

Glossary of Terms

Absolute target. A target defined by reduction in absolute emissions over time, e.g., reduces CO₂ emissions by 25 percent below 1994 levels by 2010.

Additionality. A criterion for assessing whether a project has resulted in GHG emission reductions or removals in addition to what would have occurred in its absence. This is an important criterion when the goal of the project is to offset emissions elsewhere.

Allowance. A commodity giving its holder the right to emit a certain quantity of GHGs.

Associated/affiliated company. The parent company has significant influence over the operating and financial policies of the associated/affiliated company, but not financial control.

Audit Trail. Well organized and transparent historical records documented how an inventory was completed.

Baseline. A hypothetical scenario for what GHG emissions, removals or storage would have been in the absence of the GHG project or project activity.

Base year. A historic datum (a specific year) against which a company's emissions are tracked over time.

Base year emissions. GHG emissions in the base year.

Base year emissions recalculation. Recalculation of emissions in the base year to reflect a change in the structure of the company, or to reflect a change in the accounting methodology used. This ensures data consistency over time, i.e., comparisons of like with like over time.

Biofuels. Fuel made from plant material, e.g., wood, straw, and ethanol from plant matter.

Boundaries. GHG accounting and reporting boundaries can have several dimensions, i.e., organizational, operational, geographic, business unit, and target boundaries. The inventory boundary determines which emissions are accounted and reported by the company.

Cap and trade system. A system that sets an overall emissions limit, allocates emissions allowances to participants, and allows them to trade emissions credits with each other.

Capital Lease. A lease which transfers substantially all the risks and rewards of ownership to the lessee and is accounted for as an asset on the balance sheet of the lessee. Also known as a Financial or Finance Lease. Leases other than Capital/Financial/Finance leases are Operating leases. Consult an accountant for further detail as definitions of lease types differ between various accepted financial standards.

Carbon sequestration. The uptake of CO₂ and storage of carbon in biological sinks.

Co-generation unit/combined heat and power (CHP). A facility producing both electricity and steam/heat using the same fuel supply.

Consolidation. Combination of GHG emissions data from separate operations that form part of one company or group of companies.

Control. The ability of a company to direct the operating policies of another operation. More specifically, it is defined as either operational control (the organization or one of its subsidiaries has the full authority to introduce and implement its operating policies at the operation) or financial control (the organization has the ability to direct the financial and operating policies of the operation with a view to gaining economic benefits from its activities).

Corporate inventory program. A program to produce annual corporate inventories that are keeping with the principles, standards, and guidance of the GHG Protocol Corporate Standard. This includes all institutional, managerial, and technical arrangements made for the collection of data, preparation of a GHG inventory, and implementation of the steps taken to manage the quality of their emission inventory.

CO₂-equivalent (CO₂-eq). The universal unit of measurement to indicate the global warming potential (GWP) of each of the six greenhouse gases, expressed in terms of the GWP of one unit of carbon dioxide. It is used to evaluate releasing (or avoiding releasing) different greenhouse gases against a common basis.

Cross-sector calculation tool. A GHG calculation tool that addresses GHG sources common to various sectors, e.g., emissions from stationary or mobile combustion (see also calculation tools).

Direct GHG emissions. Emissions from sources that are owned or controlled by the reporting company.

Direct monitoring. Direct monitoring of exhaust stream contents in the form of continuous emissions monitoring (CEM) or periodic sampling.

Double counting Two or more reporting companies take ownership of the same emissions or reductions.

Emissions. The release of GHGs into the atmosphere.

Emission factor. A factor allowing GHG emissions to be estimated from a unit of available activity data (e.g., tons of fuel consumed, tons of product produced) and absolute GHG emissions.

Equity share. The equity share reflects economic interest, which is the extent of rights a company has to the risks and rewards flowing from an operation. Typically, the share of economic risks and rewards in an operation is aligned with the company's percentage ownership of that operation, and equity share will normally be the same as the ownership percentage.

Emission Uncertainty. Uncertainty that arises whenever GHG emissions are quantified, due to uncertainty in data inputs and calculation methodologies used to quantify GHG emissions.

Finance lease. A lease which transfers substantially all the risks and rewards of ownership to the lessee and is accounted for as an asset on the balance sheet of the lessee. Also known as a Capital or Financial Lease. Leases other than Capital/Financial/Finance leases are Operating leases. Consult an accountant for further detail as definitions of lease types differ between various accepted accounting principles.

Fixed asset investment. Equipment, land, stocks, property, incorporated and non-incorporated joint ventures, and partnerships over which the parent company has neither significant influence or control.

Fugitive emissions. Emissions that are not physically controlled but result from the intentional or unintentional releases of GHGs. They commonly arise from the production, processing transmission storage and use of fuels and other chemicals, often through joints, seals, packing, gaskets, etc.

Green power. A generic term for renewable energy sources and specific clean energy technologies that emit fewer GHG emissions relative to other sources of energy that supply the electric grid. Includes solar photovoltaic panels, solar thermal energy, geothermal energy, landfill gas, low-impact hydropower, and wind turbines.

Greenhouse gases (GHGs). For the purposes of this standard, GHGs are the following six gases: carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulfur hexafluoride (SF₆).

GHG capture. Collection of GHG emissions from a GHG source for storage in a sink.

GHG credit. GHG offsets can be converted into GHG credits when used to meet an externally imposed target. A GHG credit is a convertible and transferable instrument usually bestowed by a GHG program.

GHG offset. Offsets are discrete GHG reductions used to compensate for (i.e., offset) GHG emissions elsewhere, for example to meet a voluntary GHG target or cap. Offsets 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 offsets. To avoid double counting, the reduction giving rise to the offset must occur at sources or sinks not included in the target or cap for which it is used.

GHG program. A generic term used to refer to any voluntary or mandatory international, national, sub-national, government, or non-governmental authority that registers, certifies, or regulates GHG emissions or removals outside the company, e.g., CDM, EU ETS, CCX, and CCAR.

GHG project. A specific project or activity designed to achieve GHG emission reductions, storage of carbon, or enhancement of GHG removals from the atmosphere. GHG projects may be stand-alone projects, or specific activities or elements within a larger non-GHG related project.

GHG Protocol Initiative. A multi-stakeholder collaboration convened by the World Resources Institute and the World Business Council for Sustainable Development to design, develop, and promote the use of accounting and reporting standards for business. It comprises two separate but linked standards – the GHG Protocol Corporate Accounting and Reporting Standard and the GHG Protocol Project Quantification Standard.

GHG Protocol Project Quantification Standard. An additional module of the GHG Protocol Initiative addressing the quantification of GHG reduction projects. This includes projects that will be used to offset emissions elsewhere and/or generate credits.

GHG removal. Absorption or sequestration of GHGs from the atmosphere.

GHG sink. Any physical unit or process that stores GHGs; usually refers to forests and underground/deep sea reservoirs of CO₂.

GHG source. A factor describing the radiative forcing impact (degree of harm to the atmosphere) of one unit of a given GHG relative to one unit of CO₂.

Global warming potential (GWP). A factor describing the radiative forcing impact (degree of harm to the atmosphere) of one unit of a given GHG relative to one unit of CO₂.

Group company/subsidiary. The parent company has the ability to direct the financial and operating policies of the group company/subsidiary with a view to gaining economic benefits from its activities.

Heating value. The amount of energy released when a fuel is burned completely. Care must be taken not to confuse higher heating values (HHVs), used in the U.S. and Canada, and lower heating values, used in all other countries (for further details refer to the calculation tool for stationary combustion available at www.ghgprotocol.org).

Indirect emissions. 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, or steam.

Insourcing. The administration of ancillary business activities, formally performed outside of the company, using resources within a company.

Intensity ratios. Ratios that express GHG impact per unit of physical activity or unit of economic value (e.g., tons of CO₂ emissions per electricity generated). Intensity ratios are the inverse of productivity/efficiency ratios.

Intensity target. A target defined by reduction in the ratio of emissions and a business metric over time, e.g., reduce CO₂ per ton of cement by 12 percent between 2000 and 2008.

Intergovernmental Panel on Climate Change (IPCC). International body of climate change scientists. The role of the IPCC is to assess the scientific, technical and socio-economic information relevant to the understanding of the risk of human-induced climate change (www.ipcc.ch).

Inventory. A quantified list of an organization's GHG emissions and sources.

Inventory boundary. An imaginary line that encompasses the direct and indirect emissions included in the inventory. It results from the chosen organizational and operational boundaries.

Inventory quality. The extent to which an inventory provides a faithful, true, and fair account of an organization's GHG emissions.

Leakage (Secondary effect). Leakage occurs when a project changes the availability or quantity of a product or service that results in changes in GHG emissions elsewhere.

Life cycle analysis. Assessment of the sum of a product's effects (e.g., GHG emissions) at each step in its life cycle, including resource extraction, production, use phase and waste disposal.

Material discrepancy. An error (for example from an oversight, omission, or miscalculation) that results in the reported quantity being significantly different to the true value to an extent that will influence performance or decisions. Also known as material misstatement.

Materiality threshold. A concept employed in the process of verification. It is often used to determine whether an error or omission is a material discrepancy or not. It should not be viewed as a de minimus for defining a complete inventory.

Mobile combustion. Burning of fuels by transportation devices such as cars, trucks, trains, airplanes, ships, etc.

Model uncertainty. GHG quantification uncertainty associated with mathematical equations used to characterize the relationship between various parameters and emission processes.

Operation. A generic term used to denote any kind of business, irrespective of its organizational, governance, or legal structures. An operation can be a facility, subsidiary, affiliated company or other form of joint venture.

Operating lease. A lease which does not transfer the risks and rewards of ownership to the lessee and is not recorded as an asset in the balance sheet of the lessee. Leases other than Operating leases are Capital/Financial/Finance leases. Consult an accountant for further detail as definitions of lease types differ between various accepted financial standards.

Operational boundaries. The boundaries that determine the core direct and indirect emissions associated with operations owned or controlled by the reporting company. This assessment allows a company to establish which operations and sources cause direct and indirect emissions, and to decide which optional emissions to include that are a consequence of its operations.

Optional emissions. *Emissions that are a consequence of the activities of the reporting company, but are not part of the reporting companies core direct or indirect emissions as defined by Climate Leaders (e.g., employee commuting).*

Organic growth/decline. Increases or decreases in GHG emissions as a result of changes in production output, product mix, plant closures, and the opening of new plants.

Organizational boundaries. The boundaries that determine the operations owned or controlled by the reporting company, depending on the consolidation approach taken (equity or control approach).

Outsourcing. The contracting out of activities to other businesses.

Parameter uncertainty. GHG quantification uncertainty associated with quantifying the parameters used as inputs to estimation models.

Primary effects. The specific GHG reducing elements or activities (reducing GHG emissions, carbon storage, or enhancing GHG removals) that the project is intended to achieve.

Process emissions. Emissions generated from manufacturing processes, such as cement or ammonia production.

Productivity/efficiency ratios. Ratios that express the value or achievement of a business divided by its GHG impact. Increasing efficiency ratios reflect a positive performance improvement, e.g., resource productivity (sales per ton of GHG).

Ratio indicator. Indicators providing information on relative performance such as intensity ratios or productivity/efficiency ratios.

Renewable energy. Energy taken from sources that are inexhaustible, e.g., wind, water, solar, geothermal energy, and biofuels.

Reporting. Presenting data to internal management and external users such as regulators, shareholders, the general public or specific stakeholder groups.

Reversibility of reductions. This occurs when reductions are temporary, or where removed or stored carbon may be returned to the atmosphere at some point in the future.

Scientific Uncertainty. Uncertainty that arises when the science of the actual emission and/or removal process is not completely understood.

Scope. Defines the operational boundaries in relation to indirect and direct GHG emissions.

Scope of work. An up-front specification that indicates the type of verification to be undertaken and the level of assurance to be provided between the reporting company and the verifier during the verification process.

Secondary effects (Leakage). GHG emissions changes resulting from the project not captured by the primary effect(s). These are typically the small, unintended GHG consequences of a project.

Sequestered atmospheric carbon. Carbon removed from the atmosphere by biological sinks and stored in plant tissue. Sequestered atmospheric carbon does not include GHGs captured through carbon capture and storage.

Significance threshold. A qualitative or quantitative criteria used to define a significance structural change. It is the responsibility of the company/verifier to determine the “significance threshold” for considering base year emissions recalculation. In most cases the “significance threshold” depends on the use of the information, the characteristics of the company, and the features of structural changes.

Stationary combustion. Burning of fuels to generate electricity, steam, heat, or power in stationary equipment such as boilers, furnaces, etc.

Structural change. A change in the organizational or operational boundaries of a company that result from a transfer of ownership or control of emissions from one company to another. Structural changes usually result from a transfer of ownership of emissions, such as mergers, acquisitions, divestitures, but can also include outsourcing/insourcing.

Target base year. The base year used for defining a GHG target, e.g., to reduce CO₂ emissions 25 percent below the target base year levels specified by the target base year 2010.

Target boundary. The boundary that defines which GHGs, geographic operations, sources and activities are covered by the target.

Target commitment period. The period of time during which emissions performance is actually measured against the target. It ends with the target completion date.

Target completion date. The date that defines the end of the target commitment period and determines whether the target is relatively short- or long-term.

Target double counting policy. The policy that determines how double counting of GHG reductions or other instruments, such as allowances issued by external trading programs, is dealt with under a GHG target. It applies only to companies that engage in trading (sale or purchase) of offsets or whose corporate target boundaries interface with other companies’ targets or external programs.

Uncertainty. 1. Statistical Definition: A parameter associated with the result of a measurement that characterizes the dispersion of the values that could be reasonably attributed to the measured quality (e.g., the sample variance or coefficient of variation) (Chapter 9).

2. Inventory Definition: A general and imprecise term which refers to the lack of certainty in emissions-related data resulting from any casual factor, such as the application of non-representative factors or methods, incomplete data on sources and sinks, lack of transparency, etc. Reported uncertainty information typically specifies a quantitative estimate of the likely or perceived difference between a reported value and a qualitative description of the likely causes of the difference.

United Nations Framework Convention on Climate Change (UNFCCC). Signed in 1992 at the Rio Earth Summit, the UNFCCC is a milestone Convention on Climate Change treaty that provides an overall framework for international efforts to (UNFCCC) mitigate climate change.

Value chain emissions. Emissions from the upstream and downstream activities associated with the operations of a reporting company.

Verification. An independent assessment of the reliability (considering completeness and accuracy) of a GHG inventory.