

# Carbon management: reporting

Guidance for public sector organisations



Growth that doesn't cost the earth

A programme from



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## About this document

Resource Efficient Scotland has produced a suite of guidance resources, prepared and written by specialist carbon management consultants, to assist public sector organisations in developing, revising and maintaining their Carbon Management Plans, activities and supporting documentation.

This guidance is currently made up of a series of four inter-related documents, on the following themes:

- Organisational boundaries.
- Setting targets.
- Reporting.
- Governance and accountability.

These documents can each be read on their own, though there are connections between them – for example, the guidance on organisational boundaries has implications for target setting and for reporting (and vice versa). You will find references across the guidance to where more detailed information on particular points may be found in one of the other documents in the series.

## Reporting for Carbon Management

### 1 Reporting methods and frameworks

#### 1.1 The Greenhouse Gas Protocol

**Almost all carbon reporting frameworks are built around the Greenhouse Gas (GHG) Protocol developed by the World Business Council for Sustainable Development and the World Resources Institute. The UK Government Defra guidance, Global Reporting Initiative and the Carbon Disclosure Project reporting guidance are all built on the GHG Protocol methodology. This in turn is heavily based on the principles developed in financial accounting and reporting.**

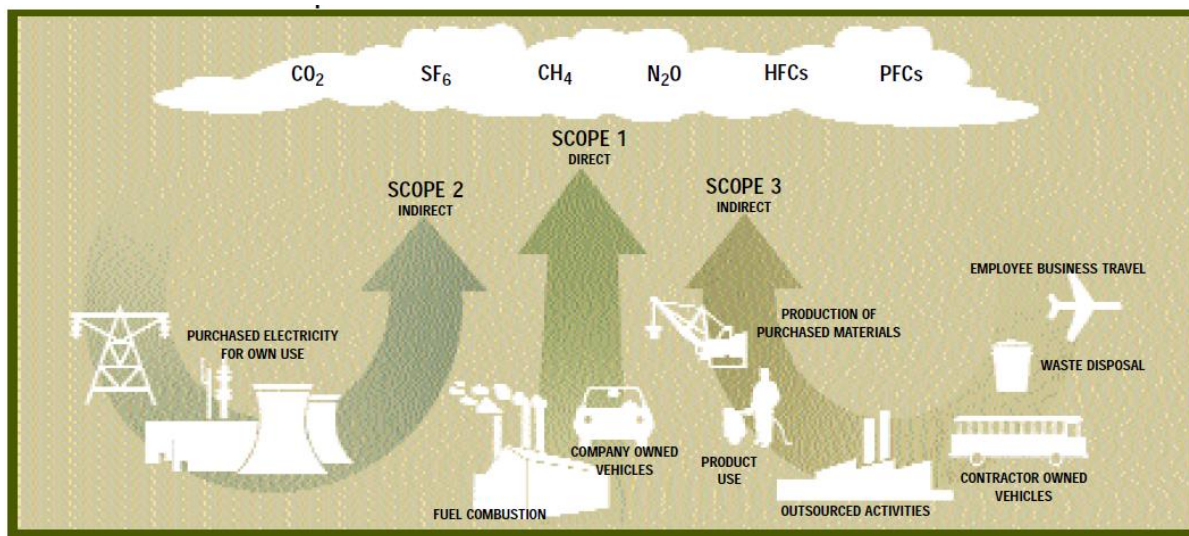
In the same way as with financial reporting, a standard methodology is needed to ensure that reported data is comparable between organisations and over time, materially complete, transparent, accurate and relevant for users. A reporting framework does this by prescribing a standard taxonomy, definitions, materiality thresholds, recognition and measurement standards, and reporting format.



The GHG Protocol covers the accounting and reporting of the six greenhouse gases covered by the Kyoto Protocol - carbon dioxide (CO<sub>2</sub>), methane (CH<sub>4</sub>), nitrous oxide (N<sub>2</sub>O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulphur hexafluoride (SF<sub>6</sub>). However, the currency used is tonnes of CO<sub>2</sub>, meaning that all the other greenhouse gases can be stated in **CO<sub>2</sub> equivalent terms** – for example one tonne of methane is equivalent to about 21 tonnes of CO<sub>2</sub>. This is often written as CO<sub>2</sub>e.

The overall classification used by the GHG Protocol methodology is shown in Figure 1 below:

**Figure 1: GHG Protocol methodology of scopes 1, 2 & 3<sup>1</sup>**



### 1.1.1 Understanding scopes 1, 2 & 3

The six main greenhouse gases are reported in carbon equivalent terms under three scopes:

- **Scope 1 emissions**, or direct emissions, refer to emissions released directly from buildings or assets owned by the organisation in question. This would include emissions from gas, oil, coal or other fuels burnt in boilers; emissions from company owned vehicles; and emissions from incinerators owned and operated by the organisation. It would also include emissions of so-called fugitive gases: emissions of GHGs from pressurised equipment due to leaks and other unintended releases. For most public sector organisations this would most likely only be in the form of leaks of CFC refrigerant gases (which are GHGs) from older refrigeration equipment.
- **Scope 2 emissions** (which can be categorised as 'energy indirect' emissions) are from heat, steam and electricity<sup>2</sup> purchased by the organisation for use in buildings or assets that it owns and controls.
- **Scope 3 emissions** (other indirect emissions) are a consequence of your organisation's actions, but are different in that they do not arise from assets owned and controlled by the organisation. They do, however, result indirectly from the organisation's activities in some way. These emissions occur at sources which you do not own or control and which are not already covered under the scope 2 classification. Examples include: travel for business by employees commuting (the organisation does not own the cars, trains, aircraft, etc. that employees travel in, though this travel is directly related to the organisation and its activities); and goods

<sup>1</sup> Note that the latest UK Government Defra guidelines (2013) make a small adjustment to the illustration shown in Figure 1, in that they now classify emissions associated with the losses in transmission and distribution of purchased electricity as scope 3 emissions. The vast majority of emissions associated with purchased electricity (the emissions at point of electricity generation) do, however, continue to be classified as scope 2.

<sup>2</sup> As noted previously, emissions associated with the losses in transmission and distribution of your purchased electricity should now be classified as scope 3 emissions, though the vast majority of emissions associated with your purchased electricity continue to be classified as scope 2.

and services purchased by the organisation (emissions arise from factories or buildings owned and operated by suppliers; yet a share of these emissions result from the purchasing organisation's activities in that they are creating the demand that leads to suppliers' activity, which in turn generates emissions).

These scopes do result in a fair amount of confusion – one of the key things to understand is that the scopes overlap when more than one organisation is considered (for example all your organisation's scope 3 emissions are also other organisations' scope 1 and 2 emissions).

When reporting carbon emissions, ensure that you:

- provide detail on the scope of emissions sources considered in measuring the emissions baseline.
- State which emissions factors were used in the analysis (see below).
- List out which scope areas you have included, which you have excluded, with clear and justifiable reasons. Highlight whether you are intending to revise your scope in later years to bring in other areas as data becomes available or as current targets are achieved. It is usual to include all scope 1 and 2 emissions as a minimum.

## 1.2 Carbon reporting guidance

Whilst the GHG Protocol is the overarching framework used internationally, there is a wide range of national and specialist guidance on carbon and sustainability reporting from other organisations. Carbon reporting is not yet as mature as financial reporting, and no one organisation is responsible for producing guidance. Some useful guides we would draw your attention to are listed below – it is a bewildering array, but the guidance is all built on the GHG Protocol. The Defra guidance is of greatest relevance to UK public sector bodies:

- the [environmental reporting guidelines](#) produced by Defra. These build on the GHG Protocol methodology and expand on this brief guide
- the [HMT Financial Reporting Manual](#) for public sector bodies contains some guidance on sustainability reporting
- The UK CRC Energy Efficiency Scheme mandates reporting and disclosure of carbon emissions from electricity and gas for larger organisations. Guidance on this is available from the [Environment Agency](#).
- the [ICAEW<sup>3</sup>/ Environment Agency guide](#) to environmental issues and annual financial reporting (concerned with the impact of carbon on the financial statements rather than with carbon reporting itself)
- the [guidance from the International Standards Organisation \(ISO\)](#) on quantification and reporting on GHG emissions and removals (paid for)
- the Carbon Disclosure Project, a body encouraging large organisations to report on carbon, incorporating the [Climate Disclosure Standards Board](#), an international organisation that sets standards for the disclosure of carbon and climate information via corporate reporting, building on existing standards such as GHG Protocol
- [Scotland's Climate Change Declaration](#), a commitment by Local Authorities to mitigate their impact on climate



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<sup>3</sup> The Institute of Chartered Accountants in England and Wales

change by reducing emissions of Greenhouse gases and to issue an annual report detailing their progress.

- the Centre for Sustainability Accounting, which focusses particularly on the reporting of scope 3 and procurement emissions
- the integrated reporting council, an international body promoting better reporting of non-financial quantities concerned with organisational performance, including carbon and sustainability.

## 2 CARBON CONVERSION FACTORS

The data collected by organisations to report on the scopes of carbon impact defined by the GHG Protocol are not generally recorded in units of carbon when in their original or raw form. Instead, organisations are likely to have data in the form of kWh of energy consumption, litres of fuel burned, distance travelled in vehicles, volume of gas or oil burned, and so on. When considering scope 3 emissions, the range of units can be even wider, including pounds (£) spent on different procurement categories.

It is therefore necessary to carry out conversions in order to get from these units in to tonnes of carbon equivalent. In some cases (such as for energy consumption data) this is typically a one-step process, apply what are known as conversion factors. In other cases there is more than one step involved – for example, you may have raw data on waste which tells you how many bags of waste were disposed of: the first step then would be to estimate what this represents in kg (i.e. estimate how many kgs of waste per bag, multiplied by the number of bags), then a conversion factor may be applied to convert from kgs of waste to the equivalent carbon emissions associated with this mass of waste.

To some people this initially appears to be one of the more complex elements of carbon reporting and accounting, though once you are familiar with the principles and have had some practice following a basic and systematic methodology and applying the arithmetic involved it is actually a relatively straightforward process. The most important resource for negotiating this is the UK Government (Defra) guidance on UK carbon conversion factors at <http://www.ukconversionfactorscarbonsmart.co.uk/>. This website contains all of the factors you will need to report scope 1 and 2 emissions which are material for your organisation, and many factors for different types of scope 3 emissions. The Defra factors are updated once a year, as factors can change over time (for example the carbon emissions per kWh of grid electricity generated changes continually depending on the power generation mix in the grid – more wind or nuclear power will lower the factor, while more coal fired electricity generation will raise it).

Ideally you would report your emissions using the emissions factors relating to the year in which the emissions occurred. However, some organisations stick with the factors used in their baseline year, so that the impact of their own abatement activities is clearer. Whichever you do, it is vital to **state which factors were used and the rationale for using them.**



## 3 BASELINING

It is impossible to measure change or improvement without establishing a baseline measure against which performance can be measured. The baseline will be the CO<sub>2</sub>e emissions for a full year (calendar or financial). Typically this will be the last full year for which you have good information (though you may have reasons to choose a prior year of full data if that year has particular significance, e.g. some larger organisations may be looking to tie their baseline to the baseline for their CRC reporting – see note below; or you may wish to use a baseline year which is consistent with the baseline year used by other similar public sector organisations against which your organisation is likely to be compared regularly – though in this case be careful to ensure that you do have robust information to compile a baseline of that year). Emissions reductions can then be assessed as a % of the baseline with a target reduction usually being set as “an xx% reduction in annual emissions by year y”. Five years is often a good period over which to set a target – long enough to achieve action, short enough to plan for – but this will vary according to your organisation.

**State explicitly the period your baseline refers to** and record, in your CMP and any relevant supporting documentation, the source of your baseline data – this will make it easier to revisit when you need to review it. (It is also worth noting that many public bodies will fall within the reporting or compliance requirements of the CRC Energy Efficiency Scheme. The CRC scheme sets a baseline year of the 2008 calendar year, so be careful to clearly document where your CMP baseline year is not the same as the CRC baseline).

**Make clear what carbon conversion emissions factors you have used**, inserting a table in your CMP and copying in the relevant factors from the Defra emission factor guidance. This establishes an audit trail for your calculations.

**Make clear any assumptions made** (e.g. treatment of green electricity, weather correction) and clearly list out the data sources, whether direct or indirect and highlight any issues with data quality.

**Record baseline data using the three scopes from the GHG Protocol.** It is sensible to break down all material emissions areas within this – for example, where possible, by department, or by building. However, bear in mind your audience and keep the charts simple and accessible. Explain clearly what each chart or table used shows.

In order to detail your emissions baseline it is essential to define and communicate the organisational boundary, so that it is clear what you are reporting and how to gather data in future years to compare to your baseline. Please refer to the separate guidance document in this series on *Organisational Boundaries*.

The records you keep and spreadsheets you use at this stage (and in your final CMP) should pass a ‘loss of manpower’ test, i.e. if the person(s) who do the work on calculating your organisation’s carbon footprint suddenly leave the organisation, would it be possible for someone else to come in and work out what has been done to date and how to continue doing it? Or would any new person(s) picking things up find they did not have enough insight available in written records / spreadsheets and would actually have to start the process all over again from scratch? This illustrates the importance and purpose of your supporting documentation and record keeping.

### 3.1 Data availability and quality

The critical factor for completing the emissions baseline is data – its availability and accuracy. Often, data are dispersed across a public body and is incomplete. When you are collecting data take the following into account:

- Establish responsibility for managing and carrying out baseline data compilation: you may well need access to a level of technical competence in order to gather data from meters or building management systems (BMS).
- Establish general levels of data quality in each area (e.g. buildings [by type of occupancy], service areas, fleet, travel, etc). For example, data availability and quality could be categorised as follows:
  - Little/none: not even utility costs are available. In this unlikely case there is likely to be a financial management issue and senior management or audit attention may be required.
  - Basic: total spend is available for building utility bills and transport, but no breakdown of actual energy consumption. There may be significant gaps in data as energy bills are often on an estimated consumption basis rather than a metered basis, especially for smaller organisations.
  - Moderate: utility spend is available with substantial detail such as consumption data for major buildings, together with travel. No major gaps in data identified.
  - Advanced: an energy data management database already exists, with full electronic consumption data for most buildings and other areas.

Decide on a method of compiling the data – usually a spreadsheet or energy management database. When data are received from the data owners, record everything in the spreadsheet/database, along with a record of the data source. Review the data for accuracy, completeness and comparability. There are many potential sources of error so analysis of this sort is essential to refine the data. You should not assume that the data you have received are accurate.

## 3.2 Sense checking and uncertainty assessment

It is sensible to sense check the baseline emissions profile you have constructed by comparing and benchmarking against similar organisations. This can help to flag up large errors. It may also be worth undertaking an uncertainty assessment. This will allow you to identify where your emissions estimations are inaccurate, promote continual improvement, and should be divulged in emissions reporting so that external stakeholders have an appreciation of the integrity of the information and will therefore be less likely to make misjudgements based on the information you have provided.



A common area of uncertainty is **how to account for bought in and sold heat and electricity**, for example if your organisation runs or buys from a district heating scheme or a CHP unit.

Annex D of Defra's Environmental Reporting Guidelines discusses this, see here: [https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/206392/pb\\_13944-env-reporting-guidance.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/206392/pb_13944-env-reporting-guidance.pdf). The main points are:

- **when the CHP is owned and operated by your organisation and your organisation uses all the electricity and heat that it produces**, there is no need for you to allocate the emissions from the CHP plant between the electricity and heat output in your reporting. This is because you are using all the outputs from the



CHP; so you would include all the direct flue emissions as scope 1 carbon for your organisation's footprint.

- **If you own and operate a CHP plant and sell some or all of the electricity and/or heat that you produce to others**, then emissions need to be allocated and the other party/parties to whom you are supplying are liable for some/all of the emissions. In non-CHP plant, it is an allocation of the total emissions in proportion to the amount of heat/steam that they buy. For a CHP plant, you need to allocate emissions between the heat and electricity first before allocating emissions between yourself and customers. A method for doing this can be found in Annex D of the Defra Guidelines, found at the link shown above.
- **If your organisation buys electricity from another organisation's CHP**, this counts under scope 2 emissions and is accounted for at grid average rate per Defra guidance. This is the case because the grid average rate already takes account of lower carbon electricity generation in the grid, so applying any lower conversion factors for CHP (or renewables) would "double count" the benefit of the lowered emissions.
- **Heat or steam purchased by your organisation (via a direct connection / district heating scheme)** is also treated under scope 2. You should contact the organisation that you buy from for help in calculating these emissions (and also refer to the Annex D instructions as mentioned above). If you cannot get information from the supplier of the heat/steam, there are some default factors to use in the Defra conversion factors (based on data from CHP schemes only).
- **Heat distribution losses:** Note that where the location of use of the heat is some distance from the point of production, there are distribution energy losses to consider. These losses are typically around 5% and should be factored into the calculation of overall GHG emissions. As with electricity, emissions due to losses in distribution are classed as scope 3 under the GHG Protocol.

## 4 REPORTING SCOPE 3 EMISSIONS

Scope 3 emissions arise from assets and operations that result from an organisation's activities, but that are not owned and controlled by the organisation. Many of these emissions are reported on a consumption basis (e.g. by looking at procurement spend) rather than a production basis (responsibility for emissions source). The biggest challenges to scope 3 reporting are:

1. Defining and explaining the boundary – it is not usually possible to cover all areas of scope 3, so there is a need to explain what is in scope, and what is not. Please see the separate guide on this.
2. Finding and gathering data – a lot of scope 3 data are hard to gather in a format that is easy to convert to tonnes of CO<sub>2</sub> equivalent, for example by applying a known Defra emissions factor. It is often necessary to use proxies. Many organisations find it useful to gather cost data at the same time, so that cost as well as carbon implications can be evaluated.

### 4.1 Gathering data

Likely types and sources of scope 3 emissions data include:

- Estimates of distances travelled, broken down by mode of travel (plane, car, train, etc.) by employees when undertaking business travel, or when commuting. Sometimes it is necessary to carry out a staff survey or do some sampling to source data for commuting. Data on business travel and costs can usually be sourced from staff expense claim systems.
- Amount spent on different categories of goods and services. These data will be sourced from the organisation's financial reporting systems and financial ledger. The next step is to apply spend proxy carbon conversion factors to the data – the biggest problem here is to categorise your organisations' spend in the same way as the spend proxy factors. The proxies themselves can be downloaded from <http://www.ukconversionfactorscarbonsmart.co.uk/> by clicking on the option to choose your own carbon conversion factors.
- Litres of water consumed and litres of water sent for waste treatment. Many organisations will be able to source the former from water meters/billing for purchased water, though may not have any data for the volume of waste water they send for treatment. If this is the case, then your volume of purchased water will be a reasonable proxy for the volume of waste water from your sites.
- Tonnes of waste produced, broken down by waste type (as the carbon implication of different types of waste varies)

## 5 CHANGES TO YOUR BASELINE

### 5.1 Projecting your baseline forward in time

With an emissions baseline already calculated, it is important to also understand how emissions levels from your organisation might change in the future under a "business as usual" scenario. It is important to identify any factors which may cause emissions to increase or decrease in the absence of action to cut carbon and energy use. For example, a programme to extend service areas, such as providing street lighting for new areas, would lead to greater electricity use and emissions. Therefore, your Local Authority would need to take such programmes into account when making forecasts and particularly when setting targets since, although otherwise beneficial, they have a negative carbon impact.

You will need to choose an appropriate time period over which to produce forecasts. This will depend on the nature of the information available together with the timescale for national carbon reduction targets. You may choose to look as far as 20 years ahead, although 5-10 years ahead is probably more practical. At this stage your projections should be based on a Business As Usual (BAU) scenario – i.e. what will happen if no particular Carbon Management initiatives are undertaken.

Forecasting can be carried out by assessing the carbon impact of future developments. This is likely to include the following:

- Expected growth (or shrinkage) in size of the organisation; extensions (or reductions) to the volume of certain services.
- The probable carbon impact of known initiatives/projects, such as major building refurbishments, mergers and unions, property purchase or disposal, procurement of

new IT equipment, changes in staff numbers, new ways of working such as home working or outsourcing.

- General national trends in energy use/carbon emissions, such as per capita office energy consumption or the carbon intensity of electricity generation (only relevant if in your reporting you are applying different Defra grid electricity conversion factors each year); or more specific information such as the energy consumption of new IT equipment or vehicles.

Inevitably there will be key policy decisions or uncertainties that have not yet been resolved, but will significantly affect future emissions, and it may be necessary to develop several scenarios to model the effects of different outcomes.

Developing projections can be a relatively involved process. It is most readily undertaken using spreadsheets constructed for the purpose. These should show a forecast for the CO<sub>2</sub> emissions from the baseline year projected 5-10 years ahead.

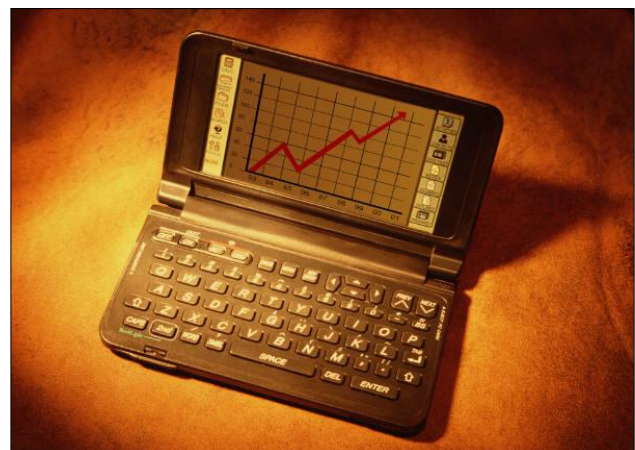
## 5.2 Recalculating your original baseline

Sometimes it can be helpful to recalculate your original baseline due to changes in the organisation and its activities. An example would be acquiring an existing set of operations from another organisation, or a merger of two organisations.

In general, it is better to avoid recalculating baselines unless the change is significant (more than about 10% of your total emissions scope). You should also **not** recalculate a baseline if your organisation has grown organically (for example by putting up new buildings), as this will lead to additional GHG emissions that need to be properly accounted for.

However, if you take over another organisation's buildings and operations (that existed at the time you set your baseline), and that leads to a material change in your carbon footprint, there may be a case for baseline recalculation. See [chapter 5 of the GHG Protocol<sup>4</sup>](#) for more information on this.

It can be useful to establish a set of organisational rules for when re-baselining should occur for your organisation (these should be along the lines of the points indicated above, with any appropriate local detail or adjustment), then clearly state these rules in your CMP.



Another external reason for re-baselining can be when the UK Government makes significant change to Defra conversion factors and associated methodologies, as has happen in the case of some of the factors in 2013. Where this is the case and you need to re-baseline you should read carefully on the guidance issued with new Defra conversion factors and you may find you also need some expert consultancy advice and support to help you through the changes.

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<sup>4</sup> <http://www.ghgprotocol.org/files/ghgp/public/ghg-protocol-revised.pdf>

## 6 MEASURING AND CLAIMING EMISSIONS REDUCTIONS

It is important to understand actions which count as carbon savings under government (Defra) guidance and actions that do not (e.g. why estate rationalisation can be counted; and why most 'green energy' tariffs cannot). A public sector organisation could reasonably adopt a 'strict' view of carbon accounting, if it needs to be confident of presenting a 'water-tight' case for any claim of emissions reduction.

That said, most organisations are essentially at the stage of gaining a better understanding of what their carbon footprint actually is and how they can move forward most effectively with making reductions to that footprint. There is detail in the section below with particular reference to renewable energy generation and green energy tariffs, which are often a source of confusion and debate as to whether they can or should help an organisation to claim reductions in its carbon footprint. This detail is provided as background information, for those who wish to delve a little deeper to understand some of the finer points of carbon accounting in this area, should it be relevant for your organisation.

### 6.1 Understanding what is driving your emissions reductions

A more general consideration for all organisations when looking at their carbon reporting is whether they can readily understand and respond to what is causing changes in their carbon footprint from one year to the next.

For example, if your reporting shows that there has been a 10% drop in emissions, you should be looking back through the numbers to understand what is driving this: it could be that, for example, 5 percentage points of the 10% reduction have been driven entirely by external changes, for example reductions in the carbon intensity of grid electricity (as conveyed by the Defra UK Electricity conversion factor). Perhaps 1 percentage point has come through from reductions in service provision by your organisation (relating to lower head count, for example); and, say, 3 percentage points of the reduction were attributable to implemented carbon reduction projects in your CMP (with the remaining 1 percentage point apparently not directly related to anything in particular - this is not uncommon and can relate to natural variations, e.g. the impact of weather patterns from one year to the next).



In the above scenario, your organisation may legitimately report a reduction of 10% in your carbon emissions, though it is equally important to recognise that you may well have been targeting and planning to achieve a 10% reduction solely through the implementation of carbon reduction projects in the organisation. So, while at headline level you appear to be making good progress towards achieving your targets, the underlying story gives cause for concern and suggests a need to re-examine your register of carbon reduction projects, their projected impact, the progress towards implementation and the true annualised impact of those projects which have been implemented.

### 6.2 Accounting for renewable electricity and 'green tariffs'

The electricity industry, the regulatory treatment of renewable energy within it, and the interaction with the UK's carbon emission reduction programme, is complex. However, some simple points of principle may be adhered to:

- From a strict regulatory accounting point of view, 'double counting' of any environmental benefit or emissions reduction benefit must be avoided.
- The imposition of taxes, obligations and trading mechanisms on parts of the electricity sector and on electricity consumers are all component parts of the UK's climate change programme. These are designed to deliver reductions in the UK's emissions of greenhouse gases in order to meet the country's international legal obligations under the Kyoto Protocol as well as the Climate Change Act targets. As a point of accounting principle, emissions reductions caused by such government action are therefore effectively 'counted towards' the UK's emissions reduction by the government.
- Within the general framework of rules and incentives created by government, it is important to be clear about which party may claim environmental 'goods' or 'benefits'. Renewable Obligation Certificates (ROCs), Levy Exemption Certificates (LECs), Tradable Emission Allowances and other tradable instruments are effectively legal rights to environmental goods. Only the party in possession of the legal right (i.e. the party that has purchased the instrument, or the government in the case of tradable rights surrendered under a regulatory regime) may claim the emission reduction or environmental benefit. Once an instrument is sold or ownership otherwise transfers, the party selling the instrument cannot therefore claim any environmental benefit.



Such a view precludes a body from claiming (in the context of calculating an emissions baseline or projection) any emissions reduction benefit from buying green electricity as long as the tradable instruments carrying the legal right to the emissions reduction (e.g. ROCs) are sold to or held by another party. The same would be true if renewable energy plant is installed and operated at your site(s) under any arrangement where the legal right to the emissions reduction (e.g. ROCs) are sold to or held by another party.

### 6.2.1 Renewable electricity generation

Where your organisation generates electricity from 'owned or controlled' renewable sources backed by Renewable Energy Guarantees of Origin (REGOs) within the UK:

- You should account for renewable electricity generated at zero emissions in Scope 1
- You should account for all electricity purchased for own consumption, whether purchased from the national grid or from a third party, at the Defra UK Electricity factor (irrespective of the source of the electricity)
- You may report an emissions reduction in your reported net CO<sub>2</sub>e figure for any renewable electricity that you have generated and exported to the national grid (or direct to a third party) at the Defra UK Electricity factor. The amount reported in this way should not exceed your actual electricity use.

Defra's UK-ETS guidelines gives the following definition of what can be described as 'renewable' :

- Electricity or heat produced on site from a renewable energy source;

- Electricity which is certified by the participant's supplier as being from eligible renewable energy sources and as being electricity which the supplier is not relying upon for the purpose of fulfilling any obligation imposed upon it by any enactment in relation to the generation of such electricity.
- By purchasing ROCs independently of the power that gave rise to their issue.

### 6.2.2 'Green tariff' electricity

On the basis outlined above, the regulatory position is therefore that the purchase of electricity under a **green tariff** cannot count as being zero or lower carbon for the purpose of establishing an emissions baseline, unless the supplier has retired all the ROCs, in which case it can be considered to be zero carbon (similarly, retiring some of the ROCs results in lower carbon, but not zero carbon).

In order to claim external recognition and accreditation for carbon emissions reductions, it is generally necessary to follow the Defra and GHG Protocol guidance on reductions that can and cannot be claimed. Schemes such as ISO 14001 and the Carbon Trust Standard adhere to this methodology.

## 7 REPORTING ON RISKS

Reporting on carbon and climate risks is likely to be relevant and useful for your organisation (and is, in effect, a requirement under the public bodies duties written in to the of the Climate Change (Scotland) Act 2009).

You should consult with those who are responsible for risk management and risk reporting more widely for your organisation. A decision will need to be made by your organisation as to whether it is best to combine reporting of risks associated with carbon and climate change within your carbon/CMP reporting or whether there are other more suitable risk reporting mechanisms and channels for the organisation to use. These risk assessments and calculations can be far reaching and contentious: as such, they are likely to require consideration by a wider group of people. These risks often extend beyond the actual corporate footprint for individual organisations. Such risks could include:

- Potential climate change impacts on the organisation and its work (such as new disease vectors, or greater flooding risk).
- Potential changes to regulation (increased carbon prices, or reduced generation incentives for example).
- Reputational risk (including public protest or direct action, e.g. by the student body at a college or university from perceived poor environmental performance).