Climate Change Mitigation

Reporting Guidance for Public Bodies

Annex B: Scope 3 Emissions Accounting and Reporting - Supporting Guidance

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Scope 3 Emissions Accounting and Reporting – Supporting Guidance

This annex provides information and guidance on scope 3 emissions reporting under the following headings (each heading is hyperlinked to its corresponding section):

Scope 3 Emissions

The Greenhouse Gas (GHG) Protocol Corporate Standard classifies a reporting organisation's GHG emissions into three 'scopes'.

- Scope 1 emissions are direct emissions from owned or controlled sources.
- Scope 2 emissions are indirect emissions from the generation of purchased energy.
- Scope 3 emissions are all indirect emissions (not included in scope 2) that occur in the value chain of the reporting organisation, including both upstream and downstream. Scope 3 emissions are further described in the below section 'GHG Protocol's Scope 3 Categorisation'.

What is Required under the Regulations - Scope 3 Emissions

Reporting on scope 3 emissions under the Regulations is currently voluntary, but a reporting organisation can, if they wish to do so, report on one or more of the 15

categories within scope 3 set by the GHG Protocol (see the below section 'Why are Scope 3 Emissions Important' for more information).

This voluntary approach is applied for the following reasons:

- Measuring scope 3 emissions can be challenging as it requires organisations to collect a wide range of information, often held by other (third-party) organisations or individuals, which means that there may be difficulties with data accessibility and quality.
- The collection and calculation of scope 3 emissions can be a complex and time-consuming process, and the resulting figures can have a significant level of uncertainty.
- Different reporting organisations will also have varying degrees of experience, capabilities and data availability in terms of scope 3 reporting, and some may have never collected scope 3 emissions data before. The current applied voluntary approach allows for reporting organisations to become upskilled and more practiced in scope 3 data collection. It also allows, in the identification and application of appropriate estimation methodologies suitable for their organisation, for them to build and improve on their available data over reporting cycles.
- Scope 3 emissions reporting is also relatively new, and methodologies are still emerging to enable scope 3 emissions measurement in many areas[1]. A voluntary approach will therefore provide opportunity for DAERA to explore the potential for further development of the current scope 3 guidance, while working with public bodies through a co-design process and in accordance with the GHG Protocol.

Why are Scope 3 Emissions Important

It is important to consider scope 3 emissions, as they often represent the majority of a reporting organisation's total GHG emissions. Scope 3 emissions account for

[1] The UK government undertook a 'Scope 3 Emissions in the UK Reporting Landscape - Call for Evidence' in 2023, which was to gather feedback on the benefits, costs, and practicalities of Scope 3 GHG emissions reporting in the UK. The summary of responses can be found here Call for evidence Analysis Report

approximately 80-95% of total emissions for a large number of organisations in the UK[2].

By measuring scope 3 emissions, particularly those across the supply chain, a reporting organisation can:

- prioritise decarbonisation efforts where they can make the biggest difference;
- collaborate with suppliers to reduce emissions and demonstrate community level benefits of supply chain decarbonisation;
- leverage significant buying power to act as a catalyst and drive change;
- encourage employees to reduce emissions from, for example, business travel, commuting, waste, and water;
- communicate a comprehensive GHG emissions footprint and progress with stakeholders, such as local communities;
- contribute to national efforts towards achieving net zero emissions; and
- become a more resilient organisation with lower risks and costs.

All of this aims to enable a reporting organisation to make better evidence-based decisions, which could lead to improved operational effectiveness and efficiency, and decarbonisation.

GHG Protocol's Scope 3 Categorisation

The GHG Protocol defines 15 categories of scope 3 emissions, which are further broken down into upstream and downstream emissions within its Corporate Value Chain (Scope 3) Standard (see page 32 of this hyperlinked document).

Table A below shows each of the 15 categories including those which are upstream and downstream. It also provides hyperlinks to the specific related chapters within the GHG Protocol's supplementary guidance document - Technical Guidance for Calculating Scope 3 Emissions, which a reporting organisation may find helpful. The categories and associated GHG Protocol guidance aim to help avoid double-counting within a reporting organisation's own GHG emissions footprint and support consistent and comparable reporting.

[2] 'Why we are seeking evidence' section of Scope 3 Emissions in the UK Reporting Landscape - Call for Evidence'

Table A: List of the 15 Scope 3 Categories, with hyperlinks to the relevant chapters of the GHG Protocol's 'Technical Guidance for Calculating Scope 3 Emissions' in each category.

Upstream	Downstream
1. Purchased goods and services 2. Capital goods 3. Fuel- and energy-related activities (not included in scope 1 or 2) 4. Upstream transportation and distribution 5. Waste generated in operations 6. Business travel 7. Employee commuting 8. Upstream leased assets	9. Downstream transportation and Distribution 10. Processing of sold products 11. Use of sold products 12. End-of-life treatment of sold products 13. Downstream leased assets 14. Franchises 15. Investments

GHG Protocol's Scope 3 Calculation Guidance and Emission Conversion Factors

The GHG Protocol advises reporting organisations to select calculation methods for each scope 3 category based on an initial screening exercise - to determine the relative size of the emissions (i.e. do they contribute significantly to the overall emissions total), as well as on such elements as data quality, cost and data availability.

The different calculation methods and activity data required for each of the 15 categories are summarised in Appendix D: Calculation formula summary tables of the GHG Protocol's 'Technical Guidance for Calculating Scope 3 Emissions'. The tables in the GHG Protocol's Appendix D also refer to 'emission factor needed' and under the Regulations this would refer mainly to the DESNZ emission conversion factors embedded into the online portal.

If the scope 3 emissions-releasing activity is not covered by the DESNZ emission conversion factors, an alternative source may be used. For example, the UK government's 'UK and England's carbon footprint to 2022' provide spend-based

emission conversion factors (i.e. they may be used to calculate emissions based on spend), or a reporting organisation may use supplier-specific emission factors.

However, regarding the 'UK and England's carbon footprint to 2022' spend-based emission factors, technically these are not designed for corporate carbon accounting, they come from the nationwide inventory but are commonly used by corporates in their carbon accounting. They also change every year quite significantly, so there are risks associated with using these factors. There are other databases such as the European Environment Agency's EXIOBASE, which are designed for corporate spend-based emissions purposes, but these normally do require a purchased license.

Further guidance on the online portal's embedded DESNZ emission conversion factors and alternative own-sourced emission conversion factors is in 'Key Foundations of Emissions Reporting' of the associated guidance document to this annex, and in the 'Emission Conversion Factors for Scope 3 and CO_2 Equivalent (CO_2 e)' section below.

Scope 3 Categories and Public Bodies

Not all of scope 3's 15 categories may be applicable for a reporting organisation. Public body organisations will most likely operate on a service-based model, towards the end of supply chains. This means a large proportion of their total emissions likely arise from upstream activities.

Emissions released downstream by public bodies are often limited to the use of leased assets e.g. the emissions from leased buildings. Further guidance on leased assets is in 'Annex D: Accounting for Emissions from Leased Assets - Organisational Boundary Approaches' of the associated guidance document.

Table B below provides more detail regarding some of the categories which may be most relevant to public bodies. However, it is for a reporting organisation to determine which of the categories of scope 3 are pertinent to its organisation, therefore, some of the other 15 categories which are not listed below may be applicable.

Table B: Definition and Examples of Scope 3 Categories - 1 to 8 (Upstream) and 13 (Downstream)

Scope 3 Category Upstream	Definition	Examples
1. Purchased goods and services	Emissions generated from producing the products which the reporting organisation bought or acquired in the reporting year. 'Products' includes both goods (tangible products) and services (intangible products).	- Production-related products including materials, fresh ingredients, components and parts. - Non-production-related products including office furniture, office supplies and personal protective equipment. - Services including accounting services, cloud storage and IT support. - Water supply transportation and distribution emissions.
2. Capital goods	Emissions generated from capital goods purchased or acquired by the reporting organisation in the reporting year. The GHG Protocol defines capital goods as final products with extended life that are used to: - provide a service - deliver, sell or store merchandise - produce a product Capital goods generally have a long service life. An organisation uses them to manufacture a product, provide a service or sell, store and deliver merchandise.	Capital goods include: - equipment; - machinery; - buildings; - facilities; and - vehicles. This category only includes emissions that occur from making the goods – not those from using them.
3. Fuel- and energy-related activities (not included in scope 1 or 2)	Emissions related to producing fuels and energy which is bought and used by the reporting organisation in the reporting year, that is not included in scope 1 or scope 2.	Includes emissions from these activities: - Upstream emissions of purchased fuel. This means all emissions stemming from extracting, producing and transporting the fuel which a reporting organisation buys. Examples include mining coal, refining petroleum, transmitting and distributing natural gas, producing biofuels, etc.

Scope 3 Category Upstream	Definition	Examples
		- Upstream emissions of purchased electricity. This means all emissions stemming from extracting, producing and transporting the fuel used to generate electricity, steam, heating and cooling that a reporting organisation buys. Examples include mining coal, refining fuels, extracting natural gas, etc. - Losses that occur during the transmission and distribution of generated electricity, steam, heating and cooling. This category does not cover emissions from the combustion of the fuel and energy consumed by the reporting organisation, since these are covered in scopes 1 and 2.
4. Upstream transportation and distribution	Emissions generated from third-party transportation and distribution services paid for by the reporting organisation. This can include the emissions generated to transport supplies between warehouses and from the storage of goods in warehouses or distribution centres.	Emissions in this category can stem from: - air transport; - rail transport; - road transport; - marine transport; - storing purchased products in warehouses, distribution centres; and - retail facilities. Materials and products are moved and distributed at many steps of a value chain - but depending on the activity in the value chain and who owns the vehicles, they must be accounted for in different categories.

Scope 3 Category Upstream	Definition	Examples
5. Waste generated in operations	Emissions created by the third-party treatment and disposal of waste from a reporting organisation's controlled or owned operations. This can be: - disposal of waste generated in operations; - disposal of waste generated in the production of purchased materials and fuels; - disposal of sold goods and services at the end of their life; and - wastewater. Emissions from category 5 can optionally include the transportation of waste from the reporting organisation to the waste vendor. These emissions include the scope 1 and scope 2 emissions of a reporting organisation's third-party waste management company(s), when available.	Emissions in this category can stem from: - disposal in a landfill; - recovery for recycling; - incineration; - composting; and - wastewater treatment.
6. Business travel	Emissions generated from employee transportation for business-related activities in third party-owned or operated vehicles that are not for day-to-day commuting. Reporting organisations also have the option to include emissions from hotels. [This category does not cover the following emissions: - travel in vehicles owned or controlled by the reporting organisation, since this is covered in scope 1; - employee commuting, since this is covered in scope 3, category 7; and	Emissions from business travel in vehicles owned or operated by third parties: - air, rail, bus travel; and - car travel in rental cars or employee-owned cars (other than commuting). Optional: business travellers staying in hotels.

Scope 3 Category Upstream	Definition	Examples
	- travel in leased vehicles, since this is covered in scope 3, category 8.]	
7. Employee commuting	Emissions from employee commuting between their workplace and home (in vehicles not owned or operated by the reporting organisation). Reporting organisations can also include emissions generated from remote working.	Emissions from employees commuting.
8. Upstream leased assets	Emissions from the operation of assets that the reporting organisation leases from other organisations in the reporting year and not included in the reporting organisation's scope 1 or scope 2 inventories. This category is only relevant to companies that operate leased assets (i.e. lessees). For companies that own and lease assets to others (i.e. lessors), see category 13 (Downstream leased assets).	Emissions in this category can stem from: - leased office buildings; and - leased vehicles that are not included in scope 1 or scope 2. The inclusion in scope 3 of emissions from leased assets (as a lessor or a lessee) depends on the approach chosen in determining the reporting boundary (see 'Chapter 3: Setting a Reporting Boundary' of the associated guidance document to this annex).
Scope 3 Category Downstream	**Definition**	**Examples**
13. Downstream leased assets	Emissions from the operation of assets that are owned by a reporting organisation (acting as lessor) and leased to other entities that are not already included in scope 1 or scope 2. This category is relevant to reporting organisations which own assets and receive payments from lessees. Reporting organisations that operate leased assets (i.e. lessees) should refer to Category 8 (Upstream leased assets).	Emissions from, for example: - leased office buildings; and - leased vehicles that are not included in scope 1 or scope 2. The inclusion in scope 3 of emissions from leased assets (as a lessor or a lessee) depends on the approach chosen for a reporting organisation's organisational boundary (see 'Chapter 3: Setting a Reporting Boundary' of this guidance document).

Emission Conversion Factors for Scope 3 and CO_2 Equivalent (CO_2e)

Information on scope 3 data entry into the online portal is at ‘Chapter 4: Emissions Statement’ of the associated guidance document to this annex. DESNZ also provides within DESNZ Conversion factors 2024: full set, guidance and examples on how a reporting organisation can calculate its emissions from the scope 3 activity, along with some frequently asked questions. The guidance provided by DESNZ, along with their factors, aligns with the GHG Protocol and therefore may be helpful to a reporting organisation.

Table C below shows the scope 3 emission-releasing activities, covered by DESNZ and which of the 15 scope 3 categories these fall into.

Table C: GHG Protocol Scope 3 categories and corresponding DESNZ* emission-releasing activities.

Category	Activities	Comment	Category	Activities	Comment	Category	Activities	Comment
3	**WTT - fuels	WTT factors should also be used in other categories where there is energy activity data (this can be from whole range of categories).	5	Water treatment		6 / 7	**WTT - passenger vehicles & travel - land	
3	**WTT - bioenergy	WTT factors should also be used in other categories where there is energy activity data (this can be from whole range of categories).	1 / 2	Material use	Other factors from outside of the DEZNZ Conversion Factors may need to be used for Cat 1 and 2 such as spend-based and life cycle factors.	4 / 9 / 13	Freighting goods	Mainly 4 and 9, but there could be instances where it could fall under leased assets.
3	***Transmission and distribution	Should also be used in other categories where electricity is used (this can be from whole range of categories).	5 / 12	Waste disposal		4 / 9	**WTT - delivery vehicles & freight	
3	UK electricity T&D for EVs	Should also be used in other categories where electricity is used (this can be from whole range of categories).	6	Business travel - air		6	Hotel Stay	
3	**WTT - UK electricity	WTT factors should also be used in other categories where there is energy activity data (this can be from whole range of categories).	6	**WTT - business travel - air		8 / 9	Managed assets - electricity	Could be used for many categories where electricity is used (at a site or asset not owned or controlled by the reporting organisation).
3	**WTT - heat and steam	WTT factors should also be used in other categories where there is energy activity data (this can be from whole range of categories).	6	Business travel - sea		8 / 9	Managed assets - vehicles	Could be used for many categories where vehicles are used (those that are not owned by the reporting organisation)
1	Water supply		6 / 7	Business travel - land		7	Home working	

*Each emission-releasing activity is assigned to a DESNZ worksheet tab – see 'Conversion factors 2024: full set'.

**WTT (Well-to-tank) - used to account for the upstream emissions associated with extraction, refining and transportation of the fuel sources to an organisation's site (or asset), prior to combustion.

***T&D (Transmission and distribution) - associated with energy losses during travel through the grid, from the power plant to the organisations that purchase it.

Where to Start - Six Steps to Follow

Step 1: Reporting organisations should familiarise themselves with the 15 scope 3 categories set by the GHG Protocol.

Step 2: Consider 'Key Foundations of Emissions Reporting' of the associated guidance document to this annex.

Step 3: Undertake a mapping and screening review to identify the reporting organisation's scope 3 emissions profile – i.e. identify the scope 3 emissions sources and which category they fall under. It is important for a reporting organisation to understand its breadth of emissions sources and where/how to apply a reporting boundary, following the GHG Protocol for identifying relevant scope 3 activities to report. 'Chapter 3: Setting a Reporting Boundary' of the associated guidance document to this annex, provides more guidance and steps on how to set a reporting boundary. Depending on the reporting organisation, not all 15 scope 3 categories may be relevant.

Step 4: Identify which scope 3 emissions to report on (at this stage) – some considerations are set out below:

- It is not necessary to have a complete scope 3 inventory to start reporting on scope 3 emissions. A reporting organisation's scope 3 inventory can be updated and expanded on, over reporting cycles as data becomes available and reporting skills and experience build.

- It is recommended that an organisation keeps its own clear record of what has been included and excluded for scope 3 reporting between reporting cycles and put in place plans for developing the missing data sources, and/or improving data sources over time.

- Review current (if any) data available/collected for the scope 3 emissions and the likely degree of accuracy. Some scope 3 categories - like water consumption, business travel, wastewater treatment, transmission and distribution losses from electricity consumption - may be easier to quantify

and report on, and this may be a good start for reporting organisations. Data for other scope 3 categories like purchased goods and services or end-of-life treatment of sold products, may require complex modelling, inputs, and assumptions, which can be challenging to calculate. It is also recognised that many public bodies work within the constraints of budgets and resources, and there is an acceptance that the data availability and the accuracy of scope 3 reporting will not be perfect first time.

- When reviewing which scope 3 emissions an organisation might report on, they may consider what is most likely to drive change (keeping in mind this may not be the category generating the most emissions). For example, while business travel may not be the biggest source of a reporting organisation's scope 3 emissions, it may be relatively easy to address by setting organisation-wide business travel policies or put in place incentives to encourage employees to switch their mode of transport away from individual cars.

Step 5: Collect activity / emissions data – plan which method to use to collect the data (see Appendix D of the GHG Protocol's Technical Guidance for Calculating Scope 3 Emissions for method suggestions). Where possible, it is better to use primary data (e.g. from suppliers) to calculate a reporting organisation's emissions but estimates and extrapolation are acceptable. Scope 3 reporting will be a process of improvement over time. Those who may wish to report at this time, may use high-level estimates and then, in subsequent reporting cycles, use that as a guide to focus on obtaining data from primary sources for the most significant areas. In later reporting periods, reporting organisations can look to refine the data and go deeper into certain categories or even subsets of categories (e.g. taking highest emitting suppliers and engaging directly with them to obtain primary data instead of using secondary data) to improve the measurement over time.

Step 6: Enter the activity data into the online portal (see 'Chapter 4: Emissions Statement' of the associated guidance document to this annex for more information) – either through selecting the relevant embedded activity which will automatically apply the DESNZ emission conversion factor, or manually entering this information (where the online portal does not provide an appropriate selection of an activity type

and associated emission conversion factor). Further information on emission conversion factors is available within 'Key Foundations of Emissions Reporting' of the associated guidance document to this annex.

Other External Sources of Guidance

There are also lots of other external guidance documents and tools available from other reporting regimes and government administrations, which a reporting organisation may find helpful, when identifying and collecting relevant activity data, setting reporting boundaries, etc.

However, these should be used with caution, because although they can be helpful for practical insight and tips, they are specialised for their particular reporting regime and/or country, sector or industry. Their content may not be fully applicable, as they may cover requirements and detail that are outside the scope of the reporting organisation's duties under the Regulations.

A non-exhaustive list of potential useful links to guidance produced by other reporting regimes is as follows:

- The Carbon Trust's 'Introductory guide to Scope 3 emissions' provides specific reference and guidance to public sector organisations under its following headings:

    - What exactly are Scope 3 emissions and why do they matter?
    - What benefits can a deep understanding of your Scope 3 emissions and reductions bring?
    - How can you start to collect your Scope 3 data effectively? And what steps should you take to improve your data quality?
    - How can you work with suppliers and other partners to improve your Scope 3 footprint, contribute towards your sustainability goals and measure progress?

- DEFRA's 'Guidance on how to measure and report your greenhouse gas emissions' provides advice to UK organisations, including public sector bodies, on how to measure scope 3 GHG emissions and what they can do to minimise them.
- Environmental Association for Universities and Colleges (UK and Ireland) Standardised Carbon Emissions Framework for Further and Higher Education (SCEF) contains guidance and methodologies aimed at the UK and Ireland education sectors, on how to calculate their scope 3 carbon emissions.

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