

Greenhouse gas emissions and energy use data for the period 1 August 2020 to 31 July 2023

	Current reporting year 2022/23	2021/22	2020/21
Energy consumption used to calculate emissions (kWh)	2,543,868	2,819,514	2,591,542
Energy breakdown (kWh)			
Gas	1,474,198	1,630,809	1,531,463
Electricity	1,005,350	1,132,453	1,019,420
Transport Fuel	64,320	56,252	40,659
Scope 1 emissions in metric tonnes CO2 equivalent			
Gas consumption	271	300	281
Owned transport	1	1	5
Total scope 1	<u>272</u>	<u>302</u>	<u>285</u>
Scope 2 emissions in metric tonnes CO2 equivalent			
Purchased electricity	<u>206</u>	<u>219</u>	<u>216</u>
Scope 3 emissions in metric tonnes CO2 equivalent			
Business travel in employees owned vehicles	<u>14</u>	<u>14</u>	<u>6</u>
Total gross emissions in metric tonnes CO2 equivalent	<u>492</u>	<u>535</u>	<u>508</u>
Intensity ratio			
Tonnes of CO2 equivalent per staff member	<u>1.29</u>	<u>1.35</u>	<u>1.28</u>

Notes regarding the emissions calculations:

Qualification and Reporting Methodology

We have followed the 2021 HM Government 'Streamlined energy and carbon reporting for colleges' guidelines (updated 25 January 2023) and have used the 2023 published UK Government's Conversion Factors for Company Reporting.

Intensity measurement

The chosen intensity measurement ratio is total gross emissions in metric tonnes per staff member, the recommended ratio for the further education sector. Staff numbers comprise those employed by the college and its subsidiary company, BCoT Professional Services Limited, in order to provide a meaningful and comparable measure.

Measures taken to improve energy efficiency

The college has a 400 panel solar pv installation. Investment has been made in LED lighting over a number of years and most of the college is now LED. Building improvements have improved thermal insulation and reduced heating demand. Staff and students are actively engaged in discussions and generate ideas to reduce energy consumption and harmful waste.

In 2022/23 the college implemented proactive management of day-to-day energy use which has largely generated the 10%+ reduction in both gas and electricity usage.

Plans are well advanced for further improvements to the building fabric (F Block curtain walling replacement) and the installation of solar pv on the F block roof.

The college is planning to enhance its energy use monitoring systems to inform future opportunities.

The impact of COVID-19

2020/21 was not a typical year of operation due the COVID-19 lockdown measures necessitating the college to close for certain periods and resulting in significantly lower energy usage than usual. 2021/22 and 2022/23 has been a full-years of operation.

Meter reading inaccuracies

The college's energy supplier has identified errors in prior-year electricity meter readings which make the comparison of the latest data with earlier years less informative. Readings are correct for 2021/22, but for the two earlier years the readings are under-stated but cannot be quantified.

Intensity ratio movement

The reduction achieved in 2022/23 is through lower energy use, staff number changes have not impacted this measure.