

**COMPARATIVE CARBON EMISSIONS - THE MIDLANDS - JANUARY 2021  
SPACE AND WATER HEATING FOR 2006 BUILD STANDARD HOUSES**

FUEL sold in units of	Emissions kg CO <sub>2</sub> e per kWh (a)	Type of heating system	Build. Regs. Min 2006 appliance / SAP default efficiencies (%) * space      dhw		Emissions Kg CO <sub>2</sub> e per useful kWh	Annual CO <sub>2</sub> e Emissions (tonnes) of space & water heating for average size houses		
			2 Bed (1)	3 Bed (2)		4 Bed (3)		
S O L I D F U E L	Wood Pellets	Pellet Boiler Radiators & DHW cylinder	75 -	- 55	##### #####	#####	#####	#####
	Housecoal-Grade A	Open fire with back boiler Radiators & DHW cylinder	63 -	- 25	##### #####	#####	#####	#####
	Anthracite Nuts	Room heater with back boiler Radiators & DHW cylinder	67 -	- 25	##### #####	#####	#####	#####
	Anthracite Grains	Gravity feed boiler Radiators & DHW cylinder	70 -	- 30	##### #####	#####	#####	#####
E L E C T R I C I T Y	Standard Tariff	Electric radiators	100	-	#####	#####	#####	#####
		Immersion water htr	-	70	#####	#####	#####	#####
	Ground Source Underfloor		230	-	#####	#####	#####	#####
		Radiators	-	170	#####	#####	#####	#####
	Air Source Underfloor		170	-	#####	#####	#####	#####
		Radiators	-	170	#####	#####	#####	#####
	Economy Seven Domestic Tariff	Storage htrs, living rooms	90	-	#####			
		Electric rads, bedrooms	100	-	#####			
		Immersion water htr, night	-	70	#####	#####	#####	#####
		Immersion water htr, day	-	70	#####	#####	#####	#####
N A T U R A L  G A S	Mains Gas	Gas fired condensing combination boiler Radiators	86 -	- 75	##### ##### (4)	#####	#####	#####
		Gas fired condensing boiler Radiators & DHW cylinder	86 -	- 65	##### ##### (4)	#####	#####	#####
L P G	Propane	LPG fired condensing combination boiler Radiators	86 -	- 75	##### #####	#####	#####	#####
		LPG fired condensing boiler Radiators & DHW cylinder	86 -	- 65	##### #####	#####	#####	#####
L I Q U I D	Kerosene	Oil fired condensing combination boiler Radiators	82 -	- 73	##### #####	#####	#####	#####
		Oil fired condensing boiler Radiators and DHW cylinder	85 -	- 70	##### #####	#####	#####	#####

Notes

Dwelling floor area of 63m<sup>2</sup> for 2 bed terraced, 89m<sup>2</sup> for 3 bed semi-detached, 120m<sup>2</sup> for 4 bed detached house

(a) These are CO<sub>2</sub> equivalent figures which include the global warming impact of CH<sub>4</sub> and N<sub>2</sub>O as well as CO<sub>2</sub>

(1) Terraced 2 bedroom house, 3417 kWh space heating & 2556 kWh DHW heating.

(2) Semi-detached 3 bedroom house, 5556 kWh space heating & 3028 kWh DHW heating.

(3) Detached 4 bedroom house, 7861 kWh space heating & 3500 kWh DHW heating.

\* SAP default values used where SAP value greater than Building Regs. default value and/or where Building Regs. did/does not stipulate minimum values