

Aligning Operational Reporting Boundaries

Improving Further & Higher Education
Sector Greenhouse Gas Emissions
Reporting

May 2019

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1. Overview

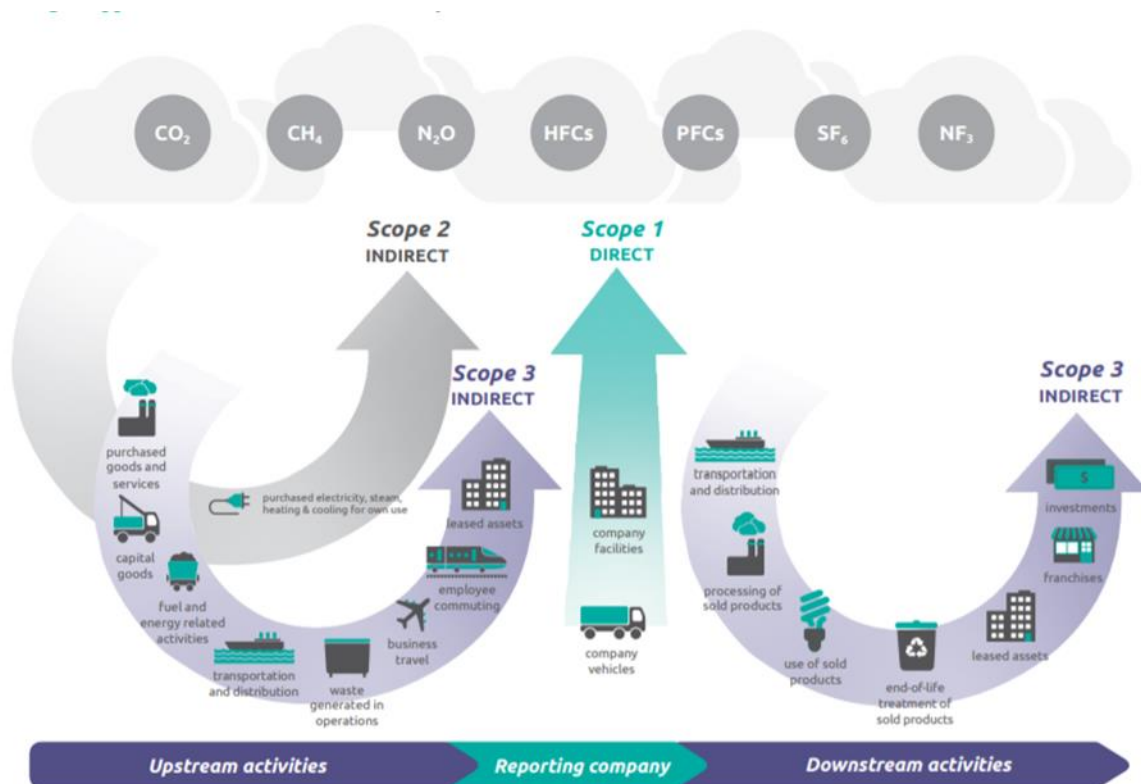
In Scotland all major player public bodies, as defined by the Climate Change (Scotland) Act 2009, report their annual corporate Greenhouse Gas (GHG) emissions for the [Public Bodies Climate Change Duties \(PBCCD\)](#). Corporate GHG emissions are those that relate to the activities of the institution from its estate, owned assets and services.

At present each institution determines what is included in its reporting boundary for the PBCCD. EAUC-Scotland would like to work with our members to better align the sources of GHG emissions that are reported in the Further & Higher Education (FHE) Sector PBCCD submissions. This will provide a more complete picture of FHE Sector GHG emissions, enable better monitoring of reductions and allow for meaningful performance metrics to be developed.

2. Defining Operational Reporting Boundaries

The GHG Protocol [Corporate Accounting & Reporting Standard](#) splits GHG emissions into three reporting Scopes. An illustration of the sources of GHG emissions within each Scope is shown in Figure 1.

Figure 1. Overview of GHG Protocol Scopes. Source [GHG Protocol](#)



It is best practice for institutions to report all Scope 1 & 2 GHG emissions and relevant Scope 3 GHG emissions where possible. For the FHE Sector to lead within PBCCD reporting, EAUC-Scotland recommends that the following sources of GHG emissions are included within each Scope.

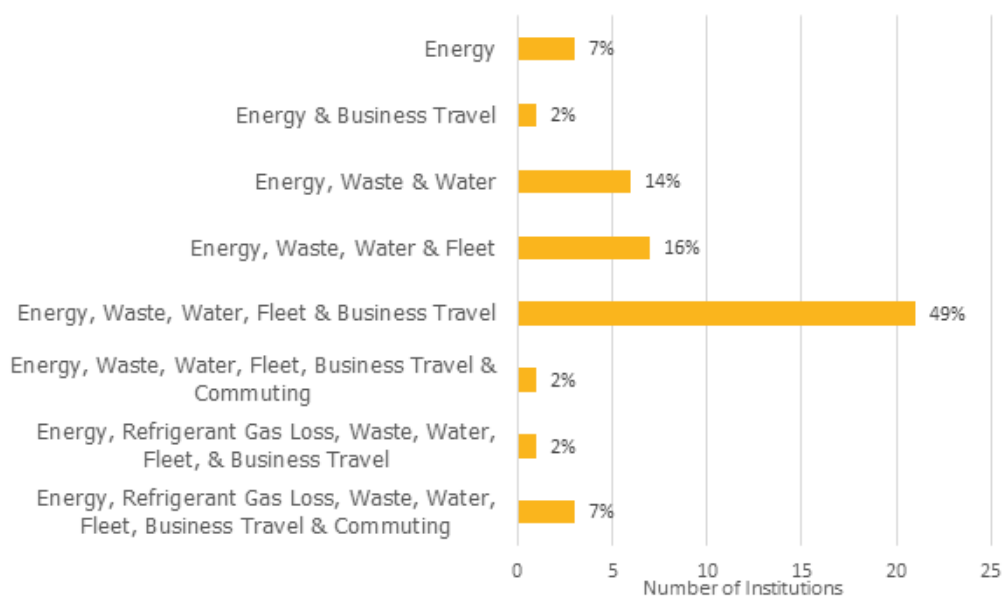
Table 1. Corporate GHG emissions scope suggestion for the FHE sector

Scope 1	<p>Direct emissions from activities owned or controlled by the institution.</p> <p>For FHE Sector this would include:</p> <ul style="list-style-type: none"> • Fuel combustion in boilers and generators on owned premises • Fuel combustion in owned vehicles and machinery • Refrigerant gas losses from air-conditioning or refrigeration systems.
Scope 2	<p>Indirect emissions from purchased electricity or heat.</p> <p>For FHE Sector this would include:</p> <ul style="list-style-type: none"> • Purchased electricity • Purchased district heating
Scope 3	<p>Other indirect emissions from institutional activities.</p> <p>For FHE Sector this would include:</p> <ul style="list-style-type: none"> • Electricity transmission & distribution • Waste disposal & recycling • Water supply & treatment • Fuel combustion in boilers and generators on leased premises • Fuel combustion in leased vehicles and machinery • Business Travel • Commuting (staff and student)

3. Current Breakdown of Boundaries in FHE Sector

A breakdown of operational reporting boundaries for the FHE Sector in 2017/18 is shown in Figure 2 and only 7% of institutions reported a complete set of GHG emissions. Every institution reported GHG emissions from energy but 9% omitted water & waste, 23% omitted fleet, 37% omitted business travel and 91% omitted commuting and refrigerant gas loss.

Figure 2. Breakdown of FHE Sector Reporting Boundaries 2017/18



For a more detailed breakdown of the emissions reported by each institution see Annexes 1 and 2 (not included in the public version of this report).

4. Performance Metrics

As illustrated in Figure 2 there is currently a significant disparity in the operational reporting boundaries of the 44 FHE institutions covered by the PBCCD. This means that we do not currently have a complete picture of total sector emissions and therefore cannot accurately monitor the excellent GHG emissions reductions that our University & College members are achieving. It also makes it challenging to develop meaningful performance metrics, such as tonnes of carbon dioxide equivalent (tCO₂e) per square meter (m²) or per Full Time Student (FTS). Metrics such as these are helpful for defining best practice and monitoring performance against similar institutions.

Performance metrics were calculated for the first time with data from 2017/18 and are shown in Table 2. However, due to the aforementioned disparity in operational reporting boundaries these are currently of limited value.

Table 2. FHE Performance metrics 2017/18

Performance Metrics	Average tCO ₂ e/m ²	Average tCO ₂ e/FTS
Universities	0.08	1.60
Colleges	0.06	0.57
FHE sector	0.07	0.96

5. Support Available for Improvement

EAUC-Scotland plans to work with our members for the reporting year 2018/19 to improve the alignment of operational reporting boundaries. We will endeavor to provide individual feedback to members on their PBCCD reporting and produce guidance on improvements to boundary alignment and calculating the impact of new sources of GHG emissions. Tailored one-to-one support will also be available via the Support and Advisory Service.

The following resources are a useful starting point for institutions who are interested in expanding their reporting boundary:

- For further information on corporate reporting see the GHG Protocol's [Corporate Accounting & Reporting Standard](#).
- For guidance on calculating Scope 3 GHG emissions [Scope 3 Methodology Guidance \(EAUC/AUDE\)](#)
- For UK Government GHG emissions factors [Conversion Factors for GHG Company Reporting](#)

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