

Gathering baseline data and setting targets

Creating a baseline and setting targets is a critical first step in being able to measure and report on the real impact of carbon reduction activities. While the data gathering process may seem like a daunting task at first, your carbon mentor can help you identify the most important pieces of data to include. To produce an effective baseline against which to measure future performance, it is useful to consider the principles below.

- 1) Completeness – ensure all relevant sources are included.
- 2) Consistency – use an approach which can be repeated effectively in future years.
- 3) Transparency – make sure the source of all data collected is entirely visible, stating all methodologies and assumptions.
- 4) Accuracy – ensure data are sufficiently accurate to ensure credibility of reported baseline.

Setting the boundaries of your baseline

Your carbon mentor can help you in tailoring the boundaries of your baseline in a way that makes the most sense for your organisation. If your organisation is very large or complex, it may be worth considering which departments and/or business units to include. It may be applicable to include all areas of the business in which there is equity share, reflecting an economic interest, or instead, you might only wish to include areas of the business where operational control exists. For example, a business that owns a property and leases it out might not wish to include that property, as it does not hold authority to introduce and implement carbon-reducing initiatives on the premises¹. The latter is a better reflection of commercial reality and is often a requirement in government reporting schemes.

In addition to selecting organisational boundaries, it is also important to select which operational boundaries to include within your baseline calculation. Some Greenhouse Gas (GHG) emission sources are direct and owned or controlled by your organisation. An example of a direct source is emissions from production processes used in a manufacturing plant. Other emission sources may be indirect, as a consequence of your organisation's business activities. An example of an indirect source is emissions from business related flights or other travel. Any such sources chosen should be relevant for your reporting requirements and business goals.

Once all activity data has been collected from within the chosen boundaries, a calculation approach will need to be applied. This is most commonly performed through documented emissions factors.

¹ Through the Better Buildings Partnership, Green500 members can enter into landlord-tenant partnerships that encourage joint efforts to reduce carbon emissions in shared property.

Which GHGs to include

Your organisation may wish to report on carbon dioxide alone or include the other six GHGs as defined in the Kyoto Protocol. Non-CO₂ GHG emissions may be comparatively very small but some have a global warming potential far greater than that of CO₂, and therefore could contribute significantly to your baseline.

Steps in setting targets

In order to introduce emission reduction targets effectively, the following steps should be taken:

- Obtain senior management commitment.
- Decide on target boundary, ie. which direct and indirect sources you will include/monitor, and for which business units.
- Choose target base year.
- Define the target completion date.

Determining the best type of target for your organisation

There are 3 main ways of setting targets, and each organisation should select the best type of target for its needs/purposes. The different types of targets include:

- 1) Targets based on historical records – Assigning a target percentage reduction based on previous years.
- 2) Targets based on key variables – Looking at performance against a particular variable, such as per unit activity or per degree day.
- 3) Identifying and minimising waste from individual contributions – Based on a bottom up approach, looking at specific improvement measures such as planned energy efficiency initiatives.

This article gives an overview of how to effectively gather baseline data and set targets. For further guidance, Green500 Members should contact their carbon mentors. More comprehensive guidance can also be found at the sources listed below.

References:

- GHG Protocol by the World Resources Institute (WRI) and the World Business Council for Sustainable Development (WBCSD).
<http://www.ghgprotocol.org/standards/corporate-standard>
- International Organization for Standardization, ISO14064
http://www.iso.org/iso/iso_catalogue/catalogue_tc/catalogue_detail.htm?csnumber=38381