

Solihull College – Carbon Report 2023

Below is a table showing the emissions calculations for different energy sources (gas, electricity and transport) in 2023. The total energy consumption and emissions are displayed and there is also a calculation for emissions per member of staff.

(For the period 1st August 2022 – 31st July 2023)

Energy source	Consumption	Scope	Emissions calculation
Gas – total kWh (kilowatt-hours) used for the year, taken from gas bills for each site	4,219,203 kWh (gross CV (calorific value))	Scope 1	$4,219,203 \text{ kWh} * 0.18316$ (2021 fuels, natural gas conversion factor, gross CV to kgCO ₂ e) = 772,789 kgCO ₂ e = 772.79 tCO₂e
Electricity – total kWh used for the year, taken from the electricity bills for each site	3,248,971 kWh	Scope 2	$3,248,971 \text{ kWh} * 0.21233$ (2021 UK electricity conversion factor to kgCO ₂ e) = 689,854 kgCO ₂ e = 689.85 tCO₂e
Transport – used in lieu of passenger vehicles	All fleet fuel purchases = 1,367 litres (diesel) and 355 litres (unleaded)	Scope 1	Diesel (1,367 * 2.56 conversion factor = 3,500) + unleaded (355 * 2.16 conversion factor = 767) = 4,267 kgCO ₂ e = 4.27 tCO₂e
Transport – total mileage for petrol reimbursed from staff claims	92,934 miles	Scope 3	$92,934 \text{ miles} * 0.28053$ (2021 managed assets vehicles, average car conversion factor to kgCO ₂ e, petrol)) = 26,071 kgCO ₂ e = 26.07 tCO₂e
Total			1,492.98 tCO₂e
Intensity ratio - Emissions data (tCO ₂ e) compared with an appropriate business activity (staff numbers)			1,492.98 tCO ₂ e / 921 members of staff = 1.62 tCO₂e per staff member