

Powering the Future - sector pages

Commercial

The commercial sector consumes about 5% of UK fossil fuel and emits around 5% of CO₂

The sector includes several minor groupings but our analysis focuses the emissions by commercial buildings and public administration which represent over 80% of the sector total. Consumption is dominated by gas (45%) and electricity (45%).

Report findings - commercial:

Improved insulation of commercial buildings offers a 20% reduction in CO₂ emissions and reduces costs of fuel use.

The application of gas-fuelled CHP would offer a reduction of up to 20% in CO₂ emissions by 2025. However the value of this measure would greatly reduce after 2025, given that electricity sector production will be largely decarbonised after this time.

The extensive substitution of biomass fuels for fossil fuels, either directly or through biomass CHP, is not feasible on the required scale because of the limited available resources, although smaller-scale systems are both feasible and desirable.

Wider adoption of heat pumps to meet the heating demand of buildings offers a significant reduction in CO₂ emissions after 2020.

Improvements in lighting and hot water systems offer useful reductions of about 10% each in sector emissions.

Embedded renewable energy systems such as wind and solar could supply up to 5% of the sector's electricity demand by 2020 and up to 20% of demand by 2050.

Further work - commercial:

Review the incentives and obligations on owners of commercial property and governmental bodies to ensure that existing property is progressively upgraded to defined standards comparable with the current requirements of Part L of the Building Regulations for insulation, ventilation and energy use.

Review the current strategy for the application of the Building Regulations to existing property; ensure that the regulations become progressively more demanding of existing property

Establish a programme of technology development and promotion, including best-practice demonstration installations, for the application of renewable electricity generation in this sector.