

Transport: Light Vehicles - Electric

This lever controls the sub-levers listed in the table, and ambition levels are for the end year shown on the right-hand side.

Light Vehicles refers to cars, vans and light lorries (rigid HGVs). In 2015, almost all of the UK's light vehicles were powered by fossil fuels (petrol or diesel) although other lower carbon vehicles, such as electric vehicles (EV), were available. Battery electric vehicles have zero emissions at the tailpipe and are more energy-efficient than internal combustion engines. Uptake of current EVs is limited by higher upfront capital costs, limited refuelling infrastructure and limited range per charge, but this is expected to improve greatly in future, with costs falling below internal combustion engine vehicles.

Key Interaction

Low-carbon electricity must be generated to maximise emissions savings from electrified transport.

If the combined share of all light vehicles fuel types (electric, hydrogen, PHEV and biofuel) exceeds 100%, the Calculator uses the priority order on the bottom right to determine which levers are applied.

Level 1

Efforts to increase uptake of electric vehicles are abandoned and share remains at current levels.

Level 2

Half of cars and vans are electric along with one fifth of light lorries.

Level 3

Almost all cars and vans are electric along with half of light lorries.

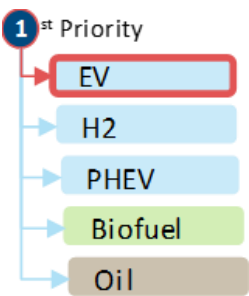
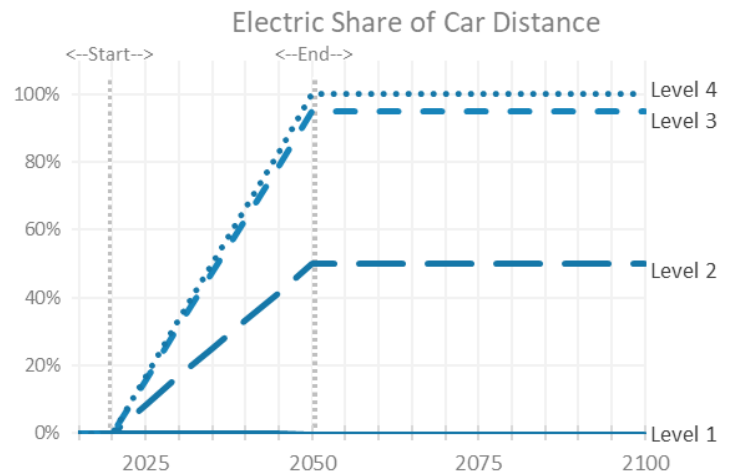
Level 4

All light vehicles are electric with all new vehicle sales being EVs from the late 2020s onwards. Technological developments, policy and public engagement all align to allow cost and recharging limitations to be overcome.

Default Timing Start year: 2020, End year: 2050

Electric share of vehicle distance

Sub-Lever	Units	2015	Level 1	Level 2	Level 3	Level 4
Car	share	0%	0%	50%	95%	100%
LGV	share	0%	0%	50%	95%	100%
HGV Rigid	share	0%	0%	20%	50%	100%



Lever Priority

Electric vehicles are first in the priority order for cars, vans and light lorries.

Where supply would otherwise exceed demand, measures lower in the priority order will be superseded by those above them.

Conventional fossil fuelled vehicles meet any shortfall in demand.