

EAUC-Scotland Public Bodies Climate Change Duties Overview Report

2020 Further Education Submissions
Analysis & Recommendations

June 2021

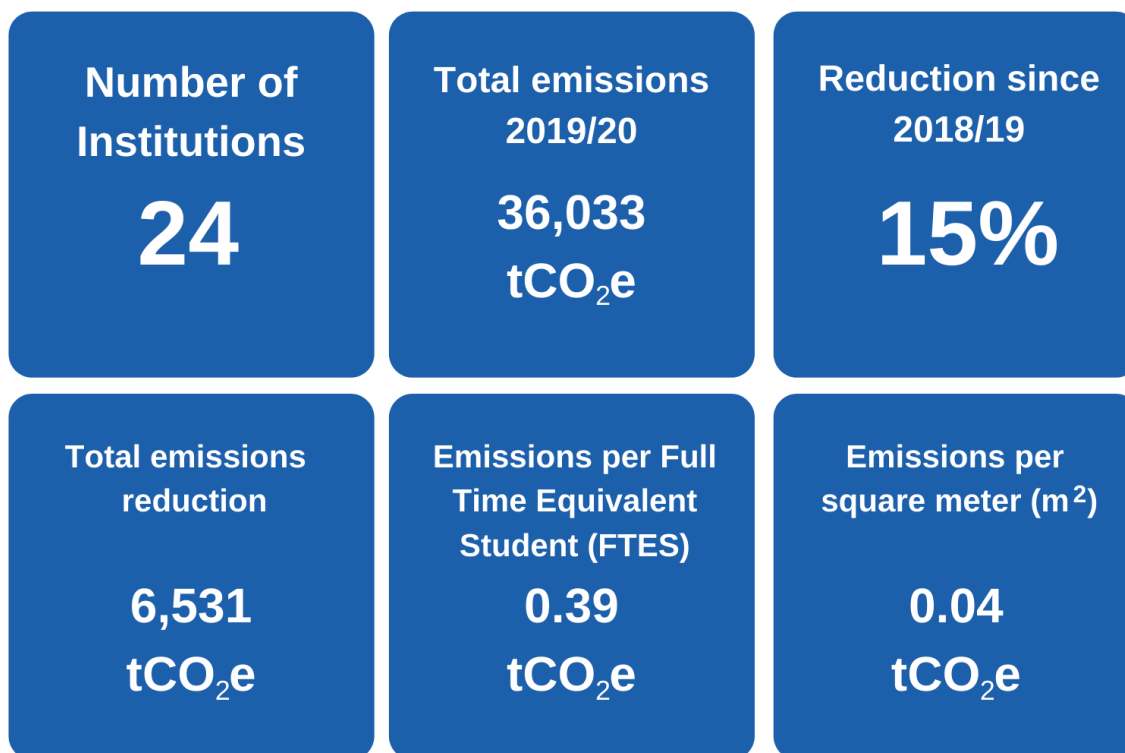
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Executive Summary

Total greenhouse gas (GHG) emissions for the Further Education (FE) sector reported during 2019/20 were 36,033 tonnes of carbon dioxide equivalent (CO₂e). The sector has reduced its absolute emissions by a further 15% this year, which is equivalent to 6,531 tonnes of CO₂e. This is a greater reduction than the public sector as a whole, which has reported a 6% reduction since 2018/19. Since mandatory reporting began in 2015/16, the FE sector has reduced its absolute emissions by 35%, or 19,583 tonnes of CO₂e. This is an excellent achievement, however, it should be noted that a significant portion of the reduction is due to the decarbonisation of the UK grid.

Figure 1. Key figures for 2019/20



Average emissions per Full Time Equivalent Student (FTES) were 0.39 tonnes of CO₂e and average emissions per square meter were 0.04 tonnes of CO₂e, a reduction of 17% and 18% respectively since 2018/19.

Introduction

The Public Bodies Climate Change Duties (PBCCD) reports from 24 Scottish colleges were submitted for the fifth mandatory year on 30 November 2020. Unfortunately, one small institution missed the deadline this year due to the pandemic. It is estimated that this institution would account for less than 0.5 % of total emissions so the omission does not make a material impact on the total.

The data submitted predominantly covered the academic year 2019/20, which included the first lockdown in March 2020 and subsequent restrictions. This analysis report will summarise the data and provide comparisons between reporting periods for section three of the PBCCD reports.

Scotland's world-leading climate change legislation set a target date for net zero emissions of all greenhouse gases (GHGs) by 2045. In 2020, the [Climate Change \(Duties of Public Bodies: Reporting Requirements\) \(Scotland\) Amendment Order 2020](#) set out that from 2022 public bodies will be required to annually report:

- target date for achieving zero direct emissions of greenhouse gases¹;
- targets for reducing indirect emissions of greenhouse gases;
- how the body will align its spending plans and use of resources to contribute to reducing emissions and delivering its emissions reduction targets.

In support of this, the College Development Network (CDN) has released a [Statement of Commitment on the Climate Emergency](#) which includes the ambition for Scotland's colleges to achieve net zero by 2040 or earlier.

EAUC-Scotland has continued to support the sector to improve their reporting. This year support has included:

- Virtual training sessions on improving GHG emissions reporting;
- Group and one-to-one peer review sessions;
- [Guidance on revising baselines](#);
- Establishing a Smaller Institutions Net Zero Working Group; and
- Joining CDN's Climate Emergency Expert Group and supporting the development of the [Statement of Commitment on the Climate Emergency](#).

¹ Please note this implies offsetting will not be permissible for Scope 1 emissions

Reporting Quality

As illustrated in Table 1, there continues to be a wide range of different operational reporting boundaries across the sector. However, 100% of institutions are reporting the GHG emissions associated with premises energy consumption, 92% are reporting waste, 88% are reporting water and business travel emissions and 63% are reporting fleet emissions.

Table 1. Breakdown of operational reporting boundary by institution

Emissions source	Number of institutions reporting	Percentage of total	Change since 2018/19
Energy	24	100%	-
Waste	22	92%	↑
Water	21	88%	-
Business travel	21	88%	-
Fleet	15	63%	↓
F-gas	4	17%	↓
Commuting	1	4%	-
Total	24	-	-

The quality of the reports has improved again this year and SSN reported that fewer quality assurance checks were needed. Following feedback from EAUC-Scotland two institutions have expanded their operational reporting boundaries this year:

- One institution added waste and fleet; and
- One institution added f-gas.

Due to the pandemic some institutions were not able to include all the sources of GHG emissions that they had previously reported:

- Three omitted fleet; and
- Two omitted f-gas.

These omissions were generally from smaller institutions and therefore should not make a material impact on the totals. In the case of fleet, changes are likely to be due to the transition to electric vehicles and changes to f-gas are expected every year as there will not always be leaks during the reporting period.

Action: EAUC-Scotland will continue to work with institutions to improve the quality of reporting and, where possible, align operational reporting boundaries. The EAUC-Scotland team will also support the [Climate Commission for UK Higher & Further Education](#) on work to improve sector GHG accounting methodologies and set minimum recommended reporting boundaries.

Scottish Colleges' Statement of Commitment on the Climate Emergency

Developed by the College Development Network's Climate Emergency Expert Group the [Statement of Commitment on the Climate Emergency](#) contains 10 key actions:

1. Support Scotland's efforts to achieve net zero climate emissions by 2045 or earlier if possible, with Scotland's colleges aiming to achieve net zero by 2040 or earlier.
2. Embed environmental sustainability in our strategies and set measurable targets.
3. Address the UN's Sustainable Development Goals in our strategies.
4. Share best practice within and beyond the college/university sector.
5. Deploy our expertise and experience to fight climate change.
6. Contribute to the public debate on climate change and use the power of our example to encourage others.
7. Work with Scottish industry, employers, public sector bodies and others to improve working practices and find practical solutions to climate change and to make our planet safe for future generations.
8. Encourage, where appropriate, colleges to adopt the UK HE/FE Climate Commissions [Climate Action Roadmap for FE Colleges](#).
9. Each college will publish action plans to address on-campus and supply chain emissions, setting out what steps they will take over a five-year horizon and beyond where possible, and what they aim to achieve to address the climate emergency.
10. Educate staff, students, employers and communities on the impact their daily lives and working practices have on the environment/climate. While working with our partners, local employers and communities to ensure everyone is aware of their personal responsibility to our planet.

Analysis

Total GHG emissions from the FE sector in 2019/20 were 36,033 tonnes of CO₂e, which is 10% of the total FHE sector GHG emissions of 375,160 tCO₂e. The majority arose from natural gas consumption which contributed 18,285 tonnes of CO₂e or 51% of total emissions, followed by grid electricity consumption which accounted for 13,555 tCO₂e or 38% of total emissions. Electricity transmission and distribution and business travel contributed 1,157 tonnes of CO₂e and 1,026 tonnes of CO₂e respectively, or 3% of total emissions each. A full breakdown of emissions is shown in Table 2.

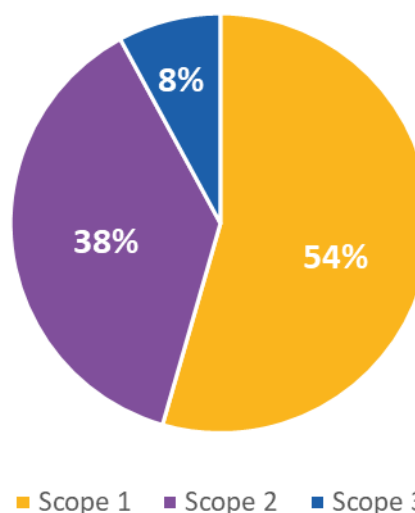
Table 2: Total FE sector emissions 2019/20

Emissions source	Colleges 2019/20 (tCO ₂ e)	Percentage
Scope 1		
Natural gas	18,285	51%
Biomass	112	0.3%
Gas oil	749	2%
Other fuels	101	0.3%
Fleet vehicles	228	1%
F-gases	144	0.4%
Subtotal	19,620	54%
Scope 2		
Grid electricity	13,555	38%
Subtotal	13,555	38%
Scope 3		
Electricity transmission & distribution	1,157	3%
Waste	277	1%
Water	350	1%
Business travel - car	557	2%
Business travel - rail	12	0.03%
Business travel - taxi	25	0.1%
Business travel - bus	3	0.01%
Business travel - ferry	1	0.002%
Business travel - air	429	1%
Staff commuting ²	46	0.1%
Subtotal	2,857	8%
Total	36,033	100%

² Please note that only one institution reported commuting emissions

As shown in Figure 2, in the reporting period 2019/20 Scope 1 sources account for 54% of total emissions, Scope 2 sources account of 38% of the total and Scope 3 sources account for the remaining 8%³.

Figure 2: Breakdown of emissions by scope in 2019/20



Between 2018/19 and 2019/20 the FE sector achieved a reduction of 6,531 tonnes of CO₂e or 15% of total emissions. This is greater than the public sector as a whole, which reported a reduction of 6% since 2018/19. A breakdown of the percentage change in emissions for each source is shown in Table 3. The most significant reduction came from waste and recycling which reduced by 53%. Other heating fuel and fleet reduced by 51% and 46% respectively. Business travel reduced by 39% and f-gases by 32%. These building and travel related emissions reductions are partly a result of the lockdown and subsequent restrictions that occurred during the reporting period. One institution also replaced an oil-fired boiler with gas. The emissions associated with electricity⁴ reduced by 20%, however the carbon intensity of UK grid electricity reduced by 9% during the reporting period.

Table 3: Comparison of emissions between reporting periods

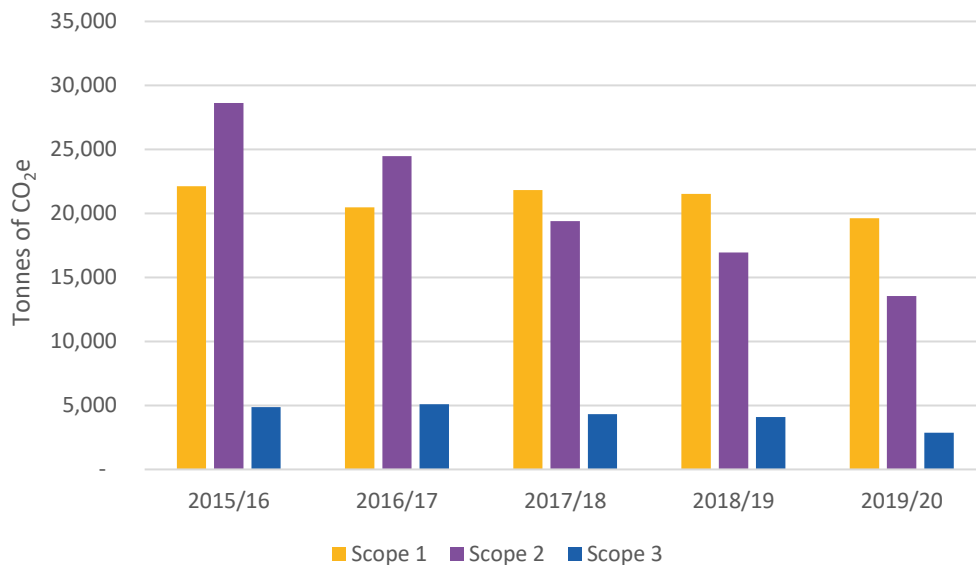
Source of emissions	2015/16 (tCO ₂ e)	2016/17 (tCO ₂ e)	2017/18 (tCO ₂ e)	2018/19 (tCO ₂ e)	2019/20 (tCO ₂ e)	Change since 2018/19
Electricity ⁴	31,030	26,734	21,048	18,374	14,712	-20%
Natural gas	19,458	18,209	19,403	19,030	18,285	-4%
Other heating fuel	1,545	1,610	1,790	1,745	851	-51%
F-gases	-	-	-	211	144	-32%
Waste and recycling	728	661	622	591	277	-53%
Water and sewerage	370	364	388	330	350	6%
Business travel	1,413	2,081	1,948	1,693	1,026	-39%
Fleet	1,018	325	236	422	228	-46%
Commuting	-	-	-	48	46	-4%
Renewables	54	64	101	121	112	-7%
Total	55,615	50,049	45,536	42,563	36,033	-15%

³ Please note the slight discrepancy is due to rounding

⁴ Please note that SSN include transmission & distribution in this category

Since 2015/16 the FE Sector has reduced its GHG emissions by 19,583 tonnes of CO₂e or 35%. A comparison of total emissions broken down by scope between reporting periods is shown in Figure 3. This shows that since PBCCD reporting began in 2015/16 Scope 1 emissions have reduced by 11%, Scope 2 emissions have reduced by 53% and Scope 3 emissions have reduced by 41%.

Figure 3: Comparison of emissions broken down by scope between reporting periods



Please note that a significant portion of the Scope 2 emissions reduction should be attributed to the decarbonisation of the UK electricity grid which has reduced by 43% since 2016. The decrease in Scope 3 emissions is also partly due to the decarbonisation of the national grid as transmission and distribution losses account for 40% of total Scope 3 emissions.

It is concerning that Scope 1 emissions have only reduced by 11% since 2015/16. These are direct emissions that are the primary responsibility of institutions and present the greatest reduction opportunity.

Performance Metrics

As shown in Table 4, average FE sector emissions during 2019/20 were 0.04 tonnes of CO₂e per m² and 0.39 tonnes of CO₂e per full time equivalent student (FTES), both a reduction since 2018/19. These performance metrics will allow institutions to monitor relative progress between reporting periods and facilitate meaningful comparison between similar institutions.

Table 4. Performance metrics for 2019/20

Performance metrics	2017/18	2018/19	2019/20	Change since 2018/19
Floor area (tCO ₂ e/m ²)	0.06	0.05	0.04	-18%
Students (FTES)	0.57	0.48	0.39	-17%

Case study: Dumfries & Galloway College

Sustainability Institution of the Year (Green Gown Awards 2020)

Dumfries & Galloway College has successfully embedded sustainability across the institution and collaborated with community and business partners to deliver climate change action across the South of Scotland. The college has declared a climate emergency and aims to be net zero by 2030.

Some key projects include: Green skills academy, digital learning regional collaboration, renewable technology (PV, turbines & heat pumps), student reuse hub & a ban on bottled water. [Further details available here.](#)



Summary & Recommendations

The fifth mandatory year of the Public Bodies Climate Change Duties reporting has again shown significant progression for colleges with GHG emissions reductions and sustainability reporting.

Headline points to note:

- There has been a 15% reduction in FE sector GHG emissions since 2018/19 and a 35% reduction since 2015/16;
- Since 2015/16, Scope 2 & 3 emissions have reduced by 53% and 41% respectively, while Scope 1 emissions have only reduced by 11% over the same period;
- The training and peer review sessions that EAUC-Scotland provided to institutions has resulted in better quality data and more key sources of emissions being reported; and
- The pandemic has not had a material impact on the quality of data submitted but has contributed to reductions in emissions related to the estate and travel.

The progress achieved to date is impressive but going forward it is important that the FE Sector prioritise decarbonising heat in order to reduce its Scope 1 emissions. Delivering these reductions will be essential to meet CDN's [Climate Emergency Commitment](#) and the more ambitious targets set by the Scottish Government in the [Climate Change \(Duties of Public Bodies: Reporting Requirements\) \(Scotland\) Amendment Order 2020](#).

Scope 1 emissions from heating are generally under the direct control of institutions and should therefore present some of the greatest reduction opportunities. There is recognition that financing has historically been a key barrier for public bodies who cannot borrow, so the Scottish Government has announced £95million of grants to decarbonise the public sector estate over the course of the next parliament. However colleges will be competing with other public bodies for these grants and previous programmes have been extensively oversubscribed therefore the material impact of this funding remains unknown.

With these positive developments in both legislation and funding, and the suite of support on offer from EAUC-Scotland, it is hoped that subsequent reporting years will see further improvements in both the quality of submissions and the reductions achieved by the FE Sector.



Prepared and delivered by EAUC-Scotland

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