

Transport: Light 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.

Plug-in hybrid electric vehicles (PHEV) are like hybrid electric vehicles since they have both an engine and motor for propulsion. The main difference is that PHEV batteries have a higher energy capacity and can be externally charged by connecting to a power outlet. In addition, the battery can be charged using the internal combustion engine while driving. This enables the PHEV to use the electric motor for longer periods when driving. A PHEV can drive on electric mode for most of the city commutes and the Internal Combustion Engine (ICE) engine steps in on depletion of battery hence eliminating range anxiety.

HEVs could potentially be rolled out faster than EVs or H2 vehicles. They could also act as a gateway technology as we transition to full EV. The base year selected is 2015. Four ambition levels are assumed as below.

Key interactions

Low-carbon electricity must be generated to maximize emissions savings from hybridized transport.

Level 1

Efforts to increase uptake of PHEVs are abandoned and the share remains at current levels.

Level 2

One third of cars and vans are PHEVs along with one fifth of rigid trucks.

Level 3

Two-thirds of cars and vans are PHEVs along with half of rigid trucks.

Level 4

Two-thirds of cars and vans are PHEVs along with half of rigid trucks.

Default Timing

Start year: 2020, End year: 2050

Sub-Lever	Units	2015	Level 1	Level 2	Level 3	Level 4
Car	share	0.00016	0	0.01	0.2	0.5
LGV	share	0.0	0	0.01	0.2	0.5
HGV Rigid	share	0.0	0	0.1	0.3	0.5

Hybrid Electric Share of Car Distance

