

Carbon Disclosure Project

Verification of climate data



Content

Introduction	3
<i>The CDP Context</i>	3
<i>What is verification and assurance?</i>	4
<i>Overview of the process</i>	4
Why is verification important and how can it benefit a company?	5
<i>Meeting market demand</i>	5
<i>Improving external perceptions</i>	6
<i>Continued improvements: enhancing processes and gaining competitive advantage</i>	6
What does a company need to consider around verification?	8
<i>Data requirements</i>	8
<i>Resources required</i>	9
<i>Key components of verification</i>	9
<i>Streamlining the verification process</i>	10
<i>The use of standards</i>	11
<i>How can companies identify suitable verification service providers?</i>	12
Conclusion	13

Introduction

CDP gathers corporate climate data from over 3,000 companies globally. The disclosure process provides companies with insights into their systems, helping to identify risks and opportunities to their business. The reported data in turn allows data users, such as investors or large buying companies, to make informed investment and procurement decisions. Measurement and disclosure is a key first step for a company to take on the path from data collection to carbon management and reduction - if you don't measure, you can't manage. Third party verification and assurance of climate data forms a key next step in advancing a company along this path.

This paper will provide an insight into verification and assurance, why third party verification is important and how it can benefit companies, along with practical guidance on the topic.

The CDP context

CDP is committed to increasing the number of verified data submissions in its database. The organization encourages verification through its scoring methodology and now more than half of the companies responding within the Global 500 report sample verify their Scope 1 and Scope 2 data.

Due to its importance to data users and in order to increase the number of companies verifying their climate data, verification already achieves a high proportion of points in the CDP scoring for both disclosure and performance. In 2011, companies were required to have verified their Scope 1 and Scope 2 emissions data to be accepted into the Carbon Performance Leadership Index.

For 2012, CDP is providing further clarity for companies on what constitutes an acceptable verification process, to ensure that companies are being rewarded consistently for their efforts in achieving higher data quality. This will be included in the questionnaire consultation documentation available in September 2011.

Looking further ahead, CDP is launching a consultation alongside this white paper on a verification roadmap for the period 2013-2018. It sets out recommendations for companies to move from verification of their emissions data to that of a more comprehensive set of data points contained within a CDP disclosure (visit <https://www.cdproject.net/verification> to find out more).

Although the CDP questionnaire requests data on Scope 3 verification, this is not the subject of the verification roadmap or this white paper. This is due to the fact that the GHG Protocol team at the World Resources Institute (WRI) and the World Business Council for Sustainable Development (WBCSD) as well as the International Standards Organization (ISO) are all currently working on standards and protocols addressing this subject. CDP is therefore waiting for this process to be completed before developing any further guidance in this area.

What is verification and assurance?

The terms *verification* and *assurance* are both used to describe the process of checking climate data as well as related data collection and management systems.

Verification is defined as a systematic, independent and documented process for the evaluation of climate data against a set of predefined criteria. Whilst assurance can be used in the same context, it describes the result i.e. the degree of confidence that is provided in the data through the process and the provision of an assurance opinion.

The verification or assurance process is undertaken by an independent third party and examines:

- The system or model that forms the basis of a greenhouse gas (GHG) assertion – for example set boundaries or equipment calibration;
- The data and information included in an assertion – a factual and objective declaration made by a company.

Overview of the process

The verification process begins with the definition of goals, including the scope of the verification work and a set of criteria that will be verified against.

The outcome of the verification of both the system and data contained in an assertion is a verification statement, a formal written declaration. This statement reports on the findings of the process and includes an assurance opinion. This opinion offers interested parties a degree of confidence in the data, indicating its reliability. Different levels of assurance exist and these are defined by the standards that set out the approach and parameters of the verification process (see Chapter 3 for further details). These different levels often indicate the level of detail that the verification has covered and are typically distinguished by the phrasing of the opinion and the degree of confidence that the verifier has been able to glean from the process.



Why is verification important and how can it benefit a company?

Meeting market demand

Climate change related issues are becoming an increasingly important factor for many companies. Their management boards are becoming aware of the materiality of greenhouse gas emissions and that robust, complete and comparable greenhouse gas data is crucial. Demand for information is growing among employees, shareholders, regulators and customers to allow them to understand a company's strategy, risks and growth opportunities in a carbon restricted economy. Miscalculation or misjudgment in these areas has the potential to have serious repercussions on the long-term viability of an organization and how it is judged and valued by its multiple stakeholders.

Compliance with current and future regulation is a key benefit of verification. Market mechanisms such as the EU Emissions Trading Scheme (EU ETS), the Californian Air Resources Board, Tokyo's metropolitan trading scheme, or Australia's recently announced Clean Energy package are growing in numbers. These regulatory schemes depend on the integrity, robustness and quality of the reported GHG data and require companies to be accountable for the underlying emissions data. Verification enables an organization to submit and register independently verified annual GHG emissions and trade any surplus within trading schemes. It also demonstrates compliance against regulatory obligations, helping to avoid penalties and, where regulation is yet to be enacted, prepare organizations for future requirements.

Climate change issues are increasingly incorporated into day to day business decisions, driving the need for transparency in this area. The growing market demand for robust, complete and comparable data stems from the integration of climate and sustainability issues into organizational supply chain considerations and in the investment decisions of the finance sector.

“Increasingly, verification will become an important factor in our assessment of supplier responses to future CDP requests.”

- PepsiCo Inc. -

As global prospective buyers and institutional investors increasingly want proof of performance claims, verification is becoming a market access issue. Through an independent verification, companies can manage this potential risk inherent in the investment and procurement process.

“The analysis of companies for Socially Responsible Investment purposes is getting more and more fact-based, as reporting of environmental, social and governance data has become increasingly common. In the near future, verification of such data will gain importance, as the requirements regarding data reliability continue to increase.”

- Bank Sarasin & Co. Ltd -

Improving external perceptions

The climate change debate has moved past the stage of simply stating claims. External stakeholders, including customers, are wary of 'greenwash' and want proof of the claims made. Third party assurance of publicly reported declarations can boost credibility with external stakeholders and this is recognized through the CDP scoring methodology, and CDP indices, as well as the Dow Jones Sustainability Indexes.

“The external verification process was of particular importance to Embraer as it allowed the company to demonstrate the credibility of the organization to external stakeholders through independently verified and accurate data. In addition, Embraer was able to develop robust internal mechanisms for quantifying and reporting their GHG emissions in future.”

- Embraer -

Continued improvements: enhancing processes and gaining competitive advantage

Increasing reliability - In addition to the described external benefits, verification brings improvements to companies' internal processes. An independent verification process is able to bring objectivity and experience to the data review. It involves the evaluation of underlying systems that generate, monitor, collate and manage sustainability data, and thus provides an opportunity for an independent view of the effectiveness of such methods.

Identifying risks and opportunities - The evaluation can give reassurance on whether these systems are fit for purpose by helping to identify GHG related risks and opportunities, inefficiencies, data errors or gaps, facilitating the continual improvement or optimization of the processes used.

Competitive advantage - Reliable GHG emissions and reduction data can be benchmarked both internally and externally to inform an effective emissions reduction strategy, allowing to differentiate a business from the competition.

“[The verifier] checked that the response addressed the reporting requirements in full and added an additional level of confidence through verification of the carbon footprint data. The process enabled Carillion to begin to quantify the risks and benefits of climate change impacts to a level of detail that had not previously been identified.”

- Carillion plc -

“Embraer has found that throughout the process - which took about six months in the first year - it was able to benefit by using information to correct and improve its processes as well as being able to integrate diverse areas of the business.”

- Embraer -

Case Study - Baxter International Inc.

Baxter engaged [a verifier] to conduct verification of Scope 1 and Scope 2 GHG emissions falling under Baxter's operational control. This verification was done to help Baxter assess the completeness and accuracy of the 2010 emissions inventory and underlying data management system for identification, measurement and reporting of GHG emissions. The verification was done in accordance with the ISO 14064-3¹ for a limited level of assurance and against the GHG Protocol².

This process involved the following:

- Site visits to select Baxter locations in Puerto Rico, Europe and Asia (as part of the Environment, Health and Safety data assurance process);
- Interviews with relevant Baxter personnel responsible for managing company GHG emissions;
- Review of data and information systems and methodology for collection, aggregation, analysis and review of information used to determine GHG emissions; and
- Use of methodology to define and audit source data samples used to determine GHG emissions.

[The verifier] identified several ways the company could further enhance the reliability of its energy and GHG data. The verification process and discussions helped executives at Baxter's corporate office gain a better understanding of how facilities approach data gathering and reporting. Additionally, facilities involved in the verification audit gained a greater understanding of the importance of the data used to calculate the GHG emissions. Baxter intends to communicate the results of the GHG verification process to a number of EHS and sustainability management team members and its locations to help ensure continued improvement in the sustainability data collection and reporting process.

The success of Baxter's program is illustrated by a review of the data for the period of 2005 to 2010 during which sales increased 30 percent whilst net GHG emissions from operations decreased 7 percent on an absolute basis. Ninety six percent of Baxter's GHG emissions from operations relate to energy usage. Over the past four years Baxter's energy management program achieved a total annual savings and cost avoidance of US\$13 million.

¹ ISO14064 Greenhouse gases - Part 3: Specification with guidance for the validation and verification of greenhouse gas assertions (2006)

² The GHG Protocol: A Corporate Accounting and Reporting Standard (WBCSD and the World Resources Institute, 2004)

What does a company need to consider around verification?

Monitoring and reporting of GHG data represents an investment of time and resources. As outlined above, the value of this work is greatly enhanced by verification since it provides an independent and informed view of a company's system, adds credibility and builds trust. It is however difficult to provide concrete guidelines around resources that are required for verification, as each organization and verification engagement is unique. The time and resource associated with verification will therefore vary depending on the scope and level of assurance (see page 9). Despite this, there are general guiding principles that will help companies in the preparation for verification.

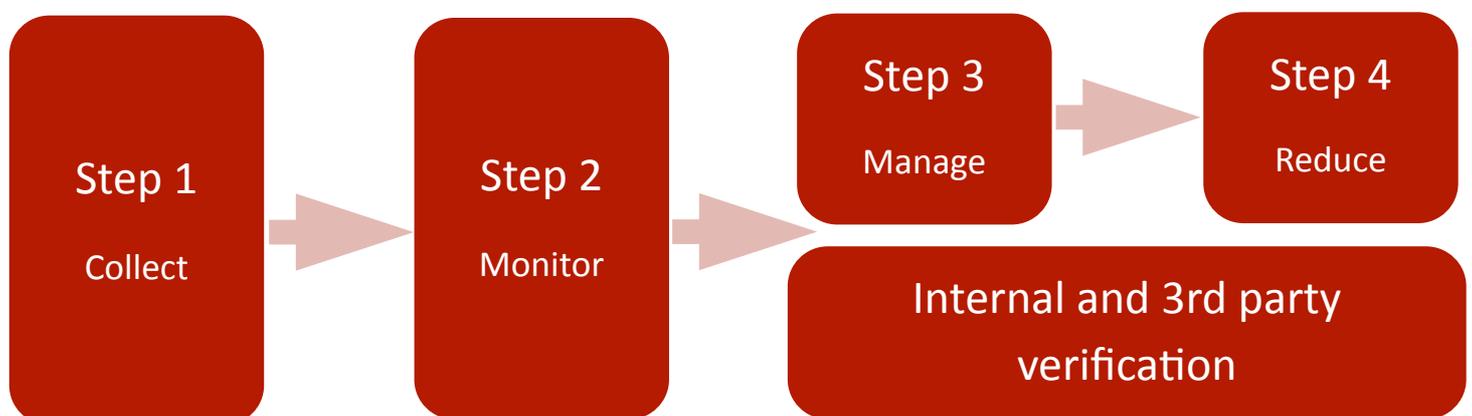
Data requirements

Companies that wish to verify their emissions data need to have in place a full GHG inventory that is calculated to recognized standards (e.g. Greenhouse Gas Protocol). The inventory should be supported by objective evidence ranging from meter readings to on-site fuel consumption, waste inventories to expense accounts, which may detail mileage travelled for business. Companies that do not yet have such systems in place should make this a priority.

A general process that companies go through can be summarized in four steps:

- Step 1** Collect scope 1 and scope 2 emissions data
- Step 2** Monitor / measure corporate carbon footprint (i.e. carbon dioxide equivalent emissions per source and categorized by scope)
- Step 3** Manage / highlight areas where emissions savings can be made and the data collection process optimized
- Step 4** Reduce emissions

The verification process can take place as soon as Step 2 is completed.



Verification requires steps 1 and 2 to be in place, in order to complete the process and assure the appropriate data. The verification provider must be provided with full access to personnel with energy and carbon responsibilities, as well as to the data, internal systems and documented records to ensure that all relevant material can be taken into account during the process.

Resources required

The cost and duration of verification is based on factors that uniquely apply to the organization to be verified and is not commonly defined by the industry specific complexity level. Typical factors that influence the duration and costs of verification include:

- number of facilities and complexity of the company's logistics (i.e. number and geographical spread of offices or manufacturing sites);
- size of the company (e.g. number of employees); and
- number of emissions sources contained within the verification engagement.

The level of assurance sought and the actual scope of the verification will also impact the time required for the verification and associated costing.

Key components of verification

An important point to deliberate on early is stakeholder expectations – what are investors', customers' and other stakeholders' criteria for carbon reporting and how much reliability will they expect or demand of the disclosure? This will help companies address the five key components that form part of any verification:

1. Objectives

Objectives are defined at the initial stage of the verification engagement and usually reflect the aim to gain assurance in conformance to program eligibility or standard related criteria (see point 3).

2. Level of Assurance

The level of assurance is the degree of confidence required by the intended user of the verification statement. The higher the level of assurance, the more rigorous the processes.

3. Criteria

Criteria refer to policies, practices, procedures or requirements against which the verifier compares evidence about the subject matter. The final assurance statement will compare against these criteria – i.e. the GHG assertion is in accordance with an internationally recognized standard or meets a certain benchmark.

4. *Materiality*

The concept of materiality is that individual, or the aggregation of, errors, omissions and misrepresentations could affect a company's GHG assertion and could thus influence data users' decisions. It is used when designing the verification process and sampling methodology and can for example be set at 5% of total emissions.

5. *Scope*

The scope subdivides the major project deliverables into smaller, more manageable components. Defining the scope is important to ensure that adequate resources are available to carry out verification and answers:

- **What?** – Physical infrastructure, activities, technologies and processes of the organization
- **Where?** – Boundaries (e.g. appropriate operational or geographical boundaries)
- **When?** – Time period
- **Who?** – Intended user
- **How?** – Methodology (i.e. recognized GHG verification specific standards)

The scope may to an extent already be defined in a preceding GHG inventory with regard to its operational control or influence over a particular emissions source. The scope should however also represent the impact of the reporting organization in terms of its most significant emissions. Scope 2 emissions (i.e. electricity use) associated with data centers of a company in the Information and Communications Technology (ICT) sector for example, may outweigh scope 1 emissions from its remaining operations.

Streamlining the verification process

Companies subject to market based mechanisms or other schemes that require them to disclose and verify certain climate change related information, such as the UK's Carbon Reduction Commitment Energy Efficiency Scheme, can leverage this in a positive way. The data collection and collation under such regulatory schemes can support CDP or other voluntary verification requirements.

“Our use of a software application gives auditors more confidence as they do not have to check every calculation and formulas used in excel spreadsheets, but rather focus on analyzing algorithms implemented in the applied software.”

- Noble Group -

Carbon management solutions³ that help companies gather and manage climate related data can also be advantageous for verification. The systems can allow the verifier to more

³ Go to <https://www.cdproject.net/carboncalc> to find details on CDP accredited carbon management solution providers

efficiently assess the information if all relevant GHG information is more centralized and accessible from just one location. The tools include clear hierarchical management structures and libraries that help standardized calculations, all of which should support the company in the preparation for verification.

The use of standards

A number of standards exist that set out the requirements of the verification process for GHG and non-financial reporting. Use of these standards provides consistency in the delivery and outcomes of verification.

When considering a standard to use for the verification process, the following criteria should be considered:

- **Relevance:** The standard should specify that it relates to a 3rd party audit or verification process; for a program related standard, 3rd party verification should be specified as part of the program compliance.
- **Competency:** The standard should include a statement regarding competency of verifiers; where it is a program and verification parties are stipulated, competency is assumed to be determined by the 2nd party and therefore need not be explicit in the standard.
- **Independence:** The standard should contain a requirement that ensures that impartiality is maintained in cases where the same external organization compiles and verifies a responding company's inventory.
- **Terminology:** The standard should specify the meaning of any terms used for the level of the finding (e.g. limited assurance; reasonable assurance).
- **Methodology:** The standard should describe a methodology for the verification that includes the verification of the process and/or system controls and the data.
- **Availability:** The standard should be available for scrutiny.

Standards that meet these criteria include ISO 14064-3, AA1000 and ISAE 3000. However with the number of standards continuing to grow, regionally and internationally, CDP does not provide an exhaustive list of acceptable standards. Instead, as part of the questionnaire consultation process, criteria for verification standards and statements that will apply for the 2012 disclosure process will be communicated. In addition, an indicative list of some of the standards that meet the criteria will be maintained on the verification pages of CDP's website.

How can companies identify suitable verification service providers?

Three characteristics summarize the benefits of using an appropriate verification provider – credibility, trust and conformity. The credibility and accuracy of data is at the very core of why a company's GHG assertions are verified. It is therefore important that the verification service provider brings the required expertise, skill and experience to the assurance process. Technical expertise of verifiers and specifically sector expertise of relevance to the company's operations is of particular importance.

A proven track record in GHG verification across a broad range of services with case studies to substantiate claims from the verification body can help in the selection process of a service provider. Ensuring however that a verification body has the appropriate accreditation to the scheme in which you are participating is vital. An accredited verification body is subject to regular independent oversight and will thus ensure that the verified data is trustworthy.

There are currently no specific accreditation requirements to be able to verify data submitted to CDP. However companies wanting to select a verifier with relevant GHG experience could check for current accreditations from monitoring and reporting schemes such as the

- EU Emissions Trading Scheme (EU ETS);
- Regional Greenhouse Gas Initiative;
- Western Climate Initiative; or
- accreditations to perform verification on CDM (Clean Development Mechanism) projects, focusing on emissions related verification, under the United Nations Framework Convention on Climate Change (UNFCCC).

These accreditations should provide abundant reassurance over the technical ability of those bodies to perform CDP or other GHG / climate related work. The service provider may for example also be subject to the International Federation of Accountants Code of Ethics for Professional Accountants and will thus be governed by the standards and ethics of the governing body.

Organizations with operations in many countries should consider if they need to partner with a provider with global capacity and experience to provide local staff at any of its business units.

In order to support its work around verification, CDP has initiated a verification partnership program. In this program providers are required to qualify against certain criteria, which are based on the above guidelines. CDP does not require companies to have their data assured by one of these providers but interested parties can visit

<https://www.cdproject.net/verification> for further information.

Conclusion

A consistent message emerging from investors, customers, regulators, non-governmental organizations and other stakeholders is that the right independent assurance not only significantly enhances the credibility of climate related data, but positively supports organizations in managing and optimizing their data systems. This will ultimately help drive efficiencies that will put companies in an advantageous market position and can also be leveraged to reduce a company's climate impact. Increased data quality through verification carries internal as well as external benefits to a company that can range from enhanced brand value through to greater preparedness to handle increased demands from potential clients, investors and shareholders.

Through CDP data it is clear that whilst many companies have already embedded verification into their systems, a large number still have to take this step forward. Whilst verification requires certain measures to be in place before data can be assured, it is worth investing time and resource into this process in order to prepare for a low carbon economy.

About the Carbon Disclosure Project

The Carbon Disclosure Project (CDP) launched in 2000 to accelerate solutions to climate change by putting relevant information at the heart of business, policy and investment decisions. We further this mission by harnessing the collective power of corporations, investors and political leaders to accelerate unified action on climate change. 3,000 organizations in some 60 countries around the world now measure and disclose their greenhouse gas emissions and climate change strategies through CDP, in order that they can set reduction targets and make performance improvements. Data is made available for use by a wide audience including investors, purchasing organizations, government bodies, academics and the public.

For more information visit www.cdproject.net

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<https://www.cdproject.net/en-US/WhatWeDo/Pages/verification-partners.aspx>



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