



## The Energy Challenge

**A five-fold reduction in greenhouse gas emissions by 2050 will require significant innovation and consumer change**

UK carbon dioxide (CO<sub>2</sub>) emissions are reducing gradually, falling by around 7% over the period 1990-2006 (excluding the emissions from international aviation and shipping).

Achieving 80% greenhouse gas emissions reductions by 2050 (Climate Change Act 2008) will require transformational change across all sectors of the energy industry, and the increased participation of energy consumers.

Within the heat sector 30% of the UK's total CO<sub>2</sub> emissions are from space and water heating.

The power sector is currently dominated by fossil-fuel power plants, and contributes 33% of the UK's total CO<sub>2</sub> emissions.

Within the transport sector 16% of the UK's total CO<sub>2</sub> emissions are from light vehicles.