

Transport: Heavy Vehicles – Hybrid

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

In 2015, almost all the UK's heavy vehicles were powered by fossil fuels (petrol or diesel) despite other lower carbon options, such as plug-in hybrid electric vehicles (PHEVs), being technically feasible. PHEVs are primarily fuelled by a battery which is charged in the same way as in a standard EV, however they also have a secondary power supply in the form of an internal combustion engine (ICE) (fuelled by fossil fuel or bio-fuel) which can power the vehicle (or re-charge the battery) when the battery runs out of charge. This gives the vehicle a greater range and hence higher flexibility, however the ICE means it does not have zero emissions at the tail pipe if the ICE is fuelled by fossil fuel.

PHEV technology also competes with other lower-carbon technologies that aren't zero emissions in the tail pipe, such as natural gas, and some experts see a trend towards natural gas in this market.

Key Interaction

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

If the combined share of all heavy vehicle 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 PHEVs are abandoned and shares remain at current levels.

Level 2
25% of articulated HGVs and 40% of buses are hybrid.

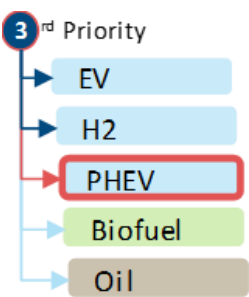
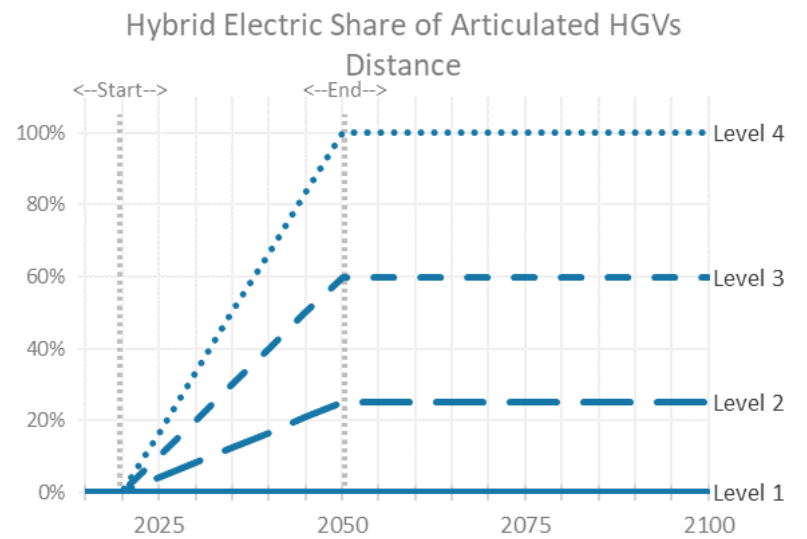
Level 3
60% of articulated HGVs and buses are hybrid.

Level 4
All articulated HGVs and buses are hybrid.

Default Timing Start year: 2020, End year: 2050

Plug-In Hybrid share of vehicle distance

Sub-Lever	Units	2015	Level 1	Level 2	Level 3	Level 4
HGV Articulated	share	0%	0%	25%	60%	100%
Bus	share	0%	0%	40%	60%	100%



Lever Priority
Hybrid vehicles are third in the priority order for heavy vehicles.

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.