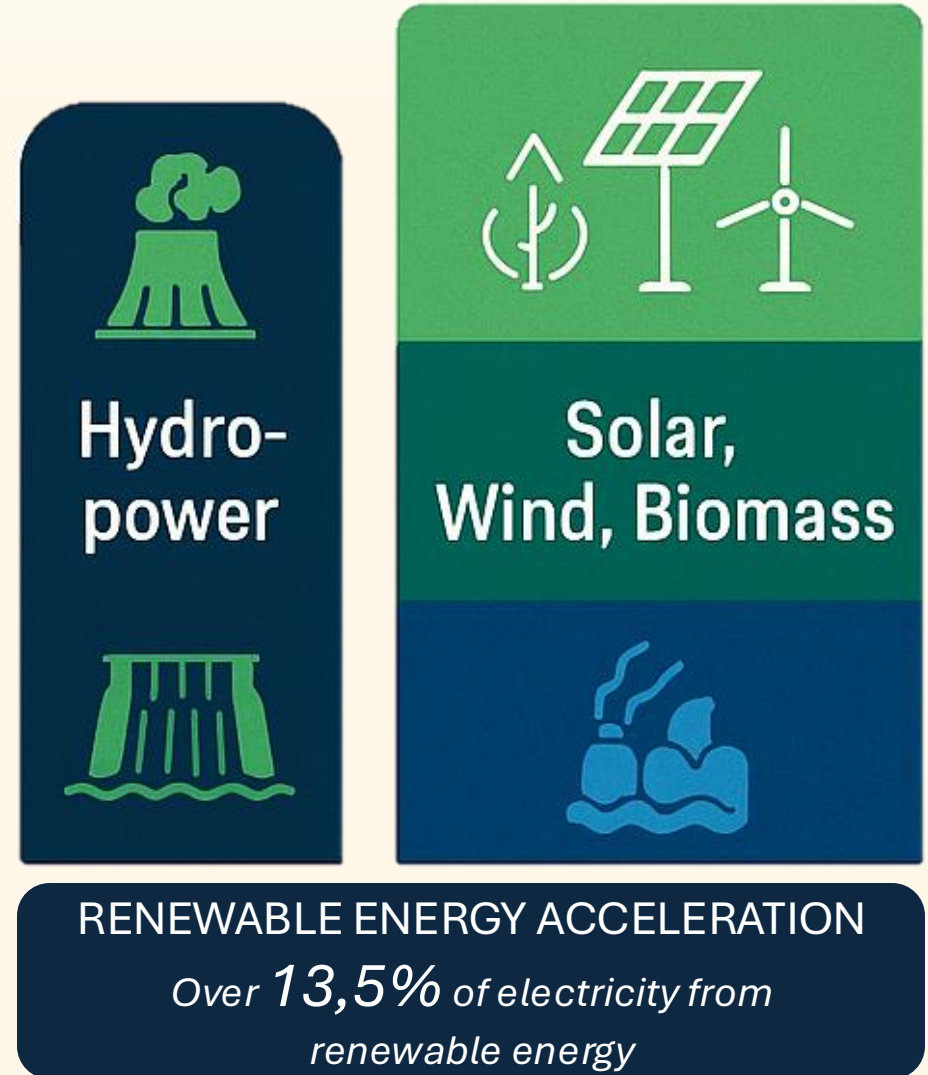
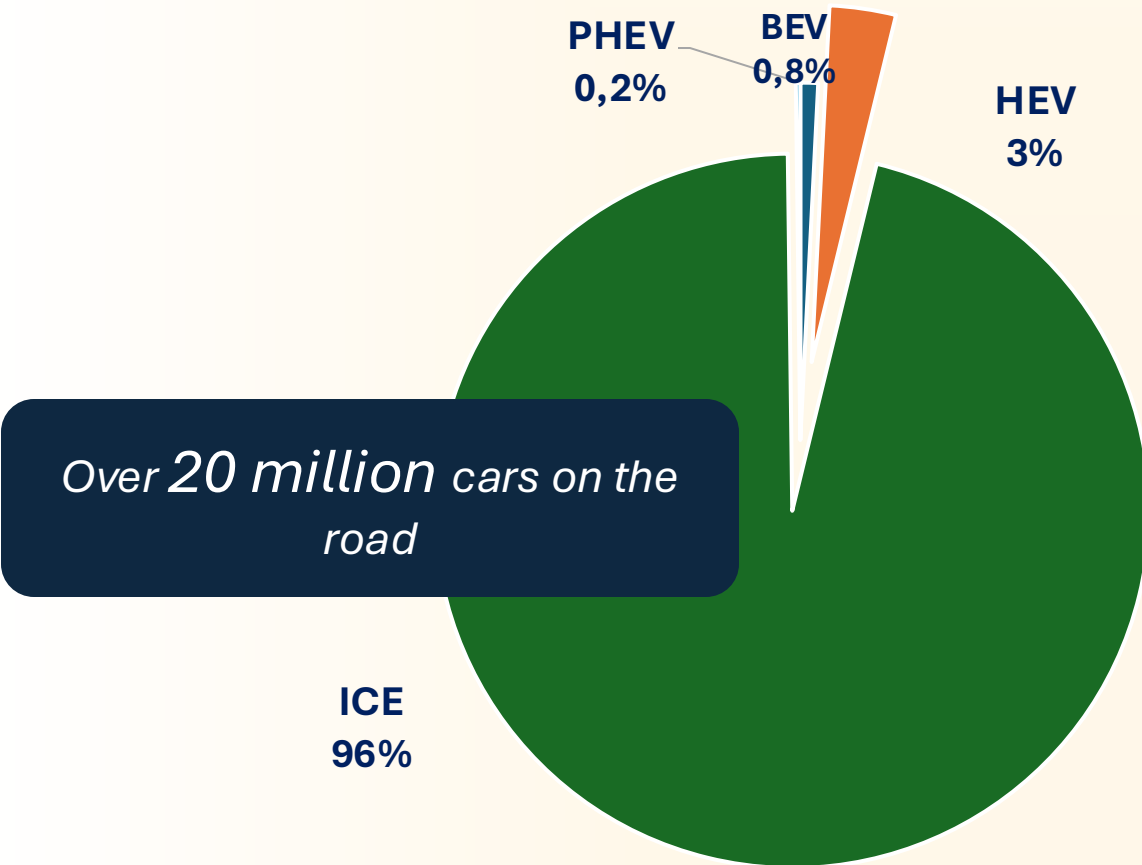




Main Reason Buying an EV?

Even though most people buy BEVs for fuel savings, eco friendliness, and charging ease, PHEVs also meet these needs with added practicality.

The Growth of Indonesia's Automotive & Energy Landscape



Why PHEV Fits Jakarta Traffic Behaviour



Urban Congestion & Fuel Cost

PHEV allows daily commute on electric mode only



Long-distance Driving

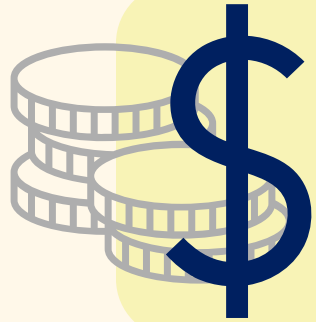
Culture Fuel for road trips during mudik



Behavioural Familiarity

Enables gradual EV education

Challenges for PHEV in Indonesia



Cost and Affordability

PHEVs are 20-30% more expensive than ICE

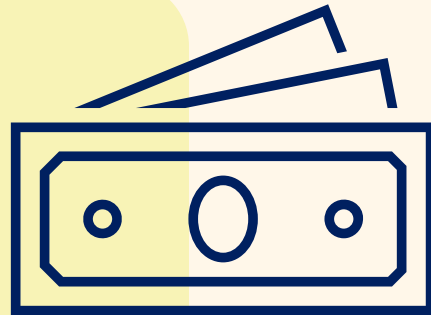
Public Misperception

Lack of awareness of how PHEV works



Incentive Gap

No clear inclusion of PHEVs in current incentive schemes



Charging and Grid Challenge

Lack of charging infrastructure discourage PHEV use in electric mode

Recommendations for Policymakers & Industry Stakeholders

Short Term

(2025-2028)



Include **PHEV** in **incentive** frameworks

Introduce usage-based **tax benefits**



Promote charging behaviour

Pilot projects with **government fleets**

Mid Term

(2028-2032)

Strengthen renewable share in electricity grid

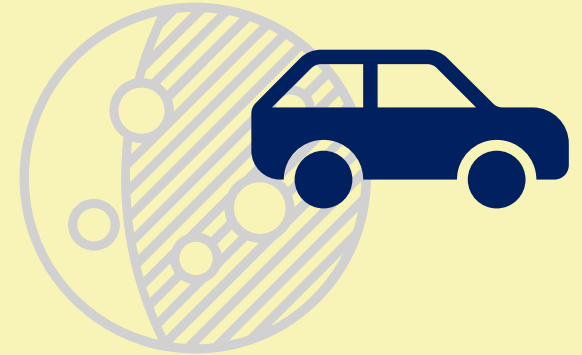
Expand hybrid and EV **charging infrastructure**

Local component development



Long Term

(Post 2032)



Phase out support for PHEV

Encourage full battery-electric transition

PHEV is not a detour from electrification – it is a highway that enables more people to get there sooner.