

# Streamlined Energy and Carbon Report 2020-2021

## Introduction

In line with the Guidance for Streamlined Energy and Carbon reporting, as set out in the College Accounts Direction, Grantham College can report the figures as below, calculated using the Greenhouse gas emissions calculation tool 2019-2020 factors.

The emissions reported cover the period 1<sup>st</sup> August 2020 to 31<sup>st</sup> July 2021 with the base year being 1<sup>st</sup> August 2019 to 31<sup>st</sup> July 2020. The report covers leased and owned assets of the college and emission change in reporting year versus base year is also shown.

Implementation of an enhanced ventilation strategy as per national guidance to ensure adequate ventilation in the College buildings alleviating concerns associated with the spread of the Covid Virus has seen an increase in gas consumption due to increased heating of rooms to negate this.

The college consists 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's success in the collaborative Institute of Technology with a consortium of Lincolnshire colleges and the University of Lincoln saw a £2.6m capital investment towards the refurbishment of Stonebridge House along with specialist equipment. Grantham College Institute of Technology is due to open in November 2021.

The College has also been successful in their capital bid to Greater Lincolnshire Local Enterprise Partnership with an investment totalling £1.598m. This capital investment along with other funding will allow the college to refurbish the existing Link Block and Engineering areas to accommodate a new Renewable Energy Centre along with specialist equipment. Preliminary work commenced on the project in January 2021 and the new facility is due to open in April 2022.

A submission following a Low Carbon Skills funded feasibility study was made to the National Decarbonisation scheme but was unfortunately not accepted due to over subscription however the feasibility study and the independent condition survey that has also been carried out enables the college to prioritise capital investment to improve the college estate and work towards increasing energy efficiency and reducing carbon emissions.


The college owns 7 diesel vehicles. 2 minibuses, 2 vans and 3 pool cars. Transport fuel expressed as energy consumption and kWh output refers to a calculated contribution from in house vehicles where recorded mileage and total fuel expenditure has been used.

Scope 3 emissions (business travel) has not been included in the report, however this will be included in future years.

## Intensity measurement

The chosen intensity measurement ratio is “total gross emissions in metric tonnes CO<sub>2</sub>e per staff member”, the recommended ratio for the sector.

<b>Greenhouse gas emissions and energy use data</b>	<b>2020/2021</b>	<b>2019/2020</b>
Energy consumption used to calculate emissions (kWh)	2,406,591	2,616,635
<b>Energy consumption break down (kWh) (optional):</b>		
Gas	2,071,328	1,926,352
Electricity - Location Based Power	227,585	533,917
Electricity - Self Generated Renewable Power	63,084	72,388
Transport fuel	44,594	83,977
<b>Scope 1 emissions in metric tonnes CO<sub>2</sub>e</b>		
Gas consumption	380.86	356.16
Owned transport	10.73	20.54
Total scope 1	391.59	376.7
<b>Scope 2 emissions in metric tonnes CO<sub>2</sub>e</b>		
Electricity - Location Based Power	53.06	136.47
Electricity - Self Generated Renewable Power	14.71	18.5
<b>Scope 3 emissions in metric tonnes CO<sub>2</sub>e</b>		
Business travel in employee owned vehicles	0	0
<b>Total gross emissions in metric tonnes CO<sub>2</sub>e</b>	<b>459.36</b>	<b>531.67</b>
<b>Intensity ratio</b>		
Tonnes CO <sub>2</sub> e per member of staff (staff/TCO <sub>2</sub> e)	<b>398 / 1.154</b>	<b>397 / 1.334</b>

Grantham College		Annual SECR disclosure		Academic year 2020 - 2021	
Base Year for emissions disclosure	2019 - 2020				
Reporting Organisation	Grantham College				
Person Responsible	Anita Harrison				
Academic Reporting year	2020 - 2021				
Type of Reporting Organisation	Individual College				
Methodology used	GHG protocols Corporate standards & SECR guidelines for College Corporations				
Emissions factors used	UK Government conversion factors for Company set				
Included Scope 3 emissions	, , , ,				
Scope 2 emissions	Location Based Power,				
Exclusions	None				
Report Year Scope 1 emissions	Fuel Source	Volume	Unit	TCO <sub>2</sub> e	Emissions change v Base Year
Heating	Natural Gas	2,071,328.00	kWh	380.86	8%
		-		-	
Transport	Diesel	44,593.99	kWh	10.73	-48%
		-		-	
		-		-	
Fugitive Emissions		-		-	
Scope 1 Sub-Total				391.58	5%
Report Year Scope 2 emissions					
Location Based Power	Electricity	227,585.38	kWh	53.06	-61%
Self Generated Renewable Power	Electricity	-	63,084.00 kWh	14.71	-21%
Scope 2 Sub-Total				67.77	-56%
Report Year Scope 3 emissions					
		-		-	
		-		-	
		-		-	
		-		-	
		-		-	
		-		-	
		-		-	
		-		-	
Gross TCO <sub>2</sub> e pre offset				459.35	-13%
Offsets					
		-		-	
		-		-	
		-		-	
Net TCO <sub>2</sub> e				459.35	-13%
Report Year			Report Year		
Energy Intensity Ratios (S1&2)	Quantity	kWh's / Unit	TCO <sub>2</sub> e / Unit		
Floor area	17,016	137.73	0.02700		-8%
Staff FTE	178	13,134.78	2.57454		-1%
Student FTE	-				
Number of Staff	398	5,888.21	1.15415		-8%
Transport Intensity Ratios (S1&2)	Quantity	kWh's / Unit	TCO <sub>2</sub> e / Unit		
Miles	14,860.00	3.00	0.000722		47%
Per Vehicle	7	6,370.57	1.532568		-32%
Context					