

# 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.

<b>Energy source</b>	<b>Consumption</b>	<b>Scope</b>	<b>Emissions calculation</b>
<b>Gas – total kWh (kilowatt-hours) used for the year, taken from gas bills for each site</b>	6596472 kWh (gross CV (calorific value))	Scope 1	6596472 kWh * 0.18316 (2021 fuels, natural gas conversion factor, gross CV to kg Co2e)  = 1208209.81 kgCO2e  = 1208.21 <b>tCO2e</b>

Energy source	Consumption	Scope	Emissions calculation
Electricity – total kWh used for the year, taken from the electricity bills for each site	3529580 kWh	Scope 2	3529580 kWh * 0.21233 (2021 UK electricity conversion factor to kgCO <sub>2</sub> e) = 749435.72 kgCO <sub>2</sub> e = 749.44 <b>tCO<sub>2</sub>e</b>
Transport – used in lieu of passenger vehicles	64700 miles * 1.17682 (2021 SECR kWh pass & delivery vans, vans class 2 – used in lieu of passenger vehicles conversion) = 76140.25 kWh	Scope 1	64700 miles = 104124.56 km. 104124.56 km * 0.18315 (2021 managed assets vehicles, vans class 2 – used in lieu of passenger vehicles conversion) = 19070.41 kgCO <sub>2</sub> e = 19.07 <b>tCO<sub>2</sub>e</b>

<b>Energy source</b>	<b>Consumption</b>	<b>Scope</b>	<b>Emissions calculation</b>
Transport – total mileage for petrol reimbursed from staff claims = 25,792.80 miles	25,792.80 miles * 1.16071 (2021 SECR kWh pass & delivery vehs, average car conversion factor to kWh, petrol) =2994.40 kWh	Scope 3	25,792.80 miles * 0.28053 (2021 managed assets vehicles, average car conversion factor to kgCO <sub>2</sub> e, petrol))  = 7235.65 kgCO <sub>2</sub> e  = <b>7.24 tCO<sub>2</sub>e</b>
<b>Total</b>	<b>10205186.65 kwh</b>		<b>1983.96 tCO<sub>2</sub>e</b>
Intensity ratio - Emissions data (tCO <sub>2</sub> e) compared with an appropriate business activity (staff numbers)			<b>1983.96 tCO<sub>2</sub>e / 907 members of staff</b>  <b>= 2.09 tCO<sub>2</sub>e per staff member</b>