**Choice of fuel cells or batteries**

In 2007, almost all domestic vehicles were powered by diesel or petrol engine. Between now and 2050, it is anticipated that the percentage of zero emission vehicles (such as battery electric or hydrogen fuel cell vehicles) in the car fleet will increase.

The ‘Shift to zero emission transport’ slider allows users to specify the proportion of zero emission cars in the vehicle fleet. Options A to D allow the user to choose the proportion of those vehicles that would be either fully electric, or hydrogen fuel cells. In practice other technologies such as ‘hybrid’ electric-hydrogen cars (hydrogen fuel cell range extender) could exist, using all-electric for short journeys and hydrogen for long journeys. However, the calculator currently only models fully battery electric or hydrogen fuel cell vehicles.

**Option A**
Option A assumes that by 2050, 100% of domestic vehicles will be fully electric and there will be 0% hydrogen fuel cell vehicles.

**Option B**
Option B assumes by 2050, 80% of vehicles will be fully electric, and 20% will have hydrogen fuel cell vehicles.

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

**Option D**
Option D assumes in 2050, all domestic vehicles will be powered by hydrogen fuel cells.

**Interaction with other choices**
The level 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.

Selecting any of Option A to D does not impact on the other technologies included in the ‘Shift to zero emissions transport’ slider which includes buses, trains and domestic aviation.

Figure 1. Option A assumes that by 2050, 100% of domestic vehicles be electric. © Peugeot

Figure 2. Different assumptions on Hydrogen and Electric vehicles in Options A - D.