

Streamlined Energy and Carbon Report 2022-2023

Introduction

In line with the ESFA Streamlined Energy and Carbon reporting (SECR) 2020 guidance, and as set out in the College Accounts Direction, Grantham College can report the figures as below, calculated using the Greenhouse gas emissions calculation tool 2022-2023 factors.

The emissions reported cover the period 1st August 2022 to 31st July 2023 with the base year being 1st August 2021 to 31st July 2022. The report covers leased and owned assets of the college and emission change in reporting year versus base year is also shown and includes Scope 1 & 2 emissions.

Benchmarking and Intensity Metrics

Grantham College continues to choose to utilise an intensity metric that will support comparison to the baseline emissions in future years and seeks to measure its emissions against peers for transparency. The chosen intensity measurement ratio is total gross emissions in metric tonnes CO₂e per staff member.

In financial year August 2022 to July 2023 the College employed 325 members of staff (2022:345), equating to 181 FTE (2022: 158.6). The total gross emission per member of staff is 1.343 tonnes CO₂e (2022: 1.406).

College Premises

During 2022-2023, the college consisted of 3 owned sites and 1 leased site, all with their own gas fuelled boilers and electricity purchased from the grid network. Buildings on the college sites date from late 1800's, Grade 2 listed Stonebridge House, Grade 2 Elsham House and Riverside House, to early 2000's, with the majority of the buildings dating from 1960 to 1980's.

Grantham College has solar panelling installed across some of the main site college buildings and the self-generated renewable power information is shown within the report.

The College has been able to invest in refurbishment work in some of its existing buildings due to capital funding. This funding has enabled the college to continue to replace single glazed, steel framed windows, insulate and replace existing roofs, plus upgrading the current lighting with LED lighting. Throughout the year, we have also had to replace the inefficient gas ovens that were used within our catering area, these were replaced with more energy efficient induction ovens, as well as the college purchasing two more electric vehicles to add to its current fleet.

The college always considers more energy efficient, environmentally friendly replacements when having to replace equipment and vehicles and this will continue with further improvements in 2023-2024 planned.

Scope 1

Natural gas consumption data has been extracted from meter readings supplied and are supported by supplier invoices and no other form of heating fuel is used within the college.

Gas consumption for 2022-23 is 259,138 kwh lower than 2021-22 (down 13.78%) with CO2 emissions for reporting year being 48.46 lower than 2021-22 (down 14.07%).

The college owns 6 diesel vehicles. 2 minibuses, 2 vans and 2 pool cars and also leases an accessible diesel minibus.

Transport fuel consumption data has been calculated by taking the total fuel expenditure for the year and recorded mileage for all vehicles.

Transport CO2 emissions for 2022-23 are 0.68 (4.31%) lower than those in 2021-22, and take into account vehicle usage for educational visits, tournaments plus the provision of transportation for our day car centre for young adults with learning and/or physical disabilities.

Where possible staff are encouraged to use the electric vehicles for any visits.

Scope 2

Scope 2 emissions are made up of both purchased electricity and self-generated renewable power.

Consumption data has been extracted from meter readings and supplier invoices in respect of purchases electricity, and self-generated data has been supplied by meters readings from the inverter and supported by information provided by the supplier of our Feed in Tariff.

Electricity kwh consumption for 2022-23 has increased by 44,688 kwh (8.48%) when compared to 2021-2022, however CO2 emissions have reduced by 1.348 (1.2%) compared to the previous year. This is explained by the reduction in the Government's Carbon factor calculation for 2022-2023 for Total kg CO2 emissions per unit reducing to 0.1933 from 0.2123 in 2021-2022.

Self-generated renewable power for 2022-23 has increased by 14,418 kwh (23.26%) to the previous year.

Scope 3

Scope 3 emissions has not been included in the report; however, this information will be included where possible for future reporting years.

Energy Efficiency Actions

The college continues to proactively engage with the sustainability agenda on several fronts including engagement with students and staff, working towards improving the energy efficiency of its buildings and the recycling of some waste streams but there is always room for improvement and focus. The college encourages curriculum areas to promote Environmental Awareness and are asked to involve and discuss with students the environmental and sustainability within their sectors.

Areas across the college are also considering the impact of printing and the use of paper, where possible area (both support and curriculum) are finding alternative ways of keeping records and information, mainly via pdf copies.

Supply Chain

The college still continues to look at ways it can reduce carbon emissions and assist with our environmental, sustainability and energy efficiency strategic goals and tries where possible to work with suppliers who are also working towards sustainability and reducing carbon emissions.

- Computer equipment – we continue to see a reduction in non-recycled waste in relation to the supply of computer equipment as the college procured supplier delivers equipment in a more environmentally friendly way, with equipment no longer being delivered in individual boxes packed with polystyrene. Delivers are now made in one box with reusable protective covers and any old equipment taken away and recycled.
- Catering – our used cooking oil is taken away and recycled by a company who converts it into biofuel.
- Catering – our meat supplier is a local business who has invested in replacing their fleet with electric vehicles.

Capital & Maintenance Program

As part of the college's capital and summer works program areas are always asked to consider:

- Environmental impact of the work required.
- Does the work contribute to reducing the college's carbon emissions?
- Does the work contribute to increasing the college's energy efficiency and sustainability?

It is anticipated that these measures the college has put in place will reduce emissions in the future.

Greenhouse gas emissions and energy use data

Energy consumption used to calculate emissions (kWh)

	2022/2023	2021/2022	2020/2021	2019/2020
Energy consumption used to calculate emissions (kWh)	2,332,430	2,536,473	2,406,591	2,616,635

Energy consumption break down (kWh) (optional):

Gas	1,621,868	1,881,006	2,071,328	1,926,352
Electricity - Location Based Power	571,624	526,936	227,585	533,917
Electricity - Self Generated Renewable Power	76,415	61,997	63,084	72,388
Transport fuel	62,523	66,534	44,594	83,977

Scope 1 emissions in metric tonnes CO₂e

-14,418

Gas consumption	296.06	344.52	380.86	356.16
Owned transport	15.08	15.76	10.73	20.54
Total scope 1	311.14	360.28	391.59	376.7

Scope 2 emissions in metric tonnes CO₂e

Electricity - Location Based Power	110.54	111.888	53.06	136.47
Electricity - Self Generated Renewable Power	14.78	13.16	14.71	18.5

Scope 3 emissions in metric tonnes CO₂e

Business travel in employee owned vehicles	0	0	0	0
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Total gross emissions in metric tonnes CO₂e

	436.46	485.33	459.36	531.67
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Intensity ratio

Tonnes CO₂e per member of staff (staff/TCO₂e)

	325 / 1.343	345 / 1.406	398 / 1.154	397 / 1.334
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