



VERSION 4.0

STEP 2

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Stichting Klimaatvriendelijk Aanbesteden & Ondernemen

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FOREWORD

We proudly present version 4.0 of the CO₂ Performance Ladder. The number one decarbonisation tool to assist organisations in taking concrete steps in our collective goal towards zero emissions. Since its introduction in 2009, the CO₂ Performance Ladder has been continuously developed without losing sight of its core principles. The Ladder offers organisations a structured approach for gradually implementing ambitious changes that will reduce CO₂ and save energy. The additional advantages include certified organisations gaining an advantage in procurement processes and immediate compliance with energy reporting requirements.

The use of the Ladder has increased more than ever in recent years. At the beginning of 2025, more than 7,500 organisations are using the CO₂ Performance Ladder in the Netherlands and Belgium. In another five European countries, we are testing the use of the Ladder in their specific national context with local partners. The CO₂ Performance Ladder is quickly becoming one of the most important instruments in the field of socially responsible purchasing within Europe.

CO₂ Performance Ladder 4.0 aligns better with what is expected in 2025 of organisations in how they approach emissions reduction. It rewards ambitious progress and, above all, actual results. The new CO₂ Performance Ladder is better aligned with our (inter)national context and European standards and legislation. At the same time, it continues to guide large and small organisations, in an accessible manner, in their first steps towards CO₂ reduction.

This new version took more than three years to develop and the result of a completely new Ladder is impressive. As chair of the Foundation for Climate Friendly Procurement and Business (SKAO), I would like to thank everyone who contributed. All those companies, procuring authorities, industry bodies, certification bodies and civic organisations that contributed to the analysis and writing. Together with the driven SKAO staff, this active community has made this outcome possible.

We expect the CO₂ Performance Ladder 4.0 to further challenge and inspire all companies, procuring authorities and organisations to complete their unique path to zero emissions. We have been working towards this goal together since SKAO was founded. Because only together can we prevent further climate change.

Dimitri Kruik

Chair of the Foundation for Climate Friendly Procurement and Business

INTRODUCTION

The CO₂ Performance Ladder is the sustainability instrument that helps companies and governments reduce energy consumption, CO₂ emissions and related costs. This involves reductions across operational management, in *projects*, and the value chain. The CO₂ Performance Ladder is used as a CO₂ management system and as a procurement instrument. *Organisations* that use the Ladder will see this investment immediately pay off in terms of lower energy costs, material savings and innovation gains.

Organisations can obtain certification from accredited certification bodies for the CO₂ Performance Ladder. This requires continual improvement in insight, energy and CO₂ reduction measures, communication and collaboration. In the execution of projects, but also in the value chain. Organisations satisfying the requirements are often more likely to win a (public) procurement.

The CO₂ Performance Ladder has three steps that increase from 1 to 3¹. Each step has a Handbook containing the requirements for the energy and CO₂ performance of the *organisation* and its *projects*. These requirements cover four different angles: insight, reduction of *energy consumption* and emissions, communication and collaboration. The position of an *organisation* on the CO₂ Performance Ladder is determined by the highest step at which the *organisation* meets all requirements.

Contracting authorities and companies can use the CO₂ Performance Ladder in procurement. The principle behind the CO₂ Performance Ladder is that effort is rewarded. A higher score on the Ladder means a concrete advantage in the procurement process, in the form of a – fictitious – discount on the tender price. All information about procurement with the CO₂ Performance Ladder can be found on the CO₂ Performance Ladder website.

¹ At the time of publication, Step 4 is still being worked on. This is expected at a later date.

READER'S GUIDE

This Handbook for Step 2 of the CO₂ Performance Ladder contains all the requirements that *organisations* must meet in order to obtain and maintain a CO₂ Performance Ladder Certificate at Step 2.

The Handbooks are part of the certification scheme of the CO₂ Performance Ladder. This scheme consists of the following normative documents:

- The certification regulation This contains the requirements for the audit,
 CBs and auditors.
- The Harmonisation Acts These are interpretations of requirements adopted after the publication of the Handbook.
- The audit days table This indicates the minimum audit time and applicable criteria.
- Any other normative documents that are specified at a later time.

The current overview and currently applicable versions (including any transition periods) of normative documents can be found on the CO₂ Performance Ladder website under 'normative documents'.

Each Handbook consists of two parts:

- Part 1 This is the general part that is the same for each step. It contains all
 the general requirements relevant to all certificate holders regardless of
 the step. The classification in Part 1 follows the ISO-Harmonised Structure
 (HS) 2
- Part 2 This part is different for each step of the CO₂ Performance Ladder.
 It contains all the requirements that apply to the specific step, including
 the requirements of the underlying steps that apply. It is divided into
 four angles: A Insight, B Reduction, C Communication and D –
 Collaboration.

Certification at a desired step requires satisfying the requirements of Part 1 and the requirements of Part 2 for that particular step. There is therefore no need to consult the Handbooks of the underlying steps.

² Note that the chapter format, but not the paragraph format, matches the HS throughout



SUBJECT AND SCOPE

This document lists the requirements, criteria and explanations to establish, implement, maintain and improve an energy and CO_2 management system. The goal of the CO_2 Performance Ladder is that energy and CO_2 reduction are a permanent part of the organisation's strategy, policy and actions. Organisations do this both independently and with organisations in the sector and/or value chain.

NORMATIVE REFERENCES

Below are all the norms and standards that Handbook 4.0 and the CO₂ Performance Ladder certification scheme refer to. Only the named version applies to standards and norms with a publication year³. Elements of these norms and standards relevant to the CO₂ Performance Ladder are explained with the requirements or are included in normative Appendix A. So, in general, it is not necessary to download and/or purchase the standards and norms.

EN 15804:2012+A2:2019 Sustainability of construction works – Environmental product declarations – Core rules for the product category of construction products

GHG Protocol Corporate Standard:2004 A Corporate Accounting and Reporting Standard

GHG Protocol scope 2 Guidance:2015 An Amendment to the GHG Protocol Corporate Standard

GHG Protocol scope 3 Calculation Guidance:2011
Technical Guidance for Calculating scope 3 Emissions

GHG Protocol scope 3 Standard:2011 Corporate Value Chain (scope 3) Accounting and Reporting Standard

IAF MD-1:2023 IAF Mandatory Document for the Audit and Certification of a Management System Operated by a Multi-Site Organization

IAF MD-2:2023 IAF Mandatory Document for the Transfer of Accredited Certification of Management Systems IAF MD-5:2023 Determination of Audit Time of Quality, Environmental, and Occupational Health & Safety Management Systems

IPCC AR6:2021 Working Group 1 Contribution to the Sixth Assessment Report of the IPCC: 7SM

ISO 14064-1:2018 Greenhouse gases – Part 1: Specification with guidance at the organization step for quantification and reporting of greenhouse gas emissions and removals

ISO 14064-3:2019 Greenhouse gases – Part 3: Specification with guidance for the verification and validation of greenhouse gas statements

ISO/IEC 17021-1:2015 Conformity assessment – Requirements for bodies providing audit and certification of management systems – Part 1: Requirements

ISO 50001:2018 Energy management systems – Requirements with guidance for use

ISO 14067:2018 Greenhouse gases – Carbon footprint of products – Requirements and guidelines for quantification

³ For the sake of readability, publication years have been omitted in the rest of the Handbook.

TERMS AND DEFINITIONS

The list below defines key terms as they appear in the Handbook and certification scheme. Some terms are followed by the abbreviation in brackets. Any definition based on an outside source is noted as such.

Accreditation body This is a government organisation responsible for accrediting and maintaining accredited Certification Bodies for the CO₂ Performance Ladder. In other countries, these are organisations that entered into a Multi-Lateral Agreement (EA/IAF) with the RvA, including BELAC in Belgium. In the Netherlands this is the Dutch Accreditation Council (RvA).

Action Plan This is a *short-term strategy* involving the intended preparatory actions and concrete measures to achieve an *organisation*'s targets. If the *organisation* has a *Climate Transition Plan*, the *Action Plan* aligns with the objectives and targets described therein.

Annual audit This external audit is performed by a CB one or two years after the initial audit or after the recertification audit where the certification step remains unchanged.

Audit criteria (Source: ISO 50001) Any policies, procedures or requirements used as a reference against which *audit evidence* is tested.

Audit evidence (Source: ISO 50001) Records, factual claims or other information relevant and verifiable to the *qudit criteria*.

Avoided emissions (Comparative emissions)⁴ These are reduced emissions (positive) or increased emissions (negative) that occur or can occur outside the *organisation's value chain* (and thus outside

scopes 1, 2 and 3), relative to a baseline due to the organisation's action or measure.

Base year (Source: ISO 14064-1) A specific historical period identified to compare with other years of energy consumption, energy generation, greenhouse gas emissions, CO_2 removals or other energy or greenhouse gas information.

Branch A permanent branch site of one or more entities belonging to the same *organisation*.

- **Head office** The place of business where the *main* entity is located.
- · Branch offices The other branches.

Business travel (Source: GHG Protocol scope 3 Standard) These emissions are due to passenger transportation for work-related activities, including business air travel, business travel by private cars and business travel by public transportation. These emissions are a separate scope 3 category per the GHG Protocol.

Category A, B and C measures Various steps of implementation have been defined for each measure on the *Measure list*.

- Category A This refers to a 'standard' step of implementation. This means that more than 50% of the *organisations* for whom this measure is relevant have implemented it.
- Category B This involves a 'progressive' step of implementation. This means that 20% to 50%
- 4 Although comparative emissions are more appropriate, the Ladder uses the term avoided emissions because it is a well-recognised term.

of the *organisations* for whom this measure is relevant have implemented it.

 Category C This involves an 'ambitious' step of implementation. This means that only a few organisations have implemented this measure (at most 20%).

Certification Body (CB) A certification body is a third party authorised to conduct a certification or audit to assess an organisation's compliance with the CO₂ Performance Ladder. A prerequisite for this authority is that the CB has an agreement with SKAO and has relevant accreditation by a national accreditation body (or is in the process of obtaining such accreditation).

Certification scheme All normative documents required for certification for the CO₂ Performance Ladder, consisting of the various Handbook versions (Part 1 and Part 2), the certification scheme, the *Harmonisation Acts*, the audit days table and any other normative documents to be designated later.

Climate Transition Plan An *organisation*'s long-term and/or medium-term strategy for CO₂ reduction. The deadline, scope and targetss of the *Climate Transition Plan* depend on the certification step.

Consolidation approaches (Source: GHG Protocol)

Corporate Standard Methods for determining whether entities partially owned by the *main entity* are wholly, partially or not within the *organisational* boundaries of the organisation. There are three *consolidation approaches*: equity share, operational control and financial control.

Consortium A legal entity through which several organisations (the consortium members) jointly execute one or more projects. Often the organisational form is a VOF (The Netherlands) or Tijdelijke Maatschap (Belgium).

Continual improvement (Source: ISO 50001)
Repetitive activity to improve performance.

Corrective action Measure to remove the cause of a *nonconformity* and to prevent repetition.

CO₂ compensation The implementation of CO₂ reductions or CO₂ removals outside the organisation's value chain by purchasing tradable carbon credits. For example, for planting forests or investing in renewable energy projects. Therefore it does not contribute to achieving targets or a (higher) step on the CO₂ Performance Ladder⁵.

CO₂ emissions inventory (Source: GHG Protocol)
Corporate Standard An emissions inventory is a
quantified list of an organisation's CO₂ emissions and
CO₂ sources.

CO₂ equivalent (Source: GHG Protocol Corporate Standard) This unit of global warming potential is used for comparison with a non-CO₂ greenhouse gas to CO₂. Note to the term: Wherever the Handbook states CO₂ it should be read as: CO₂ including non-CO₂ greenhouse gases relevant to the organisation expressed in CO₂ equivalents, unless it is specifically stated to be CO₂ only.

CO₂ **footprint** This is the sum of CO₂ emitted by an *organisation* broken down into *scope 1*, scope 2 and scope 3 and expressed in kg or tons of CO₂ equivalents.

CO₂ Performance Ladder Certificate A document showing that an organisation's energy and CO₂ management system meets the requirements of the certification scheme for the step of the CO₂ Performance Ladder stated on the certificate. This document has been issued by an authorised CB.

CO₂ Performance Ladder Project A tendered *project* where the CO₂ Performance Ladder plays a role in the procurement process and/or where the contracting authority grants a benefit for holding or obtaining a CO₂ Performance Ladder Certificate. For example, by giving a fictitious discount on the tender price. If there is any advantage in awarding by having, or achieving, a CO₂ Performance Ladder Certificate, it is always a CO₂ Performance Ladder Project. It is not

⁵ The CO₂ Performance Ladder does not make any judgements about the social relevance of CO₂ compensation.

relevant here whether the award advantage was or was not decisive when being awarded the contract or in which manner the CO_2 Performance Ladder was requested in the tender. **SKAO explicitly advises against this practice** (see the Procurement Guide) but the CO_2 Performance Ladder is sometimes used as a selection criterion or eligibility requirement. This also constitutes a CO_2 Performance Ladder Project. If there are partial projects within a framework agreement, these projects may be jointly considered as one CO_2 Performance Ladder Project.

CO₂ removals (negative CO₂ emissions or CO₂ sequestration) (Source: ISO 14064-1) The quantification of the sequestration of CO₂ from the atmosphere within the *organisation*'s value chain.

CO₂ sink The process, action or mechanism the organisation contributes to that results in CO₂ removal. For example, this includes the storage of biogenic CO₂ in the soil or materials within the organisation's value chain. If this occurs outside the organisation's value chain, it is equated with CO₂ compensation.

CO₂ source (Source: ISO 14064-1) A process that releases CO₂ into the atmosphere.

(Direct and indirect) biogenic CO₂ emissions CO₂ emissions from burning or oxidising biogenic material from human activities. These emissions are short-cycle. That is, they have a cycle from CO₂ emission to CO₂ sequestration within a few centuries. This contrasts with a cycle of several million years (as with fossil fuel combustion). Biogenic CO₂ emissions can occur in the value chain (indirect) or as a result of the actions of the organisation itself (direct). Biogenic CO₂ emissions explicitly refer only to CO₂ and not to non-CO₂ greenhouse gases.

Direct emissions See Scope 1

Direct relations Parties in the *value chain* with which the *organisation* has a contractual relationship, such as suppliers, buyers, customers and commissioning parties.

Downstream emissions (Source: GHG Protocol scope 3 Standard) *Indirect CO*₂ *emissions* of sold products and services, this also includes products and services that are distributed but not sold (i.e. without payment). See also *scope 3 emissions*.

Emissions due to energy consumption on a (the) project CO₂ emissions resulting from the energy consumption of a project.

Energy and CO₂ management system (Source: ISO 50001) All related or interacting elements of an organisation's efforts to establish an energy and CO₂ policy and targetss, as well as the processes to achieve those targets.

Energy and CO₂ management team The person or persons with responsibility and authority for implementing an energy and CO₂ management system and improving CO₂ and energy performance.

Energy and CO₂ policy (Source: ISO 50001) The intentions and direction of an *organisation* regarding energy consumption and CO₂ emissions as formally stated by its *management* in, among other things, the Climate Transition Plan and Action Plan.

Energy balance A quantified list of all energy purchased, self-generated, sold and all *final energy consumption* of an *organisation*. The list is broken down into (groups of) facilities, systems, processes or equipment, expressed in joules (kJ, MJ, etc.) or watthours (kWh, MWh, etc.) within a one-year period.

Energy consumption (Source: ISO 50001) The amount of energy used.⁶

Energy consumption on a (the) project Energy consumption for transportation to and from the project site (LCA Stage A4) and energy consumption at the project location (LCA Stage A5).

Energy efficiency (Source: ISO 50001) The ratio between the performance, service, goods or energy obtained and the energy input.

⁶ For example, an organisation consumes 10,000 kWh of electricity in a month.

Energy review (Source: ISO 50001) The analysis of energy efficiency, energy use and energy consumption based on information. This results in the organisation identifying significant energy consumption and opportunities for improving energy performance.

Energy use (Source: ISO 50001) The application of energy.⁷

Final energy consumption The energy consumption of the organisation consists of: the sum of the energy purchased and self-produced by the organisation minus the energy sold. This involves only fuels and energy carriers consumed for energetic applications. Fuels and energy carriers consumed as raw materials (such as petroleum for asphalt production) are not included.

Flexibility in the energy system The capacity to temporarily adjust or store the electrical production or consumption of a plant or process. The goal is for organisations to reduce congestion and/or increase the share of renewable energy in the energy system.

Global Warming Potential (of GWP-100) (Source: IPCC) This is a factor that gives the radiative forcing of one unit of a particular non-CO₂ greenhouse gas relative to one unit of CO₂ over a 100-year period. (This is the degree of damage to the atmosphere.) The unit for global warming potential is CO₂ equivalent. Refer to the IPCC for accurate values.

Green electricity Electricity from renewable non-fossil sources that meets the criteria⁸ for sustainability and additionality described in requirement 1.A.2/2.A.2/3.A.2.

Green gas Gas from biomass upgraded to natural gas quality. Note that this is different from natural gas whose CO₂ emissions are compensated through the purchase of tradable carbon credits, i.e. CO₂ compensation.

Greenhouse gases (Source: ISO 14064-1) Gaseous component of the atmosphere that absorbs and reflects radiation emitted by the earth, atmosphere and clouds in the infrared spectrum. A greenhouse gas can be either of natural origin or from human activity. The absorptive capacity of various greenhouse gases is expressed in terms of global warming potential.

Grey electricity Electricity that is not *green*.

Guarantee of Origin (GoO) A digital certificate that serves as proof that the energy carrier in question (including *green electricity* and *green gas*) has a sustainable origin. A GoO represents 1 MWh of sustainably generated energy.

Harmonisation Act The normative interpretations of requirements published after the publication of the Handbook.

Indirect emissions See Scope 2 and Scope 3.

Independence (Source: ISO 50001) This means having no responsibility connected to the *energy and CO*₂ *management system* or being free from bias and conflict of interest.

Initial audit This external audit is performed by a CB to award the first CO₂ Performance Ladder Certificate or to award a certificate at a new step or in the event of major changes in the activities or organisational boundaries of the organisation.

Intensity value This is an indicator for energy consumption, the use of sustainable energy or $\rm CO_2$ emissions of the organisation during the reporting year based on energy consumption (in MJ/kWh) or $\rm CO_2$ emissions per self-chosen reference unit, such as net sales (e.g. kg $\rm CO_2$ /euro), number of staff (e.g. kg $\rm CO_2$ /FTE) or production size (kg $\rm CO_2$ /kg product).

- 7 For example, an organisation consumes energy to heat a furnace.
- 8 These criteria for sustainability and additionality are supplemental to the definition from the EU Renewable Energy Directive (and the Dutch Energy Act, among others). This means that electricity that may be called 'green' in Europe does not automatically count as green electricity for the CO₂ Performance Ladder.
- 9 The CSRD prescribes an intensity value per net revenue.

Interested party (Source: ISO 50001) A person or organisation that can influence a decision or activity, can be influenced by a decision or activity or considers itself influenced by a decision or activity.

(Internal and external) audit (Source: ISO 50001)

A systematic, independent and documented process used to obtain audit evidence. This objectively assesses the extent to which the audit criteria have been met. An internal audit is conducted either by the organisation itself or by an outside party on behalf of the organisation. An external audit is performed by a CB at an organisation. The CO₂ Performance Ladder has four types of external audits: the initial audit, annual audit, recertification audit and special audit. Note 1 to the term: an audit can be a combined audit (of two or more disciplines). Note 2 to the term: wherever the word 'audit' appears it means an external audit unless it is specifically stated to be an internal audit.

Issuing body An organisation responsible for issuing GoOs and recognised by a government. Examples of issuing bodies include VertiCer (the Netherlands), VREG (Flanders), CWaPE (Wallonia) and BRUGEL (Brussels).

Key persons Employees who by virtue of their role or function have, or can have, a significant influence on the *organisation's* CO₂ and energy policy, *energy* consumption, consumption, storage or generation of renewable energy, and/or CO₂ emissions. Employees include persons performing work under the authority of the *organisation*.

Knowledge institute This independent and professional *organisation* has the relevant knowledge regarding *LCAs* and CO₂ emissions. This can be, for instance, a university or consultancy.

Large organisation An *organisation* that does not meet the requirements of a *small organisation*.

Leased assets Capital assets used by the *organisation* that are owned by a third party, such as leased cars, leased buildings or leased equipment.

Life Cycle Assessment (LCA) (Source: EN 15804)
An analysis of the potential environmental impacts (including CO₂ emissions) of a product or activity

throughout its life cycle. A distinction is usually made within an *LCA* for construction works by its stage in the life cycle:

- Stage A1-3 Product stage
- · Stage A4-5 Construction process stage
- Stage B1-7 Usage stage
- Stage C1-4 Demolition and disassembly stage
- **Stage D** Opportunities for reuse, recovery and recycling.

See normative Appendix A for more detail on the *LCA* stages for construction work.

Location-based method for scope 2 (Source: GHG Protocol scope 2 Guidance) This is a method that quantifies an organisation's scope 2 emissions from electricity consumption that assumes an average emission factor for electricity generation within a defined location. The demarcation consists of local, sub-national or national boundaries. The role of the location-based method for scope 2 is limited in the CO₂ Performance Ladder to obtaining and providing (§7.3.1 in Part 1) insight. In all other places in the Handbook where reference is made to scope 2, this should be read as scope 2 per the market-based method for scope 2.

Long-term A period until no later than the year 2050.

Main entity The highest entity within an organisation.

Management (level) (Source: ISO 50001) A person or group of persons that direct and manage an organisation at the highest level. Note 1 to the term: Management has the power to delegate authority and provide the organisation with resources. Note 2 to the term: If the energy and CO₂ management system is only applied to part of an organisation, the management refers to those who direct and manage that part of the organisation.

Management review Review of an energy and CO₂ management system by the management of the organisation to ensure the continued suitability, implementation, adequacy, effectiveness and efficiency of the system.

Market-based method for scope 2 (Source: GHG Protocol scope 2 Guidance) A method to quantify an organisation's scope 2 emissions from electricity consumption that assumes the CO₂ emissions of

the energy supplier with whom the organisation has a contractual agreement. These emissions may be offset against GoOs. All requirements for scope 2 in the CO₂ Performance Ladder assume the market-based method for scope 2 unless explicitly stated to be scope 2 using the location-based method.

Materiality (Source: ISO 14064-3) The concept that individual or multiple inaccuracies combined can affect the decisions of internal and external interested parties. Inaccuracies are defined as errors, omissions, incorrect representations or misrepresentations. Whether something is material requires the judgment of an expert.

Measure list A list of CO₂ and/or energy reduction measures broken down by common activities of organisations participating in the CO₂ Performance Ladder. The purpose of the list is to inspire new measures. This list is also intended to help determine the level of ambition for the targets with category A, B and C measures.

Medium-term A period of 5 to 10 years.

Nonconformity (Source: ISO 17021-1) An organisation fails to meet a requirement. This can be a major or minor nonconformity depending on the severity of the nonconformity.

Non-CO₂ greenhouse gases All greenhouse gases, excluding CO_2 , that are recognised in the Kyoto Protocol: methane (CH_4), nitrous oxide (N_2O), HFCs, PFCs, SF_6 and NF_3 and can be converted to CO_2 equivalents with their global warming potential. Note to the term: Wherever the Handbook states CO_2 it should read: CO_2 including non- CO_2 greenhouse gases relevant to the organisation expressed in CO_2 equivalents unless it is specifically stated to be CO_2 only.

Organisation All entities within the same organisational boundary per Chapter 4.

Other influenceable emissions (OIE) Emissions that fall outside scope 1, 2 or 3 per the GHG Protocol for the organisation. The reason is that these are short-cycle or occur outside the organisation's value chain. If the organisation can significantly influence these emissions, they are relevant to contributing to global

climate neutrality. A distinction is made between three OIE types: biogenic CO_2 emissions, CO_2 removals and avoided emissions. CO_2 compensation is explicitly not part of OIE.

Partnerships Formal or informal collaborations between (groups of) parties that are affiliated through their sector, value chain or location and that aim to research or implement energy saving, renewable energy or CO₂ reduction measures that directly relate to the organisation's environment, activities or value chain.

Pool of experts This is a public list on the CO₂ Performance Ladder website of SKAO-approved climate or energy experts who can review an organisation's *Climate Transition Plan* in a particular sector or value chain.

Project A *project* is a work, service or delivery performed by one *organisation* under contract from another *organisation*. Project activities belong to the *organisation* and are explicitly covered by the targets and requirements of the CO₂ Performance Ladder. If it is a tendered *project*, it may be a CO₂ Performance Ladder Project.

Project plan This is an Action Plan for a specific CO₂ Performance Ladder Project.

Recertification audit This *external audit* is performed by a *CB* every three years after the *initial audit*, where the certification step remains unchanged and based on which a CO_2 Performance Ladder Certificate is awarded on the same step.

Regular frequency The frequency with which requirements are followed must be regular. This means that the requirement is met on the same date – with a margin of one month earlier or later – as the previous time the requirement was met.

Relevant scope 3 emissions and relevant OIE If scope 3 emissions or OIE affect the deliberations and estimates of the *interested parties* of and associated with the *organisation*, they are relevant to the *organisation*. An *organisation* determines its relevant emissions based on

• their relative volume compared to sector emissions;

- their relative volume compared to the organisation's other scope 3 emissions or OIE;
- the organisation's influence on emissions;
- the risk the organisation would face should it not report emissions;
- the value placed on it by interested parties of the organisation;
- outsourcing of work that the organisation first performed itself;
- identification by the sector as relevant.

Wherever it states scope 3 emissions and/or OIE, this should be read as relevant scope 3 emissions and/or relevant OIE.

Scope 1 emissions (direct emissions) (Source: GHG Protocol Corporate Standard) Scope 1 emissions, or direct emissions (term used in ISO 14064-1), are CO₂ emissions that come from CO₂ sources that the organisation owns or controls. Examples include emissions from burning fossil fuels in its own boilers, furnaces or in its own vehicles. For more explanation, see normative Appendix A.

Scope 2 emissions (indirect emissions from imported energy) (Source: GHG Protocol Corporate Standard)
Scope 2 or indirect emissions from imported energy (term used in ISO 14064-1) are CO₂ emissions that arise from the generation of consumed electricity, heat, cooling and steam that the organisation has purchased (or otherwise brought within organisational boundaries). For more explanation, see normative Appendix A.

Scope 3 emissions (other indirect emissions) (Source: GHG Protocol Corporate Standard) Scope 3 emissions or other indirect emissions (term used in ISO 14064-1) are CO₂ emissions that are a result of the organisation's activities, but arise from sources that are neither owned nor controlled by the organisation. Examples are emissions from the production of purchased materials (upstream) and fulfilment of the work, project, service or delivery supplied or sold by the organisation (downstream). For more explanation, see normative Appendix A.

Sector A sector (trade) is a label for all organisations together that are active in a certain category of products or services.

Sector agreement An agreement that is demonstrably supported by multiple (international) market

players (or industry associations) and NGOs and/ or government.

Short-term A period of one to three years.

Small organisation An *organisation* that meets at least two of the following conditions for the previous year:

- staff size was equal to or less than 250 FTE;
- annual turnover was equal to or less than 50 million euros;
- the balance sheet total was equal to or less than 25 million euros.

Special audit A *special audit* for the CO₂ Performance Ladder is an unannounced *external audit*, which a *CB* performs at an organisation when

- SKAO or another (interested) party informs the CB of possible significant nonconformities;
- there are indications causing the CB to doubt the proper functioning of the energy and CO₂ management system.

A *special audit* does not always have to be carried out at the location of the certified organisation. The *CB* may also reach an opinion by requesting relevant information.

Substantial and relevant emissions substantial and relevant energy use If materiality relates to scope 1 or scope 2 emissions (not applicable to scope 3 emissions), these are material emissions. If materiality relates to energy consumption, this is material energy consumption. The limit above which reported emissions or energy consumption is material (the materiality threshold) is 5% for the CO2 Performance Ladder. Non-material scopes 1 and 2 emissions may be omitted from the emissions inventory and footprint (for lower administrative burden). However, this means these may only add up to a maximum of 5% of total scopes 1 and 2 emissions. Wherever it states scope 1 emissions and/ or scope 2 emissions and/or energy consumption, this should be read as 'material scope 1 emissions and/or material scope 2 emissions and/or material energy consumption'.

Supplier An entity that provides works, services and/or goods to the *main entity* including any subsidiary organisations.

- A-Suppliers the largest suppliers who collectively account for at least 80% of the purchase value of the main entity including any subsidiaries;
- A&C-Supplier these A-Suppliers belong to the same corporate group as the main entity and, as such, must be included in the organisation.

Tank-to-Wheel (TtW) emissions CO₂ emissions from the use of a fuel or energy carrier, excluding emissions from extraction and production.

Technology Readiness Level (TRL) (Source: NASA)

A type of measuring system used to assess the maturity level of a particular technology. Each technology project is evaluated with the parameters for each technology level and this *project* is then given a *TRL* rating based on the progress of the *project*. There are nine *TRLs*. *TRL* 1 is the lowest and *TRL* 9 is the highest. *TRL* 1 represents technology at the beginning of development and *TRL* 9 represents technology that is technically and commercially ready.

Upstream and downstream emissions on a (the) project Upstream emissions result from purchased materials (*LCA* stages A1, A2 and A3) and downstream emissions include at least those while result from energy or material use in the usage stage of completed construction works (at least *LCA* stage B).

Upstream emissions (Source: GHG Protocol scope 3 Standard) Indirect CO₂ emissions of purchased or acquired products and services. See also Scope 3 emissions.

Value chain (Source: GHG Protocol scope 3 Standard)
A value chain is the combination of all upstream
and downstream activities associated with the
organisation. This value chain includes the use and
disposal of products sold by consumers.

Value chain analysis This is the inventory and analysis of CO₂ emissions from a *value chain* in which the *organisation* operates. This analysis focuses on understanding the extent and origin of CO₂ emissions and the *organisation*'s ability to reduce these emissions by modifying the production process. These may occur due to different design choices and/or by choosing, influencing or collaborating with *organisations* in the *value chain*.

Wheel-to-Tank (WtT) emissions These CO₂ emissions are from the extraction and production of fuels and energy carriers.

Well-to-Wheel (WtW) emissions These CO₂ emissions are from the full life cycle of a fuel or energy carrier. Thus, this is the sum of emissions from extraction and production (*Well-to-Tank emissions*) and use (*Tank-to-Wheel emissions*).

Zero CO_2 emissions Reducing scope 1, 2 and 3 emissions to zero.

CONTEXT OF THE ORGANISATION

4.1







Before an *organisation* is certified, the *organisation* must determine which entities it wants certified in their entirety or in part using methods described in this section. We call this defining the organisational boundary. All subsequent steps in certification depend on the appropriate determination of organisational boundaries. Thus, we recommend doing this at an early stage and submitting the outcome to a *CB*.

In determining organisational boundaries, the following conditions apply:

- a. These are always legal entities only, i.e. not unincorporated departments, branches or trade names;
- b. The organisation chooses to use
 - i. the top-down method or lateral method (see §4.1.1 and §4.1.2), and
 - ii. one of the three consolidation approaches from the GHG Protocol: operational control, financial control or equity share (see GHG Protocol Corporate Standard, Chapter 3 and/or the brief summary in normative Appendix A).
- c. The preferred choice for the CO₂ Performance Ladder is the combination of the topdown method and operational control.¹⁰ If the *organisation* departs from this, it must justify its choice;
- d. The *organisation* publishes its choices of methods under b. on the organisation page on the CO₂ Performance Ladder website;
- e. The *organisation* may switch between methods and/or *consolidation approaches* in each *audit* provided it provides adequate justification;
- f. Determining organisational boundaries may require crossing national borders. Organisational boundaries may not be limited by a geographic boundary;
- g. The organisation annually checks that its organisational boundaries are still current, and if necessary, adjusts them. If these changes (may) have major consequences, such as acquisitions, mergers or a method change (see e.), this may result in the next audit being an initial audit.

¹⁰ This combination is also prescribed in the CSRD.

4.1.1 METHOD 1: THE TOP-DOWN METHOD

The top-down method requires a complete organisational chart showing all legal entities that are wholly or partially, directly or indirectly, property or owned by the legal entities for which certification is sought. The entity located at the highest point in the organisational chart is the *main entity*. This is the holding company in the diagram below (e.g. this could be a ministry or municipality outside of the business sphere). The next step depends on the chosen *consolidation approach* and the operational or financial control or equity share for which legal entities are (partially) within the organisational boundaries and thus part of the *organisation*.

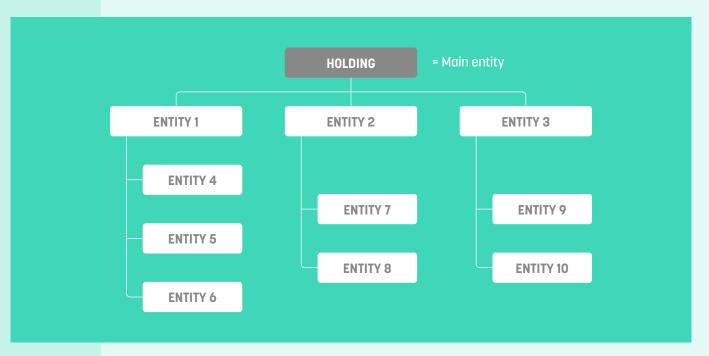


Figure 1 Example of determining the main entity with the top-down method

4.1.2

METHOD 2: THE LATERAL METHOD

The lateral method is used to choose a *main entity* at a lower step in the organisation chart (at the level of entity 1, 2, 3, 4, 5, etc.).

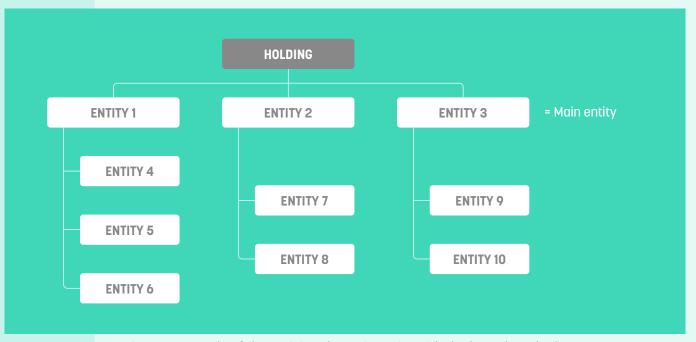


Figure 2 Example of determining the main entity with the lateral method

Therefore the lateral method can lead to a smaller organisation than the top-down method. This may be desirable when an organisation prefers to keep certain entities out of the scope of the energy and CO₂ management system, such as in the case of a foreign entity that operates completely independently. This is conditional on the excluded entities not having significant financial control over the entities that do belong to the organisation or vice versa. This method requires a detailed step-by-step process: the AC analysis. This prevents relevant entities from being excluded.

AC ANALYSIS, PART OF THE LATERAL METHOD

- **Step 1** Create the complete organisational chart described in the top-down method and note all legal entities within it. This is the list of group relationships.
- **Step 2** Choose a legal entity¹¹ at a lower step within the organisational chart that is preferably desired as an alternate *main entity*.
- Step 3 Include all suppliers who supply to this alternative main entity and its subsidiary organisations. This includes all subsidiary organisations unless they are under shared ownership. The consolidation approach (see §4.1(b)) then determines whether to include the subsidiary organisation. Place the suppliers in order of financial purchase value, excluding VAT, from large to small. The supplier where the most purchases are made will be ranked number 1 in the list. See an example in figure 3. In this example there are 200 suppliers with a total cost of sales of more than €1 billion. The largest supplier generates more than 100 million euros.

¹¹ This is usually the operating unit that wants to obtain a CO₂ Performance Ladder Certificate.

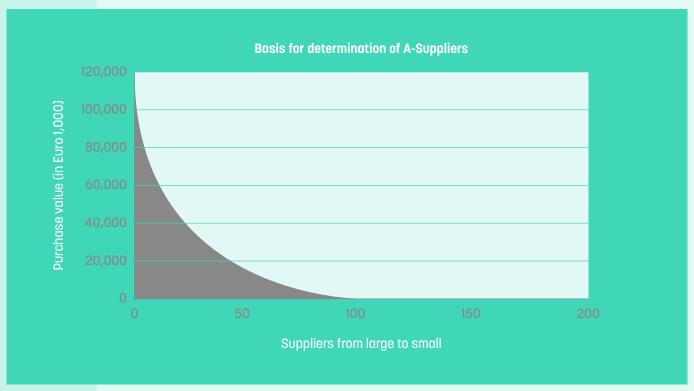


Figure 3 Suppliers from large to small based on purchase value

• Step 4 Express the purchase value per supplier as a percentage of the total (based on Step 3). This is represented cumulatively in figure 4. In this example, supplier number 1 provides almost 10% of the total purchase value and number 1 and 2 combined, over 18%. Figure 5 is the expanded beginning part of figure 4.

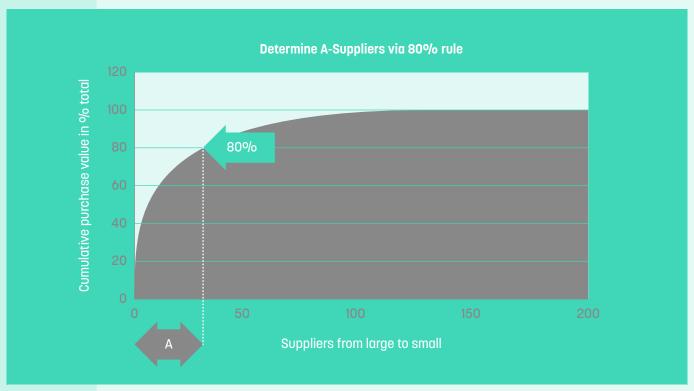


Figure 4 Cumulative suppliers' purchase value as a percentage of total

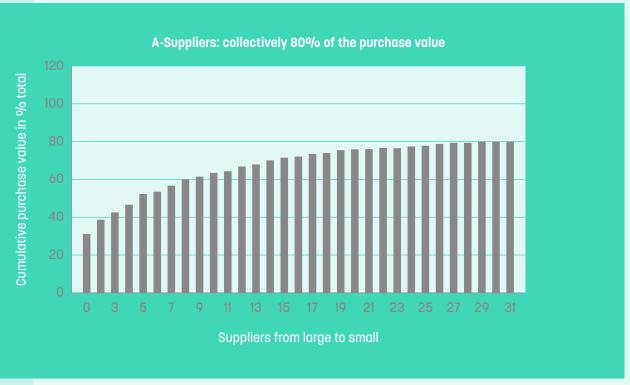


Figure 5 Expanded beginning part of figure 4

- Step 5 Select all *suppliers* that fall within the 80% limit of the *organisation*'s total purchase value, including the supplier whose purchase value exceeds this 80% limit. We call these *suppliers* the A-*Suppliers*. In the example, this is *supplier* Number 31 with a turnover of more than 6 million (more than 0.6% of the total), see figure 5. Thus, the supplier with Number 32 is not an A-Supplier.
- **Step 6** Select all A&C *suppliers*. These are all group relationships that are also A-Suppliers. Include them in the organisational boundaries and remove them from the *supplier* file.
- **Step 7** Start again with Step 3. Repeat this process until there are no new A&C *suppliers*. The organisational boundaries ultimately consist of
 - * the main entity;
 - * the (parts of) subsidiary organisations determined using the consolidation approach (see §4.1, item b);
 - * the A&C suppliers.

Note: You may add a group relationship that is discovered not to be an A-Supplier at Step 5 to the organisational boundaries.12 In that case, a separate AC analysis must be performed for this group relationship beginning at Step 3. The results are then merged once the AC analysis of the main entity and the separate AC analysis of this group relationship are fully completed.

¹² This means this group relationship is also listed on the certificate. This can be advantageous, for example, when this group relationship bids for tenders that reward use of the CO₂ Performance Ladder.

SUPPLEMENT TO STEP 6 IN AC ANALYSIS: ADDITIONAL OPPORTUNITIES TO EXCLUDE AN A&C SUPPLIER

At Step 6 in the lateral method, the desired *main entity* may not have sufficient control over an A&C supplier to include it in the *organisation*. The obvious solution is to choose a *main entity* that is at a higher step in the hierarchy (if this is the highest entity, this is essentially equivalent to the top-down method). This increases control in many cases.

However, mandatory inclusion of an A&C supplier in the *organisation* or choosing a *main entity* at a higher step in the hierarchy may be disproportionate. For example, if this leaves a large number of foreign entities within organisational boundaries with limited control over the originally intended *main entity*.

When faced with such a dilemma, the CB must weigh this up within the following framework:

- 1. It is always permitted to exclude an A&C supplier if on average over a term of the last three years
 - a. The proportion of the purchase value of the A&C supplier at the *organisation* is less than 5% of the total purchase value of the *organisation* and
 - b. The proportion of the sales value (revenue) of the A&C supplier at the *organisation* is also less than 5% of the total sales value of the A&C supplier.
- 2. An A&C supplier should never be excluded just because it exists temporarily (for example, because it was established for a specific contract);
- 3. An A&C supplier should never be excluded solely because it produces relatively low greenhouse gas emissions;
- 4. Finally, the A&C *suppliers* that are not included in the *organisation* should be removed from the entire AC analysis and the process should continue at Step 7.

The available methods and above framework allow for flexibility in determining organisational boundaries. Nevertheless, it is not always possible to arrive at workable organisational boundaries, for example for large (international) companies or complex government organisations. In these cases, customisation is sometimes possible by seeking a binding opinion from a Boundary Committee. In this case, the *organisation* must submit an application to SKAO in coordination with its *CB*. Thereafter, an ad hoc committee – at the cost of the *organisation* – makes its decision within three months. The conditions and procedure for a Boundary Committee are listed on the CO₂ Performance Ladder website.

4.1.3

CONSOLIDATION APPROACHES IN LEASED ASSETS AND CONSORTIUM PROJECTS

Although the organisation is free to choose one of the three consolidation approaches from the GHG Protocol (see §4.1, item b.), the CO₂ Performance Ladder provides further elaboration on how to consolidate leased assets and projects carried out by a consortium.

For leased assets, the organisation must always consolidate them per operational control, even when it opted for equity share or financial control. If it is unclear whether the tenant or the landlord has the most operational control, the party responsible for paying the fuel or electricity bill is the party with the most operational control.

For consortium projects, the organisation must consolidate them per its consolidation approach (see §4.1(b)), unless this results in a significant portion of the energy consumption or emissions in the project being included by none of the consortium members within its boundaries. In this case, there are three possibilities:

- the consortium members agree jointly and with good argumentation on an allocation key, or
- the *organisation* must include *energy consumption* and emissions from the *project* within its boundaries on an equity share basis, or
- the entity carrying out the consortium project (the project entity) independently implements operational energy and CO₂ policies¹³ and, per the GHG Protocol, records the energy consumption and emissions of the project within its boundaries.

It is very important to avoid double counting of energy consumption and emissions and the complete elimination of energy consumption and emissions. Note that double counting is preferable to the situation where no one reports on (part of) energy consumption or emissions.

4.2

DETERMINING THE SIZE OF THE ORGANISATION

Small organisations¹⁴ may qualify for a limited number of exemptions at Step 3 (listed under the requirements themselves) based on their organisation size. Organisations are small when they meet at least two of the following three conditions over the previous year:

- staff size was equal to or less than 250 FTE;
- annual turnover¹⁵ was equal to or less than 50 million euros;
- the balance sheet total was equal to or less than 25 million euros.

¹³ An independent operational energy and CO₂ policy exists, for example, when the project entity has its own certificate for the CO₂ Performance Ladder.

¹⁴ This is the same definition used for the CSRD on the publication date.

¹⁵ For organisations without turnover (e.g. public authorities), this should be read as 'income'.

4.3

PROJECT REQUIREMENTS



Many organisations carry out projects. They do this alone or with others. These projects may include works, services or deliveries. The CO_2 Performance Ladder distinguishes between CO_2 Performance Ladder Projects and all other projects. All projects must always be part of the organisation's energy and CO_2 management system, but for CO_2 Performance Ladder Projects, the CO_2 Performance Ladder imposes specific requirements on the documented information for each individual project (see §7.3.1). This documentation, supplemented with general project data (such as the name, client and location of the project), must be shared with the CB via 'My CO_2 Performance Ladder' before the audit so that they can take a sample of from the CO_2 Performance Ladder Projects, currently running or that have been completed since the previous audit.

4.4

UNDERSTANDING LEGAL OBLIGATIONS

The organisation must understand its legal obligations related to energy conservation, renewable energy and CO₂ reduction.

The organisation must:

- be familiar with national and international legal obligations related to energy conservation, renewable energy and CO₂ reduction;
- determine how these legal obligations apply to the organisation and how it takes them into account.

These legal obligations are both current and adopted (but not yet in force) local, national and/or international legislation that applies to all aspects of the *organisation*'s operations, including activities for *projects*, human resources and housing. For upcoming legislation, this is only the legislation that has been enacted by the competent authorities but has not yet entered into force.

4.5

ENERGY AND CO₂ MANAGEMENT SYSTEM

The organisation must establish, implement, maintain and continuously improve an energy and CO_2 management system. This includes the necessary processes and their interactions. The organisation must also continuously improve energy and CO_2 performance per the requirements of this scheme.

Note: The processes required may vary from organisation to organisation because of:

- the size of the organisation and the type of activities, processes, products and services;
- the complexity of the processes and their interactions;
- · staff competence.

¹⁶ This method is described in the certification regulation.

5 LEADERSHIP

5.1 **LEADERSHIP AND COMMITMENT**

Management must show leadership, direct responsibility and commitment to continual improvement of energy and CO_2 performance and the effectiveness of the energy and CO_2 management system. The management does so by:

- a. ensuring that the scope of the energy and CO2 management system is defined (see §4.1);
- b. ensuring that energy and CO₂ policies and targets are established and that they are part of the organisation's strategic direction;
- ensuring that energy and CO₂ management system requirements are integrated into the organisation's business processes;
- d. ensuring that the Action Plan and (if applicable) the Climate Transition Plan are approved and implemented;
- e. ensuring that the necessary resources for the energy and CO₂ management system are available;
- f. communicating the importance of effective energy and CO₂ management and of meeting energy and CO₂ management system requirements;
- g. ensuring that the energy and CO₂ management system achieves the intended results;
- h. promoting continual improvement of energy and CO₂ performance and the CO₂ management system;
- i. establishing an energy and CO₂ management team;
- j. directing and supporting the *key persons* identified in §7.2 to make the *energy and* CO₂ management system more effective and to improve CO₂ and energy performance.

5.2 **ENERGY AND CO₂ POLICY**

Management must establish an energy and CO₂ policy that

- a. fits the purpose of the organisation;
- b. provides a framework for setting and reviewing targets and plans (such as the *Climate Transition Plan* and/or *Action Plan*);
- c. includes a commitment to ensure that information is available and that all necessary resources to achieve the targets are available;
- d. includes a commitment to meet the legal requirements for energy conservation, renewable energy and CO₂ reduction, as stipulated in §4.4;
- e. includes a commitment to continual improvement (see §10.1) of energy and CO₂ performance and the energy and CO₂ management system;

The energy and CO₂ policy must:

- be communicated within the organisation;
- · be available to interested parties in an appropriate manner;
- be reviewed regularly and updated as needed.

6 PLANNING

6.1 **ACTIONS TO ADDRESS RISKS AND OPPORTUNITIES**

The organisation's planning for the CO_2 Performance Ladder must be consistent with the energy and CO_2 policy (see §5.2) and must result in actions that continuously improve energy performance. The organisation must identify risks and opportunities that must be acted upon to:

- provide assurance that the energy and CO₂ management system can achieve its intended result(s), including improvement in energy and CO₂ performance;
- prevent or reduce unwanted effects;
- continuously improve the energy and CO₂ management system and energy and CO₂ performance.

6.2 TARGETS AND PLANNING TO ACHIEVE THEM

The targets of the organisation must

- · be monitorable:
- be established relative to the base year and relative to the last initial or recertification audit;
- take into account applicable requirements such as legal obligations (see §4.4);
- consider opportunities to improve energy and CO₂ reduction performance.

If the *organisation* creates plans to achieve its targets, the *organisation* must document and maintain:

- · what will be done;
- · what resources are needed;
- · who is responsible;
- · when it will be completed;
- how the results will be evaluated. This includes the method(s) used to verify the improvement in energy and CO₂ performance.

For implementing all requirements of the CO₂ Performance Ladder unless, the organisation must maintain at least at an annual regular frequency unless

- a higher regular frequency suits the specific organisational processes better (for example, if there is otherwise insufficient time for adjustment);
- a requirement explicitly (under the heading 'planning') prescribes a different minimum regular frequency. Requirements to which this applies are:

REQUIREMENT	PRESCRIBED MINIMUM REGULAR FREQUENCY
1.A.2/2.A.2/3.A.2 Estimate whether non-CO ₂ greenhouse gases are material to scope 1 and scope 2 emissions	Before each <i>initial audit</i> and triennially
2.A.2/3.A.2 Estimate whether <i>non-CO</i> ₂ <i>greenhouse gases</i> are relevant to <i>scope 3</i> emissions	Before each <i>initial audit</i> and triennially
2.A.2/3.A.2 Conduct the qualitative <i>OIE</i> analysis (only when the previous <i>OIE</i> analysis substantiated that all three <i>OIE</i> types are not relevant)	Before each <i>initial audit</i> and triennially
2.A.5/3.A.5 Investigate whether <i>value chain analysis/(es)</i> should be completely revamped, including implementation	Before each <i>initial audit</i> and triennially
2.B.1/3.B.1 Review the Climate Transition Plan	Before each <i>initial audit</i> and triennially
2.D.4/3.D.5 Dialogue on the <i>Climate Transition Plan</i> with an organisation in the value chain	Every six months
The documented information on CO_2 Performance Ladder Projects (see table in §7.3.1 for all requirements in which this appears)	At <i>project</i> start and completion. If it is a multi-year <i>project</i> , the <i>organisation</i> also does this annually.

7 SUPPORT

7.1 **RESOURCES**

The organisation must establish and make available the resources necessary to establish, implement, maintain and continuously improve energy and CO₂ performance, the energy and CO₂ management system and the achievement of targets. These resources minimally consist of:

- Capacity and budget for setting up, maintaining and implementing the energy and CO₂
 management system;
- Capacity and budget for the annual external audit;
- Capacity and budget to implement the Action Plan and the Climate Transition Plan, including measures to be taken;
- Capacity and budget to participate in required initiatives and collaborations;
- The annual contribution to SKAO.¹⁷

7.2 **KEY PERSONS AND THEIR COMPETENCE**

III

The organisation must identify the key person or key persons and ensure that they have the necessary competencies for their role and required level of CO₂ awareness as defined in 1.C.1/2.C.1/3.C.1. The organisation must

- identify these *key persons* at all levels of the *organisation* based on their position or job profile;
- always identify at least one of the organisation's own employees as a key person;
- always identify at least one key person for each CO₂ Performance Ladder Project.

When establishing competency, the organisation must:

- a. be able to demonstrate that *key persons* are educated, trained and have the necessary skills or experience;
- b. take actions to acquire the necessary competence, and evaluate the effectiveness of these actions, as appropriate.

¹⁷ The CO₂ Performance Ladder Certificate is not valid until the organisation pays the required annual contribution to SKAO. (See: www.co2performanceladder.com). Before issuing a new certificate or a positive annual Ladder assessment, the CB checks whether the organisation has met its payment obligations toward SKAO. A new certificate cannot be issued if the organisation cannot demonstrate that it has met its payment obligations.

DOCUMENTED INFORMATION AT THE ORGANISATIONAL AND PROJECT LEVEL

The organisation's energy and CO_2 management system must contain documented information for which

- the organisation is free to determine the form and bundling of information;
- it is always permitted to reuse (parts of) existing documented information in subsequent audits, as long as the content is still usable;
- the frequency of updating or renewal is prescribed in §6.2;
- information related to the entire organisation must be partially published on the organisation page on the CO₂ Performance Ladder website;¹⁸
- information related to CO_2 Performance Ladder Projects must be partly shared digitally with the client¹⁹ and the CB via 'My CO_2 Performance Ladder'. The organisation does so at the start and completion of the project. If it is a multi-year project, the organisation also does this annually.

A summary of the mandatory documented information per paragraph or requirement is listed below. This summary also states whether the information must be published or, in the case of CO_2 Performance Ladder projects, shared with the client and the CB. For detailed explanation of the content of the documented information, refer to the specific paragraph or requirement. All paragraphs and requirements subject to this obligation are marked with a symbol in the rest of the handbook:



DOCUMENTATION
REQUIREMENT AT THE
ORGANISATIONAL LEVEL



PUBLICATION
REQUIREMENT AT
ORGANISATIONAL
LEVEL (ON THE CO2
PERFORMANCE
LADDER WEBSITE)



DOCUMENTATION
REQUIREMENT FOR CO2
PERFORMANCE LADDER
PROJECTS



OBLIGATION TO SHARE
DOCUMENTATION FOR
CO2 PERFORMANCE
LADDER PROJECTS WITH
CB AND CLIENTS VIA A
CLOSED PLATFORM (AT
START AND COMPLETION,
AND AT LEAST ANNUALLY)

- 18 To do this, an organisation must log in to 'My CO₂ Performance Ladder'. Login codes and instructions will be sent upon registration with SKAO. If the organisation does not have a valid certificate at the time of the audit (it is the first certification or there is an expired or suspended certificate), the organisation can upload documents, but the organisation page is not yet public. Publication occurs only after the certificate is issued. In such situations, it is sufficient to upload the mandatory documents in 'My CO₂ Performance Ladder'.
- 19 Dialogue on CO₂ reduction during the implementation of CO₂ Performance Ladder Projects The purpose of sharing this documentation digitally with the client is to facilitate a 'dialogue on CO₂ reduction' during the implementation of a CO₂ Performance Ladder project. The CO₂ ambition and possible opportunities for further reduction are regularly discussed by making the dialogue about CO₂ reduction an explicit part of the collaboration between contractor and client during the implementation of projects. The method of the 'dialogue on CO₂ reduction' is detailed in the Procurement Guide.

PARA/ REQ	DOCUMENTATION REQUIREMENT AT THE ORGANISATIONAL LEVEL	PUBLICATION REQUIREMENT AT ORGANISATIONAL LEVEL (ON THE CO ₂ PERFORMANCE LADDER WEBSITE)	DOCUMENTATION REQUIREMENT FOR CO ₂ PERFORMANCE LADDER PROJECTS	OBLIGATION TO SHARE DOCUMENTATION FOR CO2 PERFORMANCE LADDER PROJECTS WITH CB AND CLIENTS VIA A CLOSED PLATFORM (AT START AND COMPLETION, AND AT LEAST ANNUALLY)
§4.1	Documenting organisational boundaries	YES (only the chosen methods for determining the organisational boundaries)		
§4.3			General project details	YES
§7.2	Inventory of key persons			
§9.1.2	Data quality management plan			
§9.1.3	Base year emissions inventory			
§9.2	Internal audit report			
§9.3	Management review report			
§10.2	Action plan for corrective actions			
1.A.1 2.A.1 3.A.1	Energy review and energy balance	YES (final energy consumption only)	Energy balance of energy consumption on the CO ₂ Performance Ladder Project	YES
1.A.2 2.A.2 3.A.2	Emissions inventory and footprint scope 1 and scope 2	YES (footprint for scope 1, market-based scope 2 and location- based scope 2 only)	Quantitative estimation of emissions due to energy consumption on the CO ₂ Performance Ladder Project	YES

PARA/ REQ	DOCUMENTATION REQUIREMENT AT THE ORGANISATIONAL LEVEL	PUBLICATION REQUIREMENT AT ORGANISATIONAL LEVEL (ON THE CO ₂ PERFORMANCE LADDER WEBSITE)	DOCUMENTATION REQUIREMENT FOR CO ₂ PERFORMANCE LADDER PROJECTS	OBLIGATION TO SHARE DOCUMENTATION FOR CO ₂ PERFORMANCE LADDER PROJECTS WITH CB AND CLIENTS VIA A CLOSED PLATFORM (AT START AND COMPLETION, AND AT LEAST ANNUALLY)
2.A.2 3.A.2	Emission inventory and footprint for scope 3	YES (footprint for scope 3 only)	Quantitative estimate of the upstream and downstream emissions on the CO ₂ Performance Ladder Project	YES
2.A.2 3.A.2	Qualitative <i>OIE</i> analysis		Qualitative estimation of O/E at the CO ₂ Performance Ladder Project	
3.A.2	Qualitative <i>OIE</i> analysis		Quantitative estimation of OIE at the CO ₂ Performance Ladder Project	YES (if applicable)
2.A.3 3.A.3	Overview of organisational activities			
2.A.3 3.A.3	Quantifying emissions by activity			
2.A.4 3.A.4	Impact and influence analysis	YES (only the ranking of organisational activities)		
2.A.4 3.A.4	Determining most important activities	YES		
2.A.5 3.A.5	Value chain analysis	YES (including a brief summary)		
3.A.5	Inventory possible strategies toward <i>zero</i> CO ₂ emissions for most important activities			
3.A.5	Inventory possible strategies toward <i>zero</i> CO ₂ emissions for other activities			
2.B.1 3.B.1	Climate transition plan, including targets	YES		

PARA/ REQ	DOCUMENTATION REQUIREMENT AT THE ORGANISATIONAL LEVEL	PUBLICATION REQUIREMENT AT ORGANISATIONAL LEVEL (ON THE CO ₂ PERFORMANCE LADDER WEBSITE)	DOCUMENTATION REQUIREMENT FOR CO ₂ PERFORMANCE LADDER PROJECTS	OBLIGATION TO SHARE DOCUMENTATION FOR CO ₂ PERFORMANCE LADDER PROJECTS WITH CB AND CLIENTS VIA A CLOSED PLATFORM (AT START AND COMPLETION, AND AT LEAST ANNUALLY)
1.B.1 2.B.2 3.B.2	Action plan and Measure list, including targets	YES	Project plan and Measure list for the CO ₂ Performance Ladder Project	YES
1.B.2 2.B.3 3.B.3	Progress Report	YES	Evaluation/progress report for the measures on the CO ₂ Performance Ladder Project	YES
2.C.2 3.C.2	Process for key persons to submit comments and suggestions for improvement			
1.C.2 2.C.3 3.C.3	Communication Plan		Communication plan for CO ₂ Performance Ladder Projects	
3.C.4	Report of Climate Transition Plan review by independent expert			
1.D.1 2.D.1 3.D.1	Analysis of knowledge and collaboration needs		Analysis of knowledge and collaboration needs for CO ₂ Performance Ladder Projects	
1.D.2 2.D.2 3.D.2	Identification of opportunity for fulfilling knowledge and collaboration needs			
2.D.3 3.D.3	Collaboration agreement or established arrangements	YES (only a description of the collaboration and progress)		
2.D.4 3.D.5	Report on consultation Climate <i>Transition</i> <i>Plan</i> with relevant <i>organisation</i>			

OPERATION

See Part 2 for operation requirements.

PERFORMANCE EVALUATION

9.1

MONITORING, MEASURING, ANALYSING AND EVALUATING ENERGY AND CO_2 PERFORMANCE AND THE ENERGY AND CO_2 MANAGEMENT SYSTEM

9.1.1

GENERAL

The organisation must establish for the energy and CO₂ management system:

- a. what must be monitored and measured to attain sufficient insight, including minimally whether the targets in the Action Plan will be met;
- b. the methods for monitoring, measuring, analysing and evaluating to get valid results;
- c. when to monitor and measure;
- d. when to analyse and evaluate the results of monitoring and measurement.

The organisation must investigate and respond to significant nonconformities in the performance of the energy and CO₂ management system.

9.1.2

DATA QUALITY MANAGEMENT PLAN



The organisation must establish a data quality management plan. This plan must describe how the organisation strives for continual data improvement, such as:

- the data needed to be able to manage the effect of energy and/or CO₂ reduction measures
- the data related to material or relevant emissions or material energy use.

A data quality management plan details how energy and emissions data will be reported as accurately as possible. The plan also states how the *organisation* systematically strives to improve, broaden and refine its data. GHG Protocol Corporate Standard (Chapter 7) provides a clear checklist of the elements for a data quality management plan.

DATA QUALITY ROADMAP BASED ON GHG PROTOCOL, CHAPTER 7

- 1. Establish a quality person/team.
- 2. Develop a data quality management plan.
- 3. Perform generic data quality checks based on the data quality checks.
- 4. Carry out specific data quality checks.
- 5. Review the energy balance and emissions inventory and related reporting.
- 6. Establish formal feedback loops to improve data collection, handling and documentation processes.
- 7. Draw up reporting, documentation and archiving procedures.

For scope 1 and scope 2, the calculation method is mostly fixed (see §9.1.3). For scope 3 and OIE, there is more freedom and calculations will be partly based on assumptions. This increases the importance of properly recording the calculation method and the assumptions in the data quality management plan.

9.1.3 USING CO₂ EMISSION FACTORS

When an organisation calculates (parts of) its CO₂ emissions inventory, it must use CO₂ emission factors. SKAO designates a list of national CO₂ emission factors for each country as a standard list because CO₂ emission factors can differ internationally.²⁰ At the time of publication of this Handbook, this is for:

- Netherlands: www.co2emissiefactoren.nl
- Belgium: www.co2emissiefactoren.be

If SKAO designates lists for other countries, this will be mentioned on the CO₂ Performance Ladder website.

The following principles apply to the use of emission factors for the CO₂ Performance Ladder:

- 1. The emission factors on the national list designated by SKAO are the standard values;
- If no list is designated for a particular country, the organisation must select an accurate list itself. If this is not available, the organisation can use the list designated by SKAO for the Netherlands;

²⁰ For example, this might be due to differences in the electricity mix (including more or less generated with natural gas, coal, nuclear or renewable), different blending ratios for fuels or differences in the origin of fuels (including which continent they come from).

- 3. If the designated list is (partially) updated, the new emission factors should not be used until the *organisation* reports on the period in which the update occurred;²¹
- 4. The organisation may use other (officially recognised) factors in the following situations.
 - i. if this results in a more accurate outcome. For example, this applies to emissions that are highly dependent on the local context.²²
 - ii. If there is no appropriate emission factor in the national list for a particular fuel, mode of transport, etc.
- 5. If there is a deviation from the national list of emission factors, the assumptions used to establish this list and the calculation method must remain the same.
- 6. If an *organisation* deviates from the national list for one or more factors, it must clearly indicate the origin of the alternative factor(s) and make a plausible case for why their use leads to a more accurate outcome.

To determine scope 3 emissions, the above principles also apply, and the national list of emission factors should be used as much as possible for energy carriers and coolants. With respect to materials, an organisation is advised to use the CO₂ emissions data based on LCA data that fits the context of the organisation. If the organisation uses LCA data, the LCA must be prepared per ISO 14067²³ or EN 15804²⁴ for building products. The organisation can also use data established in an EPD or MRPI certificate. Nonconformities must be substantiated.

9.1.4

BASE YEAR AND RECALCULATION



The organisation must establish a base year to compare the current data with historical energy consumption, energy generation and CO₂ emissions data. When choosing a base year, it is important that

- · reliable energy and emissions data are available for that year;
- the base year in the initial audit is no further in the past than three years before the year in which the initial audit takes place. Note: An organisation must always have an emissions inventory for the past year (see requirement 1.A.2/2.A.2/3.A.2). Thus, choosing an earlier base year means that two emissions inventories must be prepared during the initial audit (one for the base year and one for the past year);
- an organisation can simultaneously choose different base years for energy consumption, energy storage, energy generation, scope 1 emissions, scope 2 emissions, scope 3 emissions and OIE;
- when substantiated, a base year may be reselected at each audit.

²¹ An example: the update will take place in January 2025. The new factors will be used once reporting for the period January – December 2025.

²² An example would be the fuel mix for electricity production.

 $^{{\}bf 23} \; {\bf Greenhouse} \; {\bf gases} - {\bf Carbon} \; {\bf footprint} \; {\bf of} \; {\bf products} - {\bf Requirements} \; {\bf and} \; {\bf guidelines} \; {\bf for} \; {\bf quantification}$

²⁴ Sustainability of construction work – Environmental declarations of products – Basic rules for the building products product group

COMPLETE RECALCULATION OF THE BASE YEAR

A new base year must be selected when there are

- significant changes in the organisational boundaries of the *organisation*, for example, due to acquisition or mergers;
- significant changes in the *organisation*'s activities. These are internal changes and changes in the *value chain(s)* in which the *organisation* operates.

If the base year is (voluntarily or mandatorily) changed, the energy balance and emissions inventory (for scope 1 and scope 2 and if applicable scope 3) must be fully recalculated for the new base year.

PARTIAL RECALCULATION OF THE BASE YEAR

If an *organisation* does not change the *base year*, it may still be necessary to recalculate some of the historical energy or emissions data.

- The energy balance and/or emissions inventory for scopes 1 and 2 require a partial recalculation when an energy or CO₂ emission factor changes due to a methodology change. This includes a different calculation method or source of information for determining the energy or emission factor. Changes in the energy or CO₂ emission factor as a result of technological progress, change in fuel type or changed market conditions does not constitute a methodology change.
- For the scope 3 emissions inventory, partial recalculation must occur when changes in methodology or availability of more accurate data lead to significant changes in (parts of) the emissions inventory. If information about the base year is not available in sufficient detail, the recalculation may be based on an educated guess based on information about later years that is available (backcasting). If this is not possible, the recalculation may be omitted and must be stated with the emissions inventory.

RULES FOR RECALCULATION OF INTERMEDIATE YEARS

It may be necessary to recalculate all or part of not only the *base year*, but also any intermediate years. This is the case if the energy and/or emission data from the intervening years are relevant to the information that the *organisation* must be able to demonstrate at the next *audit* (i.e. CO_2 footprints, CO_2 emissions inventories, reduction targets, progress reports, communication statements, etc.).

The organisation must clearly document any full or partial recalculation of the base year and any intervening years. Also see the rules on recalculation in ISO 14064-1, §6.4.2.

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(III)

INTERNAL AUDIT

The organisation must conduct an internal audit through which it examines whether the energy and CO_2 management system meets the requirements of the certification scheme, and thus that the organisation is ready for the external audit, and whether work within the organisation is done per the arrangements in the energy and CO_2 management system (such as targets, procedures, communication, publication, planned measures, etc.). Apart from the actual assessment, the internal audit also assesses the possibility of improving the system and/or the execution. In an energy and CO_2 management system the internal audit is a very important source of information for the management review.

Without undue delay, the *organisation* must take all *corrective actions* to eliminate *nonconformities* from requirements and the *energy and CO*₂ *management system* and their causes within an appropriate time frame. In addition, the *organisation* must verify that sufficient points have been achieved in Part 2 to achieve or maintain its step. To guarantee the execution of the *internal audits*, it is important to properly lay down the process, planning/execution and responsibilities.

An organisation can combine and/or integrate the internal audit according to the CO₂ Performance Ladder with the internal audit(s) for other management system standards.

The results of the *internal audit* are recorded in an *internal audit report*. This report includes at least the following:

- the date of the audit;
- the names of auditor(s) and auditee(s);
- the audit's objective;
- the scope;
- the locations visited;
- · the audit's findings;
- the effectiveness of the system to improve CO₂ and energy performance and meet (reduction) targets.

The internal audit should explicitly address the following questions:

- Does the *organisation* find that the activities (on whose basis the *organisation* meets the requirements) achieve progress within the organisation?
- · What substantiates this?
- Do the procedures established by the *organisation* and the processes within the *organisation* contribute to the achievement of the targets?
- What decisions are required of management regarding possible corrective actions?

The internal auditor

- a. must be objective and impartial. Among other things, this means that the internal auditor may not *audit* the content of their own work;
- b. must have relevant knowledge and skills;
- may be an outside party (e.g. a consulting firm), as long as the requirements in a. and b. are met.

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(III)

MANAGEMENT REVIEW

The management must review the *organisation's energy and* CO₂ management system to achieve its continuous suitability, adequacy, effectiveness.

The input for the management review includes at least:

- a. the points in §5.1 on leadership;
- b. the status of actions from previous *management reviews*, *internal audits* and *external audits*;
- c. changes in external and internal developments relevant to the *energy and* CO₂ management system;
- d. information about the performance and efficacy of the energy and CO₂ management system, including:
 - i. energy policy and reduction measures;
 - ii. the energy performance, emissions and the *energy review* (requirement 1.A.1/2.A.1/3.A.1);
 - iii. the progress towards the reduction targets and the extent to which they have been achieved;
 - iv. internal and external communications and initiatives;
 - v. the concerns of the independent expert (requirement 3.C.4);
 - vi. the audit results: internal audit and external audit;
 - vii. nonconformities and corrective actions;
- e. the effectiveness of actions taken to address reduction opportunities;
- f. opportunities to improve.

The output of the management review includes at least decisions and actions related to:

- a. opportunities to improve;
- b. the need to change the *energy and* CO₂ *management system*, reduction targets, reduction measures and (participation in) collaborations;
- c. conclusions on the probability of achieving reduction targets previously published internally or externally;
- d. efficacy of the energy and CO₂ management system, including an explicit statement about the extent to which the CO₂ Performance Ladder functions as intended. This statement is based on the results of the *internal audit*;
- e. the need for resources.

The organisation must maintain documentation as evidence of the results of the management review. An organisation can combine and/or integrate the management review according to the $\rm CO_2$ Performance Ladder with the management review(s) for other management system standards.

9.4

EXTERNAL AUDIT

The organisation must ensure an annual audit is performed. The requirements that apply to the initial audit, annual audit, recertification audit and the special audit and the scores required to pass a particular step of the CO₂ Performance Ladder are contained in the certification regulation.

During each *audit*, the *organisation* itself is responsible for communicating with the auditor. If an external party (e.g. a consulting firm) is present during the *audit*, their role should be limited to the passive role of prompter.

10 IMPROVEMENT

10.1

CONTINUAL IMPROVEMENT

The Ladder system is based on the principles of a management system and aims for continual improvement. This means that continual, repeated processes should exist in the organisation that are geared toward improving the energy and CO₂ performance as well as the management system. This system can also be thought of as Plan-Do-Check-Act (PDCA). In brief, PDCA can be described as follows:

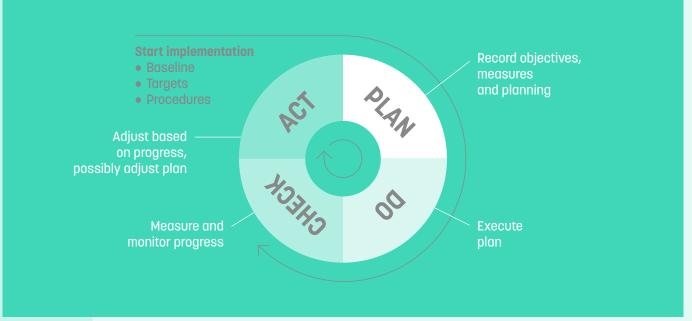


Figure 6 Plan-Do-Check-Act cycle

10.2

NONCONFORMITIES AND CORRECTIVE ACTIONS



If a nonconformity is identified, the organisation must:

- a. Respond to the *nonconformity*, and as applicable:
 - i. Take measures to manage and correct the nonconformity;
 - ii. Address the consequences;
- b. Evaluate the need to take measures to eliminate the cause(s) of the *nonconformity* so that the *nonconformity* does not recur or occur elsewhere, by
 - i. Assess the nonconformity;
 - ii. Identify the causes of the nonconformity;
 - iii. Determine whether similar nonconformities occur or could occur;
- c. Implement the necessary measures;
- d. Assess the effectiveness of corrective actions taken;
- e. If necessary, make changes to the energy and CO₂ management system.

Corrective action should be appropriate to the effects of the nonconformities that have occurred. The organisation must maintain documented information of:

- The nature of nonconformities and subsequent actions taken;
- The outcomes of corrective actions.

For significant nonconformities found during an external audit, the organisation must take corrective action within three months. For minor nonconformities, the organisation must develop and implement a corrective Action Plan before the next audit.



STEP 2 REQUIREMENTS

ANGLE A Insight	ANGLE B REDUCTION	ANGLE C COMMUNICATION	ANGLE D COLLABORATION
Requirement 2.A.1 The organisation has quantitative insight into its own energy consumption	Requirement 2.B.1 The organisation has a Climate Transition Plan for its most important activities, which includes a medium-term target for scope 1, 2 and 3	Requirement 2.C.1 The organisation ensures that key persons are demonstrably aware of their role in the organisation's energy and CO ₂ policy	Requirement 2.D.1 The organisation analyses its own knowledge and collaboration needs related to the 2.B.1 Climate Transition Plan for its most important activities and the 2.B.2 Action Plan
Requirement 2.A.2 The organisation has quantitative insight into its scope 1, scope 2, and scope 3 emissions and qualitative insight into its OIE	Requirement 2.B.2 The organisation has translated the 2.B.1 Climate Transition Plan for its most important activities into short-term preparatory actions, measures and target(s) and has established them in an Action Plan	Requirement 2.C.2 The organisation ensures that key persons are actively engaged in implementing and improving the energy and CO ₂ policy appropriate to their role	Requirement 2.D.2 The organisation identifies opportunities by which it can meet the knowledge and collaboration needs of 2.D.1
Requirement 2.A.3 The organisation has insight into its organisational activities and the emissions from these activities	Requirement 2.B.3 The organisation succeeds in achieving the targets and/ or preparatory actions and measures in the 2.B.2 Action Plan for its most important activities	Requirement 2.C.3 The organisation communicates internally and externally about its 2.B.1 Climate Transition Plan for its most important activities and its 2.B.2 Action Plan, including progress	Requirement 2.D.3 The organisation actively fulfils its own knowledge and collaboration needs by partnering with one or more organisations identified in 2.D.2
Requirement 2.A.4 The organisation has insight into the impact of its organisational activities on its CO ₂ emissions and into the influence it has on this, and knows which activities are most important for this purpose			Requirement 2.D.4 The organisation consults relevant organisations on its 2.B.1 Climate Transition Plan for its most important activities, and progress
Requirement 2.A.5 The organisation has insight into the value chains of its most important activities			



ANGLE A INSIGHT

REQUIREMENT 2.A.1

2.A.1

THE ORGANISATION HAS QUANTITATIVE INSIGHT INTO ITS OWN ENERGY CONSUMPTION

CRITERION 2.A.1-1

2.A.1-1

ENERGY BALANCE AND ENERGY REVIEW



To meet this criterion, the *organisation* needs three things: The *organisation* has an *energy* balance for its own *energy* consumption, an *energy* review per §6.3 from ISO 50001, and an analysis of the *organisation*'s (potential) role in *energy* system flexibility.

The following three conditions apply to energy balance:

- a. It is quantified with measurements and/or plausible estimates;
- b. Quantification includes at least 90% of the *organisation's final energy consumption*. Very small *energy consumption* and production need not be included when substantiated on the basis of *materiality*;
- c. The calculation uses accurate conversion factors, based on final energy, of fuels and energy carriers²⁵.

An energy review per §6.3 from ISO 50001 is subject to the following four conditions:

- a. This is an analysis of energy efficiency, energy use and energy consumption based on information. This results in the organisation identifying significant energy consumption and opportunities for improving energy performance.
- b. This is an analysis of the main features of the current and past *energy* consumption and production. This involves comparing it with the *base year* and with developments from that point onward;
- c. This is a detailed *energy balance* analysis to identify the facilities, systems, processes or equipment that have a significant impact on *energy consumption* and production;
- d. It is designed to identify and record priorities and document opportunities for energy performance improvement based on consumption and/or the potential for energy performance improvement;

For more information and examples on *energy reviews*, see also (informative) Annex A.6.3 of ISO 50001.

25 For this purpose, for example the energy content of fuels at www.co2emissiefactoren.nl can be used.

The following two conditions apply to the analysis of the *organisation*'s (potential) role in *energy system flexibility*:

- a. This describes whether the *organisation* and/or its branches are located in one or more regions with an increased probability of congestion on the local electricity grid;
- b. This describes the measures the *organisation* can take, alone or with others, that contribute to *flexibility in the energy system* including
 - i. temporary reduction or increase in its own electricity consumption from the grid;
 - ii. temporary reduction or increase in its own electricity production delivered to the grid;
 - iii. temporary storage of self-generated or off-grid electricity;
 - iv. purchasing renewable electricity that is demonstrably (e.g. through time-based certificates²⁶) produced at the time the *organisation* uses it.



DOCUMENTED INFORMATION IN CO2 PERFORMANCE LADDER PROJECTS

For each CO_2 Performance Ladder Project, the organisation must draw up an energy balance for the energy consumption on a project and must provide insight into the project's contribution to the energy balance at the organisational level. This also applies if the CO_2 Performance Ladder Project is implemented in a consortium (see §4.1.3 in Part 1 for how to consolidate). The organisation does so at the start and completion of the project. If it is a multi-year project, the organisation also does this annually.

For each ${\it CO}_2$ Performance Ladder Project, the organisation must identify opportunities for energy performance improvement, prioritise and document opportunities based on consumption and/or potential for energy performance improvement.

REQUIREMENT 2.A.2

2.A.2

THE ORGANISATION HAS QUANTITATIVE INSIGHT INTO ITS SCOPE 1, SCOPE 2, AND SCOPE 3 EMISSIONS AND QUALITATIVE INSIGHT INTO ITS OIE

CRITERION 2.A.2-1



EMISSIONS INVENTORY SCOPES 1 AND 2





The organisation must draw up a report that details the CO_2 emissions inventory for its scopes 1 and 2 emissions, per ISO 14064-1 (supplemented by elements from the GHG Protocol Corporate Standard). This report also includes a CO_2 footprint of the organisation. The following requirements are imposed on the report and inventory:

²⁶ These are certificates that do not match renewable energy production and consumption on an annual basis (as with GoOs), but, for instance, on a quarterly basis.

a. Reliability and timeliness:

- i. the emissions inventory is based on actual energy consumption figures for an entire year;
- ii. the CO₂ emission factors and any recalculation have been applied per Section 9.1.3 from Part 1 and are provided with source citations;
- iii. the data used can be traced back to the sources (for example, fuel invoices, electricity bills or consumption data);
- iv. the substantiation is correct for the differences in CO₂ emission factors, methods and reported emissions with the previous emissions inventory;
- v. an emissions inventory is up to date up to a maximum of 15 calendar months after the end of the year for which the emissions are reported.

b. Completeness:

- the organisation must make an educated guess as to whether emissions of non-CO₂ greenhouse gases²⁷ are material. If this is the case, the material non-CO₂ greenhouse gases should be listed separately and quantified by greenhouse gas in kg or tons of CO₂ equivalents;
- ii. the emissions inventory meets all requirements of §9.3.1 Point a through t of ISO 14064-1 as adopted in normative Appendix A, using the scope classification from the GHG Protocol;
- iii. the emissions inventory contains all (groups of) facilities, systems, processes or equipment from the *energy balance* of requirement 1.A.1 and is complete with respect to material *scope 1* and *scope 2* emissions;
- iv. the emissions inventory lists the CO₂ footprint for scope 1 and scope 2 separately;
- v. the emissions inventory covers all organisational units and the *organisation*'s activities to the extent they fall within organisational boundaries, including the *organisation*'s *projects*;
- vi. for fuels and energy carriers, you may
 - * report the Well-to-Wheel (WtW) emissions in scope 1 and scope 2, or
 - * report Tank-to-Wheel emissions (TtW) in scope 1 and scope 2 and Well-to-Tank emissions (WtT) in scope 3 (under Category 3). If the organisation chooses to do this, it must be clearly stated;
- vii. if the *organisation* demonstrably purchases *green gas*, it may use a *green gas* emission factor for the quantity purchased. This is demonstrable when *green gas* GoOs for the same quantity, by the *organisation* or its energy supplier, are entered as settled in the register of the *issuing body* in the country in which the *green gas* is used.

²⁷ Up until Handbook 3.1, reporting on material non-CO₂ greenhouse gases was optional. From Handbook 4.0 onward, it is mandatory.

- viii. the *organisation* reports *scope 2 emissions* from electricity consumption dually (see normative Appendix A for more information). This means that the *organisation* calculates emissions from electricity consumption using two methods:
 - * **Method 1**: location-based method: the organisation uses one accurate emission factor²⁸ that reflects the average emissions from electricity generation on the local, sub-national or national grid;
 - * **Method 2**: market-based method: the organisation uses a separate accurate emission factor for each power source. In doing so, the organisation makes a division between grey and/or green electricity purchased from the grid:
 - **Grey electricity**: The *organisation* must as far as possible make a distinction by grey electricity source²⁹ (e.g. coal, gas or nuclear) and use a supplier-specific emission factor. If the *organisation* cannot discover the exact origin of (part of) its *grey electricity*, if there's no supplier-specific emission factor available or it purchases *grey electricity* from abroad, it must use (for that part) a single accurate average emission factor for all *grey electricity* sources on the local, sub-national or national grid.
 - **Green electricity**: The organisation must demonstrate green electricity that meets the following conditions:³⁰
 - * The electricity is demonstrably renewable. This means that
 - it is generated from renewable sources, such as wind, solar, geothermal, ambient, tidal, wave and other ocean energy, hydropower, and energy from biomass, landfill gas, sewage treatment plant gas, and biogas;
 - electricity from biomass, landfill gas, sewage treatment plant gas and biogas is certified to an EU approved scheme³¹ or equivalent;
 - the organisation, or its energy supplier, debits GoOs to the issuing body's registry in the country in which the green electricity is used. This can be demonstrated through settlement statements or with an electricity label (or equivalent) in combination with a contract or invoice from the supplier showing how much of this product was taken in that calendar year;
 - * The electricity is additional. This means it comes from
 - · the country in which the electricity is used or
 - another country and the *organisation* can adequately substantiate the additionality of the electricity it purchases based on
 - * the importance of its (financial) contribution to the realisation or continued existence of the renewable energy project, and
 - * the presence of a physical connection (interconnection) for electricity transmission between the user country and the producer country and
 - * the *issuing body*'s membership in the producing country in the Association of Issuing Bodies (AiB).

²⁸ In the Netherlands and Belgium, this is the emission factor 'power unknown' at www.co2emisiefactoren.nl and www.co2emissiefactoren.be.

 $^{{\}bf 29}$ In the Netherlands, the electricity label can be used for this purpose.

³⁰ These conditions for electricity consumption in the Netherlands are in line with SMK's Milieukeur Groene Elektriciteit (Ecolabel Green Electricity). A *green electricity* product with a valid SMK quality mark thus automatically meets the conditions in the Netherlands.

³¹ At the time of publication of this Handbook, they are 2BSvs, Better Biomass, Bonsucro EU, ISCC EU, KZR INIG, REDcert, Red Tractor, RSB EU RED, RTRS EU RED, SQC, TASCC, UFAS, SURE, SBP and AACS.

PLANNING

The substantiated assessment of whether non-CO₂ greenhouse gas emissions are among material scope 1 and scope 2 emissions (item 1) must minimally occur before each initial audit and triennially.

CRITERION 2.A.2-2

2.A.2-2

EMISSIONS INVENTORY SCOPE 3





The organisation must draw up a report that elaborates on the CO₂ emissions inventory for scope 1 and scope 2 of 2.A.2-1 with a quantification of the organisation's scope 3 emissions. The organisation creates a separate scope 3 footprint based on this report.

The following applies to this quantification for scope 3:

a. The *organisation* uses the 15 *scope 3* categories from Chapter 5 of the GHG Protocol scope 3 Standard (for further explanation, see normative Appendix A). The categories are:

* Scope 3 upstream

- i. Purchased goods and services;
 - * Optional subcategory: cloud computing and data centre services
- ii. Capital goods;
- iii. Fuel and energy-related activities (not included in scope 1 or 2);
- iv. Upstream transportation and distribution;
- v. Waste generated in operations;
- vi. Business travel;
- vii. Employee commuting;
- viii. Upstream leased assets;

* Scope 3 downstream

- ix. Downstream transportation and distribution;
- x. Processing of sold products;
- xi. Use of products and services sold;
- xii. End-of-life treatment of sold products;
- xiii. Downstream leased assets;
- xiv. Franchises;
- xv. Investments
- b. The organisation must make a substantiated estimate as to whether non-CO₂ greenhouse gas emissions are part of the relevant scope 3 emissions. If this is the case, they should be listed and quantified separately for each greenhouse gas in kg or tons of CO₂ equivalents.
- c. The rule of thumb should be that at least two thirds of the total upstream and downstream scope 3 emissions are included in the inventory (100% is the theoretical maximum). The level of detail needed and how reliable the quantification is for each category and subcategory depends on the organisation's current insight (how long it has been certified). How this is tackled is explained below.

The following applies to the level of detail and reliability of quantification for scope 3:

- d. Organisations starting on the CO₂ Performance Ladder for the first time may rely on estimates. The aim is to gain a global understanding of the extent and focal points for each scope 3 category. This means:
 - * It is permissible to leave one or more scope 3 categories blank with justification. The organisation should never exclude Category 6 (business travel) and should always include at least one upstream and one downstream category. If the organisation leaves categories blank, it can substantiate this;
 - * If the *organisation* reports only TtW emissions for fuels and energy carriers in the emissions inventory for scope 1 and scope 2 (requirement 2.A.2-1), it must report WtT emissions in scope 3 (Category 3);
 - * The quantitative estimates may be based on financial data (spend-based), such as sales, combined with cost-based emission factors³², also, the *organisation* may use activity data based on physical estimates (quantities, numbers, litres, surface areas, etc.), combined with emission factors based on industry averages;
 - * If necessary, the *organisation* can complete missing data within a *scope 3* category by extrapolation;
 - * Emissions from downstream categories need not be based on emissions data from customers or users;
 - * The organisation can determine emissions based on design specifications and assumptions about the use-stage. Here, you can group similar products, services, assets or investments into clusters for each category and activity for which the same assumptions apply. The methods used, assumptions and method of clustering should be described.
- e. Organisations that have been certified longer must broaden, improve and refine their insight into scope 3 incrementally. The aim is to gain insight within each relevant scope 3 category into the scope and effect of (potential) reduction measures for each activity so that the organisation can take action accordingly. Priority for improvement should be scope 3 categories relevant to the most important activities as defined in Requirement 2.A.4-2. The following activity data and emission factors can be used for this purpose:
 - * The *organisation* should use actual activity data such as quantities, numbers, litres, areas, etc. as much as possible;
 - * Upstream emission factors should be based as much as possible on specific data from suppliers;
 - * Downstream emission factors should be tailored to (the use of) a product, location, asset, franchise or investment;
 - * For material-based emissions (categories 1, 2, 5, 11, 12), emission factors should be based as much as possible on *LCAs* (upstream preferably from supplier-specific data). If this is not possible, they should come from validated sector-specific data possibly supplemented by non-validated industry averages. Mixed use of data sources is permitted;
 - * For transportation and fuel-related activities (categories 3, 4, 6, 7 and 9):
 - * as much as possible, actual fuel use, or if not possible, transportation distances should be used;
 - * emission factors must be based on nationally accepted average emission factors. Upstream, validated vendor-specific data can also be used.

³² This refers to emission factors based on environmentally extended input output EEIO models, such as Exiobase.

- * Downstream categories require the adoption of usage scenarios. For the scenarios, clusters of similar products, services, assets, or investments can be formed by category and activity.
- * The use of extrapolation should be minimised.

Further elaboration and examples of quantification of scope 3 categories are given in the GHG Protocol Scope 3 calculation guidance.

PLANNING

The substantiated assessment of whether non-CO₂ greenhouse gas emissions are among the *relevant scope 3 emissions* (Point b.) must minimally occur before each *initial audit* and triennially.

CRITERION 2.A.2-3

2.A.2-3

QUALITATIVE DIE ANALYSIS



The organisation must provide a qualitative analysis of its Other Influenceable Emissions (OIEs) that addresses separately and in outline the relevance in terms of the (potential) impact and influence of

- Biogenic CO2 emissions (direct and/or indirect);
- CO2 removals (direct);
- · Avoided emissions (both positive and negative).

In the analysis, the organisation answers the following questions:

- Whether, and if so how, one or more of the three OIE types are or may be relevant in the sector(s) in which it operates;
- b. Whether, and if so how, one or more of the three OIE types are or may be relevant to the organisation and the activities it performs;
- c. The role the *organisation* sees for itself in influencing one or more of the three *OIE* types, for example through *value chain* collaboration, procurement or policy making.

To support this analysis, the *organisation* can use the results of a tool/questionnaire available in 'My CO₂ Performance Ladder' which, based on the *sector*, the size of the *organisation* and the *organisation*'s activities, among other things, allows a statement to be made as to whether it is possible, and if so, how possible, that one or more *OIE* types are relevant to the *organisation*.

PLANNING

If the *organisation* can demonstrate in the qualitative *OIE* analysis that none of the three *OIE* types is relevant to the *organisation*, it is sufficient if it only repeats the analysis before each *initial audit* and triennially.

DOCUMENTED INFORMATION IN CO2 PERFORMANCE LADDER PROJECTS





For each ${\rm CO_2}$ Performance Ladder Project, the organisation has a quantitative estimate of the emissions due to the energy consumption on a project and its upstream and downstream emissions. For this estimate

a. the organisation can use allocation (attribution) of the upstream and downstream emissions to the project based on (its own) numbers from previous projects or other experience figures. In this case, the organisation may use physical or economic allocation as described in Chapter 8 of the GHG Protocol scope 3 Standard.

- b. the organisation distinguishes between
 - i. the project's upstream emissions and emissions due to the energy consumption on the project: the organisation may derive these emissions from an LCA³³ if requested by the project's client. If the organisation wishes to use an LCA, it must be prepared per ISO14067³⁴ or EN15804³⁵ and cover at least LCA stages A1 through A5. This may involve an LCA of the entire project or of part of the project. There is an LCA of the entire project if the organisation can plausibly demonstrate that the LCA covers at least 80% of the combined emissions due to the energy consumption on the project and its upstream emissions. In all other cases, there is an LCA of part of the project and the organisation can only use it to substantiate this particular part of the CO₂ calculation.
 - ii. the *project's downstream emissions*: the *organisation* may derive these emissions from an *LCA* or it may estimate them itself. *Downstream emissions* should include at least energy and/or material use in the use stage (*LCA* Stage B) of the *project*.

The organisation does so at the start and completion of the project. If it is a multi-year project, the organisation also does this annually.

REQUIREMENT 2.A.3

2.A.3

THE ORGANISATION HAS INSIGHT INTO ITS ORGANISATIONAL ACTIVITIES AND THE EMISSIONS FROM THESE ACTIVITIES

CRITERION 2.A.3-1

2.A.3-1

DIVISION INTO ACTIVITIES

1. ORGANISATIONAL ACTIVITIES	2. DESCRIPTION OF ACTIVITIES
Activity 1	
Activity 2	
Activity 3	

Figure 7 Size and influence table with columns 1 and 2

³³ An example here is a calculation of an Environmental Cost Indicator (ECI)

³⁴ Greenhouse gases – Carbon footprint of products – Requirements and guidelines for quantification

³⁵ Sustainability of construction work - Environmental declarations of products – Basic rules for the building products product group



The *organisation* must produce a report that breaks down all its operations into activities, systems, functions or clusters of activities (hereafter: activities) and provides them with a brief description. The *organisation* chooses how general or detailed it reports and, therefore, how many activities they make a distinction between. For example, an *organisation* can choose to delineate at the level of primary processes (purchasing, sales, realisation), the level of business units or departments (for a company, e.g. housing, industry, utility construction and infra; for a government organisation, e.g. welfare, social affairs, spatial planning and other) or at the level of sub-processes (purchasing product X for maintenance, purchasing product Y for new construction).

For the subdivision, the organisation must consider the activities to

- a. be a logical combination of products/services and markets that are or are expected to be relevant, for
 - * the organisation's income and/or
 - * the expenses of the organisation and/or
 - * the projects of the organisation and/or
 - * the organisation's CO₂ emissions in scope 1, 2 and 3;
- be both currently relevant to the organisation and expected to be so in the future based on market/organisational developments;
- c. jointly cover everything the organisation does where overlap of activities is preferred over omission of activities. If necessary, it is permitted to add an activity 'other' or 'overhead'.
- d. be suitable to allocate scope 1, scope 2 and scope 3 emissions to;
- e. be suitable for monitoring by the organisation.

The organisation creates a size and influence table. The selected activities are listed in Column 1. A brief description of these activities (as relevant to CO₂ emissions) the organisation fills in Column 2.

CRITERION 2.A.3-2

2.A.3-2

VOLUME OF EMISSIONS BY ACTIVITY

1. ORGANISATIONAL ACTIVITIES	2. Description Of activities	3. QUANTITATIVE ESTIMATION OF CO₂ EMISSIONS (VOLUME)					
		A. SCOPE 3 UPSTREAM	B. Scope 1	C. SCOPE 2 MARKET- BASED	D. SCOPE 3 DOWN- STREAM	E. Sum a to d	
Activity 1							
Activity 2							
Activity 3							

Figure 8 Size and influence table with columns 1, 2 and 3



For all its organisational activities defined in 2.A.3-1, the organisation shall quantitatively estimate scope 1, scope 2, scope 3 upstream and scope 3 downstream in kg or tons of CO₂

equivalents, if these emissions are expected to be material (scope 1 and scope 2) or relevant (scope 3).

The quantitative estimate consists of two or three items for each organisational activity separately, which the *organisation* includes in the size and influence table:

- a. The portion of the emissions inventory from 2.A.2-1 for scope 1 and scope 2 emissions attributable to the relevant organisational activity (columns 3b and 3c);
- b. The portion of the emissions inventory from 2.A.2-2 for scope 3 emissions (divided into scope 3 upstream and scope 3 downstream) attributable to the relevant organisational activity (columns 3a and 3d);

As much as possible, the *organisation* should determine emissions for each individual activity. Alternatively, allocation is permitted. The quantitative estimate may still be rough at the time of the *initial audit* and should grow with the understanding of scope 3.

The organisation lists the sum of scope 3 upstream (Column 3a), scope 1 (Column 3B), scope 2 (Column 3c) and scope 3 downstream (Column 3d) in Column 3e in the size and influence table for each organisational activity.

REQUIREMENT 2.A.4

2 A 4

THE ORGANISATION HAS INSIGHT INTO THE IMPACT OF ITS ORGANISATIONAL ACTIVITIES ON ITS CO₂ EMISSIONS AND INTO THE INFLUENCE IT HAS ON THIS, AND KNOWS WHICH ACTIVITIES ARE MOST IMPORTANT FOR THIS PURPOSE

CRITERION 2.A.4-1

2.A.4-1

ISI ANALYSIS



The organisation must conduct an impact and influence (I&I) analysis. In the analysis, the organisation reports on the (potential) impact of the organisational activities it determined in 2.A.3-1 on its scope 1, scope 2 and scope 3 emissions.

In determining this impact, the *organisation* weighs its influence and the (relative) volume of the emissions. It records this in a size and influence table (columns 1, 2 and 3 have already been prepared in 2.A.3). With this table, the *organisation* maps its scope 1 and scope 2 emissions and *relevant* scope 3 emissions by activity.

EXTENSION OF COLUMN 3: ORGANISATION'S INFLUENCE ON CO2 EMISSIONS BY ACTIVITY

			3. QUANTITATIVE ESTIMATION OF CO2 EMISSIONS (VOLUME) AND INFLUENCE							
I. ORGANISATIONAL ACTIVITIES	2. DESCRIPTION OF ACTIVITIES	A. Scope 3 Upstream	IN FLUENCE	B. SCOPE 1	IN FLUENCE	C. SCOPE 2 Market- Based	IN FLUENCE	D. Scope 3 Downstream	INFLUENCE	E. Sumato d
Activity 1					LARGE		LARGE			
Activity 2					LARGE		LARGE			
Activity 3					LARGE		LARGE			

Figure 9 Size and influence table with an extension in Column 3 with 'influence'

For each organisational activity, the *organisation* must estimate its own influence on emissions in *scope 3* upstream and *scope 3* downstream emissions. The estimate should be qualitative with classifications of 'negligible,' 'small,' 'medium,' or 'large.' For *scope 1* and *scope 2*, the impact has already been entered as 'large.'

Is the (joint) financial interest represented by 2.A.5-1 relationships (purchase value/sales value) associated with an organisational activity relatively large? Then the *organisation* should factor this in when determining the influence in column 3. With greater (joint) financial interest, greater influence is assumed.

1. Organisational Activities	2-3. (SEE ABOVE)	4. Size relative To sector	5. SIZE RELATIVE TO ACTIVITIES	6. Risk	7. Guidelines	8. Ranking
Activiteit 1						
Activiteit 2						
Activiteit 3						

Figure 10 Size and influence table with columns 4 to 8

COLUMN 4: VOLUME OF EMISSIONS COMPARED TO THAT OF ORGANISATIONS IN THE SECTOR

In this column, the *organisation* must estimate for each organisational activity, based on Column 3 and its market share, how large its emissions are relative to the emissions of all *organisations* performing similar organisational activities in the same market or *sector*. Here, the market or *sector* can be seen as local, national or international. The estimate should be qualitative with classifications of 'negligible,' 'small,' 'medium,' or 'large.'

COLUMN 5: VOLUME OF EMISSIONS COMPARED TO EMISSIONS FROM OTHER ACTIVITIES OF THE ORGANISATION

In this column, the *organisation* must estimate for each organisational activity, based on column 3, the extent of its emissions relative to emissions from other activities of the *organisation*. The estimate should be qualitative with classifications of 'negligible,' 'small,' 'medium,' or 'large.'

COLUMN 6: RISK

In this column, the organisation must indicate the CO₂-related risk profile of the activity. This is the financial, legal or reputational risk that the organisation faces should it disregard the organisational activity. Consider the reputational risk an organisation faces if interested parties, such as customers, suppliers, investors, policymakers or NGOs, would consider the organisation's activities important, but the organisation wants to exclude them because the CO₂ emissions are relatively low. The estimate should be qualitative with classifications of 'negligible,' 'small,' 'medium,' or 'large.'

COLUMN 7: SECTOR GUIDELINES

In this column, the organisation should indicate the extent to which industry guidelines (if any), such as those issued by industry associations, require these ${\rm CO_2}$ emissions to be included by organisations in the industry. The estimate should be qualitative with classifications of 'negligible,' 'small,' 'medium,' or 'large.'

COLUMN 8: RANKING

This column ranks organisational activities. Assume that each completed cell in columns 3 to 7 is assigned a value. The following applies:

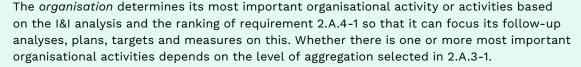
- negligible = 1
- small = 2
- medium = 3
- large = 4

The organisation chooses and argues whether it applies weighting in making the ranking.

CRITERION 2.A.4-2

DETERMINING MOST IMPORTANT ACTIVITIES





The most important organisational activity or activities are those that are highest in the ranking and whose accumulated emissions in Column 3e exceed the 50% threshold of the total in Column 3e. It is permissible to expand the list of most important activities to include activities lower-ranking if the organisation can substantiate that the organisational activity or activities are likely to be among the most important organisational activities in the future based on organisational and/or market developments.







REQUIREMENT 2.A.5

2.A.5

THE ORGANISATION HAS INSIGHT INTO THE VALUE CHAINS OF ITS MOST IMPORTANT ACTIVITIES

CRITERION 2.A.5-1

2.A.5-1

VALUE CHAIN ANALYSIS AND UNDERSTANDING OF DIRECT RELATIONSHIPS)



The organisation identifies and analyses the relevant parts of the value chain(s) associated with the organisation's most important activity or activities as determined in 2.A.4-2. These value chain analyses focus on key sources, short-term and medium-term reduction opportunities, and the volume of CO_2 emissions. These emissions can fall into scope 1, 2 and 3.

For each organisational activity, this analysis consists of the following steps:

• Step 1: identifying direct relationships

The organisation identifies who its key direct relationships are and for which of the most important organisational activities of 2.A.4-2 these relationships are relevant.

The organisation determines this as follows:

- i. It compiles a list of its upstream relationships: suppliers or other parties who receive money directly from the organisation with their estimated share (as a percentage) of the organisation's total expenditures minus payroll and taxes. Additionally, these parties must jointly cover at least 80%. The relationships responsible for the remaining 20% of cumulative expenditures need not be included in the statement³⁶;
- ii. The organisation prepares a list of its downstream relationships: customers or other parties from whom the organisation receives money directly with their estimated share (as a percentage) of the organisation's cumulative income (sales, grants, etc.). In doing so, these parties must jointly cover at least 80% of total revenues. The organisation does not need to include relationships responsible for the remaining 20% of cumulative revenue;
- iii. The *organisation* selects at least the top relationships from both statements separately that together represent 50% of the financial value. These are the most important *direct relationships*.

Next, the *organisation* determines for each key direct relationship which of the most important organisational activity or activities this relationship is associated with. Note: the relevance of these relationships also plays into their role as *interested parties* in communications (see requirement 2.C.3-1) and their potential as collaborative partners (see 2.D.2).

³⁶ Organisations that chose the lateral method (Method 2) when determining their organisational boundaries (see §4.1 in Part 1) already have an overview of their suppliers. They simply need to expand the list to include any other parties that receive money directly from the organisation.

- Step 2: Mapping: the *organisation* further identifies and outlines the *value chain*(s). It elaborates further on the I&I analysis of 2.A.4-1 which consists of a description of the *value chain*, the parties involved (at least the *direct relations* from step 1 of this process and as far as possible the *suppliers*, customers and end-users of these relations), the emission sources, the associated (production) processes and their own influence.
- Step 3: Allocating or calculating emissions: this consists of allocating or calculating emissions to or for the parties involved in the *value chain* to provide indicative insight into the share of individual parties in the emissions of the entire *value chain*. The emissions inventory for *scope 3* (2.A.2-2) and the 'mapping' in step 2 are the starting point. It must be possible to substantiate the allocation or calculation, e.g. with an *LCA*.
- Step 4: Analysis of value chain partners: who are the most relevant value chain partners and what role can they (potentially) play in reducing emissions calculated at step 3?
- Step 5: Analysis of reduction opportunities in the *short* and *medium term*: from which (production) processes do emissions originate, what is the reduction potential of these sources subdivided into *scopes 1*, 2 and 3 and what possibilities does the *organisation* have to influence and reduce these, which of these are the most promising, and over what period and which policy choices can result from this? Step 5 also includes an assessment of whether any negative effects may occur within *scope 1*, 2 or 3 as a result of reduction measures.

The following additional (pre)conditions apply to the value chain analyses:

- a. The organisation may use an existing value chain analysis or it may conduct a value chain analysis in collaboration with organisations in its sector. However, it must always translate the conclusions from the analysis to align with its own organisation.
- b. Free riding with the execution of a paid commissioned project of a client is not allowed.

PLANNING

The organisation must update its value chain analysis or analyses on an annual regular basis (see Part 1, §6.2) due to relevant changes in its I&I analysis or direct relationships. Additionally, minimally before each initial audit and triennially, it evaluates whether there is reason to completely renew and then perform the value chain analysis or analyses.

B

ANGLE B REDUCTION

REQUIREMENT 2.B.1

2.B.1

THE ORGANISATION HAS A CLIMATE TRANSITION PLAN FOR ITS MOST IMPORTANT ACTIVITIES, WHICH INCLUDES A MEDIUM-TERM TARGET FOR SCOPE 1, 2 AND 3

CRITERION 2.B.1-1

2.B.1-1

MEDIUM-TERM CO₂ TARGET



The organisation must establish one medium-term CO₂ reduction target.

The medium-term CO₂ reduction target:

- a. is set to 5 to 10 years after the *initial* or *recertification audit*. This means that the organisation evaluates and possibly revises this target at least every 3 years;
- b. applies to the most important organisational activities identified in 2.A.4-2;
- c. is as ambitious as possible given the organisation's own situation and in comparison to the target(s) of relevant organisations in its sector and in relation to applicable legal obligations. The organisation substantiates which (groups of) organisations in its sector it considers relevant;
- d. formulated as absolute (kg or tons of CO₂) and relative targets (CO₂ intensity value) compared to the base year;
- e. subdivided into separate sub-objectives that the target can be monitored, for example, by scope or organisational activity;
- f. is substantiated by indicating
 - i. how the target relates to national or international government policies for the organisational activity or activities per *sector* for the intervening years until no later than 2050;
 - ii. how the target builds on ambitious sector agreements and/or science-based reduction pathways (if applicable);
 - iii. how the target is linked to industry-accepted expectations for Technology Readiness Levels (*TRLs*) of relevant techniques;
 - iv. how the *organisation* incorporated the external *interested party* feedback from 2.D.4;
 - v. whether the target has been externally validated by an independent internationally recognised third party (e.g. SBTi) and what the outcome was.

CRITERION 2.B.1-2

2.B.1-2

MEDIUM-TERM ENERGY SAVINGS AND RENEWABLE ENERGY TARGET





The organisation must include quantitative targets in its Climate Transition Plan for saving 2.A.1 energy consumption and for self-generation, storage and use of renewable energy for the medium term that:

- a. contribute to meeting the *medium-term* CO₂ reduction target of 2.B.1-1;
- b. are established relative to the *base year* and relative to the last *initial* or recertification audit;
- c. are formulated as an absolute target (in MJ/kWh or as a percentage) or relative target (energy consumption intensity value);
- d. account for flexibility in the energy system;
- e. are ambitious in view of the organisation's own situation;
- f. are ambitious compared to the targets of relevant *organisations* in its *sector* and in relation to applicable legal obligations. The *organisation* substantiates which (groups of) *organisations* in its *sector* it considers relevant.

CRITERION 2.B.1-3

2.B.1-3

MEDIUM-TERM STRATEGY





The organisation substantiates how it will meet the medium-term target(s) by formulating a strategy that it will implement and include in its Climate Transition Plan. In the Climate Transition Plan, the organisation substantiates this strategy by addressing:

- a. the main planned preparatory actions and measures for CO₂ reduction for the *medium term*, which it will achieve alone, or jointly with others (see 2.D.3). *Medium-term* means that preparatory actions and measures have a duration of more than three years, or have a start date in three years or later.
- b. when they will take preparatory actions and measures for the medium-term;
- c. the expectations and possibilities for changes in activities, including the complete divestment of tasks, products and services;
- d. the strategy for the adaptation of existing, new and yet-to-be-developed technologies (innovation strategy);
- e. the strategy for developing or making available alone, or with others, new technologies necessary for the medium-term target for the *organisation*'s most important activities;
- f. the expectations for the investments needed;
- g. a qualitative consideration of whether and how the organisation's major capital assets and products are inherently CO₂ intensive;
- h. how the *Climate Transition Plan* is integrated and aligned with overall organisational policies and financial planning;
- i. the key assumptions, opportunities, risks, conditions and dependencies for implementing the strategy.

Furthermore, the organisation must ensure that

- j. the Climate Transition Plan for its most important activities is comparable in ambition to the Climate Transition Plan of similar relevant ambitious organisations in its sector (the Climate Transition Plans are available on the CO₂ Performance Ladder website);
- k. the Climate Transition Plan is suitable as a basis for short-term preparatory actions and measures in the Action Plan (see 2.B.2);

PLANNING (FOR CRITERIA 2.B.1-1, 2.B.1-2 AND 2.B.1-3)

The organisation must review Climate Transition Plan for its most important activities, including all medium-term targets before each initial audit, triennially and whenever major changes occur in the organisation itself (such as, in organisational boundaries or organisational activities) or context (such as major societal or technological changes).

REQUIREMENT 2.B.2

2.B.2

THE ORGANISATION HAS TRANSLATED THE 2.B.1 CLIMATE TRANSITION PLAN FOR ITS MOST IMPORTANT ACTIVITIES INTO SHORT-TERM PREPARATORY ACTIONS, MEASURES AND TARGET(S) AND HAS ESTABLISHED THEM IN AN ACTION PLAN

CRITERION 2.B.2-1

2.B.2-1

SHORT-TERM CO₂ TARGET



The organisation must draw up an Action Plan that includes one short-term ${\rm CO_2}$ reduction target that:

- a. is suitable for meeting the *medium-term* CO₂ reduction target for the most important activities for scopes 1, 2 and 3 of 2.B.1;
- b. is formulated as an absolute target (kg or tonne CO₂) or as a relative target (CO₂ intensity value) compared to the base year as well as to the last established short-term target;
- c. is broken down into separate sub-objectives for each scope or organisational activity such that the target can be monitored;
- d. is ambitious given the organisation's own situation and which is ambitious compared to the CO₂ reduction target of relevant organisations in its sector and in relation to applicable legal obligations. The organisation substantiates which (groups of) organisations in its sector it considers relevant;
- e. uses the Trias Energetica³⁷ as a starting point where CO₂ reductions that simultaneously result in final energy savings should be preferred over CO₂ reductions that result in no or less final energy savings.

CRITERION 2.B.2-2

2.B.2-2

SHORT-TERM ENERGY SAVINGS AND RENEWABLE ENERGY TARGET





The organisation must include quantitative targets in its Action Plan for saving 2.A.1 energy consumption and for self-generation, storage and use of renewable energy for the short-term that:

- a. contribute to meeting the *medium term* CO₂ reduction target for the organisation's most important activities identified in 2.B.1-1;
- b. are established relative to the *base year* and relative to the last *initial* or recertification audit;

³⁷ This refers to the order of preference for setting targets and taking measures based on 1. minimising *energy use*, 2. using renewable energy, and 3. using fossil fuels efficiently.

- c. are formulated as an absolute target (in MJ/kWh or as a percentage) or relative target (energy consumption intensity value);
- d. is as ambitious as possible given the *organisation*'s own situation and in comparison to the energy saving target(s) of relevant *organisations* in its *sector* and in relation to applicable legal obligations³⁸. The *organisation* substantiates which (groups of) *organisations* in its *sector* it considers relevant;
- e. have the Trias Energetica as a starting point, where CO₂ reductions that simultaneously result in final energy savings should be preferred to CO₂ reductions where no or less final energy is saved.

CRITERION 2.B.2-3

2.B.2-3

SHORT-TERM ACTION PLAN





The Action Plan is a concrete short-term plan containing all the planned preparatory actions and measures to achieve the targets for the organisation's most important activities. These preparatory actions and measures must

- be practical and clearly articulated;
- be planned for, wherein taking preparatory actions and measures earlier is more ambitious;
- include expectations for their contribution to CO₂ reduction, energy conservation, deployment of renewable energy and/or flexibility in the energy system;
- include who is responsible for implementation (department/function/person);

The Action Plan may cover a longer term than just the short term.

In addition to the Action Plan, the organisation indicates how its proposed and/or actual preparatory actions and measures and CO_2 intensity value compare to relevant organisations in its sector. To this end, the organisation fills in the Measure list and its CO_2 intensity value in 'My CO_2 Performance Ladder'. The organisation includes the output of the completed Measure list in its Action Plan. Next, the organisation analyses and substantiates

- how its measures and CO₂ intensity value compare with the number of measures, the type
 of measures (e.g. mainly related to 'construction site' or 'passenger mobility') and the
 category of measures (are they mainly A, B or C measures) of relevant organisations in
 its sector:
- how its CO₂ intensity value compares with that of relevant organisations in its sector;
- whether, based on its proposed and/or actual measures and CO₂ intensity value, it considers itself to be a front runner, average achiever or low performer.

The organisation should indicate which (types of) organisations it considers relevant in its sector (e.g. based on country, sector or organisation size).

38 If applicable, the energy savings target from the Energy Efficiency Directive (EED) applies explicitly.

Completing the Measures list is normative. If the organisation proposes and/or takes measures that are not already on the Measure list, the organisation must add them.





DOCUMENTED INFORMATION IN CO2 PERFORMANCE LADDER PROJECTS

For each ${
m CO}_2$ Performance Ladder Project, the organisation has a Project Plan containing preparatory actions and measures. The Project Plan will be implemented according to a schedule (the planning).

The organisation does so at the start and completion of the project. If it is a multi-year project, the organisation also does this annually.

The measures in the *Project Plan* are clearly derived from the quantitative target at the organisation level. The *organisation* indicates

- which Action Plan measures it includes in the Project Plan;
- which Action Plan measures, and which are suitable for projects, it does **not** include in its *Project Plan*. The organisation can justify why it does not implement these measures;
- what additional measures it includes in the *Project Plan* that are not from its *Action Plan*.

If measures have not yet been defined in the *Project Plan*, the *organisation* must define when the measures will be named that the *organisation* will implement in the *project*.

It is explicitly not necessary to formulate a separate target at *project* level for individual projects.

REQUIREMENT 2.B.3

2.B.3

THE ORGANISATION SUCCEEDS IN ACHIEVING THE TARGETS AND/OR PREPARATORY ACTIONS AND MEASURES IN THE 2.B.2 ACTION PLAN FOR ITS MOST IMPORTANT ACTIVITIES

CRITERION 2.B.3-1

2.B.3-1

IMPLEMENTATION AND/OR COMMITMENT REQUIREMENT



The organisation must demonstrate for the short-term ${\rm CO_2}$ target (2.B.2-1) and for the short-term energy savings and renewable energy targets (2.B.2-2) that the targets and/or the preparatory actions and measures from the past year's 2.B.2-3 Action Plan have been achieved. It documents this progress in a progress report.

PLANNING

If the deadline for achieving the short-term targets has not yet passed, the *organisation* must substantiate, based on demonstrable results achieved that it is on a realistic path to achieving the targets and/or the preparatory actions and measures in the *Action Plan*.



DOCUMENTED INFORMATION IN CO₂ PERFORMANCE LADDER PROJECTS

Upon completion of the *project*, the measures for that specific *Project Plan* have been implemented and evaluated, assessing their effectiveness (regarding possible application in other *projects*). In addition, if it is a multi-year *project*, the progress of the measures is documented at least annually. The *organisation* documents the results in a progress or evaluation report.

C COMMUNICATION

REQUIREMENT 2.C.1

2.C.1

THE ORGANISATION ENSURES THAT KEY PERSONS ARE DEMONSTRABLY AWARE OF THEIR ROLE IN THE ORGANISATION'S ENERGY AND CO₂ POLICY

CRITERION 2.C.1-1

2.C.1-1

KEEPING KEY PERSONS INFORMED

Key persons are identified in §7.2. They must be demonstrably aware of their role. This is when the person knows and can explain why and how they are (partly) responsible for the organisation's CO₂ and energy policy.

Key persons should

- be informed about their specific role and their specific influence, or what it could be, on the organisation's CO₂ and energy policy, on its energy consumption and CO₂ emissions, and on the use, storage or generation of renewable energy;
- know what is expected of them appropriate to the level of CO₂ awareness, distinguishing the following levels (higher levels include those below it):
 - i. Insight: be familiar with the *organisation's energy and* CO₂ *policies* and understand the important energy and CO₂ aspects in their work;
 - ii. Support: actively provide ideas and information for action, monitoring and policy;
 - iii. Feel engaged: participate in developing and realising elements of policy, the energy and CO₂ management system, savings measures, monitoring, communication and/or reporting;
 - iv. Feel responsible: feel responsible for developing and achieving elements of policy, the *energy and CO*₂ *management system*, savings measures, monitoring, communication and/or reporting.
- know the consequences of not complying with energy and CO₂ management system requirements.

REQUIREMENT 2.C.2

2.C.2

THE ORGANISATION ENSURES THAT KEY PERSONS ARE ACTIVELY ENGAGED IN IMPLEMENTING AND IMPROVING THE ENERGY AND CO₂ POLICY APPROPRIATE TO THEIR ROLE

CRITERION 2.C.2-1

2.C.2-1

ACTIVE CONTRIBUTION BY KEY PERSONS



The organisation facilitates and encourages key persons, depending on their role (§7.2) and expected level of CO₂ awareness (2.C.1), to actively contribute to the organisation's energy and CO₂ policy by thinking and acting in a CO₂-aware manner.

To do this, the organisation must

- establish and implement a process by which *key persons* can submit comments or suggestions for *energy and CO*₂ *policy* improvements, such as:
 - * putting CO₂ and energy policy on the agenda at work meetings and discussions between key persons and their supervisors, paying attention to the specific role of the employee;
 - * making CO₂ and energy reduction part of the *organisation*'s remuneration policy, especially for employees who have a key role as members of governing, management or supervisory bodies.
- establish and implement a process by which key persons, depending on their role defined in 2.C.1-1, are encouraged to act in a CO₂-aware manner;
- provide sufficient time, knowledge and budget.

REQUIREMENT 2.C.3

2.C.3

THE ORGANISATION COMMUNICATES INTERNALLY AND EXTERNALLY ABOUT ITS 2.B.1 CLIMATE TRANSITION PLAN FOR ITS MOST IMPORTANT ACTIVITIES AND ITS 2.B.2 ACTION PLAN, INCLUDING PROGRESS

CRITERION 2.C.3-1

2.C.3-1

COMMUNICATION PLAN



The *organisation* has prepared a communication plan and is implementing the plan as scheduled. The goal is to create accountability and collaborative opportunities. The communication plan requirements are:

TARGET GROUPS

- It includes a description of the communication's internal target groups, including at least the key persons identified in §7.2;
- It includes a description of the communication's external target groups including
 - * the organisation's direct relationships identified at requirement 2.A.5-1;

* (potential) partners to collaborate with on energy or CO₂ reduction or the use, storage or generation of renewable energy, such as parties in the *organisation's value chain(s)* (see requirement 2.D.2).

OBJECTIVES

· It contains the communication objectives (in terms of familiarity with the message);

MESSAGE AND RESOURCES

- It contains the message (by target group), which should be related to the *Climate Transition Plan* of 2.B.1 and the *Action Plan* of 2.B.2, including progress.
- It includes an overview of communication tools tailored to the target group and objectives, including at least its own website;
- It contains an overview of the information the *organisation* publishes on its own website. For this information the following applies
 - * it contains, as a minimum, a description of the organisation's energy and CO₂ policy and progress (possibly supported by the full publication of its Climate Transition Plan and/or Action Plan);
 - * the information relevant to the CO₂ Performance Ladder must be easily findable and visible to website visitors;
 - * the published information can have any format. This means the organisation decides how it communicates;
 - * the published information must not contradict its other documented information, including communications on the public organisation page on the CO₂ Performance Ladder website;
 - * it must include a digital link to the organisation page on the CO₂ Performance Ladder website;
 - * it must include the organisation's current certificate.
- It contains the communication strategy around the collaboration that has been entered into or is being sought (requirement 2.D.3);

RESPONSIBILITIES AND PLANNING

- It includes the communication managers and implementers;
- It contains the schedule, including the frequency of communication activities, with annual being the minimum for each activity. In addition, for CO₂ Performance Ladder Projects, communication activities must take place at the start and completion of the project.



COMMUNICATION ON CO2 PERFORMANCE LADDER PROJECTS

- It includes a description of the internal target groups of communication within the organisation's CO₂ Performance Ladder Projects, including at least one key person for the CO₂ Performance Ladder Project identified in §7.2;
- It includes a description of the external target groups of the organisation's CO₂
 Performance Ladder Project communications, including at least the project's client;
- It contains the approach for communication on CO₂ Performance Ladder Projects, minimally consisting of regular internal project consultation and consultation with project partners (including subcontractors) and the project client. During both internal and external consultations, attention should be paid to

- $\ ^{\star}$ the choice of and progress on the implementation of measures;
- \star the progress and trends related to energy consumption on the project;
- * the progress and trends related to emissions due to energy consumption on the project;
- * the progress and trends related to the project's upstream and downstream emissions.



ANGLE D

COLLABORATION

REQUIREMENT 2.D.1

2.D.1

THE ORGANISATION ANALYSES ITS OWN KNOWLEDGE AND COLLABORATION NEEDS RELATED TO THE 2.B.1 CLIMATE TRANSITION PLAN FOR ITS MOST IMPORTANT ACTIVITIES AND THE 2.B.2 ACTION PLAN

CRITERION 2.D.1-1

2.D.1-1

INVENTORY OF KNOWLEDGE/COLLABORATION REQUIREMENTS

The organisation analyses knowledge and collaboration needs in relation to



- the Climate Transition Plan (requirement 2.B.1) for its most important activities and the (potential) measures included in the Action Plan (requirement 2.B.2) that can contribute to:
 - * accelerated or further implementation of measures;
 - * accelerated achievement of targets;
 - * realisation of more ambitious targets in a subsequent *Climate Transition Plan* or *Action Plan*, especially if the *organisation* does not yet have a target of *zero CO*₂ *emissions* for all activities.
- increasing the *organisation*'s influence in the *value chain*. This influence should be increased especially in organisational activities where the influence on *scope 3* emissions in requirement 2.A.4-1 (Column 3) is rated as negligible or small and the relative volume of the emissions to the *sector* (Column 4) is rated as medium or large.

The organisation's analysis of knowledge and collaboration needs should distinguish between energy conservation, the generation, storage or use of renewable energy and ${\rm CO_2}$ reduction.



DOCUMENTED INFORMATION IN CO2 PERFORMANCE LADDER PROJECTS

For each CO₂ Performance Ladder Project, the organisation analyses what the knowledge and collaboration needs are in relation to the (potential) measures included in the Project Plan.

The organisation does so at the start and completion of the project. If it is a multi-year project, the organisation also does this annually.

REQUIREMENT 2.D.2

2.D.2

THE ORGANISATION IDENTIFIES OPPORTUNITIES BY WHICH IT CAN MEET THE KNOWLEDGE AND COLLABORATION NEEDS OF 2.D.1

CRITERION 2.D.2-1

2.D.2-1

KNOWLEDGEABLE KEY PERSON

The organisation shall designate one or more key persons responsible for retrieving and maintaining knowledge already available outside the organisation that may meet the knowledge needs of 2.D.1.

CRITERION 2.D.2-2

2.D.2-2

INVENTORY OF PARTNERSHIPS



The organisation identifies existing relevant partnerships that match the knowledge and collaboration requirements of 2.D.1. The partnerships must have a relationship with the organisation's sector and/or value chain and/or CO₂ Performance Ladder Projects and/or must play a role in local³⁹ energy and CO₂ reduction. The organisation knows the goal of relevant collaborations, the parties involved and the added value the collaboration can bring to the organisation. The organisation also considers the direct relationships determined in 2.A.5-1.

REQUIREMENT 2.D.3

2.D.3

THE ORGANISATION ACTIVELY FULFILS ITS OWN KNOWLEDGE AND COLLABORATION NEEDS BY PARTNERING WITH ONE OR MORE ORGANISATIONS IDENTIFIED IN 2.D.2

CRITERION 2.D.3-1

2.D.3-1

ENGAGING IN A COLLABORATION



The organisation actively fulfils its knowledge and collaboration needs by engaging in one or more of the collaborations identified in 2.D.2. Alternatively, the organisation itself can initiate a new collaboration. The collaboration may focus on energy conservation, CO_2 reduction and/or the generation, storage or use of renewable energy in the short or medium term. For example, by building on existing measures or by developing new innovative measures. An example of a collaboration could be developing a joint CO_2 reduction strategy for a relevant sector or value chain, or contributing to flexibility in the energy system if this contributes to 2.D.1's own collaboration needs.

The organisation must ensure that the collaboration

³⁹ By 'local' is meant: in the *organisation*'s immediate vicinity, such as in the *organisation*'s industrial park or neighbourhood.

- aligns with the analysis of 2.D.1;
- involves relevant organisations, such as organisations in the same sector or value chain or with organisations in the immediate vicinity of the organisation;
- is formalised by making and documenting agreements between the *organisations* involved for the purpose of and the process of the collaboration;
- lasts for multiple years.

The collaboration must be focused on achieving a clearly defined outcome. Within the collaboration, the *organisation* must take an active role in achieving that outcome by contributing information, knowledge and experience. Its contribution may include the use of people and/or resources. To fulfil its knowledge requirement of 2.D.1-1, the *organisation* must also retrieve knowledge relevant to the *organisation* from the collaboration. The *organisation* annually evaluates the collaboration and makes an explicit assessment of whether continuing the collaboration adds value or enters into another collaboration that better meets the *organisation*'s collaboration and knowledge needs.

PLANNING

For an *initial audit*, it is sufficient if an *organisation* has agreed on a collaboration and has a plan, but has not yet actively completed it.

REQUIREMENT 2.D.4

2.D.4

THE ORGANISATION CONSULTS RELEVANT ORGANISATIONS ON ITS 2.B.1 CLIMATE TRANSITION PLAN FOR ITS MOST IMPORTANT ACTIVITIES, AND PROGRESS

CRITERION 2.D.4-1

2.D.4-1

DIALOGUE ON CLIMATE TRANSITION PLAN WITH AN ORGANISATION IN THE VALUE CHAIN



The organisation must engage in dialogue with relevant organisations (the dialogue partner) about its Climate Transition Plan, the progress of the plan's realisation, and any opportunities for collaboration within the plan.

The requirements for the dialogue partner are:

- they must be part of the *direct relationships*, or otherwise play a relevant role in or near the value chains as identified in 2.A.5-1. This means that it is not a requirement that the dialogue partner be independent of the *organisation*;
- they must have knowledge and expertise relevant to the Climate Transition Plan.

Dialogue requirements are:

- The dialogue takes place with different dialogue partners each time;
- Dialogue takes place at management level;
- The dialogue partner confirms that the dialogue has taken place;

- The organisation draws up a report of the dialogue, including key recommendations;
- For the most important recommendations of the dialogue partner, the *organisation* indicates the implications for the implementation and possible revision of the *Climate Transition Plan*;
- It is permitted to conduct the dialogue jointly with relevant *organisations* in its sector, as long as during the dialogue sufficient attention is paid to the *organisation*-specific components in the strategy, targets and measures.

PLANNING

The dialogue should take place every six months.

APPENDIX



APPENDIX A (NORMATIVE)

RELEVANT CONCEPTS FROM EXTERNAL STANDARDS

This appendix contains a summary of the main concepts used in the CO₂ Performance Ladder that come from external standards. If the descriptions in this appendix differ from the descriptions in the listed standards, the standards take precedence.

CONSOLIDATION APPROACHES

(Source: GHG Protocol Corporate Standard, Chapter 4)

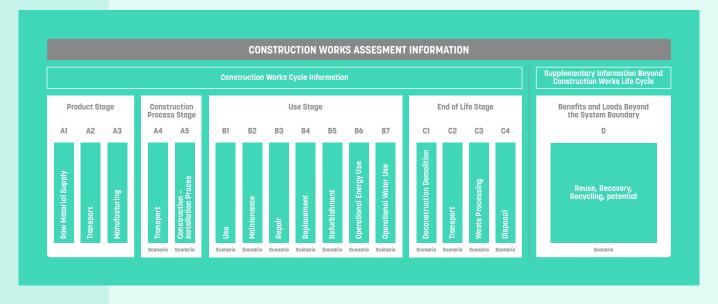
There are three consolidation approaches:

- 1. **Equity share**: the *organisation* reports emissions for the proportion of entities it legally owns. The percentage in emissions equals the percentage of ownership (0 to 100%).
- 2. **Operational control**: the *organisation* reports on an entity's emissions (always 100%) when the organisation has the authority to introduce and implement policies.
- 3. **Financial control**: the *organisation* reports emissions (always 100%) for an entity when the *organisation* has the greatest financial interest expressed in terms of the entity's financial risks and revenues.

LCA STAGES FOR CONSTRUCTION WORK

(Source: EN 15804)

Construction work has the following LCA stages:



EMISSIONS INVENTORY REPORTING REQUIREMENTS

(Source: ISO 14064-1, §9. 3.1)

The following topics should be included in the emissions inventory reporting:

- a. Description of the reporting organisation;
- b. Person or entity responsible for reporting;
- c. Period reported on;
- d. Documentation of organisational boundaries;
- e. Documentation of reporting boundaries, including the criteria by which the *organisation* determines its significant emissions;
- f. Direct greenhouse gas emissions, quantified separately for CO₂, CH₄, N₂O, NF₃, SF₆ and other relevant groups of *greenhouse gases* (HFCs, PFCs, etc.) in tons of CO₂ equivalents;
- g. Descriptions in the emissions inventory of how the *organisation* addresses *biogenic* CO₂ emissions and biogenic removals and a quantification of the relevant CO₂ emissions and biogenic removals in tons of CO₂ equivalents;
- h. If quantified: direct greenhouse gas removals in tons of CO₂ equivalents;
- i. A statement that the *organisation* excludes significant greenhouse gas sources or CO₂ sinks from quantification;
- j. The indirect greenhouse gas emissions quantified separately by category in tons of CO₂ equivalents;
- k. The selected historical base year and emissions inventory from the base year;
- Explanation of any change in the base year or other historical greenhouse gas data or categorisation and an explanation of any recalculation in the base year or any other historical emissions inventory, and documentation of any limitation in comparability resulting from such recalculation;
- m. A reference to, or documentation of, the methods of quantification chosen including the reasons for this choice;
- n. An explanation of any change in the previously chosen ways of quantifying;
- o. A reference to, or documentation of, selected greenhouse gas emission factors or removal factors;
- p. A description of the impact of uncertainties on the accuracy of GHG emissions and removals data by category;
- q. A description of uncertainty analysis and results;
- r. A statement that the emissions inventory was prepared per ISO 14064-1;
- A statement whether the emissions inventory, report or statement has been verified, including the type of verification and the level of assurance achieved;
- t. The GWP values used in the calculation, including their sources. If the GWP values are not from the latest IPCC report, the *organisation* should include the emission factors or a reference to the database used, including their source.

SCOPE 1, SCOPE 2 AND SCOPE 3

(Source: GHG Protocol Corporate Standard and ISO 14064-1)

SCOPE 1 EMISSIONS ('DIRECT GREENHOUSE GAS EMISSIONS')

Scope 1 emissions, or direct emissions (term used in ISO 14064-1), are CO₂ emissions, including non-CO₂ greenhouse gases, from sources owned or operated by the organisation, such as emissions from burning fossil fuels in its own boilers, furnaces or vehicles.

ISO 14064-1 (Annex B) distinguishes the following optional subcategories for direct emissions:

- · Direct emissions from stationary combustion, such as heaters, gas turbines or boilers;
- · Direct emissions from mobile combustion, such as in motor vehicles, ships and aircraft;
- · Direct process emissions, such as in cement production;
- Direct emissions from leakage losses (intentional or unintentional), such as from refrigerants from cooling systems, spillage of CH4 or N2O from sewage treatment plants, or leakage from LNG facilities;
- Direct emissions from land use, land use change and forestry.

SCOPE 2 EMISSIONS ('INDIRECT EMISSIONS FROM IMPORTED ENERGY')

Scope 2 emissions are emissions generated from the generation of electricity, heat, cooling and steam purchased and consumed by the *organisation*. Scope 2 emissions physically occur at the location where electricity, heat, cooling, steam and compressed air are generated.

ISO 14064-1 distinguishes the following optional subcategories for *indirect emissions* from imported energy:

- Indirect emissions from purchased electricity;
- *Indirect emissions* from purchased energy delivered through a physical network, including heat, cooling, steam and compressed air, excluding electricity.

The organisation must report emissions from electricity consumption (as part of scope 2) in two ways: location-based and market-based. More information can be found in the GHG Protocol scope 2 Guidance and ISO 14064-1 (Annex E).

Location-based emissions are calculated by multiplying the organisation's purchased electricity by one accurate emission factor representing the average emissions from the local, sub-national or national electricity grid.

Market-based emissions are calculated as follows: multiply purchased electricity by emission factors that most accurately reflect CO₂ emissions from the generation source. For example, the production source could be a gas plant or wind farm of the electricity supplier with whom the organisation has a contractual agreement. Offsetting these emissions against GoOs is permitted when applicable.

An organisation may not offset the emissions from electricity it produces and delivers to the grid against the emissions from electricity it takes from the grid at any other time. However, it may record avoided emissions from electricity delivered to the grid separately under avoided emissions.

SCOPE 3 EMISSIONS ('OTHER INDIRECT EMISSIONS')

Scope 3 emissions are emissions that are a result of the organisation's activities but arise from sources that are neither owned nor controlled by the organisation.

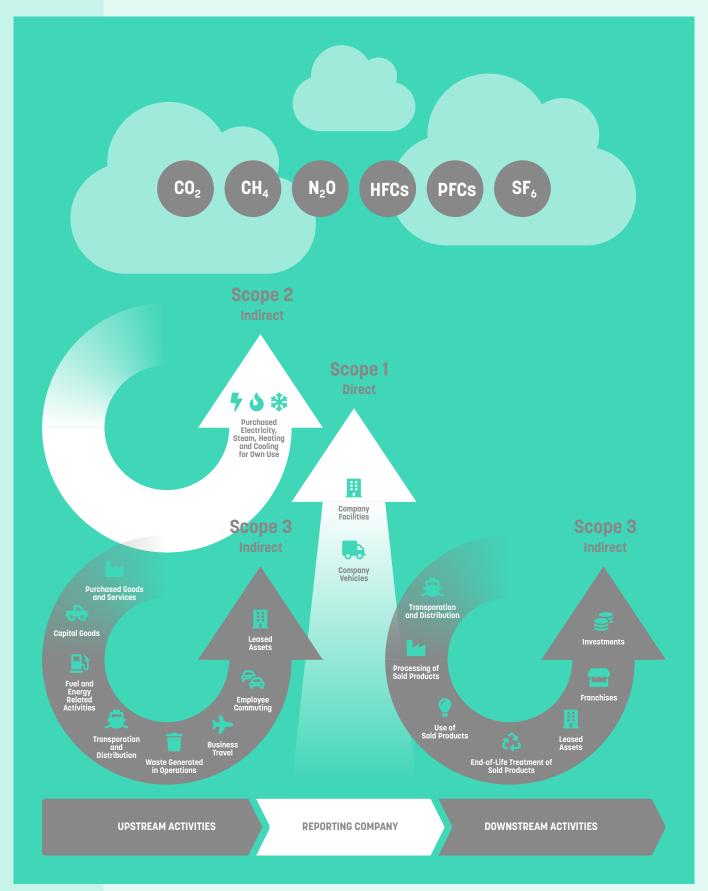
The GHG Protocol Scope 3 Standard (Chapter 5) distinguishes 15 categories of scope 3 emissions during the production stage of a product or service (scope 3 upstream) and the use and disposal stage of a product or service (scope 3 downstream). These are briefly explained below:

SCOPE 3 UPSTREAM					
1 Purchased goods and services ⁴⁰	Extraction, production and transportation of goods and services purchased or obtained by the <i>organisation</i> during the reporting year that fall outside categories 2 to 8 of this list.				
2 Capital goods	Extraction, production and transportation of capital assets purchased or acquired by the <i>organisation</i> during the reporting year.				
3 Fuel and energy-related activities (not included in <i>scope 1</i> or <i>2</i>)	Extraction, production and transportation of fuel or energy purchased or obtained by the <i>organisation</i> during the reporting year that falls outside scope 1 or 2.				
4 Upstream transportation and distribution	Transportation and distribution during the reporting year of products purchased by the organisation between its direct suppliers and organisation's facilities (in vehicles not owned or operated by the organisation). Transportation and distribution services purchased by the organisation during the reporting year, including inbound and outbound logistics (e.g. of products sold) and transportation and distribution between the organisation's own facilities (in vehicles and facilities not owned or operated by the organisation).				
5 Waste generated in operations	Disposal and treatment of waste generated in the reporting year during the <i>organisation</i> 's activities (in facilities not owned or operated by the <i>organisation</i>).				

⁴⁰ A possible subcategory (Source: CSRD) is 'cloud computing and data centre services'

6 Business travel	Passenger transportation for work-related activities in the reporting year.
7 Employee commuting	The transportation of employees between their homes and work locations during the reporting year (in vehicles not owned or operated by the <i>organisation</i>).
8 Upstream leased assets	The operation of assets leased by the <i>organisation</i> (lessee) in the reporting year that fall outside <i>scope 1</i> or 2.

SCOPE 3 DOWNSTREAM					
9 Downstream transportation and distribution	Transport and distribution during the reporting year, of products sold by the <i>organisation</i> , between the <i>organisation</i> 's facilities and those of the end user (if not paid for by the <i>organisation</i>), including retail and storage (in vehicles and facilities not owned or operated by the <i>organisation</i>).				
10 Processing of sold products	The processing of intermediate products by downstream companies (e.g. manufacturers) that the <i>organisation</i> sold during the reporting year.				
11 Use of products and services sold	The end use of goods and services sold by the organisation during the reporting year.				
12 End-of-life treatment of sold products	The disposal and processing of products sold by the organisation during the reporting year at the end of their life.				
13 Downstream leased assets	The operation of assets owned by the <i>organisation</i> (lessor) and leased to other entities during the reporting year, which fall outside scope 1 or 2.				
14 Franchises	Operation of franchises in the reporting year that fall outside scope 1 or 2.				
15 Investments	Operating investments (including equity and debt investments and project financing), which fall outside scope 1 or 2				



The scope diagram of the GHG Protocol Scope 3 Standard



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