

ShIPLEY College



Streamlined Energy & Carbon Report 2022-23



The Streamlined Energy and Carbon Reporting Framework (SECR) was published by the Department for Business, Energy and Industrial Strategy (BEIS) that came into effect from 01st April 2019.

The city of Bradford is aiming to be a Net Zero Carbon region by 2038. As a Further Education (FE) College in the Bradford District, Shipley College recognises the role it has to play to ensure the city reaches this target. The College has voluntarily created the SECR report and supports the Government's desire to reduce carbon emissions within the FE sector.

Progress to Date - SDG 13 Climate Action

Shipley College is proud to have been the first College in world to sign up to the SDG Accord. One of the seventeen SDGs concentrates solely on Climate Action and Greenhouse Gas (GHG) emissions (SDG 13), which will be the focus of this report.

The College's first Carbon Management Plan (CMP) achieved a 28% reduction of carbon between 2010 and 2015. The second internal CMP, using the 2015 baseline, achieved a further 34% carbon reduction, equating to 160 tonnes of carbon saved between 2010 and 2020.



Descriptive Information;

Baseline Period - Aug 2017 - July 2018

Reporting Period - Aug 2022 - July 2023

2017 - 2018 was chosen as the baseline year as the College had finished its Carbon Management Plan in July 2015 and the College wanted to use data from a year before the Government COVID lockdown period.

Completed GHG reduction projects;

- Lighting efficiency upgrades (LED's)
- Sub metering, monitoring and targeting
- Controlled thermostats
- Boilers are 5-10 years old
- Compression tap installation
- Upgraded BMS system
- Efficient window replacements

Shipleigh College Estate for the Reporting Year (2022-23)

Site/Building	Floor area of Site M2	Display Energy Certificate Rating (22-23)
Exhibition Building	3,417	B
Salt Building	2,047	C
Mill Building	1,243	B
Jonathan Silver Building	1,000	B

Emissions are defined under three different Scopes by the GHG Protocol as shown below

Scope	Definitions
Scope 1 - Direct GHG emissions	Emissions from activities owned or controlled by the corporation that releases emissions into the atmosphere e.g. gas boiler emissions and owned vehicle fuel
Scope 2 - Energy indirect GHG emissions	Emissions from own consumption of purchased electricity, heat, steam and cooling. These are a consequence of the corporation's activities but are from sources not controlled e.g. electricity.
Scope 3 - All other indirect GHG emissions	Emissions because of the corporation's actions where the source is not owned or controlled e.g. business travel in staff cars, water and procurement.

For the purpose of this SECR report, Shipleigh College will be calculating its scope 1 and scope 2 GHG emissions.

Shipley College has used the SECR tool created by the Environment Alliance for Universities and Colleges (EAUC) and Hillside environmental Services. The SECR tool is compliant with EFSA Guidance and uses the Government's Conversion Factors for GHGs.

Greenhouse Gas (GHG) Emissions for the Reporting Year

Energy Consumption used to calculate emissions	Base Year August 2017 - July 2018	Reporting Year August 2022 - July 2023
Gas (kWh)	728,340	507,450
Electricity (kWh)	388,120 135,842 comes from renewable sources	337,037 67,407 comes from renewable sources
Owned Fleet Fuel - Volume used (Litres)	3,152	1,982

The baseline year electricity is supplied by EDF and British Gas. The average % of renewable energy used during this year is 35%. The reporting year electricity is supplied by EDF. The average % of renewable energy used during this year is 20%. Shipley College has no influence over the amount (%) of renewable energy supplied by the utility companies.

Scope 1 emissions in metric tonnes CO₂e

	Base Year August 2017 - July 2018	Reporting Year August 2022 - July 2023	Emissions change (%)
Gas Consumption	134.13	92.63	-31%
Owned Fleet	8.19	5.07	-38%
Total Scope 1 - Gas and Owned Fleet fuel (Net)	142.32	97.70	-31%

Scope 2 emissions in metric tonnes CO₂e

	Base Year August 2017 - July 2018	Reporting Year August 2022 - July 2023	Emissions change (%)
Purchased Electricity (Pre offset)	136.45	65.18	-52%
Total Scope 2 - Purchased Electricity (Net)	136.45 - 47.76 (35% renewable electricity) = 88.69	65.18 - 13.04 (20% renewable electricity) = 52.10	-41%

Scopes 1 and 2 emissions in metric tonnes CO₂e

The renewable electricity metric tonnes CO₂e value has been used for the below calculations.

	Base Year August 2017 - July 2018	Reporting Year August 2022 - July 2023	Emissions change (%)
Total Scopes (S) 1 & 2 (Net)	231	150	-35%

Reporting Year Greenhouse Gas (GHG) Ratios

GHG ratios (S 1 & 2)	Quantity	S 1 & 2 Unit	TCO₂e/unit
Floor Area m ²	7,707	112.3	0.02
Staff FTE	2,09	4141.1	0.72
Staff Total Headcount	3,30	2622.7	0.45
Student FTE	1,100	786.8	0.14

Ongoing and Future Measures to Improve Efficiency

1. Finalise **LED installation** project at Shipley College to reduce electricity use - *2023-2024*
2. New and efficient **Building Management System** to be installed throughout the estate - *2023-2024*
3. Installation of **PIRs (light sensors)** in select areas to reduce electricity use - *2023-2024*
4. **Shipley College Travel Plan** to be promoted to staff, students and visitors and will be available to view on the college website. Public transport will be encouraged to reduce GHG emissions - *2023-2024*
5. **Active Travel promotion** - A new 20 bike shelter was built at the Exhibition building in summer 2023. The College is continuing to promote active travel to staff, students and visitors - *2023-2025*
6. **Food waste** is now collected from a separate waste supplier. This waste stream will now include VegWare containers. This will reduce the amount of waste sent to landfill and will be in line with the Environmental Act 2021 - *2023-2024*
7. Key staff to roll out **Carbon Literacy Training** to Shipley College staff. Volunteered staff will be trained on the science behind climate change and how they can reduce their carbon footprint and influence others to reduce their carbon emissions - *2023-2024*
8. Hillside Environmental services completed a **GHG emissions report** in 2023. This outlined the S1, S2 and S3 emissions of the college and highlighted key actions to take in the future - *2023*
9. Further work will be undertaken to **scope the possibility of replacing gas boilers with air source heat pumps** and **adding solar PV to certain areas of the campus** - *2023-2026*
10. **Carbon Literacy activities** are now rolled out in PSHE for full time students. This includes 2-3 weeks of sustainability theory sessions and practical sessions - *2023-2024*

