

## *Choice of fuel cells or batteries*

In 2013, almost all vehicles were powered by diesel or petrol engines. Between now and 2050, it is anticipated that the use of zero emission vehicles (such as battery electric or hydrogen fuel cell vehicles) will increase.

The 'Shift to zero emission transport' slider allows users to specify the proportion of zero emission vehicles in the domestic vehicle fleet.

Options A to D allow the user to choose the proportion of those zero emission vehicles that are either fully electric or run on hydrogen fuel cells.

In practice other technologies such as 'hybrid' electric-hydrogen vehicles (hydrogen fuel cell range extender) could exist, using all-electric for short journeys and hydrogen for long journeys. However, for now atleast, the Calculator only models fully battery electric or hydrogen fuel cell vehicles.

### *Option A*

Option A assumes that by 2050, all (100%) of zero emission domestic vehicles are fully electric.

### *Option B*

Option B assumes that by 2050, four out of five (80%) of zero emission electric vehicles are fully electric, and one in five (20%) have hydrogen fuel cells.

### *Option C*

Option C assumes that by 2050, 20% of zero emission domestic vehicles will be fully electric and 80% of vehicles will have hydrogen fuel cells.

### *Option D*

Option D assumes that by 2050, all zero emission domestic vehicles will be powered by hydrogen fuel cells.

### *Interaction with other choices*

The trajectory of transport electrification selected in the 'Shift to zero emission transport' slider and the assumptions about 'Domestic Transport Behaviour' will influence the overall numbers of electric and hydrogen fuel cell cars and vans on the road.

The Options A to D allow for different mixes of all electric and fuels cells; they not impact on the technologies and choices in the 'Shift to zero emissions transport' slider where conventional and plug-in hybrid cars, buses, trains and aviation and shipping are all included.