## 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 kWh * 0.18316 (2021 fuels, natural gas conversion factor, gross CV to kgCO2e) = 772,789 kgCO2e = <b>772.79 tCO2e</b>
Electricity – total kWh used for the year, taken from the electricity bills for each site	3,248,971 kWh	Scope 2	3,248,971 kWh * 0.21233 (2021 UK electricity conversion factor to kgCO2e) = 689,854 kgCO2e = 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 kgCO2e <b>= 4.27 tCO2e</b>
Transport – total mileage for petrol reimbursed from staff claims	92,934 miles	Scope 3	92,934 miles * 0.28053 (2021 managed assets vehicles, average car conversion factor to kgCO2e, petrol)) = 26,071 kgCO2e = <b>26.07 tCO2e</b>
Total			1,492.98 tCO2e
Intensity ratio - Emissions data (tCO2e) compared with an appropriate business activity (staff numbers)			1,492.98 tCO2e / 921 members of staff = <b>1.62 tCO2e per staff member</b>