Deloitte.

UK Carbon Reporting Survey
Lip service or leadership?

July 2013

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Executive summary

Liked or loathed, the new UK carbon reporting requirements herald a watershed moment. From September 2013, quoted UK companies will be required by law to include quantified information in the annual report about their greenhouse gas (GHG) emissions. This information will need to incorporate an intensity ratio, which puts emissions into context given the scale of the company's activities. Taken together with wider changes to narrative reporting, this marks a major step towards a more 'integrated' annual report that gives a more balanced picture of a company's performance, whether positive or negative, across a range of social, environmental and financial criteria.

This year's UK Carbon Reporting Survey highlights that, whilst there has been an improvement since last year, many quoted companies still have much work to do before they can confidently claim compliance with the new regulations. Significant issues around consistency, transparency, accuracy and completeness of disclosures were evident in the 2011/12 reports reviewed. It is also clear that, generally, there is slow progress in making substantial cuts to emissions, which is the overall purpose of the UK government's legislative agenda for low carbon. Companies now have little time to display the kind of leadership sought by both national and international governments in this area.

Red tape or silver lining?

Many companies affected[1] by the new greenhouse gas regulations[2] will already be subject to other government environment policies such as the EU Emissions Trading Scheme ('EU ETS') and the UK Carbon Reduction Commitment ('CRC'). UK businesses may well see these new reporting requirements as creating more burdensome red tape. However, it is worth bearing in mind the adage "When performance is measured, performance improves. When performance is measured and reported back, the rate of improvement accelerates."

To reduce the burden of compliance, the regulations have been designed to be lightweight and practical. The law sets out the basic requirements, allowing companies to choose a reporting methodology, while accompanying voluntary guidance issued by the Department of Environment, Food and Rural Affairs (Defra) provides further non-mandatory detail. This guidance includes advice on the importance of data quality (which will give management and the audit committee confidence in what they are reporting) and materiality. Thoughtful application of the guidance will not just enable boards to include the required data in their directors' report; it will contribute to their ability to cut emissions – with a direct financial impact – and should indirectly help to cut energy costs and improve management of off-balance-sheet resources.

1 The requirements apply to quoted companies as defined in the Companies Act 2006 and include UK incorporate companies with equity shares listed on the LSE (the main market) or admitted to trading on another EEA regulated market, the NYSE or NASDAQ.

2 The Companies Act 2006 (Strategic Report and Directors' Report) Regulations 2013.

Lip service or leadership?

Our survey reveals that many UK quoted companies have some way to go to be ready for the new regulations. Whilst many of the 100 companies in our survey sample have reported on emissions for some years, key elements of robust reporting were missing in many cases.

Table 1. Review of UK PLC readiness for mandatory carbon reporting

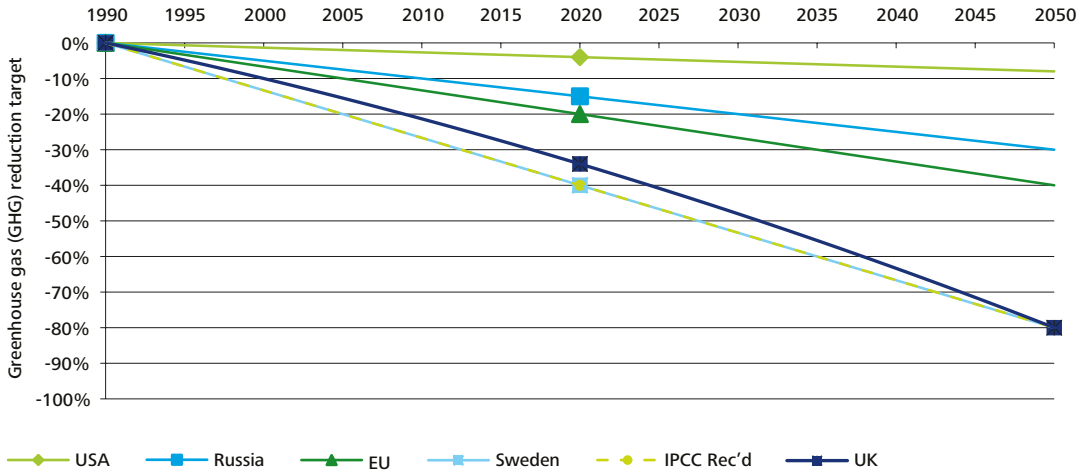
Carbon reporting principle		UK Listed Company Readiness
1	**Transparency:** Good practice carbon reports should disclose sufficient carbon information to allow stakeholders to make informed decisions with reasonable confidence. 64% of the companies surveyed disclosed carbon information in a formal report (the Annual Report or a separate Corporate Responsibility or equivalent report). However, of these, 24 did not provide numerical data, 36 did not disclose the specific reporting framework used to compile the information (e.g. the GHG Protocol) and only 8 provided a calculation methodology (e.g. a basis of reporting). Though it is important not to overburden stakeholders with data, clarity in what is disclosed is critical to inform decision-making, and in order to fulfil the new requirements. To assist, a good practice format for reporting, aligned to the new regulations, has been provided in an Appendix to this survey.	
2	**Data accuracy:** Accurate carbon assertions will be critical for companies wanting to report consistent information reflective of their operations and to evidence continuous improvement in managing their emissions year on year. Confidence in disclosed data will require robust data processes, systems and controls. At present only 24% of companies surveyed and only 50% of tier 1 companies disclosed carbon data that had been verified and/or assured by a third party. Though not an explicit requirement, boards may wish to consider verification and/or assurance to gain additional confidence when making their director's report disclosures and enhance their credibility with outside stakeholders.	
3	**Completeness:** The new regulations require disclosure of all scope 1 (direct emissions by the company) and scope 2 (indirect emissions from consumption of purchased electricity, heat or steam) emissions. Companies that cannot comply will need to explain the reasons why they cannot. Of the 100 companies reviewed, 34 disclosed an equivalent of scope 1 and 2 emissions and 41 stated which of the six regulated greenhouse gases are included in their carbon footprint. Only 8% provided details of the consolidation boundary of their carbon footprint. Companies reporting their emissions must know this information and disclosure will be required in future.	

Reporting alone or actively managing?

The new carbon reporting regulations are just one component amid a range of extensive legislative objectives to encourage energy and carbon efficiency across all sectors. These include schemes which give a direct cost to emissions (e.g. EU ETS and CRC), as well as those which require active steps to be taken to improve energy efficiency (e.g. the tightening of Part L of the Building Regulations).

Of the 100 UK listed companies reviewed, only 22 disclosed that they had achieved the difficult task of reducing absolute (i.e. total) emissions. This is against a backdrop of a UK government commitment to an 80% reduction in emissions by 2050 and a call from the Intergovernmental Panel on Climate Change (IPCC) for cuts of between 25% and 40% in emissions from 1990 levels by 2020. Both targets equate to an approximate 2% cut in absolute emissions per year (see Figure 1).

Figure 1. Comparison of a sample of published national emission reduction targets



N.B. icons (e.g.▲) denote target date; lines beyond those points illustrate target trajectory.

Given this background, UK listed companies will need to ensure they have robust processes in place to disclose their carbon performance in a clear and quantified way – along with narrative disclosures to put them into context so that stakeholders can understand them. Companies who fail to make these disclosures in an intelligible way, or who do not demonstrate a commitment to cutting their emissions could face very real financial and reputational risk in coming years.

Questions for boards:

- Has someone taken board-level ownership of the new carbon reporting requirements?
- Has someone with suitable knowledge and the seniority to compel subsidiaries to provide the necessary raw data to compile the statutory disclosures been made responsible for data collection?
- Has the audit committee confirmed the decisions to be taken around reporting including selection of the reporting boundary, whether or not to report scope 3 emissions and the choice of intensity ratio?
- If the company is not in a position to comply with the new requirements in full in 2013, will their explanation set out the steps being taken to achieve compliance in 2014, and is there a plan in place to take these steps?
- If the equity share or financial control approach is adopted, are arrangements in place to get access to emissions data from associates and joint ventures, particularly where other investors are not UK quoted companies and hence not subject to the same disclosure obligations?
- How are the audit committee (and the board as a whole) going to be satisfied as to the quality of the data they are reporting? Is there a need for internal audit work or external assurance or verification?
- Will the strategic report disclosures around environmental policies and their effect be consistent with the new directors' report quantified carbon reporting disclosures? Should there be any carbon-related risks in the principal risks and uncertainties in the strategic report? And will all of these strands of reporting tell a consistent story?

Legislating for action

Background

Carbon footprinting as a concept has evolved from its lesser known counterpart ecological footprinting over the past two decades to become the dominant environmental performance metric for global businesses. Used properly, it allows stakeholders to understand the scale of a company's greenhouse gas emissions as a function of their operations. Over recent years, demand for consistent and transparent reporting of social and environmental impacts alongside economic concerns is no longer just coming from environmental pressure groups and non-governmental organisations – financial investors and governments can see long term costs to emissions and are wanting to understand and influence how companies manage these emissions.

The Greenhouse Gas Protocol Standard was introduced in 2001 and revised in 2004[3]. Since then, companies have increasingly opted to disclose their emissions on a voluntary basis. This includes publishing standalone Corporate Responsibility reports, including information on corporate websites and, more recently, submitting information to the Carbon Disclosure Project (CDP) which collates data across countries and sectors. Those in the forefront of the drive to report on sustainability are now working towards 'integrated reporting'[4], in which they seek to report their performance and position across the broad range of resources and relationships on which they rely: financial, manufactured, intellectual, human, natural and social resources.

With the 2008 Climate Change Act, the UK became the first country in the world to introduce a legally binding, long-term framework to cut carbon emissions. At the United Nations 'Rio+20' conference in June 2012 the Deputy Prime Minister announced that a further provision of the Act, requiring companies to report GHG emissions, would be mandatory from 2013.

New Mandatory Carbon Reporting Regulations

For periods ending on or after 30 September 2013, the Companies Act 2006 (Strategic Report and Directors' Report) Regulations 2013 require UK incorporated quoted companies (those with equity shares listed on the main market of the London Stock Exchange, admitted to trading on another EEA market or traded on the New York Stock Exchange or NASDAQ) to report their global carbon footprint in the Directors' Report component of their annual report.

Key points:

- **Retrospective impact:** whilst the regulations come into force on 1st October 2013, they are effective for financial periods ending on or after 30 September 2013. This means companies will have little time to calculate and prepare their first mandatory emissions disclosure. Some companies will have anticipated the requirements (based on draft legislation) and have been collecting data throughout the year. Those that have not will need to rapidly check whether they can collect the necessary information retrospectively and consider how they will explain any disclosures they cannot produce.

Scope	Source of GHG emissions	Mandatory?
1	Direct from fuel combustion, process or fugitive emissions from owned or controlled facilities	✓
2	Indirect from consumption of purchased electricity, heat or steam	✓
3	Other indirect from facilities not owned or controlled by the company (e.g. business travel, waste, downstream leased assets, transport and distribution of products)	✖

- **Global operations**: The requirement is for the company's global (i.e. consolidated) footprint to be included in the Director's report and to cover all six greenhouse gases defined under the Climate Change Act 2008, to be reported in units of carbon dioxide equivalent (CO_2e).

3 The Greenhouse Gas Protocol, A Corporate Accounting and Reporting Standard (Revised Edition), a standard with guidance on how to measure and report a company's GHG emissions http://www.ghgprotocol.org/files/ghgp/public/ghg-protocol-revised.pdf

4 The International Integrated Reporting Council ('IIRC) proposes a definition of integrated reporting or "<IR>" in its Consultation Draft of its International Integrated Reporting <IR> Framework, issued 16 April 2013

- **Methodology:** The regulation will require disclosure of the methodology used to prepare the footprint. The regulation is accompanied by revised guidance from Defra for companies on how to measure and report GHG emissions[5]. This guidance recommends use of the GHG Protocol and ISO 14064-1[6] to prepare the GHG emissions information although their use is not compulsory. The GHG Protocol and ISO 14064-01 cover emissions from a broader scope of operations than the legislation which only requires scopes 1 and 2 (scope 3 emissions are optional). Even within the legal minimum, some emissions must be reported that companies have not previously had to measure for the EU ETS and CRC schemes. These will include emissions from non-UK operations, mobile or fleet emissions, all material fugitive and process emissions. The requirement is also to report in carbon dioxide equivalents (which incorporates all six gases referenced in the Climate Change Act 2008) where applicable.

- **Reporting period:** Companies are permitted to use a reporting period for GHG emissions that does not correspond to their financial year, but must state if they have done so. Reasons to do this would be to align with other reporting obligations.

- **Reporting boundary:** Quoted companies should report on emissions from activities for which they are 'responsible'. The Greenhouse Gas Protocol and ISO 14064-1 include three policy choices for determining a company's consolidation boundary or sphere of influence with respect to GHG emissions: the financial control, operation control or equity share approaches. If a company uses an approach that results in a boundary which differs from the financial reporting boundary, i.e. the scope of its consolidated financial statements, this fact must be stated with an explanation of the differences. There is no need to quantify these differences and indeed the reason why a different boundary is used may well be because the data is not available.

- **Materiality:** Though not required, good practice would be to include disclosure of a 'materiality threshold' applied (e.g. a 5% threshold) at group level, with more stringent 'de minimis' requirements set at site or facility level (e.g. emissions greater than an estimated 1% of total company emissions are included).

- **Performance metrics and comparatives:** Companies will be required to disclose their emissions in absolute (i.e. total) and relative terms, using an intensity ratio, for example tonnes of CO_2e per £m turnover. With the exception of the first year of reporting, comparative data for the previous period is required. We suggest that, in addition, continued comparison to a baseline year would be good practice. For example, where a company has set a five-year target to reduce emissions, reporting emissions in the first year and the target as well as the current year's emissions will enable stakeholders to assess the progress that is being made.

"Quoted companies must report on emissions from activities for which they are responsible."

Defra Environmental Reporting Guidelines
June 2013

5 *Environmental Reporting Guidelines: Including mandatory greenhouse gas emissions reporting guidance: https://www.gov.uk/government/publications/environmental-reporting-guidelines-including-mandatory-greenhouse-gas-emissions-reporting-guidance*

6 ISO14064 – Part 1 (2006) international standard for the design, development, management, reporting and verification of an organisation's GHG inventory

Looking forward

A key test of the regulations will not only be how well companies comply with its requirements, but whether they adapt their strategy to bring about a reduction in their greenhouse gas emissions.

Company law has, since 2005, required that the directors' report of a quoted company contains as part of the business review information about environmental matters (including the impact of the company's business on the environment), including information about any policies of the company in relation to those matters and the effectiveness of those policies. This information will now be required in the strategic report, and it is likely that stakeholders will look to emissions reporting in the directors' report as evidence to support (or otherwise!) management's discussion of environmental impact.

Given these reporting requirements, companies can expect to be held to account by investors as well as environmental pressure groups and NGOs. Increasingly, investors are concerned with the long-term sustainability of companies' business models.

Being held to account in this way may motivate companies to institute better energy management throughout their operations globally hence to reduce energy costs and price-risk. The government also hopes that increased transparency will drive additional investment by companies in low carbon technologies and practices, a key component of its commitment to cutting UK emissions by 80% from a 1990 baseline.

The government has stated that it will, in the near future, consider extending the scope of the mandatory carbon reporting regulations to large companies (as defined in the Companies Act 2006[7]). This could bring a further 24,000 UK companies within its remit.

The European Commission has also published proposals[8] requiring some companies employing more than 500 people to provide additional non-financial reporting. Companies with total assets of over €20m and/or turnover over €40m will need to include in their annual report a non-financial statement containing information relating to environmental, social and employee matters, respect for human rights, anti-corruption and bribery matters.

7 At the time of writing, those where at least two out of the following three criteria apply (turnover > £25.9m, total assets > £12.9m, > 250 employees).

8 http://ec.europa.eu/internal_market/accounting/non-financial_reporting/index_en.htm

Survey summary

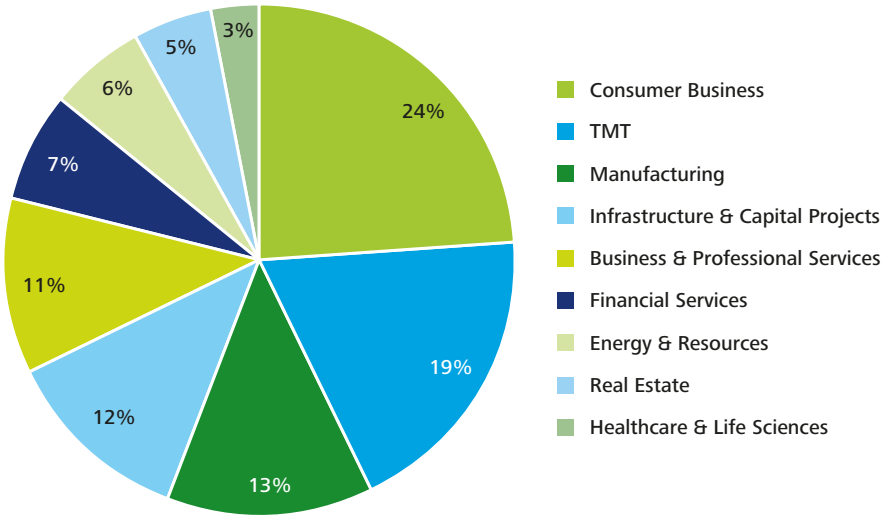
Survey basis

The objective of this survey was to review the greenhouse gas reporting practices (referred to as 'carbon reporting' throughout this report) across a sample of 100 UK listed companies for the 2011/12 financial years. The methodology used follows a similar approach to the previous **Deloitte Carbon Reporting Survey published in 2010.**

The survey considered:

- The nature of carbon information reported by companies (e.g. narrative or numerical disclosures, methodology followed, intensity measure used, or if reduction targets were set);
- How closely published information compared to the requirements of the new regulation;
- Location of information reported by companies; and
- If carbon information was assured and/or verified by a third party.

Figure 2. Composition of survey sample by industry



Until now, there has been no requirement for companies to report GHG emissions information in their reports or on their websites. The new carbon reporting regulations require companies to disclose specific carbon performance information in the Director's Report section of their annual report for reporting periods ending on or after 30 September 2013.

The 2012 survey reviewed carbon information in a range of locations including the annual report, the Corporate Responsibility (CR) or equivalent report and the company's website for the 2011/12 financial year. In addition, Deloitte undertook an in-depth assessment of carbon reporting practices across the various reporting media to identify where the most relevant carbon information was presented.

Sample Selection

The chosen population for the survey is UK listed companies. The sample was selected from three strata or categories comprising (i) the top 350 listed companies by market capitalisation ("Tier 1"), (ii) companies ranked from 351 – 750 ("Tier 2") and (iii) companies within the smallest 350 listed companies by market capitalisation ("Tier 3"). From each category companies were randomly selected to comprise 34, 33 and 33 companies respectively.

Results summary

A summary of survey results relating to FY 2011/12 and 2010/11 carbon disclosures.

Table 2. Survey results summary

Proportion of UK listed companies…	2011/12			2010/11		
	Tier 1 FTSE 350	Tier 2	Tier 3	Tier 1 FTSE 350	Tier 2	Tier 3
Overall						
Reporting carbon information in formal reports (annual report, CR or equivalent report)	94%	58%	39%	91%	55%	24%
Citing carbon as a key risk in annual report	0%	3%	0%	15%	0%	0%
With a CR or equivalent report (excluding annual report)	59%	15%	3%	65%	36%	21%
Disclosing CRC participation	29%	27%	12%			
Formal carbon reporting practices						
Referring to Defra guidelines	18%	9%	0%	3%	3%	0%
Referring to a specific reporting framework	59%	21%	3%	53%	9%	3%
Disclosing numerical carbon data	74%	36%	9%	74%	36%	6%
Disclosing comparative data (giving year on year comparisons)	71%	27%	9%	68%	18%	6%
Disclosing a specific carbon reduction target	65%	27%	6%	59%	15%	6%
With carbon data verified and/or assured by a third party	50%	21%	0%	29%	0%	0%
With carbon data on website	79%	42%	12%	59%	24%	12%
Disclosing a baseline	38%	21%	0%	38%	6%	3%
Stating carbon calculation methodology	18%	3%	3%			
Stating which specific GHGs are being reported	76%	36%	9%			
Reporting scopes 1 and 2 emissions	65%	27%	9%			
Reporting a decrease in total absolute emissions between FY 2010/11 and FY 2011/12	38%	18%	9%			
Providing geographic breakdown of emissions	12%	3%	0%			
Stating the carbon reporting boundary	24%	0%	0%			

Reporting review

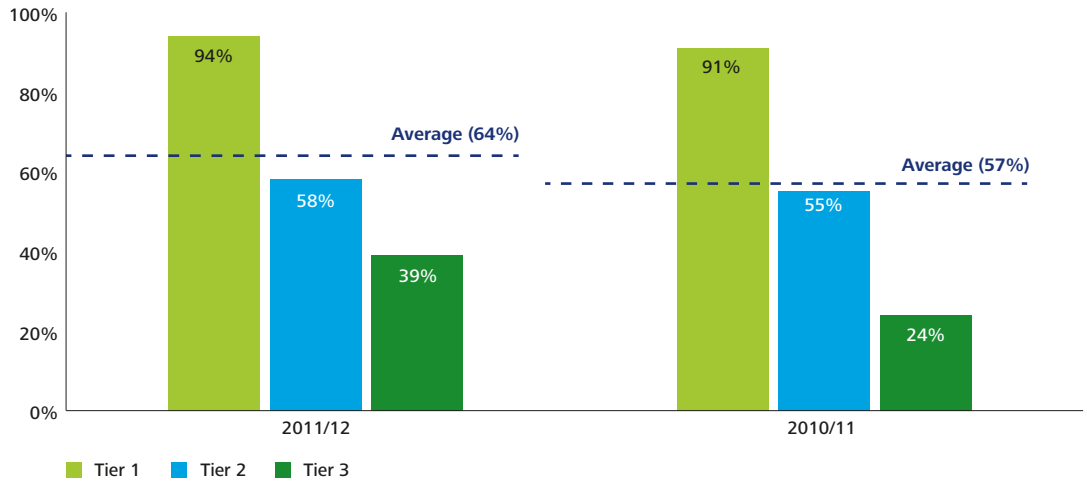
An increasing number of UK listed companies are now reporting carbon information formally, though few recognise carbon or energy as a business risk

Carbon information is increasingly being reported by companies in formal reports: there is a 12% increase in the number of companies reporting carbon from the 2010/11 to 2011/12 financial year (see Figure 3). As might be expected, tier 3 (the smallest companies) has shown the most significant change as they started from the lowest baseline, with over a third of these companies now carbon reporting in formal reports. Carbon continues to be reported most commonly by larger companies with 94% of Tier 1 (i.e. FTSE 350[9] companies) and 58% of Tier 2 companies reporting carbon in formal reports. There has also been an increase in the reporting of carbon on company websites (outside formal reports), with 79% of Tier 1, 42% of Tier 2 and 12% of Tier 3 companies doing so. This is an average of 45% in 2011 compared to 32% in 2010.

In addition to an increase in formal reporting of carbon in general, the position of the information has changed with a move from peripheral environmental appendices to the main business review in the annual report. Climate change awareness has infiltrated investor and wider stakeholder awareness such that carbon has become a material disclosure issue.

However, only one of the 100 companies surveyed stated that carbon was a key business risk in its annual report. That company highlighted the fact that, though now a regulated issue, many organisations still have not made a link between carbon and energy consumption. For organisations where energy consumption is a major cost, the rising cost of energy and potential exposure to carbon taxation would make us expect to see more companies recognising carbon as a fundamental risk to the business and hence reported as a principal risk and uncertainty in the strategic report (formerly the business review).

Figure 3. Percentage of companies reporting carbon information in formal reports (annual report, Corporate Responsibility or equivalent report)



9 See page 7 for details of the tiers. The surveyed companies in Tier 1 are in the FTSE 350.

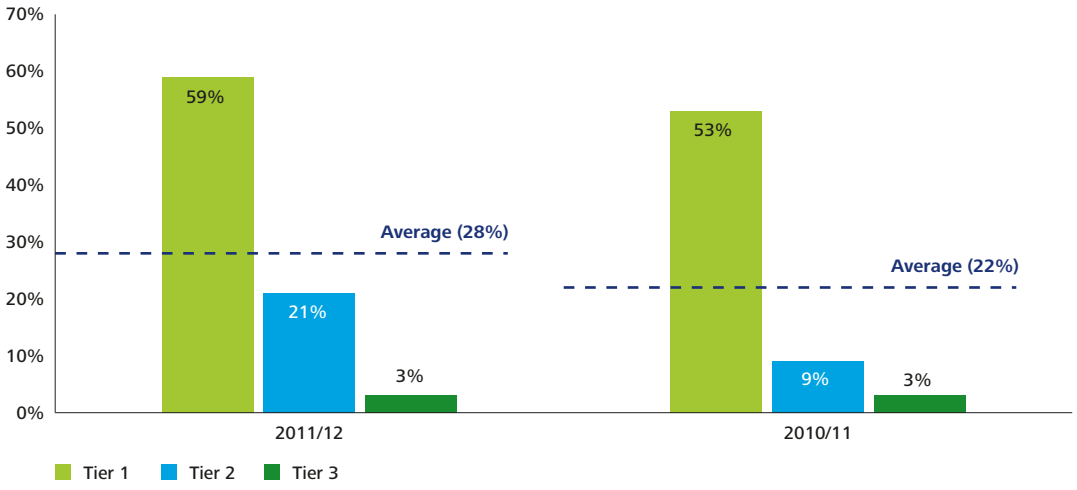
Reporting frameworks and boundaries

Less than a third of companies are reporting the specific methodology underpinning their carbon disclosures

Only 28 of the 100 companies surveyed referred to a standard (e.g. the GHG Protocol or ISO 14064-1:2006) and/or guidance (e.g. Defra's September 2009 guidance) as being the basis of the reporting in their formal reports (see Figure 4). Only 9 companies referred specifically to the Defra guidance (see Figure 5). Disclosing the methodology used to calculate emissions is mandatory under the new regulation. It is expected that companies will base their disclosures on the Defra Environmental Reporting Guidelines (2013) which accompanies the new regulations. This revised guidance cites the Greenhouse Gas Protocol and ISO 14064-1:2006 as principal methodologies to follow to measure and report emissions for inclusion in the Directors' Report (or any other formal report).

The fact that so few of the UK's listed companies currently disclose a specific carbon reporting framework (see Figure 4) and that only 8% detail their calculation methodology or basis of reporting (see Figure 6) hinders the ability of readers to compare emissions between companies. It may also mean that the basis for calculation is not consistent year-on-year as reporting practices evolve, but this does not give stakeholders the ability to distinguish a change in actual emissions from a change in reporting techniques. Quoted companies will want to check that they have robust controls over data collection and quality in place to mitigate the risk of future restatements of carbon data.

Figure 4. Percentage of companies referring to a specific reporting framework in their formal reports



"Quoted companies must state what methodology or methodologies they have used for calculating their GHG emissions."

Defra Environmental Reporting Guidelines
June 2013

Figure 5. Percentage of companies referring to Defra guidelines in formal reports

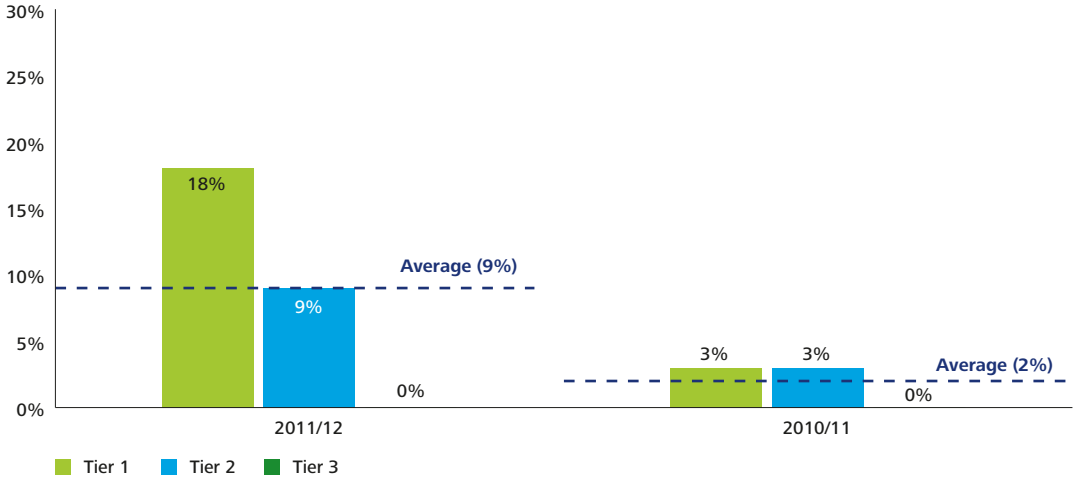
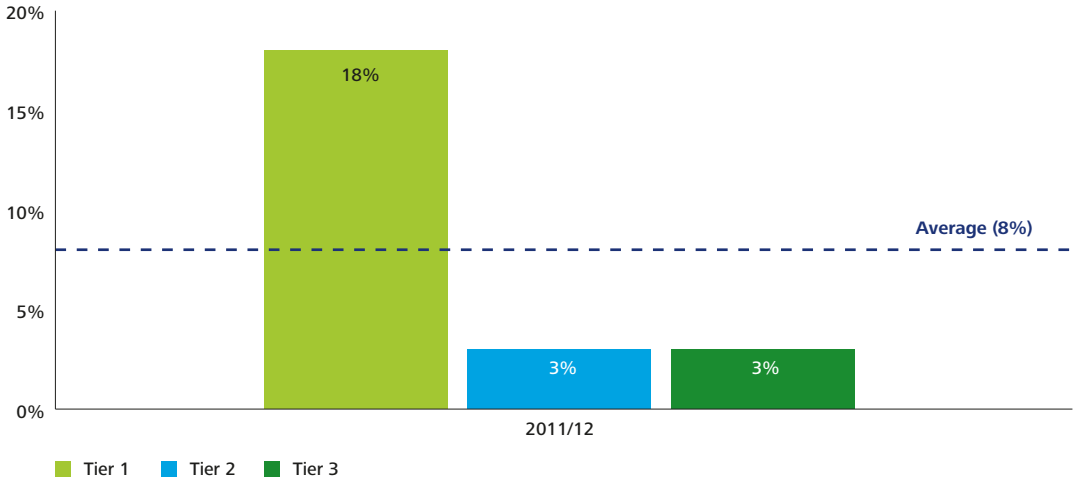


Figure 6. Percentage of companies stating carbon calculation methodology in formal reports



Only 8% of companies surveyed disclosed a GHG reporting boundary

We found that reporting boundaries were also poorly disclosed in FY 2011/12 formal reports. Only eight of the companies reviewed (all in Tier 1) disclosed their reporting boundary.

Under the GHG Protocol, companies are required to state the boundary of their emissions following a financial control, operational control or equity share approach.

Reporting boundary approaches:	Advantages	Disadvantages
Financial control method	• Aligns with the reporting scope in the financial statements	• May include emissions that group cannot control (e.g. emissions from the tenant of a property owned by the group)
Operational control method	• Reports emissions that group management can directly manage	• In practice, control is gradual, not binary – e.g. a landlord can impose some restrictions on a tenant
Equity share approach method	• Reports the entity's share of emissions	• Complexity • May include emissions that group cannot control (e.g. emissions from the tenant of a property owned by a joint venture)

"Should you be in the situation where you cannot report on all material emissions for which you have responsibility, you must state what is omitted and explain why in your directors' report."

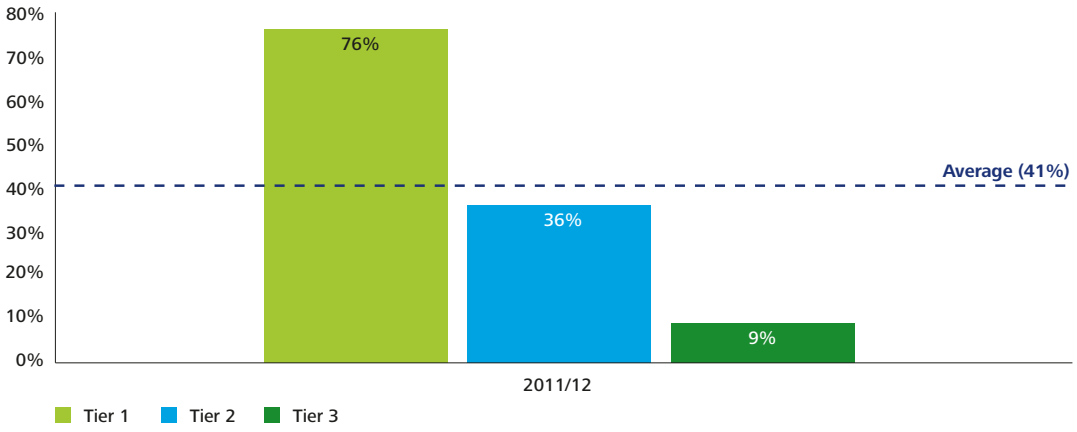
Companies Act 2006 (Strategic Report and Directors' Reports) Regulations 2013
Paragraph 15(4)

Scope of reporting

Fewer than half of companies provide a breakdown of GHGs

Under the new requirements, companies are required to report on all six core GHGs as set out in the Climate Change Act 2008 (Carbon dioxide (CO_2), Methane (CH_4), Nitrous oxide (N_2O), Hydrofluorocarbons (HFCs), Perfluorocarbons (PFCs) and Sulphur hexafluoride (SF_6)), normalised into units of carbon dioxide equivalents (CO_2e). We found that over half of the companies surveyed did not specify which greenhouse gases were included in their carbon footprint (see Figure 7). Again, this hinders stakeholders' ability to compare companies.

Figure 7. Percentage of companies specifying which GHGs are reported in formal reports



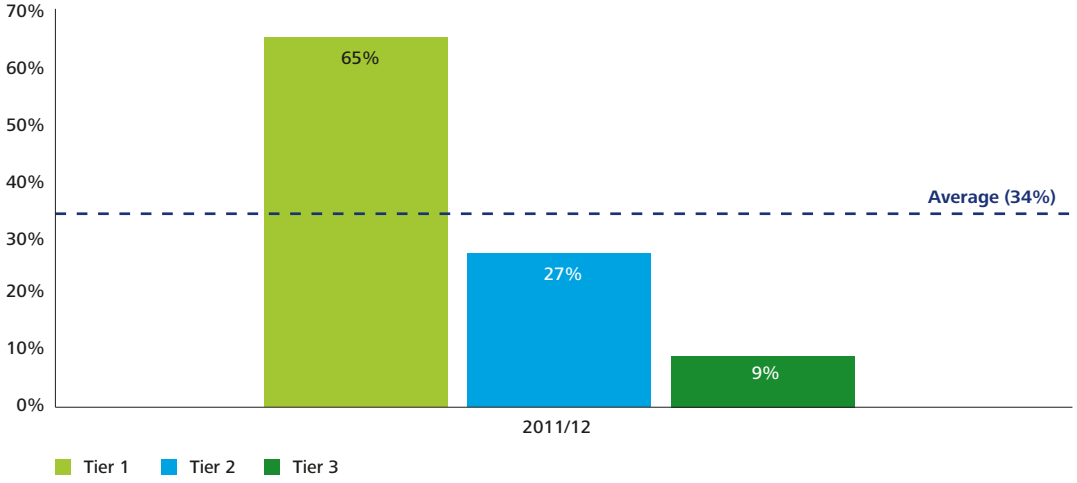
"Quoted companies must report on all material emissions of the 6 Kyoto gases from direct sources and from purchased electricity, heat, steam and cooling."

Defra Environmental Reporting Guidelines
June 2013

Most companies did not disclose the scope of emissions required by the new carbon reporting regulation

The majority of companies did not report on both scope 1 and 2 (or equivalent) emissions. Only 34% disclosed the scope of their emissions in sufficient detail to comply with the minimum requirements of the regulations (see Figure 8).

Figure 8. Percentage of companies reporting scopes 1 and 2 emissions in their formal reports



The revised guidance from Defra recommends use of the GHG Protocol and ISO 14064 standards to measure and report emissions. We found that few follow this guidance currently.

Table 3. General classifications of greenhouse gas emission scopes based on the GHG Protocol and ISO 14064-1

GHG Protocol/ISO 14064-1:2006 classification	Description
Scope 1/Direct greenhouse gas emissions All emissions from sources owned or controlled by the organisation.	Direct GHG emissions from sources that are owned or controlled by the company, e.g. emissions from combustion in owned or controlled boilers, furnaces, vehicles, and process or fugitive emissions.
Scope 2/Energy indirect greenhouse gas emissions Typically emissions resulting from electricity consumption.	GHG emissions from the generation of purchased electricity, heat or steam consumed by the company.
Scope 3/Other indirect greenhouse gas emissions All emissions from sources not owned or controlled by the organisation. These are now classified into 15 subcategories in the GHG Protocol Scope 3 Standard.[10]	Indirect emissions as a consequence of the activities of the company, but occurring from sources not owned or controlled by the company.

The lack of clarity in the make-up of GHG emissions reported by companies may be an indicator that, for even the largest UK companies, robust data processes and controls are still in their infancy. Many will need to improve the systems underpinning their emissions' calculations dramatically in order to ensure their disclosure is clear, accurate and complete.

19% of the companies surveyed reported on scope 3 emissions. These included a range of emission sources, such as business travel (e.g. flights, employee road and rail travel) and emissions from waste. Disclosure of scope 3 is optional under the new regulations. An example of a good practice greenhouse gas emissions statement has been included in an Appendix to this publication. It illustrates how to organise reporting of scopes 1, 2 and 3 emissions for easy access by a reader.

10 The Greenhouse Gas Protocol, Corporate Value Chain (Scope 3) Accounting and Reporting Standard http://www.ghgprotocol.org/standards/scope-3-standard

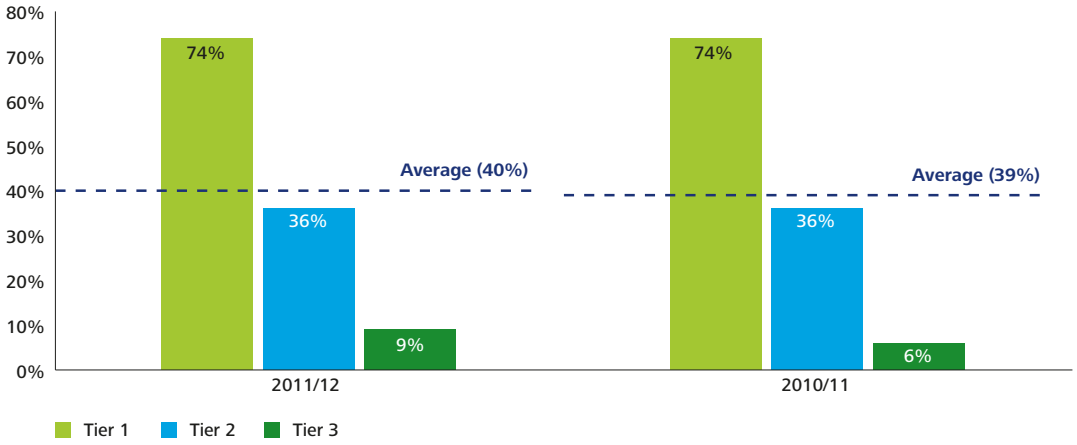
Performance and targets

The majority of companies do not provide numerical carbon data

Of the sample of 100 companies surveyed, 60% did not provide any numerical carbon information in their formal reports. As might be expected, Tier 1 companies had the highest percentage, with 74% providing quantitative data in formal reports (unchanged from 2010/11) to supplement their narrative reporting (see Figure 9).

Under the new regulations, quoted companies will need to provide numerical data in units of carbon dioxide equivalent (CO_2e). Clearly much work remains to be done by companies in this area.

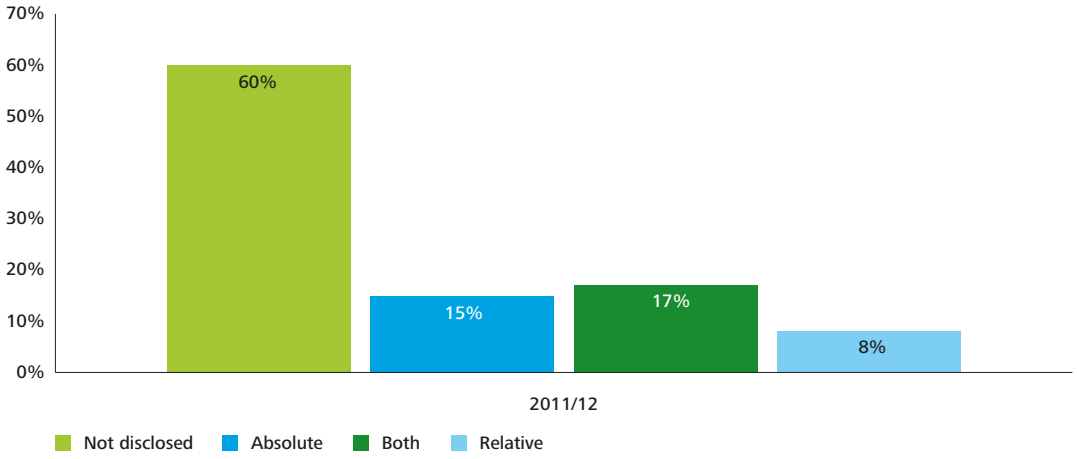
Figure 9. Percentage of companies disclosing numerical carbon data in formal reports



60% of companies do not provide an intensity ratio

Under the regulations, companies will be required to report absolute and relative emissions. 32% of companies surveyed provided numerical emissions data in absolute terms, i.e. give a total amount of GHG emissions (see Figure 10). Only 25% provided data in relative terms, i.e. an intensity ratio, which normalises emissions to take into account company growth (e.g. tonnes of CO_2e per £m revenue). An absolute measure gives the true scale of emissions being generated. The relative measure which adjusts for company growth between a baseline and the current year gives an indication of the success of any emission-reducing strategy of a company.

Figure 10. Percentage of companies reporting quantitative GHG information in absolute or relative terms



"Quoted companies must express their annual emissions using at least one intensity ratio related to their activities."

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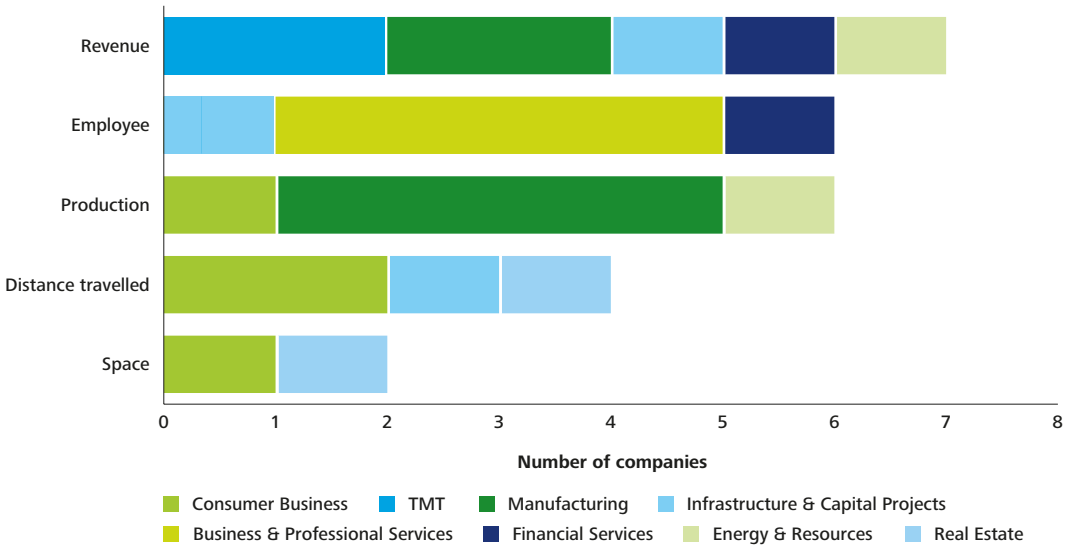
The three main intensity ratios used were tonnes of CO_2e as a function of revenue, number of employees, and production (e.g. tonnes CO_2e per £m revenue/per full time employee (FTE)/per tonne production). These metrics are useful as they provide a financial basis against which to compare a company's operations relative to their carbon emissions. The ratio used appears to vary by industry (see Figure 11). The manufacturing sector typically uses tonnes of CO_2e per tonne of production. For people-focussed business, tonnes of CO_2e per FTE are used more often. Tonnes of CO_2e per £m revenue is a widely used metric across all sectors.

Figure 11. Intensity ratios used to report company emissions against a specific growth factor, split by industry



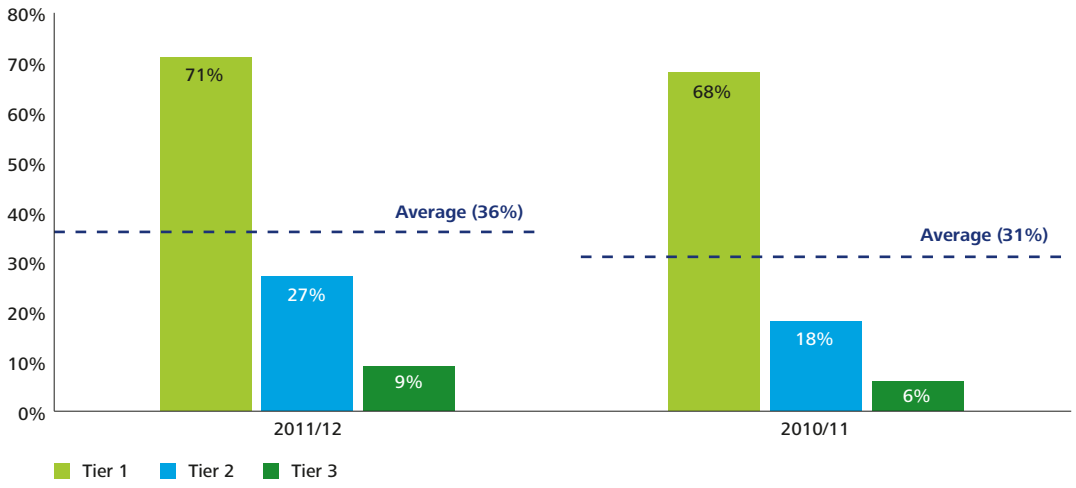
Again, our good practice greenhouse gas emissions statement in the Appendix illustrates disclosure in this area.

Most tier 1 companies, but just over a third of all others, disclose comparative carbon data in their formal reports

71% of the Tier 1 and 27% of the Tier 2 companies surveyed provide comparative-period GHG data, an increase from 68% and 18% respectively in our 2011 survey. In all, over a third of the sample of 100 companies surveyed, provide prior-year data. This means, however, that the majority do not.

Stakeholders want comparative data to be able to assess progress in reducing emissions. Comparative data is required by the regulation for quoted companies. In addition to prior-year data, companies may wish to report continuously against a baseline year to provide a better perspective on overall progress.

Figure 12. Percentage of companies disclosing comparative data (giving year-on-year comparisons)



To date, only 20 of the companies surveyed have established and communicated a base year against which they monitor and report carbon performance (an improvement from 16 companies in FY 2010/11).

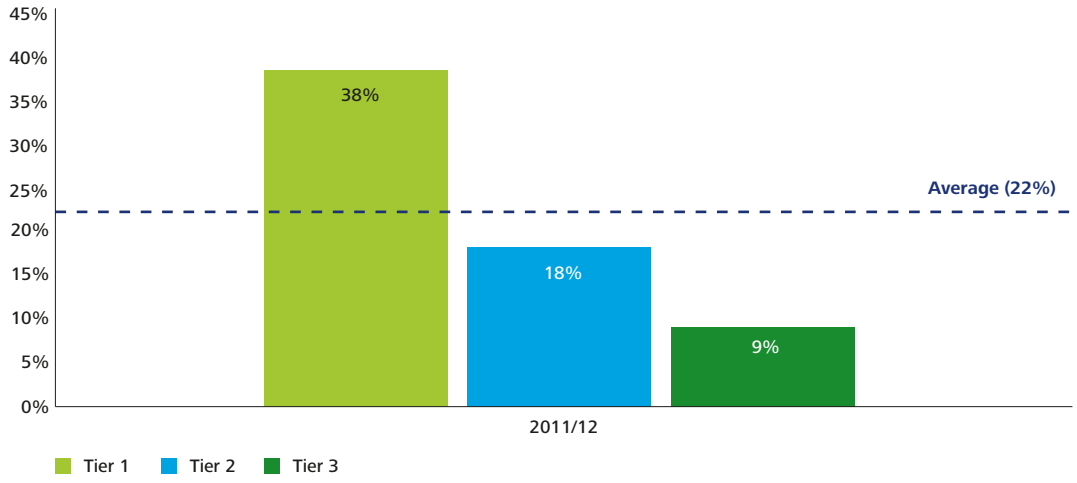
"With the exception of the first mandatory reporting year, you must repeat the emissions data disclosed in your previous report alongside information on emissions from your present year."

Companies Act 2006 (Strategic Report and Directors' Reports) Regulations 2013
Paragraph 18

Only 22% of companies currently report a decrease in absolute emissions

The carbon regulation will tighten up and, to an extent, standardise how UK quoted companies report GHG emissions. However, the ultimate underlying objective of the reporting requirement must be to encourage companies to take a strategic shift towards a lower carbon business model. At present, 78% of companies are not able to report a decrease in absolute emissions. Some report a relative reduction. With regulated reporting stakeholders will be able to see how well companies are decoupling growth from carbon intensity and whether they are achieving cuts in emissions.

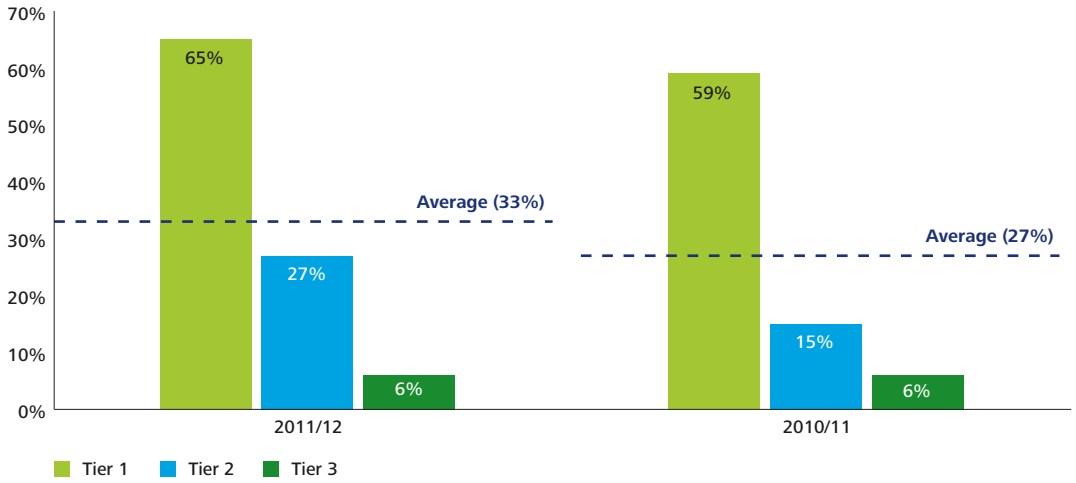
Figure 13. Percentage of companies reporting a decrease in absolute emissions from FY 2010/11 to FY 2011/12



A third of UK listed companies disclose carbon reduction targets

33 of the companies providing carbon information commit, quantitatively or qualitatively, to a reduction in GHG emissions (see Figure 14). 29 of these (9 of which are not in tier 1), provide a clear quantitative target for carbon reduction.

Figure 14. Percentage of companies disclosing a carbon reduction target



In respect of those not disclosing carbon targets, we expect that these include a mix of companies who have either yet to define goals or have set reduction targets internally but are not yet in a position to publish these externally, for example, due to concerns over data quality.

Of the 33 companies that express a commitment to a reduction in emissions, 16 set an absolute target and 10 a relative target, i.e. expressed as a function of £m revenue, number of employees or production output). Three companies set both an absolute and relative target.

Companies are not required by law to report on targets for reducing emissions. However, with the exception of the first year, companies will be required to include the emissions information for the comparative period. Companies may wish to consider providing more granular trend data reporting progress against set targets and over a longer period to give stakeholders a clear perspective on the direction of travel. Companies without targets should consider setting some now. Those with targets already in place may wish to consider how to demonstrate more clearly, through the data they are now required to report, progress towards their goal – it is likely that this will become a requirement of European law over the next few years.

Purchased carbon reductions ('carbon offsets') remain relatively unpopular amongst UK listed companies

9 of the 100 companies surveyed disclosed that they had purchased carbon credits or offsets (unchanged from 2010/11). Disclosure around offsetting was mainly though narrative commentary rather than through numerical data on the volume of offsets purchased. It was not possible to conclude whether offsetting is on the increase or decrease and it is not clear how prevalent offsetting is as a means to a reduced footprint and achieving reduction targets. The regulation will require emissions gross of any offsets to be disclosed.

"Current levels of ambition demonstrated by target setting are not sufficient."

CDP Carbon Action Initiative 2011

"You should list separately external GHG reduction activities, which should not be accounted for in your reported gross CO_2e tonne figure, and provide a net CO_2e tonne figure."

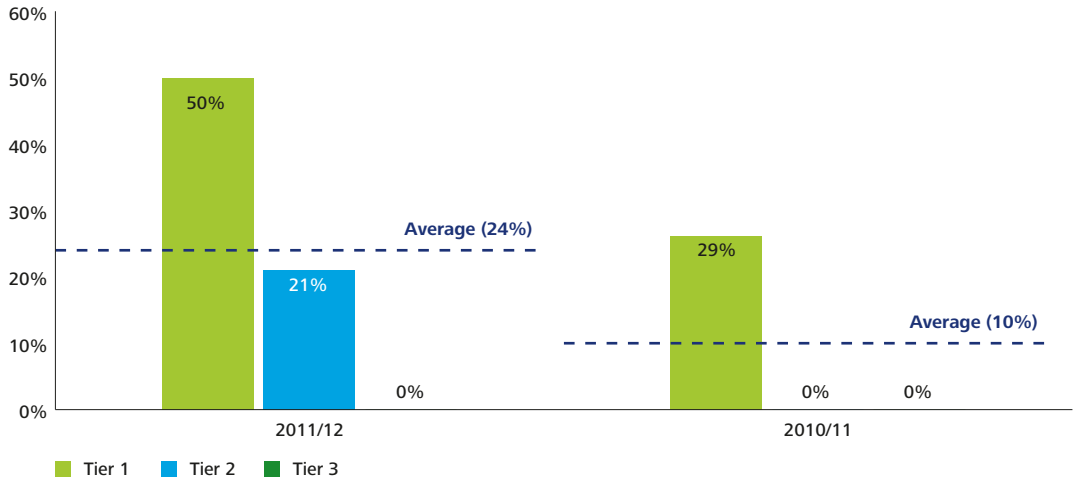
Companies Act 2006 (Strategic Report and Directors' Reports) Regulations 2013
Paragraph 18

Assurance and verification

Fewer than a quarter of UK companies have had their carbon data verified or assured by a third party

Our survey highlights that relatively few of the 100 UK listed companies surveyed currently have their carbon data verified and/or assured by a third party. 24 disclosed third party validation. These 24 companies represented 50% of Tier 1 and 21% of Tier 2 companies sampled (see Figure 15). None in the third tier mentioned assurance or verification.

Figure 15. Percentage of companies with carbon data verified and/or assured by a third party



The carbon reporting regulation does not require third party assurance or verification of the carbon footprint data. The involvement of the financial statements' auditor is limited to considering whether information in the directors' report (which would include carbon reporting) is inconsistent with the financial statements or apparently misstated. They do not have to go looking for errors in carbon reporting, nor actively check that it is right, but if they become aware of an inconsistency with the financial statements during their audit (for example if they audit energy expenses which shows increased usage but note a reduction in the emissions disclosure) they must report on this by exception in their audit report.

Although there has been an uptake in external verification and/or assurance of carbon data from an average of 10% in 2010/11, this is still a low percentage of companies. Regulated carbon disclosures in the Directors' Report will likely result in a greater number of companies choosing external verification or assurance of their data to provide directors with the confidence that the figures they are reporting are materially correct.

We note that assurance statements have become clearer about the scope of information and indicators/parameters subject to assurance, which will be a welcome development for stakeholders.

"Assurance and verification of reported sustainability and environmental data is a component of a responsible reporting approach. There is a reputational risk in disclosing misleading data and assurance provides a check on the value and authenticity of the data in the public domain."

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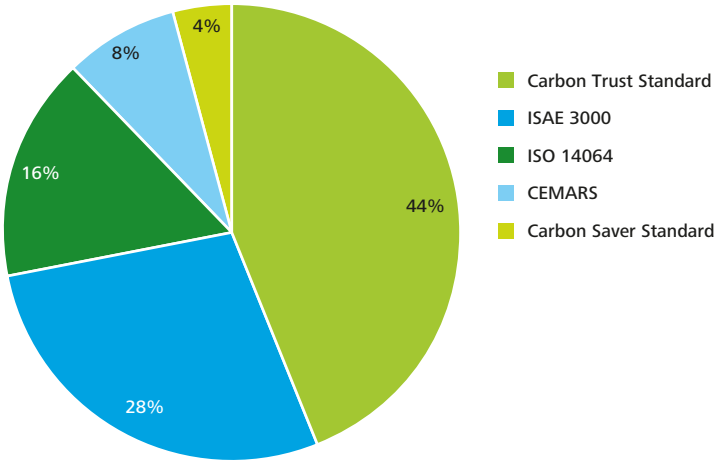
The main certification standard currently used for external verification and/or assurance is the Carbon Trust Standard. 44% of those providing assurance details noted the use of this standard. 28% cited ISAE 3000[11]. 14% referred to ISO 14064, which standard, in fact, forms part of the methodology behind the Carbon Trust Standard, CEMARS and the Carbon Saver Standard.CEMARS[12] and the Carbon Saver Standard[13] were also referenced, constituting 8% and 4% respectively.

Figure 16. Carbon verification and/or assurance standards used by reporting companies in FY 2011/12 reports



Whether there will be an increase in assurance and/or verification will be driven by the Board of Directors of quoted companies and the significance, in their view, of the requirement for this information to be included in the Directors' Report. Directors will want to consider whether:

- Management have put in place quality control procedures. Typically, carbon reporting has been a more manual process involving collating data from local operations and aggregating it using spreadsheets. This is to be expected as the highly sophisticated control frameworks used for financial reporting have evolved over many years whereas carbon reporting is in its infancy.

- Internal assurance (for example, work by internal audit) on carbon reporting is needed. For example, where new systems have been put in place at local operations, internal audit might be asked to check the operation of those controls as part of their normal visits to test financial controls.

- External assurance or verification would give them confidence that the numbers they are reporting are materially correct, and enhance users' confidence in the reported data as well.

11 International Standard on Assurance Engagements (ISAE) 3000 *Assurance Engagements Other Than Audits or Reviews of Historical Financial Information*

12 The Certified Emissions Measurement And Reduction Scheme (CEMARS) certification: http://www.carbonzero.co.nz/cemars/

13 http://www.carbonsaver.org/pages/Standards.php

Appendix

GHG Emissions Statement – Good practice example

COMPANY A LTD – GREENHOUSE GAS EMISSIONS STATEMENT (GOOD PRACTICE EXAMPLE)	
Company to provide a narrative, explaining the technical terms used in the GHG emissions statement, the overall approach and methodology, level of assurance achieved and making clear any material omissions.	
Assessment Parameters	
Baseline year	FY 2013
Consolidation approach	Operational control/Financial control/equity share (companies need to evaluate and choose one approach)
Boundary summary	All entities and all facilities either owned or under operational control were included
Consistency with the financial statements	The only variation is that 105 leased properties, under operational control, are included in scope 1 and 2 data, all scope 3 emissions are off-balance sheet emissions
Emission factor data source	Defra (May 2013)
Assessment methology	The Greenhouse Gas Protocol and ISO 14064-1 (2006)
Materiality threshold	Materiality was set at group level at 5%, with all facilities estimated to contribute >1% of total emissions included
Intensity ratio	Emissions per £m revenue
Target	20% reduction in absolute gross emissions by 2023, from a FY 2013 baseline
Independent assurance/verification	Limited assurance provided by Deloitte LLP over all scope 1 and 2 GHG emission data

Greenhouse Gas Emission Source	2013		2014		Change from previous year	
	(tCO_2e)	(tCO_2e/£m)	(tCO_2e)	(tCO_2e/£m)	(tCO_2e)	(tCO_2e/£m)
Scope 1	**10,000**	**10.00**	**10,114.00**	**6.74**	**1.14%**	**-32.57%**
Fuel combustion	5,000	5.00	5,200.00	3.47	4.00%	-30.67%
Vehicle fleet	4,500	4.50	4,410.00	2.94	-2.00%	-34.67%
Fugitive emissions	300	0.30	306.00	0.20	2.00%	-32.00%
Process emissions	200	0.20	198.00	0.13	-1.00%	-34.00%
Scope 2	**40,000**	**40.00**	**42,632.00**	**28.42**	**6.58%**	**-28.95%**
Purchased electricity	38,000	38.00	40,660.00	27.11	7.00%	-28.67%
Purchased heat	1,600	1.60	1,632.00	1.09	2.00%	-32.00%
Purchased steam	400	0.40	340.00	0.23	-15.00%	-43.33%
Statutory total (Scope 1 & 2)*	**50,000**	**50.00**	**52,746**	**35.16**	**7.72%**	**-61.52%**
Scope 3	**50,000**	**50.00**	**49,810**	**33.21**	**-0.38%**	**-33.59%**
Upstream scope 3 emissions	**25,000**	**25.00**	**25,250**	**16.83**	**1.00%**	**-32.67%**
Purchased goods and services	3,000	3.00	3,120	2.08	4.00%	-30.67%
Capital goods	1,000	1.00	980	0.65	-2.00%	-34.67%
Fuel- and energy- related activities	2,000	2.00	2,040	1.36	2.00%	-32.00%
Upstream transport and distribution	10,000	10.00	9,900	6.60	-1.00%	-34.00%
Waste generated in operations	6,000	6.00	6,240	4.16	4.00%	-30.67%
Business travel	Excluded	–	–	–	–	–
Employee commuting	Excluded	–	–	–	–	–
Upstream leased assets	3,000	3.00	2,970	1.98	-1.00%	-34.00%
Downstream scope 3 emissions	**25,000**	**25.00**	**24,560**	**16.37**	**-1.76%**	**-34.51%**
Downstream transport and distribution	15,000	15.00	14,700	9.80	-2.00%	-34.67%
Processing of sold products	N/A	–	–	–	–	–
Use of sold products	5,000	5.00	4,950	3.30	-1.00%	-34.00%
End-of-life treatment of sold products	1,000	1.00	980	0.65	-2.00%	-34.67%
Downstream leased assets	3,000	3.00	2,940	1.96	-2.00%	-34.67%
Franchises	Excluded	–	–	–	–	–
Investments	1,000	1.00	990	0.66	-1.00%	-34.00%
Biogenic emissions	**N/A**	**–**	**–**	**–**	**–**	**–**
Total Gross Emissions	**100,000**	**100.00**	**102,556**	**68.37**	**2.56%**	**-31.63%**
Exported renewable electricity	(3,000)	-2.00	(4,000)	-2.67	33.33%	33.33%
Certified Emission Reductions (CERS)	(2,000)	-1.33	(3,000)	-2.00	50.00%	50.00%
Total Net Emissions	**95,000**	**95.00**	**95,556**	**63.70**	**0.59%**	**-32.94%**

* Statutory carbon reporting disclosures required by Companies Act 2006

GHG Emissions Statement – 2013 carbon regulation minimum requirements example

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Company to provide a narrative, explaining the technical terms used in the GHG emissions statement, the overall approach and methodology, level of assurance achieved and making clear any material omissions.	
Assessment Parameters	
Baseline year	FY 2013
Consolidation approach	Operational control/Financial control/equity share (companies need to evaluate and choose one approach)
Boundary summary	All entities and all facilities either owned or under operational control were included
Consistency with the financial statements	The only variation is that 105 leased properties, under operational control, are included in scope 1 and 2 data, all scope 3 emissions are off-balance sheet emissions
Assessment methology	Greenhouse Gas Protocol and ISO 14064-1 (2006)
Intensity ratio	Emissions per £m turnover

Greenhouse Gas Emission Source	2013		2014	
	(tCO_2e)	(tCO_2e/£m)	(tCO_2e)	(tCO_2e/£m)
Scope 1	10,000	10.00	10,114.00	6.74
Scope 2	40,000	40.00	42,632.00	28.42
Statutory total (Scope 1 & 2)*	**50,000**	**50.00**	**52,746**	**35.16**
* Statutory carbon reporting disclosures required by Companies Act 2006				

Key points

These two illustrative GHG emissions statements draw on existing approaches to GHG reporting. They reflect features of the new legislation and other available guidance, for example the GHG Protocol's Scope 3 Standard[14].

Features of a good practice disclosure:

- Sources – a breakdown of the key sources of emissions (e.g. electricity or vehicles).
- A defined materiality threshold – giving confidence by defining the size of omissions.
- Target(s) – disclosure of the company reduction target, and % reduction achieved against a set baseline.
- Verification/assurance – details of the level of assurance gained by an independent third party.
- Scope 3 emissions – a full breakdown of all upstream and downstream emission sources, aligned to the GHG Protocol Scope 3 standard.
- Gross / net emissions – clarity between your total emissions (gross) and the emissions after deductions for e.g. export of renewable electricity.
- Exclusions/not applicable – clarity on which emission sources were actively excluded, as opposed to not being relevant for the reporting company.

A company narrative alongside these tables would be expected to give context and further elaboration as necessary, particularly given the requirement to discuss environmental impact in the strategic report.

14 The WRI / WBCSD Greenhouse Gas Protocol: Corporate Value Chain (Scope 3) Accounting and Reporting Standard (2011)

Glossary

Term	Explanation
Baseline	The "baseline" is the point from which an organisation measures its performance and is used for comparisons. For example, in Phase 1 of the CRC, the baseline for an organisation's emissions is the total emissions released between 1 January 2008 and 31 December 2008.
Carbon Dioxide Equivalent ("CO_2e")	Carbon Dioxide Equivalent is a unit used in the measurement of global warming. It is calculated by assessing the global warming potential of a given type and amount of Greenhouse Gas by comparing it to an equivalent amount of Carbon Dioxide. For example Methane is 25 CO_2e; therefore it has 25 times the Global Warming Potential of carbon dioxide.
Carbon Disclosure Project ("CDP")	The Carbon Disclosure Project is an independent not-for-profit organisation, launched in 2000, which obtains and publishes carbon information reported on a voluntary basis from more than 3,000 companies internationally.
Carbon footprint	A carbon footprint is the global warming impact of an individual, family, organisation or country's activities in terms of the amount of Greenhouse Gases these activities produce. It is measured in units of carbon dioxide, or its equivalent for other Greenhouse Gases. Hence 'carbon' has become the term used to describe the carbon equivalent of wider Greenhouse Gas emissions.
Carbon offset	Carbon offsets are defined in Defra's guidance as "discrete GHG reductions, in the form of carbon credits, used to compensate for (i.e. offset) specific and accurately measured GHG emissions elsewhere, for example to meet a voluntary GHG target or cap. Carbon credits must represent a genuine, additional carbon saving, and are calculated relative to a baseline that represents a hypothetical scenario for what emissions would have been in the absence of the mitigation project that generates the credits. To avoid double counting, the reduction giving rise to the credit must occur at sources or sinks not included in the target or cap for which it is used."
Carbon Saver Standard	The Carbon Saver Standard™ rewards organisations for their efforts to reduce carbon emissions. The Environment Agency approved the Carbon Saver Standard™ as an equivalent scheme to the Carbon Trust Standard in 2010.
Carbon Trust Standard	The Carbon Trust Standard was developed by the Carbon Trust to encourage good practice in carbon measurement, management and reduction by businesses and public sector organisations. It was launched in June 2008. It builds on other existing international standards for the measurement of corporate carbon emissions, such as Greenhouse Gas Protocol and ISO 14064-1.
CEMARS	The Certified Emissions Measurement and Reduction Scheme (CEMARS) certification was developed for large organisations or large emitting industries where offsetting was not a viable option or they wished to take a measured approach and further gauge the cost/benefit of positioning their organisation and products/services in the carbon neutral market space. The methodology builds on the Greenhouse Gas Protocol and ISO 14064-1.
CRC Energy Efficiency Scheme ("CRC")	CRC is a mandatory emissions trading scheme in the UK that applies to organisations with half hourly metered electricity consumption greater than 6,000 MWh in 2008. It came into effect from April 2010 and it covers approximately 4,000 UK organisations, both private and public sector, and is designed to promote energy efficiency. From April 2012 participants started to report their UK energy use annually – with the first annual report being published in July 2011 – and bought allowances from the Government to cover their UK carbon emissions. Allowances are at a fixed price of £12 per tonne of CO2. An annual performance league table showing relative reduction in energy use is also published. In June 2011 the Government announced its initial proposals to simplify the scheme. The related government Order is intended to come into force on 1 June 2013. It is expected that the majority of the proposals will be introduced at the start of the second phase, in 2014/15.
Defra	Department for Environment, Food and Rural Affairs (UK Government department).
EU ETS	European Union Emissions Trading Scheme. The EU ETS is a mandatory market-based 'cap and trade' system for Greenhouse Gases adopted by EU member states in January 2005. More than 11,000 energy intensive installations must participate in the EU ETS. If a company exceeds its European Union Allowance, it must pay a fine or buy credits from another business with credits to spare, potentially from the Clean Development Mechanism (which enables developing countries to participate).
Formal reporting	For the purposes for this survey, formal reporting is defined as carbon information presented either within a company's annual report or in a Corporate Responsibility (CR) or equivalent report (i.e. does not include information disclosed only in webpages on a company's website).
Greenhouse Gases ("GHGs")	Greenhouse Gases are gases present in the atmosphere, which reduce the loss of heat from the planet into space such that temperatures on the planet are increased, through the Greenhouse Effect. While essential for maintaining the temperature of a planet, Greenhouse Gases can raise temperature to lethal levels if too many are present.

Term	Explanation
GHG Protocol	The GHG Protocol is the accounting and reporting standard for GHG emissions and is comprised of the GHG Protocol Corporate Accounting and Reporting Standard and the GHG Protocol Project Quantification Standard. The Protocol was developed by a multi-stakeholder collaboration convened by the World Resources Institute and the World Business Council for Sustainable Development. It was first published in 2001 and revised in 2004.
Integrated Reporting	<IR> is a process that results in communication, most visibly a periodic "integrated report", about value creation over time. An integrated report is a concise communication about how an organization's strategy, governance, performance and prospects lead to the creation of value over the short, medium and long term.
ISAE 3000	The International Standard on Assurance Engagements ("ISAE") 3000, *Assurance engagements other than audits or reviews of historical financial information*, was initially issued by the International Federation of Accountants in June 2000 and revised in 2003.
ISO 14064-1	The International Organisation for Standardisation (ISO) 14064-1 standard provides guidance at the organisation level for the quantification and reporting of GHG emissions and removals.
Kyoto Protocol	This protocol to the United Nations Framework Convention on Climate Change ("UNFCCC" or "FCCC") establishes legally binding commitments for the reduction of GHG emissions. It came into force in 2005 and committed signatories to a reduction in GHG emissions to between 20-24 billion tonnes by 2050 (about 50-60% below 1990 global levels). Expired in 2012.
Scopes 1, 2 and 3 emissions	The Defra guidance defines scopes 1, 2 and 3 emissions as follows: • Scope 1: Emissions from sources that are owned or controlled by the reporting company. Also known as direct emissions. • Scope 2: Emissions that are a consequence of the operations of the reporting company, but occur from sources owned or controlled by another company, e.g. as a consequence of the import of electricity, heat, cooling or steam. Also known as indirect emissions or energy indirect emissions. • Scope 3: Emissions that are a consequence of all other activities which release emissions into the atmosphere as a consequence of your actions, which occur at sources which you do not own or control and which are not classed as Scope 2 emissions. Also known as other indirect emissions.
UK Climate Change Act 2008	The world's first long term legally binding framework to tackle the dangers of climate change. The Climate Change Bill was introduced into Parliament on 14 November 2007 and became law on 26 November 2008.

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