



HM Treasury

Sustainability Reporting Guidance

2018-2019

January 2019

Sustainability Reporting Guidance 2018-2019



© Crown copyright 2019

This publication is licensed under the terms of the Open Government Licence v3.0 except where otherwise stated. To view this licence, visit nationalarchives.gov.uk/doc/open-government-licence/version/3 or write to the Information Policy Team, The National Archives, Kew, London TW9 4DU, or email: psi@nationalarchives.gov.uk.

Where we have identified any third party copyright information you will need to obtain permission from the copyright holders concerned.

This publication is available at www.gov.uk/government/publications

Any enquiries regarding this publication should be sent to us at public.enquiries@hmtreasury.gov.uk

ISBN 978-1-912809-35-6

PU 2231

Contents

Chapter 1	Introduction	2
Chapter 2	Reporting requirements - overview	3
Chapter 3	Greenhouse gas emissions: minimum requirements	15
Chapter 4	Waste: minimum requirements	22
Chapter 5	Finite resource consumption: minimum requirements	26
Chapter 6	Further voluntary reporting	29

Chapter 1

Introduction

- 1.1 This document sets out guidance on sustainability reporting for the public sector. It outlines the minimum requirements, some best practice examples, and the underlying principles to be adopted, in preparing the information for reporting on sustainability within the annual reports and accounts (ARAs). To ensure consistency, it is aligned with the Greening Governments Commitments (GGC) Overview of Reporting Requirements, which is applicable to central government bodies.
- 1.2 This guidance is applicable to all of the central government bodies that fall within the scope of the GGC¹ (i.e. departments, non-ministerial departments, agencies and NDPBs) and which produce ARAs in accordance with HM Treasury's Government Financial Reporting Manual (FReM). In FReM specifies these bodies are required to report on sustainability, unless exempted from doing so.²
- 1.3 Reporting organisations are encouraged to report beyond these minimum requirements where it is believed further reporting would be beneficial to the user. Reporting entities may wish to report on the economic, social and environmental impacts that are most material to their organisation, including how these relate to the policy, procurement and operations of the reporting department. Additional voluntary guidance is included in Section 6 – Further Voluntary Reporting.
- 1.4 This guidance is not applicable to the devolved governments of Northern Ireland, Scotland and Wales, which follow their own arrangements in respect of sustainability reporting for organisations falling under their remit. This guidance is also not applicable to local government entities.

¹ This excludes schools and NHS bodies, but includes trading funds, unless exempt. In producing consolidated sustainability reporting the DfE would therefore only include its agencies and NDPBs. DH would only include its agencies, NDPBs and SHAs.

² Sustainability reporting is not mandatory for entities that are not required to report against the Greening Government Commitments due to exemption by de minimis threshold or other exemption.

Chapter 2

Reporting requirements - overview

Overview of requirements

- 2.1 Organisations are strongly encouraged to demonstrate, through integrated reporting, how sustainability is an essential characteristic within strategic objectives, operations and policy making. It is also important to reflect what the risks are to achieving integration and how the risks are being managed. Additional context should be given to explain areas of particular focus and those which are the most material to the organisation.
- 2.2 The FReM has an overarching requirement for performance reporting to be 'fair, balanced and understandable' and this also holds true for sustainability reporting. It should highlight both good and bad performance along with aims and plans to improve areas where targets are not being met.
- 2.3 A level of mandatory reporting on some environmental sustainability measures must also be included within ARAs to ensure continued transparency and consistency across central government. This aligns with compulsory requirements for certain private sector entities to report on greenhouse gas (GHG) emissions but have a wider scope to include those requirements detailed below. The minimum sustainability reporting requirements described in this guidance are fully consistent with non-financial information requirements laid down under the GGC.
- 2.4 The following table provides an overview of the minimum requirements in each of the main reporting areas.

	<p>Scope 3 official business travel emissions.</p>	<p>Scope 3 emissions relating to official business travel directly paid for by an organisation (i.e. not business travel re-charged by contractors) must be accounted for. Minimum requirements do not include international air or international rail travel in line with GGC.</p>	
<p>Waste minimisation and management</p>	<p>N/A</p>	<p>The minimum requirement is to report absolute values for waste from the organisation's estate (administrative and operational but operational construction waste is not a minimum requirement) against the following categories:</p> <ul style="list-style-type: none"> • total waste arising • waste sent to landfill (e.g. residual waste) • waste recycled / reused (recycled, composted, internal or external re-used) • waste incinerated / energy from waste (e.g. food waste. 	<p>Total expenditure on waste disposal (including waste disposal contracts, specialist waste arising and the purchase of licenses for waste) and expenditure against each of the additional last three categories opposite.</p>

Finite resource consumption	N/A	As a minimum public sector bodies must report on estates water consumption in cubic metres. Public sector bodies must also consider reporting their consumption of any other finite resources where their use is material.	Total expenditure on purchase of related finite resources including purchase of licenses.
Biodiversity action planning	N/A	Entities must cover any biodiversity action plans and the organisation's performance against them in line with GGC. This requirement applies only to those organisations subject to the GGC.	Not required.

Sustainable Construction N/A

climate change and how these have been addressed.

In line with the Greening Government Commitments requirements for transparency, departments should report on what measures they have put in place to ensure that any construction work – including new build or major refurbishments – prioritises sustainability, considering the Government Buying Standards for construction or equivalent measures.

- 2.5 Expenditure information should be collected through normal financial systems, with financial systems accounts coding providing clarity of cost capture in alignment with audited year-end financial accounts. This will also provide internal visibility for in-year monitoring purposes and will assist in development of any future performance management targets in expenditure areas.

Minimum non-financial reporting requirements

- 2.6 The minimum non-financial reporting requirements are detailed in the table above. Emissions are defined under three different scopes by the GHG Protocol (www.ghgprotocol.org). These scopes are explained more fully later in this guidance.
- 2.7 Organisations must ensure that they align their reporting methodology with the latest available guidance for GHG reporting. Further information on the guidance can be found here <https://www.gov.uk/government/publications/environmental-reporting-guidelines-including-mandatory-greenhouse-gas-emissions-reporting-guidance>.
- 2.8 Organisations should, wherever possible, make use of their normal accounting and environmental management systems to regularise the collection of such information throughout the year. This may require additions / changes to new or existing systems (e.g. fields to capture quantitative information, additional subjective codes in financial systems etc.) or processes. These should be identified as early as possible so that the necessary changes can be made to capture the required information.

The accounting year

- 2.9 All information included in sustainability reporting should conform to the normal public sector financial year of 1 April to 31 March (recognising that UK strategic carbon budgets are set by calendar year).

Sustainability reporting format

- 2.10 There is no prescribed proforma for reporting – organisations should develop their own format to fit their business but are reminded that integrated reporting is strongly encouraged. The reporting format should provide minimum information requirements (including nil returns) and comparisons of data for at least the previous three years (as it becomes available):
- overall strategy for sustainability
 - GHG emissions
 - waste minimisation and management
 - finite resource consumption
 - biodiversity action planning
 - sustainable procurement (including food and catering)
 - climate change adaptation actions
 - sustainable construction
- 2.11 Organisations that are more advanced in their reporting may wish to add on additional sections to cover other aspects. The reporting entity may also refer the reader to other relevant published reports on the organisation’s website if performance is already covered elsewhere.
- 2.12 Reporting entities must include commentary explaining performance in terms of key performance indicators (KPIs), direct impacts and indirect impacts. This must discuss trends and the organisation’s strategic role in improving performance. **Where applicable, performance that contributes to one of the 17 UN Sustainable Development Goals (SDGs) should be flagged.**
- 2.13 Additional information regarding any changes in policies and boundaries should be included (with a pointer to the organisation’s website page containing more data if appropriate) along with any other detail which will provide clarity to the reader of the report. This must include details of areas accounted for in terms of carbon emissions.

Performance improvement and measurement

- 2.14 This guidance does not cover advice on the setting of performance measures, commitments or targets. Some public sector organisations already have sustainability measures against which they must report. The government has set GGC for central government bodies. The NHS has published its own Carbon Reduction Strategy and also assesses performance using the Good Corporate Citizenship tool developed jointly with the Sustainable Development Commission.
- 2.15 Defra has issued guidelines to help the private and public sector identify and set suitable measures and KPIs. This guidance will help in identifying relevant KPIs for the public sector to report on. Further details can be found at:
<https://www.gov.uk/government/publications/environmental-key-performance-indicators-reporting-guidelines-for-uk-business>

Reporting performance against measures

- 2.16 Where relevant measures have been set, performance against them should be reported, where possible or, if performance has already been published elsewhere an overview of performance with a link to the details is acceptable. The commentary must be clear as to whether performance is improving or worsening and not assume that the reader will understand the metrics. When reporting against measures, it should be clear as to which years have been set as the baseline. The GGC establishes a baseline year for the indicators it covers to ensure consistency the same baselines should be used.
- 2.17 Organisations must provide prior year data (e.g. three years as reported information becomes available) to provide a historical perspective of performance. Where a base year is used as a basis of performance monitoring, the base year data must be updated and reported in line with changes in accounting policies and boundaries. When material changes occur, the prior-year figure reported for comparative purposes should also be updated with an explanation being provided. Where possible, the organisation should also compare performance against other benchmarks such as similar organisations.

Normalising reported performance

- 2.18 To enable an organisation to make comparisons in its performance on minimum reporting requirements between years, reporting must include details of performance normalised by a consistent factor which is considered appropriate to aid comparability between years. This may result, for example, in normalisation by Full Time Equivalent (FTE) staff numbers.

The departmental sustainability reporting accounting boundary

- 2.19 The departmental sustainability reporting accounting boundary aims to match in principle, the departmental financial reporting boundary, as detailed in the FReM. However, where there is inconsistency between the boundaries (e.g. NHS bodies and schools fall outside the scope of Greening Government reporting and hence sustainability reporting), paragraph 2.20 seeks to explain how this should be managed. The financial reporting guidelines which establish the reporting boundaries of scope 1 and 2 emissions are those that determine whether related assets and liabilities are included in the Statement of Financial Position. In order to retain consistency with the GGC, overseas operations are excluded from the reporting requirements.
- 2.20 Where the financial reporting boundary is different from that used by the department for full sustainability reporting, then an analysis of financial information should be provided to allow reconciliation with the sustainability reporting accounting boundary. In essence, this means that the bodies/areas included should be clearly distinguished from those not included – showing the related financials as per the organisation's financial statements. This will help the reader understand the materiality from a financial perspective. Paragraph 2.26 below provides guidance on explaining the difference where the reasons for non-inclusion are due to lack of information (e.g. phased implementation).
- 2.21 Setting the public sector sustainability reporting accounting boundary in accordance with the financial reporting guidelines will in most cases result in reporting for all areas for which the organisation has direct control. However, some more specialised arrangements will need to be considered:

- Outsourcing contracts – e.g. in terms of carbon emissions that could be considered to be Scope 3 (and therefore not part of minimum reporting requirements) but the scale and nature of the arrangement may make it more appropriate for early inclusion in reports
- PPP arrangements, including PFI contracts

2.22 For the specialised arrangements above, the financial reporting treatment provides the basis on which the treatment of these arrangements will be considered on a case-by-case basis. Where there are significant outsourcing contracts the reporting of the resultant emissions is encouraged as soon as possible as part of the best practice scope 3 emissions, but they should not be treated as Scope 1 or 2 emissions if the financial reporting treatment suggests otherwise.

Consistency within the sustainability reporting accounting boundary

2.23 The purpose of sustainability reporting is to provide transparency on public sector performance in organisations year-on-year. For this purpose, it is important that the top level of organisations (generally departments) communicate clear accounting treatments or policy for areas in this guidance where discretion is given. The key is ensuring that treatments are consistent within organisations and from year-to-year so that trends can be easily recognised and understood. Where inconsistencies within accounting boundaries or between different years exist, they should be explained. However, this should not detract from continuous improvement in data provision: the key is to ensure that the reader is clear on what is being reported, what is missing and what future plans are for developing the information.

2.24 Where organisations undergo strategic restructuring, or disclose previously omitted non-financial reporting data, this will have implications on the accounting boundary. Therefore, the organisation will be required to submit a rebaselining request under the requirements of the GGC. The rebaselining request will be reviewed by the GGC rebaselining panel along with supporting evidence. If the request is approved the baseline boundary must be restated accordingly.

De minimis thresholds and other exemptions

2.25 Similar to GGC reporting, de minimis thresholds and other exemptions granted will also apply in respect of sustainability reporting.

Availability of underlying data: material omissions and use of estimates

2.26 Where information is not available to populate the minimum reporting requirements, estimates must be used by means of a clear, documented methodology. Entities must provide details in the narrative, on the organisations website or similar, which must explain what plans are in place to improve data collection.

2.27 Where a robust estimate is not possible, and a material omission of information or data results, an explanatory note must be made in the narrative, on the organisation's website or similar, which must explain what plans are in place to improve data collection.

2.28 The methodology for estimates will be left to the discretion of the reporting entity to ensure that it is able to use that which is most appropriate. Guidance and advice on estimating carbon emissions has been published by Defra and can be found at:

Changes to reporting, accounting policies and organisational boundaries

- 2.29 Changes to accounting policies or boundaries which have a material impact on the way emissions, waste and/or finite resources are reported, or on their method of calculation, must be brought to the attention of the reader in the narrative, on the organisation's website or similar. Organisations must also state their policy for rebaselining any reported information and this should be consistent with the guidance set out by the GGC.
- 2.30 When amended, prior-year figures must be re-stated, where data is available, using the new policy or boundary for comparative purposes.

Amending prior-period figures

- 2.31 Occasionally factors may come to light, such as errors of omission or calculation, which will result in a material change to published prior year figures. In such circumstances the prior-period figures must be restated in the ARAs and the nature of the change must be brought to the attention of the reader, with a link to a more detailed explanation, on the organisation's website or similar. Generally, the assessment of materiality is a matter of accounting judgement rather than policy. Advice in relation to the organisation should, in the first instance, be sought from accounting colleagues.
- 2.32 Organisations are required to update their historic electricity data in line with the changes to the conversion factors for electricity. The five-year grid rolling average figures for electricity have been removed. All conversion factors are now based on a single average factor for a particular year. This will allow organisations to report using a factor representing the most current emissions estimation from the grid. Previous reporting based on the five-year grid rolling average factors will need to be rebaselined to reflect this change as there is a notable difference between the five-year average figures (which capture historic, more carbon intense grid factors in an average over five years) and the one year average data set.

Application of the materiality concept

- 2.33 Organisations should account for all of the minimum requirements with as much accuracy as possible. The materiality concept should only be applied to decisions on reporting or amendments to reporting in relation to providing a fairly stated view of the information for the reader. Where there is some concern that data is incomplete a note should be made in the narrative, with a link to a more detailed explanation on the organisation's website.

Shared services and facilities including multiple occupancy sites

- 2.34 Where a reporting entity shares a service or a facility with another organisation, consideration should be given as to how shared sustainability data should be split in relation to the different accounting boundaries. Where this relates to two or more public sector organisations, the method should be jointly agreed to ensure consistency. The agreed method should be properly documented for audit purposes.

- 2.35 Where impact between the different organisations is material, steps should be taken to ensure that actual consumption can be measured for each organisation and costs properly attributed.
- 2.36 Under the GGC, in circumstances where an organisation is part of a multiple-occupancy site, that cannot be separated by sub meters (etc.), they should adopt the following guidance:
- all data for estate related targets should be collected at whole building level. This means that the holder of space shared with other government departments should report on behalf of all occupiers. Departments are expected to collate details of buildings covered (Name, Town, NIA in m², FTE)
 - where a building is shared with the private sector, the reporting body needs only report the central government share of the impact, using the best quality data available
 - where an individual occupation by a minor occupier is larger than 1,000m², supports more than 250 staff, or is greater than 20% of the reporting body's total estate, and both parties agree, then an application to vary away from the project default may be proposed, and organisations may report at occupation level
 - the non-financial data reported may be set on a different basis than the financial data (e.g. electricity consumption, where electricity is re-charged). In such circumstances, the organisation should consider the best form of reporting for their organisation in terms of being transparent on their sustainability performance in their annual report

Information provided by third parties

- 2.37 Third parties often provide required information for sustainability reporting including:
- travel providers for carbon data related to travel sourced through them
 - waste contractors providing details of waste
 - water and energy suppliers for the reporting of finite resources
- 2.38 Public sector organisations making use of such information must ensure that it has been calculated in accordance with the requirements of this guidance. They should also ensure that it is of sufficient quality to meet any audit requirements.
- 2.39 It is recognised that, for large contracting organisations, the capture of sustainability information from contractors may present difficulties. Where gaps in information exist as a result, these should be recognised in the commentary along with proposals for bridging the gap in future.

Audit and scrutiny

- 2.40 Whilst external assurance and verification of reported figures is not required for sustainability reporting, it is important that all organisations have relevant audit or scrutiny arrangements to ensure that the correct procedures are in place to produce robust data on performance. This should provide a body's senior management with appropriate assurance about the quality of financial and non-financial data and information included as part of sustainability reporting. Internal arrangements should include:

- appropriate policies and procedures for recording and reporting data, which are consistent with the guidance on minimum requirements, and are applied in practice
- appropriate systems and processes to secure the quality of the data, minimising manual intervention and the number of data sources
- arrangements to ensure that relevant staff have the skills to produce reliable sustainability information
- a robust system of internal control and validation

2.41 The organisation's arrangements in relation to sustainability reporting and internal assurance should be covered by existing responsibilities in the Governance Statement. External auditors will report by exception where the information contained in the annual report and accounts about sustainability reporting, is inconsistent with the information they have obtained as part of their audit of the financial statements.

Chapter 3

Greenhouse gas emissions: minimum requirements

Purpose

- 3.1 The purpose of this Chapter is to provide detailed advice on accounting for GHG emissions for publication in public sector annual reports. This is often commonly referred to as carbon accounting or carbon foot printing. Further development guidance on areas beyond the minimum requirements can be found in Chapter 6. Central government departments and subordinate bodies will also be subject to GGC, and should read this in conjunction with those requirements and ensure consistency of reporting (including baselines).
- 3.2 Accounting for emissions involves the collection of baseline information, such as fuel use, mileage, electricity/gas consumption and use of raw materials, which can then be converted into Carbon Dioxide Equivalents (CO₂e) using conversion and emission factors. Much of the baseline information is already available on commercial invoices and other business documentation. All GHG emissions can be accounted for as they occur (i.e. use of energy in processes, manufacturing or travel) or on the basis that they have already been incurred (i.e. embodied carbon in raw materials or assets used). This concept is similar to financial accounting in terms of current and capital expenditure. Government guidance on measuring and reporting on GHG emissions provides detailed advice on how to collect and calculate information on emissions and can be found [ahttps://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/206392/pb13944-env-reporting-guidance.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/206392/pb13944-env-reporting-guidance.pdf)
- 3.3 Metrics: The standard metric to be used to report GHG emissions in the public sector is the CO₂e in tonnes. Use of this metric allows for the capture of information related to the six greenhouse gasses covered by the Kyoto Protocol (CO₂, SF₆, CH₄, N₂O, HFCs and PFCs,).

Reporting and accounting requirements – financial information

- 3.4 Organisations should report on gross expenditure directly attributable to energy consumption and expenditure on the CRC Energy Efficiency Scheme, any expenditure on accredited offset purchases and total expenditure on official business travel as a minimum. Any financial information reported should be associated with and akin to the reported carbon emissions.

- 3.5 Best practice reporting would also include a breakdown of expenditure between different types of travel and details of other expenditure directly related to emissions reduction projects or low emissions solutions.

Reporting and accounting requirements – non-financial information

- 3.6 The minimum reporting requirements for emissions and energy consumption in sustainability reporting within the ARAs are outlined in Chapter 2. The overall figure should be supported with a segmental breakdown of where the emissions occur in relation to the organisational activity with which they are associated.
- 3.7 To ensure transparency in line with government reporting standards, public sector organisations must account for and report on emissions resulting from electricity consumption through the use of the BEIS grid average conversion factor¹. It is recognised that some organisations will wish to report reduced emissions due to, for example, the use of renewable tariffs and carbon offsets. These may be shown as reductions to bring the reported gross emissions amount to a net figure - but any reduction cannot be included in the required gross emissions figure. All figures should be prepared in accordance with the carbon accounting standards and the more detailed supporting cross-public sector policies as detailed within this document. More detailed organisation-specific accounting policies should be clearly documented and published on the organisation's website.

Energy

- 3.8 Energy usage accounting is closely related to that of carbon emissions, as the former drives much of the latter. For this purpose, energy consumption and expenditure are also to be reported alongside GHG emissions. As public sector organisations are required to report on both areas, it is both more efficient for those preparing reports, and more useful to those reading them, for the two areas to be reported together, using a consistent accounting approach.
- 3.9 When considering energy efficiency it is also important to take account of the size of the organisation so FTE and floor space should be included in order to give the figures context.
- 3.10 Carbon accounts are produced on a gross basis. All inputs into gross emissions that pertain to energy use should be converted to kilowatt-hours for the purpose of energy usage accounting.
- 3.11 Unlike carbon accounting, renewable energy should not be netted off, as it still constitutes use of energy. Likewise, any energy produced on site should not be netted off. Instead, these two forms of energy should be stated separately alongside non-renewable energy with a total amount of energy use given. Definitions of these two forms of energy should follow guidance agreed for carbon accounting.

¹ <https://www.gov.uk/government/publications/greenhouse-gas-reporting-conversion-factors-2018>

- 3.12 Energy accounting should follow agreed public sector standards used in carbon accounting for both boundaries of inclusion and, for best practice, the treatment of embodied energy.

Emissions accounting standards and guidance

- 3.13 This guidance has been developed to be consistent with the following standards, with more detailed definition being provided later in this guidance:
- **the GHG Protocol** (www.ghgprotocol.org) - The World's Resources Institute and the World Business Council for Sustainable Development developed this Protocol. It lays down accounting principles, which are generally akin to financial Generally Accepted Accounting Principles (GAAP) and this framework is used by the International Standards Organisation (ISO). However, some principles do offer choice, which needs to be refined to ensure consistency for public sector use. Policies in support of this framework are detailed further in this guidance
 - **guidance on calculating and estimating emissions** – the government has produced guidance for organisations to measure and report their GHG emissions which has been published on their website at https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/206392/pb13944-env-reporting-guidance.pdf Where no appropriate conversion or translation factor is available from the Government range, organisations may make use of other emission factors available, for example, from accredited university or international research. The Government Guidance linked above provides details of alternative sources of emissions factors. In such circumstances a note should be made in the report, on the organisations website or similar, detailing the departure from the Government factors

Weather correction of GHG emissions information

- 3.14 In line with government guidance, organisational GHG emissions information should not be weather corrected.

The public sector accounting boundary for carbon

- 3.15 The GHG Protocol suggests two distinct approaches to setting accounting boundaries:
- 3.16 **equity Share Approach** - Where accounting for emissions is undertaken according to the share in the company in terms of economic interest
- 3.17 **control Approach** - Where an organisation accounts for 100% of emissions from operations over which it has control. Control is defined in either financial or operational terms
- 3.18 The departmental sustainability reporting accounting boundary is detailed in Chapter 2 of the guidance.

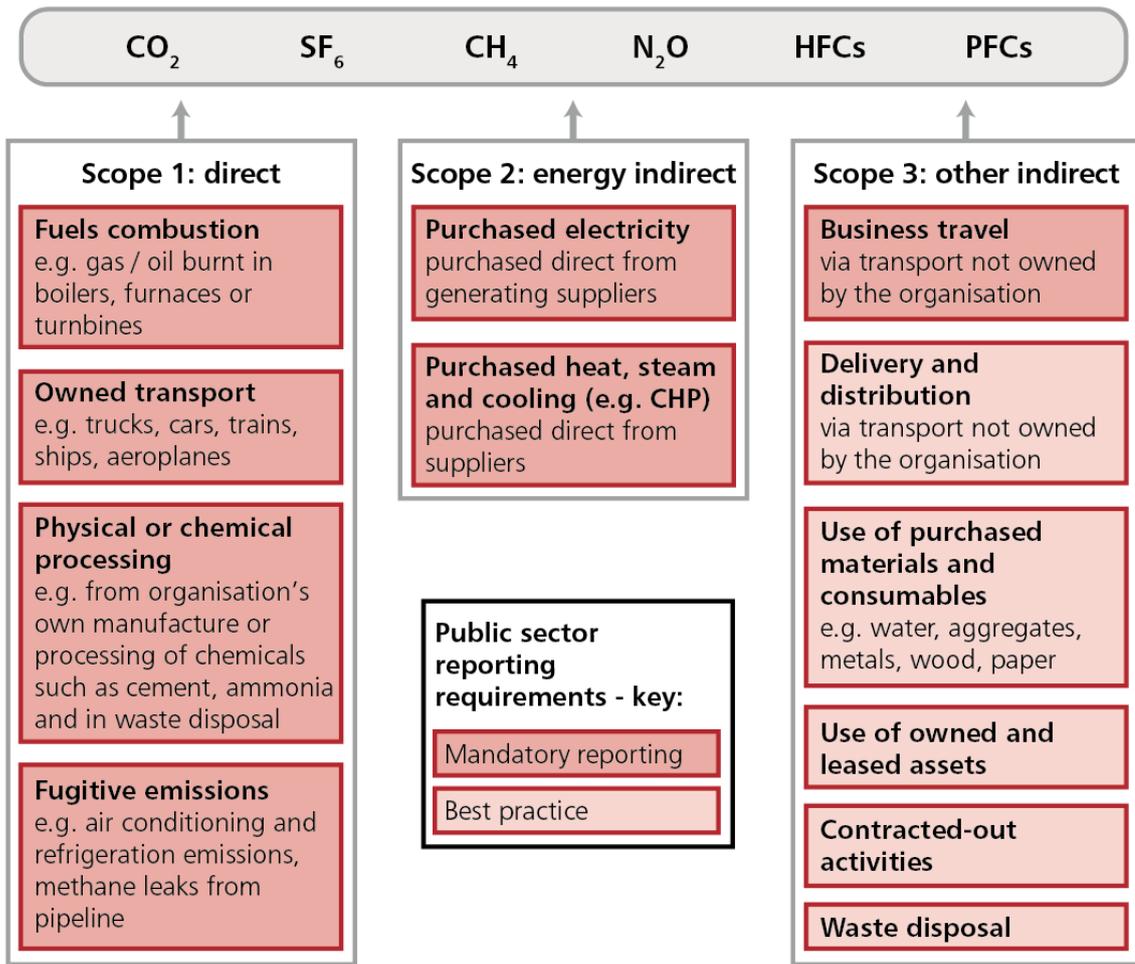
Minimum reporting requirements for public sector emissions

3.19 The GHG Protocol introduces three scopes, as follows:

- **scope 1: Direct GHG emissions** - These occur from sources owned or controlled by the organisation. Examples include emissions as a result of combustion in boilers owned or controlled by the organisation and emissions from organisation-owned fleet vehicles
- **scope 2: Energy indirect emissions** - As a result of electricity that we consume which is supplied by another party, for example, electricity supply in buildings or outstations. Government has advised that this should also include other purchased indirect emissions sources such as heat, steam and cooling
- **scope 3: Other indirect GHG emissions** - All other emissions which occur as a consequence of activity, but which is not owned or controlled by the accounting entity. This includes, for example, emissions
 - as a result of staff travel by means not owned or controlled by the organisation (e.g. public transport or commercial airlines). It should be noted that this excludes the requirement to include international air and rail travel in line with GGC. However, for the purposes of HMT reporting, organisations may choose to include it on a voluntary basis
 - resulting from work done on the organisation's behalf by its supply chain
 - embodied in assets (i.e. as a result of raw materials extraction, manufacturing and transportation)
 - the emissions associated with the use of an organisation's products and services

3.20 The minimum requirement for public sector emissions accounting is full coverage of Scope 1, Scope 2 and emissions resulting from staff travel on official business under Scope 3. The three scopes and their public sector reporting requirements are depicted in the following diagram:

Three scopes of emissions



Consolidation of emissions information

3.21 The GHG Protocol provides advice on the issue of double counting, suggesting that, providing Scope 1 and 2 emissions are distinguishable it will be easy to prevent double counting. Organisations should, therefore, ensure that they are able to separately distinguish between the three scopes for consolidation purposes.

Accounting for Scope 1 (direct) emissions

3.22 Scope 1 emissions arise from organisation-owned and operated vehicles, plant and machinery such as fleet vehicles, air conditioning, boilers and generators. Emissions can be calculated using conversion factors in relation to fuel consumption and combustion, and fugitive emissions from air-conditioning units.

Accounting for Scope 2 (energy indirect) emissions

- 3.23 Scope 2 emissions arise from the consumption of purchased electricity, heat, steam and cooling. Emissions can be calculated using conversion factors in relation to electricity consumption.

Accounting for Scope 3 – official travel emissions

- 3.24 These are often recognised as the easiest emissions in Scope 3 to monitor and control. Whilst for some organisations, they may be relatively small in relation to the overall carbon footprint, they have a significant role to play in changing the culture of an organisation in terms of carbon management. It is for this reason that they have been included as part of the minimum requirements for public sector reporting.
- 3.25 Organisations should decide how best to categorise their methods of official transport to ensure ease of calculation, through availability of Government GHG conversion factors, and to enable performance management of this area in the future. A suggested segmental analysis for data collection is as follows:
- air (with a further break-down between domestic, short and long haul as optional)
 - rail/underground/tram
 - bus/coach
 - hire car/taxi
 - private vehicle (owned by staff and often called the ‘Grey Fleet’)
- 3.26 Where entities make use of travel cards, season tickets or other travel arrangements such as Oyster cards, they may decide to equate financial expenditure associated with the card with travel emissions for the purposes of determining carbon emissions (subject to materiality). Use of this type of estimation method is entirely acceptable providing that materiality is taken into account and the methodology is documented.

Accounting for emissions and energy use in shared buildings

- 3.27 Estimates should be made on energy consumption where exact data is not available. This should be highlighted by way of a note along with actions to ensure future data capture if possible.

Accounting for renewable energy (gross v net emissions)

- 3.28 Government policy is that organisations should account for electricity from green energy tariffs using the rolling grid average emission factor - average rate of carbon emissions associated with electricity transmitted on the national grid - unless their supplier can prove the carbon benefits are additional. For further information please

see https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/206392/pb13944-env-reporting-guidance.pdf

- 3.29 Organisations can separately account for a reduction in their net emissions figure from a green electricity tariff, which meets the government's 'good quality' criteria. Details of the 'good quality' criteria can be found in Annex G of **Government's Environmental Reporting Guidelines** linked above. The emission reduction reported should be based on the additional carbon saving associated with the tariff. Your electricity supplier should be able to provide details of this.

Accounting for sequestration on the public sector estate

- 3.30 Carbon sequestration is the process by which carbon dioxide (CO₂) is removed from the atmosphere and stored. A CO₂ sink is a carbon dioxide reservoir that is increasing in size, and is the opposite of a carbon dioxide source. The Kyoto Protocol allows the use of sinks as a form of carbon offset (i.e. reduces net emissions). The main natural sinks are the oceans' biological pump and plants and other organisms that use photosynthesis to remove carbon from the atmosphere by incorporating it into biomass and releasing oxygen into the atmosphere. Artificial sinks are created through carbon capture and storage (CCS) instead of releasing it into the atmosphere.
- 3.31 Whilst the public sector estate has a significant impact in terms of sequestration which, in turn, will have a large impact in terms of reducing emissions it is not proposed that organisations should account for sequestration on their individual estates at this time as this would involve extremely complex accounting with little benefits in terms of driving improved sustainability performance.

Accounting for offsets

- 3.32 Carbon offsetting involves calculating your emissions and then purchasing 'credits' from emissions reduction projects. The projects have prevented or removed an equivalent amount of carbon dioxide elsewhere. The following offsets only can be accounted for as a reduction to overall carbon accounts – and each must be separately disclosed where a separate carbon account is published. Each unit represents 1 tonne of CO₂ or its equivalent;
- **certified Emissions Reduction (CER)** - A credit from Kyoto Clean Development Mechanism (CDM) projects issued by the CDM Executive Board. CDM enables Annex 1 countries to invest in project-based emission reduction activities in developing countries
 - **emissions Reduction Unit (ERU)** - Credits from Kyoto Joint Implementation (JI) projects issued by the host country by converting either AAUs or RMUs. JI allows Annex 1 countries to jointly implement emissions reduction projects with the 16 investing country being able to 'credit' the reductions against their own reduction obligations
 - **removals unit (RMU)** – A Kyoto unit representing a net removal of greenhouse gases through land use, land use change or forestry activities issue by the Kyoto Annex 1 country

Chapter 4

Waste: minimum requirements

Purpose

- 4.1 The following guidelines seek to help those organisations reporting information on the amount of waste they generate in carrying out their activities and the costs associated with this. It is designed to provide guidance for public sector organisations reporting their environmental performance in their ARAs.
- 4.2 The reporting requirements for absolute quantities of waste should be taken from the latest guidance issued by Defra, found at <https://www.gov.uk/measuring-and-reporting-environmental-impacts-guidance-for-businesses>. Any changes to this Defra issued guidance will be incorporated into public sector reporting.
- 4.3 At present the accounting treatment for waste is absolute quantities as decommissioned or removed.

Activities contributing to this category

- 4.4 Waste will be generated from a range of sources, and will currently be reported by central government departments, agencies and NDPBs under the requirements of the GGC. These include figures for waste arising and recycled waste and will need to be collected across the following categories, all of which will be relevant to sustainability reporting:
 - waste arising
 - waste recycled
 - ICT waste recycled and reused (externally)
 - waste composted (or sent to anaerobic digestion)
 - waste incinerated with energy recovery
 - waste incinerated without energy recovery
 - waste to landfill
- 4.5 This information covers all buildings owned or leased by central government departments and their executive agencies, who will already be required to report this for the GGC.

- 4.6 As part of the GGC, central government will be collecting data on paper usage and ICT equipment re-use and recycling. We would advise that paper usage in line with the GGC guidance should be reported in the resources section of the report. If the organisation collects any additional data on paper recycling this should be captured within the waste section. The GGC guidance should be referred to for specific detail on what should be included within paper usage.
- 4.7 The nature of the organisation in question will clearly affect the range and volumes from the respective sources of waste. Where third party suppliers undertake the specific waste collection and disposal activities on behalf of the organisation, e.g. office waste collections, then obtaining information from these suppliers will be a critical element of this work. It would be advisable to engage with suppliers at the earliest opportunity to discuss this.
- 4.8 In line with the stated criteria for inclusion organisations are encouraged to use the financial control basis when measuring their waste volumes. This will mean trying to include information on waste generated by contractors or third parties working on behalf of the organisation. For major construction projects (over £300k) Site Waste Management Regulations (2008) mean that necessary measures should be in place in order to supply the required information for reporting the volumes of waste from these projects. The GGC paper focuses on waste from buildings, as a minimum organisations should be reporting this.
- 4.9 Guidance on measuring and collecting information on waste can be found in the Defra Environmental Key Performance Indicators document available on the Defra web site at https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/206392/pb13944-env-reporting-guidance.pdf Metrics
- 4.10 As a minimum, reporting should include absolute values for the total volumes of waste produced from buildings (office and non-office) in the categories below over the reporting period, and the financial costs associated with this. If you are unable to currently provide this information then this should be clearly stated and reasons given, as well as an action plan to ensure that you can report this data in the future.
- total tonnes of waste arising
 - total tonnes of waste recycled
 - total tonnes of ICT waste recycled and reused (externally)
 - total tonnes of waste composted
 - total tonnes of waste incinerated with energy recovery
 - total tonnes of waste incinerated without energy recovery
 - total tonnes of waste to landfill

- comparison for the previous 3-5 years should be included where available

- 4.11 These categories are all required under the GGC.
- 4.12 Given that physical quantities for these waste streams will need to be reported, the information for this should be available. Financial data for the specific waste streams maybe harder to capture. However, every effort should be made to include financial data for each category if possible, along with a total cost for waste. It is appreciated that existing commitments exclude the impacts from third parties or contractors working on behalf of the organisation, and operational activities. We would encourage organisations to try and include data from these sources in their waste reporting, and discuss any steps they are taking towards achieving this in the narrative of the report.
- 4.13 Where organisations derive income from particular waste streams, this should be offset against any costs to show a net figure.
- 4.14 Where possible, it would be beneficial to report costs and quantities for hazardous waste disposal separately. Physical data for hazardous waste should be readily available. All quantitative figures for waste should be given in metric tonnes per annum, based on your financial reporting cycle.
- 4.15 Where possible financial information should be analysed into the same categories as the physical quantities and show the cost of waste removal and disposal. This is important for demonstrating the financial materiality of the individual waste streams. Information will need to be extracted from existing financial systems and it is likely that this will present a significant challenge, largely because the majority of financial systems are not set up to deliver this level of granularity in terms of cost data. If it is not initially possible to extract individual cost data, then a total waste disposal cost should be presented, leaving the individual sections blank. Progress towards achieving full granularity on the cost data should be discussed in the narrative section. As described previously, this may present a significant challenge as far as third party construction work is concerned. Discussions with the third party organisations should facilitate this, and in the long term inclusion of this information is important.
- 4.16 The Government issued guidance 'Environmental key performance indicators for business' provides further details on reporting on waste across these categories found at
https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/206392/pb13944-env-reporting-guidance.pdf

Standards and methodologies

- 4.17 The following reporting standards exist:
- Government environmental key performance indicators – reporting guidelines for UK business
<https://assets.publishing.service.gov.uk/government/uploads/system/upl>

oads/attachment_data/file/206392/pb13944-env-reporting-guidance.pdf legal requirements for hazardous waste reporting
<http://www.environment-agency.gov.uk/business/topics/waste/32180.aspx>

- public sector signatories to the 'Construction commitments: halving waste to landfill' report annually account for their waste and waste to landfill per £100k of construction spend via a web-based portal at <http://www.wrap.org.uk/construction>
- Global Reporting Initiative – includes aspect EN22 that covers waste reporting <https://www.globalreporting.org/Pages/default.aspx>

4.18 If any estimation methods are used then they should be reported. The existing methodology directs readers to HMRC conversion factors for converting volumes to weight. Use of these and the current data reported to central government for the GGC are consistent.

Reporting against performance measures and tracking progress

4.19 The GGC waste targets include:

- to reduce waste sent to landfill to less than 10% of overall waste by 2020 compared to the 2009-10 baseline
- to continue to reduce the amount of waste generated and increase the proportion of waste which is recycled
- to reduce paper consumption by 50% by 2020
- reuse and recycle redundant ICT equipment

4.20 In addition to this, organisations may have their own targets for waste reduction or recycling. Any targets should be reported clearly, and progress against them stated.

4.21 Whilst an organisation may not have specific financial targets, financial information should be presented over 3-5 years where available. Additional information should be provided in the narrative text, this becomes especially important if you are changing reporting methods or approaches. As described previously, if it is not possible initially to publish full granularity on the cost data then this should be highlighted in the narrative section.

Chapter 5

Finite resource consumption: minimum requirements

Purpose

- 5.1 The government has policy objectives to reduce the use of finite, natural resources. It is important that public sector organisations lead the way in monitoring, managing and reporting the use of finite resources.
- 5.2 This chapter sets out guidance for reporting the use of finite resources by public sector organisations. It is split into sections for water, energy and other finite resources. Within each section, further background is provided to the minimum requirements set out in Chapter 2. In addition, each section also provides guidance for best practice reporting that goes beyond the minimum requirements.

Water - overview

- 5.3 Organisations should place the use of water in context, considering the level of use and regulatory requirements. The GGC paper establishes best practice benchmarks for office water use. For non-office use organisations are required to establish their own reduction targets.
- 5.4 The total impact of an organisation's water usage is termed its 'water footprint' and is divided into direct and indirect use. As a minimum, reporting must cover direct water use as measured in cubic metres: the measurable consumption from water providers, abstraction and collection.
- 5.5 Water sources can be classified in a similar way to carbon emissions, as follows:
- **scope 1: Water owned or controlled by your organisation** - includes water reserves in lakes, reservoirs and boreholes
 - **scope 2: Purchased water, steam or ice** - includes your mains water supply as well as other deliveries of water for the purpose of heating (e.g. CHP), water coolers and ice
 - **scope 3: Other indirect water** - includes embodied water emissions in products and services (upstream) as well as the products, services and policies that contribute to water use (downstream)
- 5.6 The minimum source reporting requirements for organisations is to cover the use of water from Scope 1 and Scope 2 water sources.

Direct water use (minimum requirement)

- 5.7 Direct water use should be reported in cubic metres, broken down by source if possible (water from a third party supplier, abstracted water, and where data exists, collected water), and split between the office and whole estate.
- 5.8 Public sector organisations should ensure that KPIs and reported results conform to the common reporting requirements set out above. This includes disclosing where KPIs are changed between years, normalisation of water use and reporting expenditure on water.
- 5.9 The reporting of indirect or embedded water, (water that is embodied in assets) should be as a minimum, in line with the requirements in Chapter 2, and include a narrative on the indirect use of water of all public sector bodies.
- 5.10 Office water use should be reported against the per FTE benchmarks that are included in the GGC.

Other natural resource consumption

- 5.11 In addition to the mandatory requirements to report on water consumption, public sector bodies should at a minimum consider whether there are any other finite resources whose use has a material impact. To determine whether the use of a finite resource is material, organisations should first consider the role areas of finite resources play in the delivery of their strategic policy objectives.
- 5.12 Organisations must then consider these priorities in the context of their operational activities and their wider requirements as public sector bodies. It may be that the use of particular resources is at such a low level that reporting is not judged necessary. On the other hand, regulatory requirements from government may dictate that reporting of particular resources is necessary regardless of their level.
- 5.13 Government's Environmental Reporting Guideline Key Indicators should be used to assist the above process. Chapter 4 provides suggested areas of reporting for different types of organisations, including those in the public sector. Information on how the use of other selected finite resources is provided in Chapter 3. See also:
<https://www.gov.uk/government/publications/environmental-key-performance-indicators-reporting-guidelines-for-uk-business>
- 5.14 The Global Reporting Initiative (GRI) provides further guidance on the reporting of the use of several finite natural resources. The metrics and methodologies of these indicators should be used for finite resources other than water and energy where no guidance is provided by the Defra Environmental Key Performance Indicators. The GRI information can be found on their website at:
<https://www.globalreporting.org/Pages/default.aspx>
- 5.15 Several public sector organisations, including the Highways Agency, have determined that the use of metal aggregates constitutes a material finite

resource to their organisation and will begin reporting its use in line with the above standards. Additionally, organisations with significant landholdings may determine that the biodiversity indicators provided above would be useful to the reader.

- 5.16 If an organisation determines it should report the use of another finite resource, the same format and content should be provided as other areas, including targets where available, normalisation by total expenditure, expenditure on the reported resource, industry benchmarks where available and a commentary on indirect use.
- 5.17 In addition, public sector organisations should consider including reportable environmental incidents, information on these can be found at <http://www.environment-agency.gov.uk/contactus/36345.aspx>.
- 5.18 Paper use is included in the GGC, with an aim to cut paper use year on year. It is linked to other procurement led initiatives, including efforts for a closed loop recycled paper contract. Organisations are required to report on the volume of paper they purchase, so should include information pertaining to this within the sustainability reporting and refer to the guidance produced for the GGC for exact details of what should be included within this category, specifically quantities of A3, A4 and A5 used. Guidance can be found at https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/585344/greening-government-commitments-overview-reporting-requirements-2016-2020.pdf

Chapter 6

Further voluntary reporting

Extending reporting beyond the minimum requirements

- 6.1 The reporting boundaries for environmental information must follow financial reporting guidelines. The minimum reporting requirements include all Scope 1 and 2 emissions of the reporting entity, and Scope 3 emissions relating to business travel only. However, as organisations become more proficient in managing their own internal performance on sustainability, they should then consider how they could seek to improve the sustainability in areas where they have an influence. One such area in the public sector is influencing performance through procurement; another is through policy.
- 6.2 The scope of reporting sustainability performance within the annual report set out in this guidance is restricted to GHG Emissions, waste minimisation and management, natural resource consumption, biodiversity action planning (commentary overview) and sustainable procurement (commentary overview). As set out in Chapter 2, it is recognised that there are many other aspects to sustainability that have not been given coverage in the minimum requirements. Organisations more advanced in their ability to report may wish to add on additional sections, in other reports or on their website, for example how delivery of the body's strategy is supported by, and reliant on, actions taken to respond to economic, environmental and social factors. Through this analysis, the body may also describe how performance relating to social or other material environmental impacts is linked to financial outcomes.

Producing a detailed carbon account

- 6.3 Organisations more advanced with carbon accounting coverage may decide to publish a detailed account of their carbon emissions often referred to as an 'inventory'.

Accounting for non-travel Scope 3 emissions – general advice

- 6.4 These tend to be the most difficult areas to be able to account for as they usually relate to work done on behalf of the organisation but out with its normal organisational control. However, such emissions can be considerable in size and organisations may have a high degree of influence in respect of financial control through procurement. As a first step, organisations are

suggested to liaise with suppliers concerning emissions to establish if they have their own reporting mechanisms. Over time it is expected that organisations will increasingly use Scope 3 carbon emissions as a factor in both supplier suitability and tender assessment.

Accounting for Scope 3 – supply chain emissions

- 6.5 The public sector has a vast supply chain and potentially significant influence over the way it operates in terms of its emissions. This covers only those emissions that would factor under the public sector sustainability reporting accounting boundary – i.e. over which the public sector has budgetary control.
- 6.6 Scope 3 supply chain emissions of the entity reporting under this guidance include all emissions arising from the related activity of its suppliers, regardless of whether they would be classified and reported separately as Scope 1, 2 or 3 emissions by the supplier themselves. To collect this information an organisation will need to liaise closely with its supply chain to ascertain information.

Accounting for Scope 3 - embodied carbon emissions

- 6.7 All physical assets will have some measurement of CO_{2e} which have been emitted as a result of raw materials extraction, transport and/or manufacturing. Whilst embodied carbon is not mandated for reporting under the GHG Protocol, it is important that these emissions are considered and eventually accounted for in some way by public sector organisations to:
- encourage less waste (and therefore further carbon emissions) through non-essential asset consumption
 - encourage lower carbon emissions in raw material extraction and manufacture through public sector procurement
 - reflect the true cost to an organisation or a project in terms of CO_{2e} emissions from asset consumption for carbon budgeting purposes.
- 6.8 Such assets can either be consumed immediately upon use or they may be used over a number of years. Under present public sector financial accounting policies, the value of the assets can be spread over their useful economic life through depreciation. However, this accounting treatment would be difficult to implement in relation to embodied carbon assets as it would involve the development of an inventory of the embodied carbon for all assets currently being utilised by an organisation – akin to developing a carbon balance sheet in financial accounting terms. Initially organisations undertaking accounting for embodied carbon should therefore account for it upon purchase. Details of the organisations accounting policy in this respect should be maintained on the website – particularly where embodied carbon in only certain assets is being accounted for.
- 6.9 Publicly Available Standard (PAS) 2050 provides advice on producing a lifecycle carbon footprint for a product. This provides a detailed

methodology to calculate the full lifecycle emissions of a product or service. PAS 2050 can be expensive to implement, however there are methods for apportioning emissions to products and services that can be usefully adopted here.

Other GHG emissions accounting guidance

6.10 The following organisations also provide broader information about carbon accounting, but this should not be used as an alternative to the above guidance:

- **Carbon Disclosure Project** (an independent not-for-profit global organisation) is supporting a **Climate Disclosure Standards Board (CDSB)**. The CDSB is a consortium of seven business and environmental organisations that has been formed for the purpose of jointly advocating a generally-accepted framework for corporations to report climate change-related risks and opportunities, carbon footprints, and carbon reduction strategies and their implications for shareholder value in mainstream reports. Presently their advice is to follow the GHG Protocol. More details can be found at <http://www.cdsb.net>
- the **Global Reporting Initiative (GRI)** provides guidance to organisations about disclosure of their sustainability performance, and also provides stakeholders a universally applicable, comparable framework in which to understand disclosed information. More details can be found at <https://www.globalreporting.org/Pages/default.aspx>. There is no detail on carbon accounting policy
- the **International Standards Organisation (ISO)** publishes advice on standards for carbon foot printing, including ISO 14064-1, which is their corporate carbon foot printing standard

Further waste reporting

6.11 Whilst it is intended that waste reporting should include waste from all sources, there is clearly a focus on waste from offices in the guidance. Construction, demolition and excavation (CD&E) waste will clearly be significant for some public sector bodies. Reporting data on this will often present unique challenges, often as a result of third parties being involved in this work. The Waste & Resource Action Plan (WRAP) website at www.wrap.org.uk can provide useful information on how to capture and report waste arising from CD&E work. Specific reporting guidance is available at - <http://reportingportal.wrap.org.uk/Downloads/CDEW%20Reporting%20Guidance.pdf>.

6.12 In addition to reporting financial data on the waste disposal and removal costs it would be useful to include the value of the products and materials being disposed of. This would help to demonstrate efficient use of resources.

Further resource reporting - indirect water use

- 6.13 For many public-sector organisations, indirect water use will comprise the majority of their 'water footprint', and organisations may wish to go beyond the minimum reporting requirements for the use of water set out above. These organisations should analyse and report in narrative the material indirect effects on water use caused by organisational activities and policy. Public sector organisations should consider two forms of indirect impacts on the use of water: the effects of policy on water use and the use of embedded water by an organisation.
- 6.14 When considering the use of embedded water, organisations should analyse both the levels of water used by suppliers and the source of water used by suppliers. A high volumetric water footprint does not necessarily mean high impacts and vice versa. Importing goods with a high water footprint from areas with high rainfall and good water management may be preferable to importing goods with a lower water footprint from areas where water is scarce. This adds an additional layer of complexity to developing appropriate tools to measure water footprints.
- 6.15 Organisations could report on engagement with their suppliers to reduce their consumption of virtual water. This would include steps taken to obtain data from significant suppliers on the level and source of their water use and steps taken to encourage more sustainable water use by suppliers. The guidance supporting the GGC includes detail on reporting supply chain impacts. This includes specific reporting requirements on engagement work to assess and report supply chain impacts including water and waste. Organisations choosing to include supply chain reporting could make use of this guidance.
- 6.16 To provide an effective breakdown of the impact of policies on water use that is consistent with best practice in the private sector, organisations should consider the following three types of water in their disclosure of targets and performance:
- blue: water from rivers, lakes, aquifers
 - grey: water polluted after agricultural, industrial and household use
 - green: rainfall to soil consumed in crop growth

Embodied finite resources

- 6.17 Physical assets, both current and non-current, require the use of natural resources in manufacturing and distribution. This is the equivalent to GHG Protocol Scope 3 emissions in carbon accounting. Ultimately, it is important that embodied water, energy and other resources are accounted for in some way by public sector organisations to:
- encourage less waste (and therefore further use of finite resources) through non-essential asset consumption

- encourage lower resource use in asset manufacture and raw material extraction through public sector procurement
 - reflect the true cost of an organisation or a project in terms of the use of finite resources
- 6.18 In the short term, due to difficulties in calculating the resources used in creating an asset—particularly those already acquired—and the lack of relevant accounting standards, quantified reporting of accounted embodied resources will not be required. Progress on achieving this is more advanced in the field of carbon accounting than in the areas discussed in these guidelines, with the exception of energy.
- 6.19 As standards are developed for water and other finite resources, the FReM may adopt their use. This will enable consistency among those organisations that report embodied resources.
- 6.20 The lack of accounting standards for embodied resources does not preclude reporting in this area. Sustainability reporting for the public sector allows for narrative reporting of indirect sustainability impacts to take place alongside numerical financial and non-financial information. Public sector organisations wishing to follow best practice should set concise, measurable targets designed to capture activities that will reduce the indirect use of finite resources. Annual reports should then include these targets and report on progress achieved against them.
- 6.21 Organisations may also be aware of particular current or non-current assets that have high levels of embedded natural resources, are widely used by the organisation and have a clearly material impact on its footprint in the consumption of a particular resource. Organisations can set targets to reduce the use of these assets even if accounting standards do not yet allow for an exact translation of their use into units of a material finite resource.
- 6.22 Public sector bodies may have policies that affect third party use of finite resources. Those organisations following best practice could set targets over third party resource use that is impacted by their policy areas, assess these impacts and report them annually.