

Solihull College – Carbon Report 2021

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 2020 – 31st July 2021)

Energy source	Consumption	Scope	Emissions calculation
Gas – total kWh (kilo-watt-hours) used for the year, taken from gas bills for each site	6,596,472 kWh (gross CV (calorific value))	Scope 1	6,596,472 kWh * 0.18316 (2021 fuels, natural gas conversion factor, gross CV to kg Co2e) = 1,208,209.81 kgCO2e = 1,208.21 tCO2e
Electricity – total kWh used for the year, taken from the electricity bills for each site	3,529,580 kWh	Scope 2	3,529,580 kWh * 0.21233 (2021 UK electricity conversion factor to kgCO2e) = 749,435.72 kgCO2e = 749.44 tCO2e
Transport – used in lieu of passenger vehicles	64,700 miles * 1.17682 (2021 SECR kWh pass & delivery vans, vans class 2 – used in lieu of passenger vehicles conversion) = 76,140.25 kWh	Scope 1	64,700 miles = 104,124.56 km. 104,124.56 km * 0.18315 (2021 managed assets vehicles, vans class 2 – used in lieu of passenger vehicles conversion) = 19,070.41 kgCO2e = 19.07 tCO2e
Transport – total mileage for petrol reimbursed from staff claims = 25,792.80 miles	25,792.80 miles * 1.16071 (2021 SECR kWh pass & delivery vehicles, average car conversion factor to kWh, petrol) = 2,994.40 kWh	Scope 3	25,792.80 miles * 0.28053 (2021 managed assets vehicles, average car conversion factor to kgCO2e, petrol)) = 7,235.65 kgCO2e = 7.24 tCO2e
Total	10,205,186.65 kwh		1,983.96 tCO2e
Intensity ratio - Emissions data (tCO2e) compared with an appropriate business activity (staff numbers)			1,983.96 tCO2e / 907 members of staff = 2.19 tCO2e per staff member