

EAUC-Scotland Public Bodies Climate Change Duties Overview Report

2019 Further Education Submissions
Analysis & Recommendations

June 2020

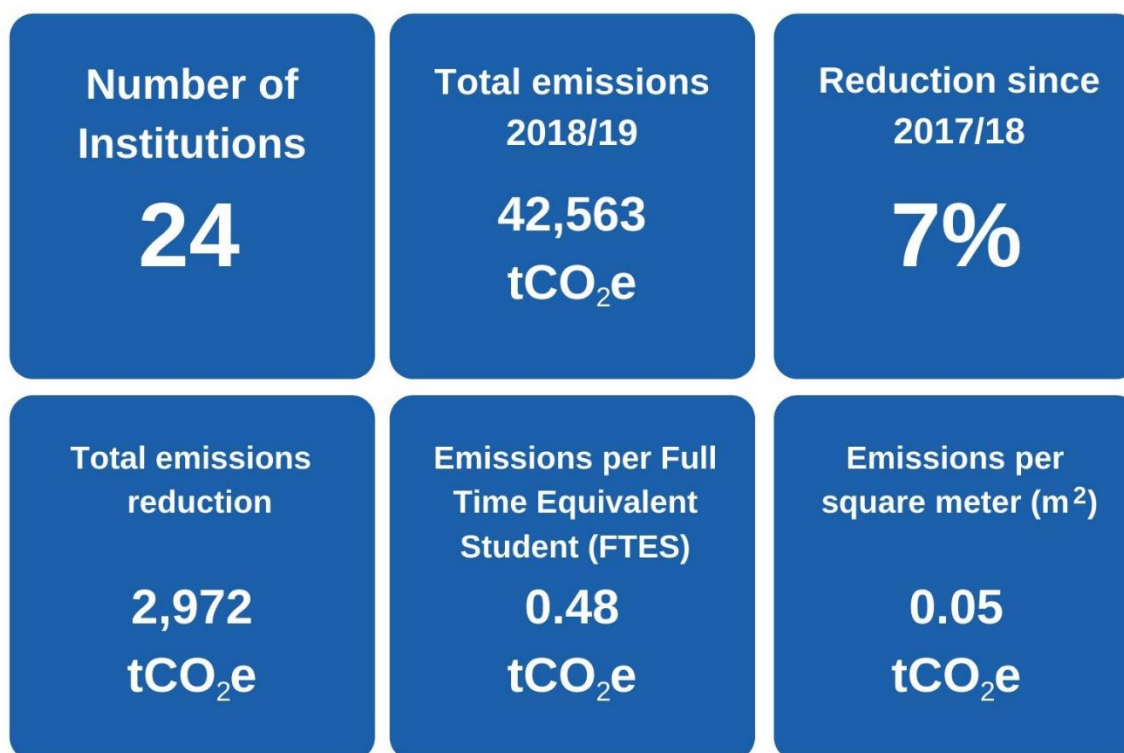
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Executive Summary

Total greenhouse gas (GHG) emissions for the Scottish Further Education (FE) sector reported during 2018/19 were 42,563 tonnes of carbon dioxide equivalent (CO₂e). The sector has reduced its absolute emissions by a further 7% this year, which is equivalent to 2,972 tonnes of CO₂e. This is better than with the FHE sector as a whole, which reported total GHG emissions of 384,030 tonnes of CO₂e and a 4% reduction since 2017/18. Since mandatory reporting began in 2015/16, the FE sector has reduced its absolute emissions by 23%, or 13,052 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 2018/19



Average emissions per full time equivalent student (FTES) were 0.48 tonnes of CO₂e and average emissions per square meter were 0.05 tonnes of CO₂e, a reduction of 16% and 7% respectively since 2017/18.

There has been an improvement in the quality of reporting this year with many institutions expanding operational reporting boundaries to include key sources of emissions such as business travel and f-gases.

Introduction

The Public Bodies Climate Change Duties (PBCCD) Reports from 24 colleges in Scotland were submitted for the fourth mandatory year on 30 November 2019. Unfortunately, one small institution missed the deadline this year due to unforeseen circumstances. However another small institution was able to submit data for the first time this year so the omission does not make a material impact on the total¹.

The data submitted predominantly covered the academic year 2018/19. This analysis report will summarise the data and provide comparisons between reporting periods for section three of the PBCCD reports.

In 2019, Scotland's world-leading climate change legislation set a target date for net-zero emissions of all greenhouse gases (GHGs) by 2045. Colleges have seen carbon mitigation and adaptation rise up their agenda as well, with EAUC-Scotland continuing to support the sector to improve their reporting.

This year support has included:

- Guidance on aligning operational reporting boundaries
- Individual feedback and recommendations to each institution on their reporting
- Virtual training sessions on improving GHG emissions reporting
- Risk & Resilience in a Changing Climate event in partnership with Historic Environment Scotland
- Group and one-to-one peer review sessions
- Institutional visit programme and sustainability committees project

¹ It is estimated that each of these institutions account for less than 0.5% of total emissions.

Reporting Quality

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 many institutions have expanded their operational reporting boundaries this year:

- Five colleges added f-gas emissions
- Four colleges added business travel emissions
- One college added commuting emissions

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 now reporting the GHG emissions associated with premises energy consumption, 88% are reporting waste, water and business travel emissions and 71% are reporting fleet emissions.

Table 1. Breakdown of operational reporting boundary by institution

Emissions source	Number of institutions reporting	Percentage of total
Energy	24	100%
Waste	21	88%
Water	21	88%
Business travel	21	88%
Fleet	17	71%
F-gas	5	21%
Commuting	1	4%

Analysis

Total greenhouse gas (GHG) emissions from the FHE sector in 2018/19 were 42,563 tonnes of CO₂e. The majority arose from natural gas consumption which contributed 19,030 tonnes of CO₂e or 45% of total emissions, followed by grid electricity consumption which accounted for 16,941 tCO₂e or 40% of total emissions. Business travel contributed 1,693 tonnes of CO₂e or 4% of total emissions and gas oil contributed 1,618 tonnes of CO₂e or 4% of total emissions. A full breakdown of emissions can be seen in Table 2.

Table 2: Total FE sector emissions 2018/19

Colleges	
Emissions source	2018/19 Percentage
Scope 1	
Natural gas	19,030 45%
Biomass	121 0.3%
Gas oil	1,618 4%
Other fuels	127 0.3%
Fleet vehicles	422 1%
F-gases	211 0.5%
Subtotal	21,528 50.6%
Scope 2	
Grid electricity	16,941 40%
Subtotal	16,941 39.8%
Scope 3	
Electricity transmission & distribution	1,432 3%
Waste	591 1%
Water	330 1%
Business travel - car	903 2%
Business travel - rail	12 0.03%
Business travel - taxi	39 0.1%
Business travel - bus	1 0.003%
Business travel - ferry	1 0.002%
Business travel - air	736 2%
Staff & student commuting ²	48 0.1%
Subtotal	4,094 9.6%
Total	42,563 100%

² Please note that only 1 institution reported commuting emissions

As shown in Figure 2, in the reporting period 2018/19 Scope 1 sources account for 50% of total emissions, Scope 2 sources account of 40% of the total and Scope 3 sources account for the remaining 10%³. 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 remained relatively constant, there has been a significant reduction of Scope 2 emissions and Scope 3 emissions have reduced over time.

Figure 2: Breakdown of emissions by scope

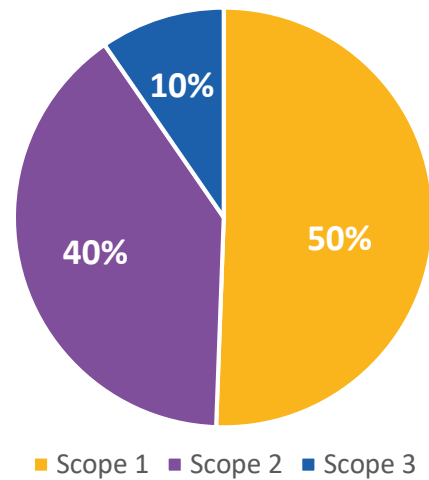
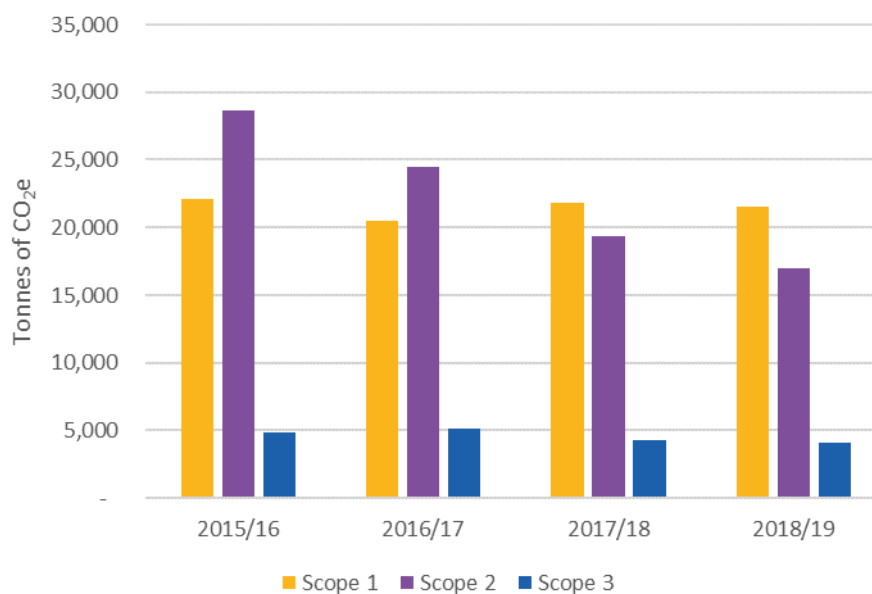


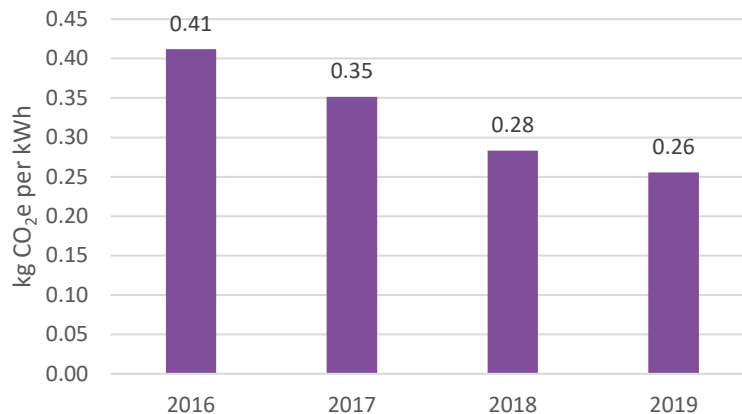
Figure 3: Comparison of emissions broken down by scope between reporting periods



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 38% since 2016 (illustrated in Figure 4). The increase in Scope 3 emissions is partly due to institutions expanding the operational boundary of their reporting. It is concerning that Scope 1 emissions have only reduced by 3% since 2015/16. These are direct emissions so are the primary responsibility of institutions and present the greatest reduction opportunity.

³ Please note the slight discrepancy is due to rounding

Figure 4: Reduction in Carbon Intensity of UK grid since 2016



Between 2017/18 and 2018/19 the FE sector achieved a reduction of 2,996 tonnes of CO₂e or 7% of total emissions. A breakdown of the percentage change in emissions for each source is shown in Table 3. The categories are slightly different from Table 2 as historic data is only available in this format. The most significant reduction came from electricity⁴ which reduced by 13%, however it should be noted that the carbon intensity of UK grid electricity reduced by 10% during the reporting period. The 79% increase in emissions from transport fuel is due to better quality data. The 20% increase from renewables is due to an increase in the use of biomass fuel.

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)	Change 17/18 - 18/19
Electricity	31,030	26,841	21,048	18,374	-13%
Natural gas	19,458	18,209	19,403	19,030	-2%
Other heating fuel	1,545	1,610	1,790	1,745	-3%
Refrigerants	-	-	-	211	-
Waste and recycling	728	661	622	591	-5%
Water and sewerage	370	364	388	330	-15%
Travel	1,413	2,081	1,948	1,693	-13%
Transport fuel	1,018	325	236	422	79%
Commuting	-	-	-	48	-
Renewables	54	64	101	121	20%
Other	-	-	-	-	-
Total	55,615	50,155	45,536	42,563	-7%

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

Performance Metrics

As shown in Table 4, average FE sector emissions during 2018/19 were 0.05 tonnes of CO₂e per m² and 0.48 tonnes of CO₂e per FTES, both a reduction since 2017/18. These performance metrics will allow institutions to monitor relative progress between reporting periods (where there have been material changes within the institution) and facilitate meaningful comparison between similar institutions.

Table 4. Performance metrics for 2018/19

Performance metrics	2017/18	2018/19	Percentage Change
Colleges			
Floor area (tCO ₂ e/m ²)	0.06	0.05	-7%
Students (FTES)	0.57	0.48	-16%

Summary & Recommendations

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

A few headline points to note:

- There was a 7% absolute decrease in FE sector GHG emissions from 2017/18 to 2018/19
- The FE sector contributed 42,563 tCO₂e (11%) to the overall FHE sector GHG emissions of 384,054 tCO₂e
- The individual feedback and training EAUC-Scotland provided to institutions has resulted in better quality data and more key sources of emissions being reported
- The continuation of 'peer validation' workshops has resulted in higher quality reporting and will be expanded going forward

The absolute reduction in GHG emissions is positive but a significant portion of the decrease resulted from the decarbonisation of the UK grid. Therefore, going forward, it is critical that the sector prioritises reducing its Scope 1 emissions in order to meet the more ambitious targets set by the Scottish Government. The payback period of SFC & Salix funding has been extended this year so more Scope 1 projects are eligible, however colleges do not have unilateral access to these funds and will continue to be unable to significantly reduce this key source of emissions until this is resolved.

The Scottish Government decommissioned ProcXed in Jan 2020 and is yet to announce how data will be collected going forward. When an update is made it will be widely communicated with the sector by both EAUC-Scotland and SSN.

The SFC Outcome Agreement Guidance for 2019/20 (see Appendix I) highlights the need for creative and innovative sustainability ambitions tailored to the unique strengths and context of each individual college. The guidance recognises that sustainability is not just for the estates team but a whole institutional issue, and should be embedded within everything from the strategic plan to individual module descriptors, HR policies, and procurement decision-making. Therefore, with this update to the guidance and the suite of support on offer from EAUC-Scotland, it is hoped that subsequent reporting years will see further improvements in completeness and quality.

Appendix I: SFC Outcome Agreement Guidance 2019/20

Leadership in environmental and social sustainability

The Climate Change (Scotland) Act 2009 set ambitious targets for carbon reduction in Scotland, and led to the requirement for colleges and other significant publicly funded organisations to submit a mandatory Public Bodies Climate Change Duties (PBCCD) Report on an annual basis. To capitalise on this activity, the climate change targets and sustainability ambitions for each college should also be outlined in their outcome agreement. Climate change targets should be framed within a current emissions reduction plan. SFC acknowledges that each college will be at a different stage in their environmental sustainability journey. This stage will have been determined by their access to resources and the opportunity, past and present, to engage in sustainability activity in order to build knowledge capacity. SFC expects that sustainability ambitions will be creative and innovative, capable of application within the college and able to deliver sustainable impact that is meaningful to each college and their wider communities.

In order to demonstrate leadership in promoting environmental sustainability, SFC expects each college to develop approaches and report activity that evidences their corporate commitment to tackling wider environmental and social sustainability challenges, both in mandatory reporting and as part of their own sustainability ambitions. These ambitions and targets should be detailed within wider strategic documents or through a dedicated sustainability strategy or action plan, and recorded in their Outcome Agreement (including providing links to relevant documentation), and should demonstrate either a whole-institutional approach or describe activity that is working towards a whole-institutional approach. SFC expects that evidence of progress against the strategy will be provided from a variety of operational activity such as approaches to governance in sustainability, climate change adaptation and mitigation activities, successful senior management engagement, curriculum links, estates decision-making, student/staff engagement, general wellbeing initiatives and meaningful community links or through other business areas, either in part or across all areas. Support will be available through the EAUC's programme, and progress should be reported through PBCCD Reporting submissions and the Outcome Agreement process.

SFC anticipates that the diversity that exists within each college in terms of population cohort and learning activity will provide opportunities to deliver the type of environmental

and social sustainability leadership that is transformative in design and unique to each individual college and its wider community. Some of this wider community may include partnerships across other colleges. This activity should also provide colleges with the appropriate evidence to complete the recommended section on 'wider influence' in PBCCD reporting.

Potential longer term outcomes of note to SFC as a result of this activity will be to strengthen the competitiveness of the sectors, reduce financial and reputational risks, create innovative opportunities for growth, provide a better learner experience for both students and staff and ensure that students develop the understanding of environmental and social sustainability required for the workplaces of tomorrow.

[SFC College Outcome Agreement Guidance 2019/20 \(page 39\)](#)

Prepared and delivered by EAUC-Scotland

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