The Role of E-Mobility in a Sustainable Transport Future

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E-mobility could make a major contribution to sustainable mobility—but its impacts will depend upon how the market develops.

**Potential E-mobility BENEFITS**

1. Efficient lives/economy
   - Vehicle to grid; smart-grids; energy storage, green growth opportunities
   - Shared use models encourage responsible car use and enable multi-modality
   - Off-peak source for renewable generation increases cost-effectiveness & balances grids
   - Light-weight, down-sized, efficient powertrains & efficient driving; micro-urban vehicles

2. Efficient transport mode
3. Decarbonised fuel
4. Efficient vehicle

**Potential E-mobility RISK**

- Low running costs lead to rebound effects; “silver bullet” perception delays other actions
- Low running cost discourages use of lower carbon modes; urban car dependence maintained
- Peak charging increases grid demands & carbon intensity
- “Super-credits” undermine efficiency improvements in ICEs
Policies must stimulate sustainable mobility solutions – not just EV sales

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