Solihull College – Carbon Report 2022

Below is a table showing the emissions calculations for different energy sources (gas, electricity and transport) in 2021. 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 2021 – 31st July 2022)

Energy source	Consumption	Scope	Emissions calculation
Gas – total kWh (kilowatt-hours) used for the year, taken from gas bills for each site	6,328,776 kWh (gross CV (calorific value))	Scope 1	6,328,776 kWh * 0.18316 (2022 fuels, natural gas conversion factor, gross CV to kg CO2e) = 1,159,179 kgCO2e = 1,159.18 **tCO2e**
Electricity – total kWh used for the year, taken from the electricity bills for each site	3,764,616 kWh	Scope 2	3,764,616 kWh * 0.21233 (2022 UK electricity conversion factor to kgCO2e) = 799,341 kgCO2e = 799.34 **tCO2e**
Transport – used in lieu of passenger vehicles	All fleet fuel purchases (incl. mini-buses): 1,441 litres (diesel) and 403 litres (unleaded petrol)	Scope 1	Diesel (1,441 litres * 2.56 Conversion factor = 3,681) + Unleaded petrol (403 litres * 2.16 conversion factor = 870) = 4,559 kgCO2e = 4.56 **tCO2e**
Transport – total mileage for business travel reimbursed from staff claims	74,705 miles	Scope 3	74,705 miles * 0.28053 (2022 managed assets vehicles, average car conversion factor to kgCO2e, petrol) = 20,957 kgCO2e = 20.96 **tCO2e**
Total			**1,984.04 tCOe**
Intensity ratio - Emissions data (tCO2e) compared with an appropriate business activity (staff numbers)			**1,984.04** tCO2e / 921 members of staff **= 2.15 tCO2e per staff member**