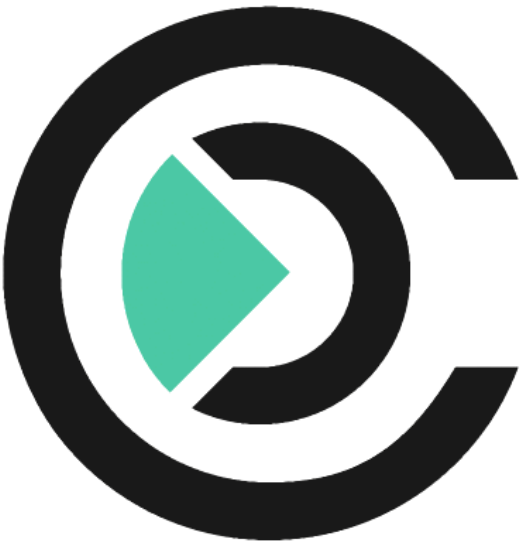

CLIMATE DIVIDENDS

The Climate Dividends Protocol

Version 2.1.1 July 2023

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Version control

Version 2.1.0 from July 2023

This protocol has been written by the Climate Dividends Association with the contribution and review of a panel of independent stakeholders and experts.

Many international experts were consulted for this production, amongst which the following:

- Renaud Bettin, Head of Climate at Sweep
- Hervé Lefebvre, Head of Low Carbon Trajectory Pole and Deputy for Adaptation, Mitigation and Trajectories Direction at Ademe
- Mehdi Coly, co-founder and CEO at Team For The Planet
- Manuel Coeslier, Lead Expert, Climate & Environment at Mirova
- Aurélien Clou, Senior Consultant at Deloitte Sustainability France
- Léo Mongendre, Associate Director Carbon Pricing and Nature Markets
- Thiago Chagas, Associate Director for Carbon and Nature Regulations at the Global decarbonisation Hub of KPMG International
- Daniele Pernigotti, CEO at Aequilibria and Chair CEN/ TC467
- Matteo Cassinelli, Climate Strategy and Risk Consultant
- Pierre Collet, Global Climate Lead at Quantis

This protocol will be reviewed and updated, based upon feedback provided by stakeholders, external verifiers and auditors, contributing entities and investors on one hand and thanks to the results of the pilot phase ongoing on the other hand in an iterative process. A future version is planned for 2024.

I. Preliminary

1. Mission statement

As the climate emergency becomes more acute, it is crucial to take action in reducing GHG emissions from existing activities to achieve the global objective of carbon neutrality.
To do so, companies need to reduce their direct and indirect GHG emissions but also to develop activities and solutions that contribute to the low-carbon transition, i.e. solutions designed to avoid or remove emissions. One illustrative example is a company that sells a cooling system using water instead of highly polluting HFC gases. These solutions, that enable others to reduce their direct GHG emissions or take away CO_2 emissions from the atmosphere, require massive investments to scale.

However, these investments are currently hampered for several reasons. First, apart from the carbon footprint, there is a lack of standardised methodologies or consistent measures of an investment's contribution to global neutrality. For example, investors are required to report the emissions/carbon footprint of their investments in Scope 3, Category 15 of their greenhouse gas inventory (GHG Protocol), or Category 5 for ISO 14064-1, but there is no dedicated category for assessing and reporting the impact of their investments in terms of avoided emissions.
Second, while these solutions can avoid or remove emissions globally, they may increase their company's emissions, which penalises them under current metrics or standards (e.g., the Science-Based Targets initiative). As a result, companies are valued less than they should be and often face difficulties to attract investment.
Many financial institutions, companies and public bodies from different countries and backgrounds now share this analysis.

→ **The Climate Dividends Protocol has been elaborated to make it easier for investors to target companies that contribute to the low-carbon transition through their business model/activity in ways other than reducing their own emissions and to make those investments more visible**.

To this end, this Protocol creates a **new extra financial information, Climate Dividends, and the related methodologies and processes, to measure and claim the positive climate impact enabled by a Solution**.

By quantifying the "climate goodwill" of an investment in a transparent and standardised way, Climate Dividends enable investors to assess and demonstrate the contribution to global carbon neutrality of their portfolio more robustly. They also provide them with a method to account for this positive impact into financial valuation.

In summary, Climate Dividends seek to **broaden the notion of climate impact and adequacy in a low-carbon economy, and to reward companies, and their investors, which contribute to it through their products and services**.

The initiative aims to leverage the following situations:

- Traditional investors favouring companies that generate Climate Dividends (in addition to financial returns)
- Companies developing activities that can generate Climate Dividends or further develop activities already generating them to take advantage of this valuation

2. Disclaimer

Climate Dividends is a concept developed and proposed by the Climate Dividends Association, a non-profit organisation.

Climate Dividends is a **French non-profit organisation** (Association Loi 1901 d'intérêt général) created in September 2022 whose founding partners are **Ademe, Mirova, Sweep, Team For the Planet and Fondation Kanopée Partage**. Its current president is **Brune Poirson**.

Climate Dividends is organised with:

- A Board of Directors made up of non-profit organisations or institutions (Ademe and Team For the Planet)
- An advisory strategic committee made up of organisations supporting the initiative (Mirova, Sweep, Fondation Kanopée Partage)
- An Advisory Stakeholder Committee made up of one representative from each of the 5 colleges that members can join (companies/climate solutions, shareholders, evaluators/auditors, civil society - NGOs, institutions, think tanks, academics, technical partners).
- A Technical Committee of experts whose role is to help review and improve the current protocol and contribute to the validation of specific methodologies.

The mission of Climate Dividends is to **accelerate the financing of the environmental transition by facilitating the measurement of environmental impacts and enabling their use and valuation by the financial system**.
The first main mission is to **promote equity investment in climate positive solutions through Climate Dividends.**

The ambition is to develop an internationally accepted and used indicator / standard, such as the concept of financial dividends.

For this, we assume some bias / positions on which we want to be transparent:

- **Accepting the degree of uncertainty in impact assessment**

The measurement of removed emissions, and especially avoided emissions, is subject to varying degrees of uncertainty. Some robust and specific sectoral methodologies are being developed by various stakeholders and will help to reduce these potential inaccuracies and discrepancies. Although imperfect for the moment, the measurement of avoided or removed emissions is key to enabling the development of activities that contribute to global carbon neutrality and limiting global warming below 1.5 degrees. Indeed, this allows them to be better valued and thus encourages companies to set them up and investors to finance them.
Furthermore, Climate Dividends cannot be used to offset any carbon footprint, so the inaccuracy does not impact any other key metric.
While we acknowledge these uncertainties, we strive to minimise and progressively eliminate them.

- **Strive for simplicity**

The goal is to spread the concept and enable mass adoption quickly. In order to achieve this, we are making a conscious choice to keep it simple at the outset, taking a more conservative approach when in doubt, even if this may lead to inaccuracies (see previous point) or prevent us from coping with all the specificities. We intend to refine the current protocol gradually based on observed needs and collaborative exchanges.

- **Consistency and complementarity with other existing initiatives and frameworks**

A Climate Dividend is an extra-financial indicator designed to be used in frameworks and standards with regards to climate targets and transition plans. For example, an “impact fund” could be partly defined by the number of Climate Dividends generated by their portfolio compared to the total amount managed/invested, or beyond value chain mitigation actions of a company could be partially assessed based on the amount of Climate Dividends generated by the investments outside its value chain.

In addition, the Climate Dividends Protocol intends to be consistent and/or compatible with existing standards such as those promoted by EFRAG or ISSB. It does not ambition to be a standalone initiative or an alternative framework but rather to enrich them. For example, a sustainable climate impact fund could be defined by governments as a fund that receives a specific ratio of Climate Dividends compared to the amount of assets invested. And, of course, it is *one of* the many necessary tools and concepts to regulate and drive investment towards the ecological transition.

- **Evolving and iterative process**

Climate Dividends is a new and innovative concept proposing a collaborative approach. This means that it will evolve, be enriched and improved progressively, especially considering the most up to date climate science, the evolution of regulatory frameworks and standards. In particular, this could affect the eligibility criteria for issuing Climate Dividends.

This current version is the 2.1.0 and it is already planned to be reviewed and improved in the next months.

II. What are Climate Dividends?

Climate Dividends are **untradable and externally verified extra-financial information corresponding to the positive climate impact of a Solution. They can solely be claimed by the equity shareholders of the company carrying out this Solution**.
The positive climate impact is measured by the **avoided emissions and / or removed emissions** enabled by the Solution and is expressed in **tCO_2e**.
1 Climate Dividend = 1 tCO_2e avoided or 1 tCO_2 removed.

A Solution is described as a product or service that contributes to global carbon neutrality either by avoiding and/or removing emissions.

1. Precision on avoided emissions

The measured impact is not the carbon footprint of the Solution (induced GHG emissions) but the avoided or removed emissions it enables.

Avoided emissions quantify the additional GHG that would have been emitted in the fictitious and most credible scenario in which the Solution is not implemented. This calculation is done by comparing the GHG emissions of a scenario with the solution implemented to the GHG emissions of an alternative fictitious reference scenario without the solution (called baseline or reference scenario).

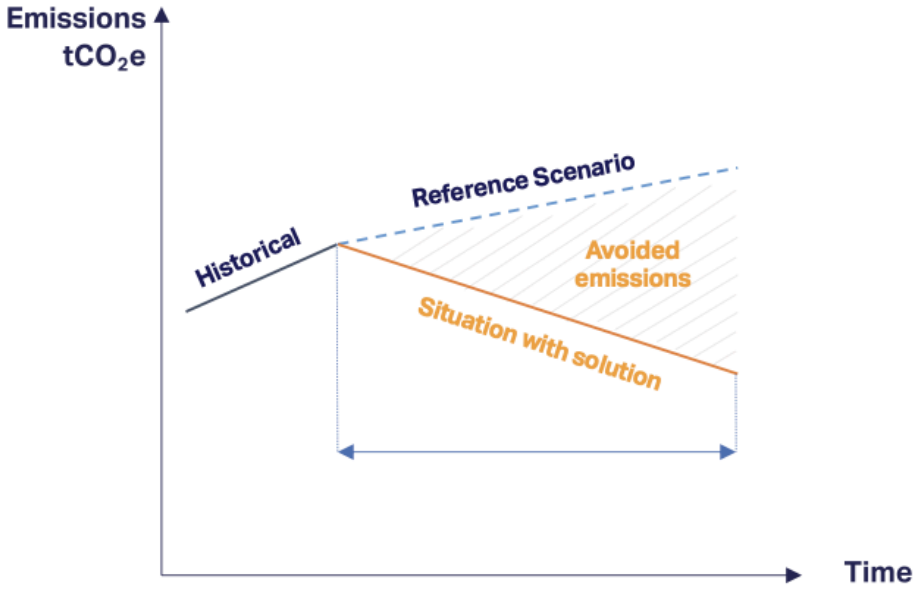


Figure 1. Explanation on Avoided Emissions.

Source: Guidance on Avoided Emissions from WBCSD

They differ from the notion of carbon footprint reduction (especially scope 3).
The difference lies mainly in the perspective taken:

- For carbon footprint reduction, the perspective is that of the company and, more specifically, GHG inventory accounting, where the emissions from each category of the GHG inventory are compared year-on-year
- For avoided emissions, the perspective is that of the customer, where the emissions in two situations are compared, one with the company's solution and the other the most likely situation without the solution (i.e., with another company's solution or with a completely different solution that meets the same customer's functional needs).

As a result, even if the low-carbon solutions can reduce the company's GHG inventory (e.g., if the company replaces its carbon-intensive solutions with these low-carbon solutions), the quantification of the decarbonization impact is different. Both metrics are complementary but lead to different accounting and a different lens on climate impact.

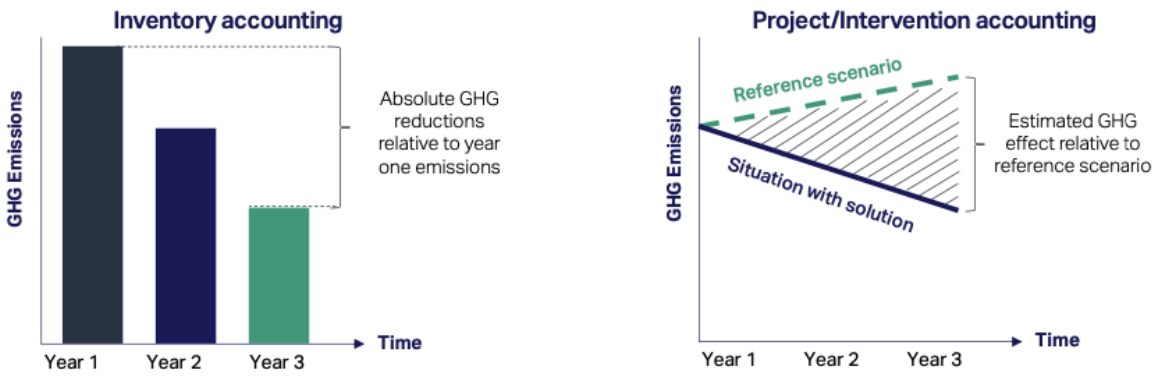


Figure 2. The difference between GHG inventory and intervention accounting.
Source: GHG Protocol

More detailed explanation on the principle of avoided Emissions can be found in the Guidance on Avoided Emissions from WBCSD.

2. Climate Dividends and Financial Dividends

Climate Dividends are largely **inspired by financial dividends** but with a climate-related angle:

- They are distributed to the company's shareholders
- They are distributed every year, in reporting year N+1 for results achieved in reporting year N
- They materialise the link between the shareholders and the value created by the company. In the case of financial dividends, it is the creation of financial value (the profit) that is partly distributed to shareholders; in the case of Climate Dividends, it is the creation of climate value (the company's contribution to global net zero emissions, measured in avoided or removed emissions) of which the evidence is distributed to shareholders.

- Even if projections of Climate Dividends can be made, Climate Dividends are only accounted for when they are issued and actually distributed to shareholders.

Unlike financial dividends, Climate Dividends are not money. They are not a financial flow, nor a financial asset, nor can they be monetised. They are just additional extra-financial information.

3. Climate Dividends vs Carbon Credits

Climate Dividends are not carbon credits from offsetting programs. **Differences** are summarised in the table below:

	Climate Dividends	Carbon credits
Legal characteristics	Climate Dividends are a shareholder right, linked to share ownership.	A carbon credit is a fungible asset.
Value	1 Climate Dividend ⇔ 1 tCO2e avoided or 1 tCO2e removed. A Climate Dividend has no direct financial value, it is not an asset, but is extra financial information about the positive climate impact of the activities that issued it. The financial value of the share can take into account the fact that this share will enable its owner to receive Climate Dividends.	1 carbon credit ⇔ 1 tCO2e avoided or 1 tCO2e removed. Each credit has its own value, in USD or any other currency.
Owners	Unless otherwise stated, Climate Dividends are awarded to investors/shareholders.	When issued, carbon credits are awarded to the final buyer.

How to communicate	Climate Dividends owners may communicate on how their investments "contributed to activities that are collectively leading the world towards global net zero".	Carbon credits owned appear in the corporate balance sheet as assets.
How to use	Climate Dividends cannot be used to compensate/offset a carbon footprint in any case (not by the company generating them nor by the shareholder receiving them).	Carbon credits can be used for offsetting.
Transfer	Climate Dividends cannot be sold nor transferred. The shares that grant the right to claim Climate Dividends may be sold or transferred between parties (*further detailed in the document*)	As assets, carbon credits can be sold and transferred between parties at any time until they are claimed and retired. They can be indefinitely stored by their owners.

III. Overall Process

This section details the overall process for each Solution. If a company has multiple Solutions that can generate Climate Dividends, it must follow the process below for each one. In the end, the company can sum the Climate Dividends of all its Solutions and distribute them to its shareholders.

The term Contributing Entity will be used in the section below and in all the Protocol as an entity, most of the time a company, contributing to the development of a Solution. It is the Entity which applies for Climate Dividends.

1. Step #1: Eligibility evaluation

The Contributing Entity must provide some general information so that the Climate Dividends Association can assess if the Solution is eligible.

For this, the Contributing Entity must fill in a form (Eligibility Assessment), that covers the following information:

- Company name and identification number
- Contact Details
- Description of the Solution (product or service delivered and type of positive climate impact targeted – avoided or removed emissions)
- Justification of compliance with eligibility criteria (see list in IV. Eligibility Criteria)
- Description of the methodology used to assess the positive climate impact (specific methodology already validated by the Climate Dividends Association or proposal of a new specific methodology that must be validated)

The Climate Dividends Association might reach out to the Contributing Entity to get a better understanding or ask additional questions if necessary.

The Contributing Entity receives an answer from the Climate Dividends Association:

- If the Solution is eligible, the Contributing Entity can proceed to the next step.
- If not, the Contributing Entity receives an explanation note for the refusal

2. Step #2: Solution Submission: Solution details and Claim for the 1st submission year

The Contributing entity submits on the Climate Dividends' Platform the two following documents:

- The **Solution Detailed Declaration** (SDD) which must include the following information:
    - More detailed information about the Contributing Entity (administrative documents to prove the identification of the company behind the Solution and its representative)
    - More detailed information about the Solution and its positive climate impact including documents or visual materials explaining the Solution and how it avoids or removes emissions
    - An explanation of the methodology to measure the positive climate impact and its compliance with the Climate Dividends Protocol. If the methodology used by the Contributing Entity is new (i.e., it is currently not included in the list of methodologies validated by the Climate Dividends Association, available in Appendix 4) it will be reviewed by the Climate Dividends Association Technical Committee, with the assistance of an external expert if necessary. Once validated, the methodology is added to the list of validated methodologies and any other Contributing entity can use it to submit an SDD for similar Solutions. If the methodology is not new (already approved), then the Contributing entity refers to it.
    - The Product Carbon Footprint (PCF) of the Solution covering the required stages.

If some stages are similar between the baseline/reference scenario and the scenario with the solution implemented, and therefore lead to the same induced emissions, then they can be omitted from the comparison as they won't affect the results.

- A description of the baseline/reference scenario and a detailed justification on why this is the most likely alternative situation (in the first year and subsequent years to the end of the scenario period).

- The **first Solution Claim** based on the methodology presented in the SDD:
  The Claim is the number of tCO_2e avoided and/or removed enabled by the Solution. It is based on the sales associated with the Solution in reporting year N-1 for a Claim in reporting year N (see details in section V. General Principles of the Climate Dividends Methodology, 3. Computation of Claim).
  - Context: details on the context of the given year if relevant
  - The type of positive climate impact: avoided and/or removed emissions
  - The Claim: the avoided and/or removed emissions (in tCO_2e)
  - The Claim computation details: details on how the positive climate impact enabled by the Solution (in terms of avoided and/or removed emissions) has been measured, specifying the type of Claim (forward-looking, year-on-year or mix, as explained in section V.3.), based on the sales of the Solution in reporting year N-1. This includes in particular the Solution and baseline/reference scenarios, the data used, the assumptions made (including the dynamic aspects), the calculations, *etc.* It also provides the calculation files.
  - Proof of activity: production plan or justification, evidence of sales, evidence of use, *etc.* (depending on the Solution)

The first Solution Claim is submitted at the same time as the SDD to save time throughout the process and ensure that the Contribution entity is able to provide the information mentioned in the SDD.

Once all the necessary information for its SDD and first Solution Claim has been submitted, the Contributing entity:

- Waits for the feedback from the Climate Dividends Association if the methodology for measuring the Solution's positive climate impact is new. If

approved, it can move to the next step, otherwise it must take into account the answer (e.g. adjust the methodology)

- If the methodology is not new, it can proceed to the next step

3. Step #3: Validation and Verification by an independent Third Party

The SDD and the first Solution Claim are then subject to an **external review by an independent third party, referred to as Validator or Verifier**. These two documents are sent to the Validator/Verifier. More information on the independent third parties can be found in section VII. Validation and Verification.

The Verification is based on the same information that the Climate Dividends Association asked for in the previous two steps:

- Compliance with the eligibility criteria
- Consistency of the SDD:
    - Relevance of the specific methodology chosen
    - Respect of the General Principles of the Climate Dividends Protocol (see section V. General Principles of the Methodology) in the SDD (especially for the PCF and the choice and justification of the baseline/reference scenario)
- Accuracy and reliability of the first Solution Claim: no material errors or misstatements in the positive climate impact calculation and in the evidence provided

The Validator/Verifier may request additional information from the Contributing Entity to carry out the verification. Also, the Validator/Verifier may challenge the methodology validated by the Climate Dividends Association. This would then trigger a discussion with the association to possibly (if relevant) adapt the previously accepted methodology.

The outcome of this review is:

- **The Validation of the SDD** > the status of the Solution is now validated. By default, the SDD is valid for 5 years, but the Validator/Verifier may recommend a shorter or longer validity period (maximum 10 years). Concretely, this means that Contributing entity won't need to elaborate a new SDD during the validity period. It will only need to compute and submit its verified annual Claim, referring to the SDD (more details in the step 5 below). The Validator/Verifier shall consider how quickly the Solution and baseline/reference scenarios can change to determine the validity period. They may also add some data update conditions to it. For example, it can confirm a validity period of 5 years for the SDD but require that the data used to calculate the emissions of the Solution and/or baseline/reference scenario are updated every year (e.g., to consider the evolution of the electricity grid carbon intensity). This validity period is similar to what is often called the "crediting period" for carbon credits.
- **The Verification of the first Solution Claim**, under Limited Assurance (verification opinion)

The Contributing Entity receives a Validation and Verification Opinion as evidence to proceed to the next step.

This Validation and Verification step is charged directly to the Contributing entity by the Verifier. There are no fixed fees: they can vary depending on the complexity of the Solution and the Verifier pricing policies.

4. Step #4: Issuance and distribution of Climate Dividends in the first year of the SDD Validation

Once the Validation and Verification Opinion is received, the Contributing entity can convert the first Solution Claim (in tCO_2e) into Climate Dividends. The following principle shall be respected: 1 tCO_2e avoided or 1 tCO_2 removed equals 1 Climate Dividend (see section VI. Issuance of Climate Dividends for more information).

The Contributing entity then lists its shareholders and their share of ownership on the Climate Dividends platform. Climate Dividends are distributed to them according to

their share of ownership in alignment with the principles of financial dividends (see section VIII. Distribution of Climate Dividends to shareholders).

Both the Contributing entity and its shareholders can finally communicate on the Climate Dividends (see the section IX. Communication for more details).

5. Step #5: Issuance and distribution of Climate Dividends during the rest of the validity period

For each subsequent year of the validity period, the Contributing Entity must verify whether the methodology for measuring the positive climate impact in the original SDD has changed (due to discussions between the Climate Dividends Association and some stakeholders) by referring to Appendix 4 of the Climate Dividends Protocol.
If the methodology has been removed (which would be indicated in Appendix 4), the Contributing Entity can continue to make Claims until the end of the validity period but it may also choose to go through the 5-step process again by submitting a new SDD based on a new/adapted methodology.
It then calculates the annual Solution Claim using the latest version of the methodology and considering the data update conditions of the first Solution Claim. Finally, it submits a request for verification of its Claim, providing the following information:

- A copy of the original SDD with the identification code (to save time). The Contributing must not elaborate a new SDD but it should provide information about the changes if the methodology has been updated. For example, a contributor that sells bicycles measures the modal shift of its customers. If it collects field data that updates the number of kilometres shifted without changing the baseline and methodology, it does not need to revise the methodology.
- The type of climate positive impact: avoided and/or removed emissions
- The Claim: the avoided and/or removed emissions (in tCO_2e)
- The Claim computation details: details on how the positive climate impact enabled by the Solution (in terms of avoided and/or removed emissions) has

been measured, specifying the type of Claim (forward-looking, year-on-year or mix, as explained in section V.3.), based on the sales of the Solution in reporting year N-1. This includes in particular the Solution and baseline/reference scenarios, the data used, the assumptions made (including the dynamic aspects), the calculations, *etc.* It also provides the calculation files. The Contributing entity can largely reuse the first Solution Claim documents to save time.

- Proof of activity: production roadmap or justification, evidence of sales, evidence of use, *etc.* (depending on the solution)

This claim is verified under limited assurance by an independent third party who assesses the following information:

- The Validity and consistency of the SDD
- Accuracy and reliability of the annual Claim: no material errors or misstatements in the positive climate impact calculation and in the evidence provided

The Validator/Verifier provides a Verification Opinion.

This Verification step is charged directly by the Verifier to the Contributing Entity. There are no fixed fees: they can vary depending on the complexity of the Solution and the Verifier pricing policies.

Once the Contributing Entity has received its Verification Opinion, as for the first Solution Claim, the avoided and/or removed emissions are converted into Climate Dividends. The following principle shall be respected: 1 tCO_2e avoided or 1 tCO_2 removed equals 1 Climate Dividend.

The Contributing entity then lists its shareholders and their share of ownership on the Climate Dividends platform. Climate Dividends are distributed to them according to their share of ownership in alignment with the principles of financial dividends.

Both the Contributing entity and its shareholders can finally communicate on the Climate Dividends (see the section IX. Communication for more details).

These processes are summarised in the figures below.

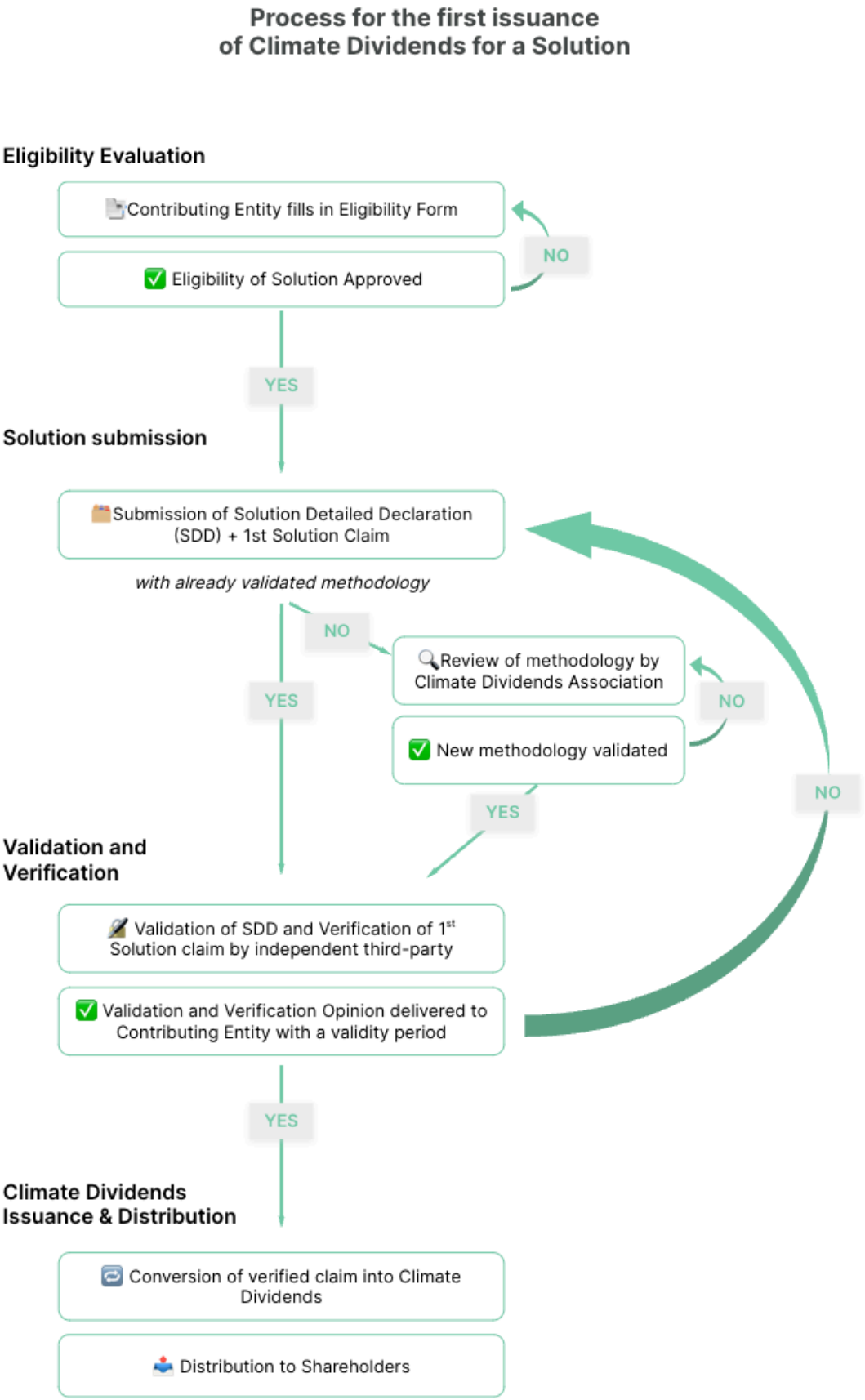


Figure 3. Process for the first issuance of Climate Dividends for a Solution

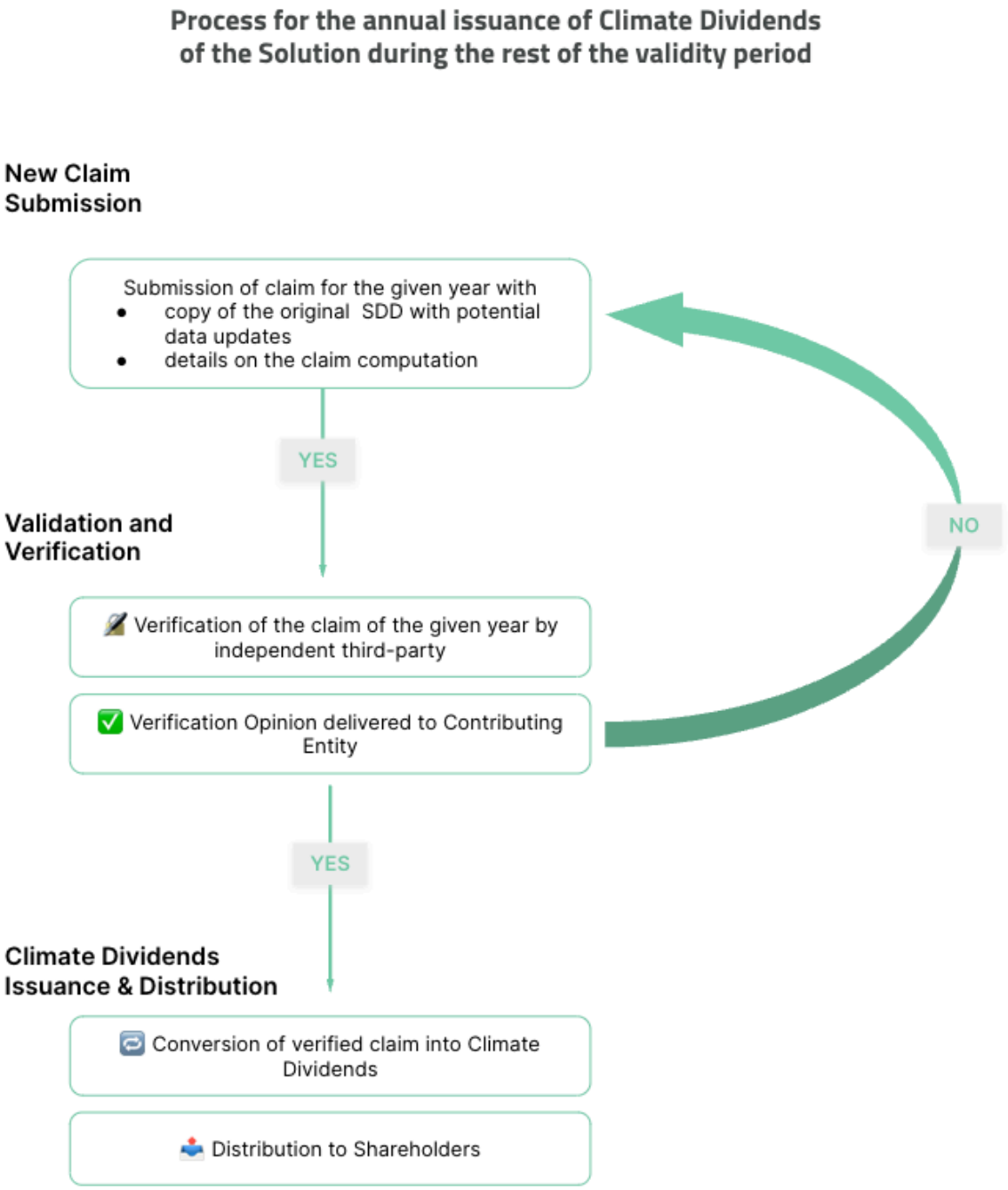


Figure 4. Process for the annual issuance of Climate Dividends of the Solution during the rest of the validity period

IV. Eligibility criteria

1. Introduction

A Solution must respect several criteria to be eligible and enable the company delivering the Solution, i.e. the Contributing Entity, to issue and distribute Climate Dividends.

It is important to note that:

- **The Solution does not have to be located in a specific region to be eligible for Climate Dividends** (no location restriction)
- **The Solution does not have to demonstrate additionality**. The Solution can generate Climate Dividends even if it is profitable or the developer of the Solution can finance it alone.
- **The Solution does not have to be innovative**. The Solution can generate Climate Dividends even if it simply develops or scales up an existing solution that contributes to global carbon neutrality.

  An illustrative example is a company that sells heat pumps to individual consumers and provides them with a less carbon-intensive heating solution.

2. General Eligibility Criteria

The Solutions must prove that they respect the following criteria to be eligible to the generation of Climate Dividends:

1. **The Contributing Entity must have measured its carbon footprint**

The company acting as a Contributing Entity shall measure and report its own carbon footprint (Scope 1, 2 and 3 in the GHG Protocol or Category 1 to 6 in ISO 14064-1) on an annual basis.

This criterion is included to ensure that the Contributing Entity doesn't communicate about its Climate Dividends, which show its positive climate impact, without disclosing its carbon footprint, which shows its negative climate impact. This minimises the risk of greenwashing.

This is the only criterion at the Contributing Entity level. The remaining criteria below are at the Solution level.

2. **The activity to which the Solution is attached must contribute to global carbon neutrality according to recognised sources aligned with the latest climate science**

The aim of the criterion is to ensure that the Solution contributes to achieving the global 1.5° degrees target.

To date, the recognised sources are:

- IPCC AR6 Working Group III report for decarbonisation: activities listed in the report are eligible.
- the EU taxonomy: activities with a direct impact, enabling activities or transitional activities, even if the company is not concerned by the EU taxonomy (due to its location, size, *etc.)*

The activity to which the Solution is attached must be listed in one of these two sources for the Solution to be eligible to Climate Dividends.

Some additional stricter criteria have been defined for this version of the protocol (see section IV.3. Additional Eligibility Criteria).

3. **The Solution must have a positive climate impact**

The Solution must demonstrate that it has a positive impact on the climate by proving that it enables avoided or removed emissions.

4. **The Solution does not cause significant harm to other sustainable goals without any clear mitigation measures**

Although this Protocol addresses the GHG impact of the Solution, other environmental aspects must not be neglected. As a result, the Solution must not cause significant harm to the other sustainability goals listed below:

1. Climate change adaptation

2. The sustainable use and protection of water and marine resources
3. The transition to a circular economy
4. Pollution prevention and control
5. The protection and restoration of biodiversity and ecosystems

If the Solution has negative side-effects on other sustainability goals, these must be identified and clear measures to mitigate them must be described and put in place. This criterion is assessed in a declarative manner: the Contributing Entity must include in the Eligibility Assessment Form (see section III. Overall Process) an assessment of the potential for negative side-effects on all 5 goals and a justification of the mitigation measures taken if the impact is material.

3. Additional Eligibility Criteria

Some additional eligibility criteria have been added to this first version of the Protocol. They will be re-evaluated in future versions.

1. **The Solution is not tied to fossil fuels**

The Solution must not be linked to activities involving exploration, extraction, mining and/or production, distribution and sales of fossil fuels i.e., oil, natural gas and coal.

Therefore, the following activities, although eligible for the EU Taxonomy as transitional activities, are not eligible:

1. Electricity generation from fossil gaseous fuels (activity number in EU Taxonomy: 4.29)
2. High-efficiency co-generation of heat/cool and power from fossil gaseous fuels (activity number in EU Taxonomy: 4.30)
3. Production of heat/cool from fossil gaseous fuels in an efficient district heating and cooling system (activity number in EU Taxonomy: 4.31).

2. **The Solution, when enabling removed emissions, must prove a permanent storage**

The Solution must prove that it can store the CO_2 emissions for a minimum of 100 years.

3. The Solution, when enabling removed emissions, must not be a Nature Based solutions

Nature-based solutions (as defined in the Glossary) are currently not eligible.

Although we recognise the interest and relevance of nature-based solutions to reach the global Net Zero, we have decided to temporarily (for the beginning) exclude them for several reasons:

- Most nature-based activities are not able to demonstrate a storage of CO_2 emissions for more than 100 years (as recalled in the Be Zero Carbon Article)
- The Climate Dividends Association has limited capacity for the time being to deal with this complex area.

The exclusion criterion in particular will be re-evaluated and might be removed at a later stage.

V. General Principles of Claim Computation

1. General Approach

In order to issue Climate Dividends, the positive climate impact of the Solution must be measured. It is done by comparing the GHG emissions of the scenario with the solution implemented (Solution scenario) to the GHG emissions of the most credible fictitious reference scenario without the solution (baseline/reference scenario). Computation of removed emissions are likely to also include a comparison between GHG stocks in the baseline scenario and in the solution scenario. The difference in GHG emissions between the two scenarios gives the amount of GHG emissions that the Solution can claim to have avoided or removed. The avoided or/and removed emissions are then converted into Climate Dividends.

The assessment and calculation must be based on a methodology following clear rules that are detailed below and that must be validated by the Climate Dividends Association. The methodology here refers to the one that must be provided in the SDD (see the section III. Overall process)

Some methodologies have already been validated by the Climate Dividends Association (see the Appendix 4). If there is no specific methodology already validated for a given Solution, the Contributing Entity can propose a new methodology. This proposal will then be evaluated by the Climate Dividends Association's Technical Committee and if necessary, validated by an external third party.

When developing a new methodology, make sure that the assumptions used are always justified and transparently disclosed. Both attributional or consequential approaches can be used (see reference from the WRI here), as long as the choice is disclosed and justified. All greenhouse gases must be included as described in the Glossary. All GHG are then converted to tonnes of CO_2-equivalent (tCO_2e) using the 100 years Global Warming Potentials values relative to CO_2 (GWP). In practice, it is acceptable to only include the six Kyoto greenhouse gases in the calculation: carbon

dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), and the so-called F-gases (hydrofluorocarbons and perfluorocarbons) and sulphur hexafluoride (SF_6).

2. General rules for impact calculations

Calculations of GHG emissions for the Solution and the reference/baseline scenarios must follow the following principles:

1. **Functional Unit (FU)**

A functional unit must be defined first. The Contributing Entity must use the same functional unit for Solution scenario and baseline/reference scenario to ensure an appropriate comparison between the two.

The Functional Unit is a **quantified description of the function** of a product or service or in other words of the performance requirements met by the product system. It is the **reference value to which all impacts are normalised**. A good functional unit is quantitative and precise. It should also be defined broadly enough to encompass competing technologies within functional unit definition.

A functional unit usually defines one of the three following attributes:

- The quantity of the solution
- The duration of the solution
- The quality of the solution

Some examples of functional units are:

- 1 kWh of electricity produced in a given country
- 1 m^2 with thermal performance adapted to its use
- 100 calories of food
- 1 kg of waste recycled

2. **System Boundary**

The GHG impact of the eligible Solution shall be calculated **over its entire life-cycle, from cradle to grave**. This means that it must include the GHG emissions associated with the raw material extraction, transportation, processing, manufacturing, use, retail,

and waste treatment. Other indirect impacts of the Solution, such as leakage and rebound effects that would result in additional GHG emissions should be considered (see section 7. Dynamic aspect below).

If some stages are similar between the baseline/reference scenario and the scenario with the solution implemented (e.g., same end-of-life), and therefore lead to the same induced emissions, then they can be omitted from the comparison as they won't affect the results.

3. **Emissions coverage: cut-off**

A **3% cut-off** rule is used to determine which processes and stages within the system boundary can be excluded from the PCF. Processes with the lowest contribution to the overall impacts may be excluded from the assessment provided that the emissions with each process does not exceed 3% of the total emissions. These processes shall be listed and the emission quantification be based on a reliable study or on PCFs of similar solutions.

4. **Relevance of Data**

The data used for the calculation (activity data or emission factors) must respect the following principles:

Geographical representativeness: the data must reflect the actual geographical location of the Solution (site, or city, or region, or country). Less precise than national-level background data should be avoided as much as possible. The choice of geographical representativeness must be justified.

Temporal representativeness: the data must reflect the actual time (e.g., year) or age of the Solution. Data coming directly from the Solution (i.e. foreground data) should be no more than 1 year old. Background data (i.e., market averages, global statistics) should be no more than 3 years old.

Technological representativeness: the data must reflect the actual technology used by the Solution.

Data accuracy/reliability: the most accurate, representative, and reliable data as possible must always be used. For the Solution scenario, data representative of the finest granularity shall be preferred (user / customer specific level), and if this not

possible, company-specific data (see the figure 5 below) are required. If data representative of the market average is used, it must be justified.

Emission factors can be obtained from reliable public or private sources (e.g., IPCC, DEFRA, ADEME, Ecoinvent, Agribalyse, *etc.*) but they must be adapted as much as possible to the local context and activity of the company. Monetary emission factors shall not be used. Although they are convenient because they allow organisations to estimate their emissions from financial information, their inherent lack of precision and important uncertainties are not compatible with these Protocol expectations.

5. Precision of calculations

The different level of precisions in the calculations of impacts are summarised in the figure below, which comes from the WBCSD Guidance on Avoided Emissions.

Approach	Specificity	Description	
		Solution (S)	Reference (R)
User-specific (or "Customer-specific")	**High** Recommended approach for specific solution assessments whenever data is accessible and assessments remain feasible with a reasonable number of resources	Specific life cycle emissions of each solution sold. The company performs a detailed calculation for each solution, considering specific usage scenarios Example: life cycle emissions of a specific electric vehicle sold by a company in Germany	Specific reference for each customer who uses a company's solution. The company performs a detailed calculation for each solution, with detailed knowledge of the context Example: reference behavior that the owner of this specific car would have adopted instead
Company-specific	**Medium** Recommended if the calculation of a solution's life cycle emissions or reference is too complex at the scale of each sale	Average life cycle emissions of a solution, specific to a company. The company performs a detailed calculation, considering a usage scenario by solution range and by market in which the solutions are sold Example: average life cycle emissions of all electric vehicles of the same type sold by a company in Germany	Average reference for a given company's solution sold in a given market. The company performs a detailed calculation, considering a reference scenario for each solution line and each market in which the solutions are sold Example: reference behavior that a company's average customer would have adopted instead
Market average	**Low** Recommended for market averages and preliminary evaluations of avoided emissions	Average life cycle emissions of the solution in a given market Note: In this approach, emissions are not specific to the company and can be standardized for a given type of solution in a given geography Example: average life cycle of a B-segment electric vehicle, all brands combined, sold in Germany	Average reference of the solution in a given market Note: In this approach, the reference situation is not specific to the company and can therefore be standardized for a given solution in a given geography Example: reference behavior that an average German owner of a B-segment electric vehicle would have adopted instead

Figure 5. Different approaches of data accuracy for emissions calculations. Source: WBCSD

Guidance on Avoided Emissions: Helping business drive innovations and scale solutions toward Net Zero

Contributing Entities should use the user-specific approach by default in their assessment. Whenever data is not available for a given type of data and upon proper justification, the company-specific approach is to be preferred. With the same process, a Contributing Entity can use market averages when company-specific data is not available.

All choices shall be summarised and justified, per type of data, source (internal or external) or any relevant categories.

6. Selection of the baseline scenario

The baseline or reference scenario represents the **most likely situation that would have occurred in the absence of the Solution**. This scenario is defined by looking at the need/use case that the Solution addresses and the current solutions available in the market to meet this need.

The same functional unit as the one used to calculate the Solution's emissions and the same system boundary shall be used to calculate the GHG emissions of the baseline/reference scenario.

The choice of the baseline/reference scenario is a key component of the Climate Dividends' calculation and must be well justified and documented, along with its underlying assumptions. It must follow consistent rules to ensure the comparability of claims made by different Contributing Entities.

The rules for selecting the baseline/reference scenario are directly inspired from the WBCSD Guidance on Avoided Emissions, as defined in the figure 6 below:

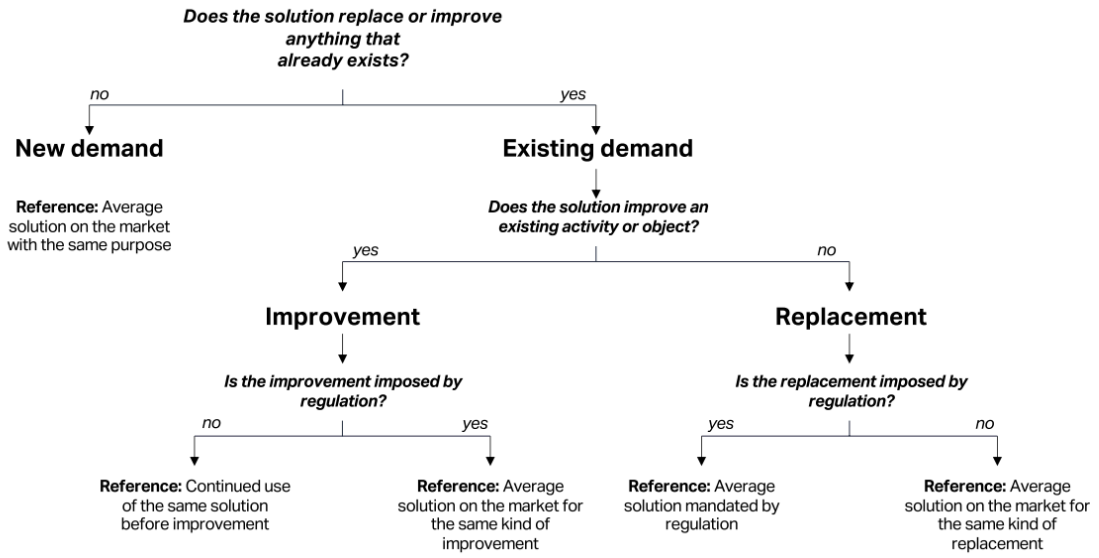


Figure 6. Decision Tree for selecting the baseline/reference scenario. Source: Guidance on Avoided Emissions: Helping business drive innovations and scale solutions toward Net Zero

Based on these rules, the Contributing Entity must justify why the reference chosen is the most relevant one based on its Solution.

The "average solution on the market with the same purpose" reference means that the Contributing Entity shall take the average emissions of alternative solutions that could have been used instead of the Solution to meet the same need. The average of the solutions currently sold on the market (and not the average of what is currently installed in the country) shall be taken. These average situations must correspond to the context in which the Solution has been implemented and take into account the expected market evolution (in terms of effective decarbonisation – e.g., electricity grid decarbonization, market and regulatory evolution).

→ The calculated avoided emissions result from the difference between the emissions generated by the Solution's over its life-cycle and the emissions of the alternative situation over its lifecycle too.

→ The calculated removed emissions result from the difference between the emissions removed and stored by the Solution's over its life-cycle and the emissions of the alternative situation over its lifecycle too.

The "continued use of the same solution before improvement" reference means that the customer of the Solution would have kept using the product/service they had to

meet its need. The Contributing Entity shall take the GHG emissions linked to the continued use of this product/service.

→ The calculated avoided emissions result from the difference between the emissions generated by the Solution's over its life-cycle and the life-cycle emissions due the continued use of the previous solution.

For more details on each reference, as well as examples, see page 31 to 34 of WBCSD Guidance on Avoided Emissions.

If it is too difficult to justify the existence of an obligation imposed by the regulation, then the baseline/reference scenario shall be the "average of market solutions" and not the "average solution mandated by regulation".

If the baseline/reference scenario is the average of market solutions, it may be that this average is less efficient than what the regulation of the country requires. Nonetheless, the selected baseline/reference scenario must remain the average of market solutions and not the level of regulation (which may still be very theoretical).

In this current version of the Climate Dividends Protocol, the rules from the Net Zero Initiative decision tree (see figure 6 below) are also accepted if the Contributing Entity is based in France and has already calculated its total impact based on the NZI. These rules are consistent with the rules presented above, but are slightly more precise as they introduce the concept of *end of lifespan* which requires more justification.

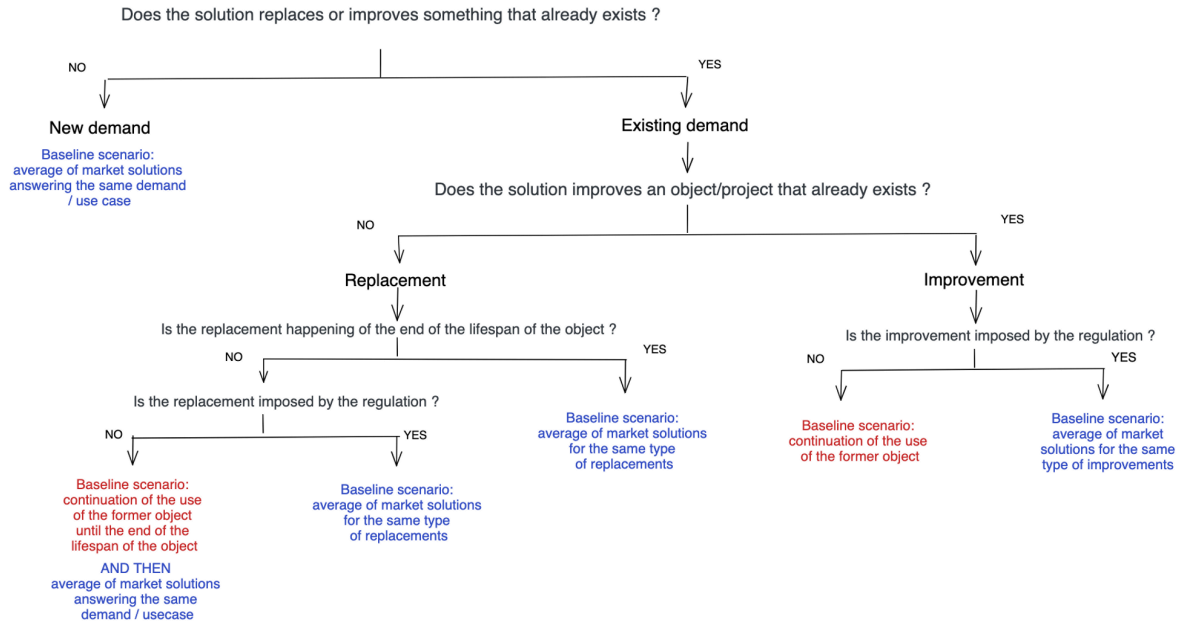


Figure 7. Other accepted Decision Tree for selecting the baseline/reference scenario. Source: Net Zero Initiative, Pilar B (translation from the Climate Dividends Association).

7. Dynamic aspect

Since the GHG emissions of both the Solution scenario and baseline/reference are estimated over the Solution's lifecycle, projections are made for future years. For both scenarios, the Contributing Entity should consider the **potential evolution of the situation over time considering different aspects that can be found in WBCS guidance**:

- In all cases, the emissions of both the solution and baseline/reference scenario may evolve over time, under the effect of the actual or predicted decarbonization of the energy consumed over a solution's lifetime. In the case of forward-looking avoided emissions (see section V.3. Computation of Claim), the Contributing Entity should use trend energy scenarios (e.g. IEA STEPS) to best assess the expected decarbonisation of the energy sector for both the baseline/reference scenario and the Solution scenario. For other sectors that may have an impact on the emissions associated with a given solution, well-documented hypotheses must be used to define forward-looking scenarios.

- In addition, the situation will depend on the year of sale, especially for references reflecting the state of the market in a given year.
- Finally, the Contributing Entity should include potential direct rebound effects, and also use reasonable and sourced assumptions about the lifetime and use of their Solution by customers, taking account the replacement of materials (induced GHG emissions) or potential degradation of the performance.

3. Computation of the Claim

This section explains how to calculate the claim for a Solution. If a company has multiple Solutions that can generate Climate Dividends, it must be applied to each of them. In the end, the company can sum the Climate Dividends of all its Solutions and distribute them to its shareholders.

Definition

The Claim is the **number of tonnes of CO_2e avoided or/and removed in a given reporting year** (N-1 for a claim in reporting year N) **by a Solution eligible to Climate Dividends** (see section IV. Eligibility criteria). It is then Verified to be converted into Climate Dividends. It is based on the calculation of the positive climate impact of the Solution, which is done according to the methodology validated in the SDD and respecting the rules presented in section V.2 General rules for impact calculations and below.

When can the Contributing Entity make a claim?

The Claim can be made **based on the most downstream stage along the Solution's value chain in which the Contributing Entity is involved** (i.e., it is the latest stage of the Solution over which the Contributing Entity has control). The possible concerned stages are shown in the figure below.

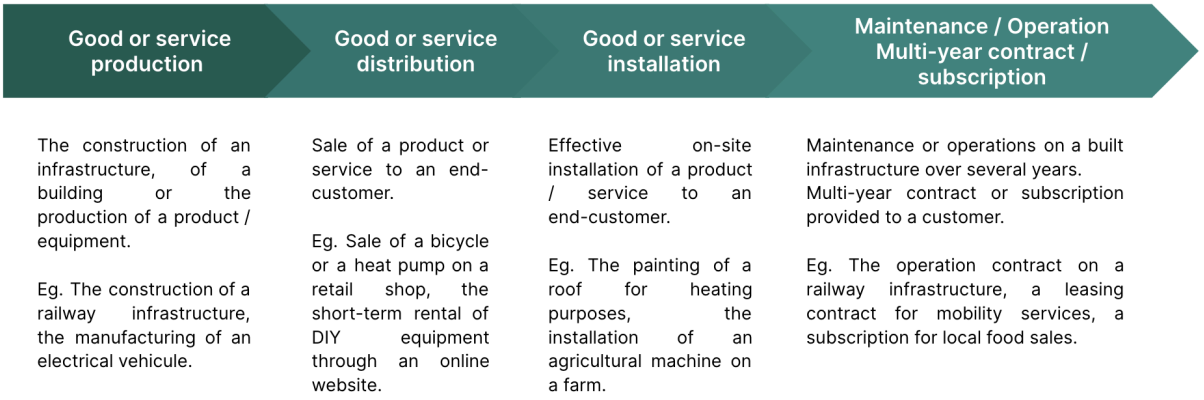


Figure 8. The four possible stages at which a Claim can be made

Concretely, this means that a Contributing Entity which sells a product to an end-customer and has no further link with the customer nor the product afterwards can make its Claim in reporting year N for these sales in reporting year N-1.

Three key hypotheses will affect the calculation:

- The lifespan(s) of the Solution (period of use or validity)
- The anticipation of the positive climate impact (see the discount rate part below)
- The attribution of the positive climate impact (see the attribution key part below)

In all cases, explanations and justifications must be provided in the PCF in the SDD.

Discount rate

When the positive climate impact is anticipated as it occurs after the year of Claim (e.g., use of electric vehicles sold by the Contributing Entity), an annual discount rate must be applied on the calculation of the avoided or removed emissions. The aim is to consider:

- The uncertainty in the calculation (both in terms of future emissions of the Solution, and the evolution of the baseline/reference scenario)
- The time value of carbon: emissions avoided or removed today are more important than those emissions avoided or removed tomorrow

The annual discount rate corresponds to a well-known mechanism in the financial world. It is also used in some extra-financial assessments, such as the *certificates of energy saving* (certificat d'économie d'énergie) in France. For this version of the

Protocol, it has been decided to use a fixed annual discount rate of 4% (like for the certificates of energy saving).

Note that the discount rate only applies from year 2 as year 1 is the reporting year N-1 which is in the past. The positive climate impact can therefore be considered as effective and not future.

See Appendix 1 for a concrete example of calculation. It might be re-evaluated and specified in future versions.

Attribution Key

When multiple stages/stakeholders are involved in the development of the Solution, it is recommended to define **an attribution key to allocate the positive climate impact** (avoided or/and removed emissions) **to the different stages/stakeholders**. There are several methods available today for determining this attribution key, as illustrated in the Net Zero Innovation Module 2 - The Avoided Emissions Framework (AEF v2).

The Climate Dividends Protocol recommends allocating the positive climate impact to each stage/stakeholder based on the **financial cost** of the Solution (total cost of production), the **added value** or the **stakeholder consensus** (if a consensus is reached among all stakeholders on the attribution key, then this allocation can be used).

The main benefits of the attribution key are:

- Valuing each stakeholder/stage contributing to the development of the solution
- Avoiding double counting

In cases where this is less clear or unknown, as long as the other stakeholders involved in the Solution are not claiming Climate Dividends, the attribution key is not mandatory but is strongly recommended to recognize the contribution of different stakeholders to the Solution and therefore its positive climate impact.

The Contributing entity must do its best to reflect in its Claim the different attribution keys based on its different (if applicable) involvements in the development of the Solution. To do so, it must calculate sub-Claims (one per attribution key) and sum them to calculate a consolidated Claim.

One illustrative example is Company A manufacturing heat pumps, and all of their parts, that it sells to installers (80% of the heat pumps produced) which then sell and install the heat pumps for end-customers but it also instals a portion of its production (20% of the heats pumps).
We assume here that the manufacturing cost of one heat pump is 10,000€ and the cost of installing it is 1,000€. Therefore, to make its Claim, Company must first apply an attribution key

Therefore, for 80% of its production, Company A can calculate its claim based on its latest stage of involvement (good production) and must apply an attribution key to account for the positive climate impact (e.g., 91% for Company A, 9% for the installer). For the remaining 20%, Company can make a second sub-Claim for its latest stage of involvement (good installation), without any attribution key as it is the unique player (i.e. it takes 100% of the positive climate impact). It then consolidates the two sub-Claims (in tCO2e) to build a unique consolidated Solution Claim. For the Solution Verification, the Contributing entity will be asked to provide the calculation details for all the sub-Claims.

It also happens that a Solution involves 1) a product or a service AND 2) a subsequent additional service (regardless of whether these two stages are carried out by the same Contributing Entity or by a different stakeholder for one of the two stages). In addition to the attribution key, special rules apply for this case (see below).

As a result, there are main 3 cases of claim computation that are detailed in the next 3 sections below:

1. **The Contributing Entity's Solution consists of a product/service <u>with no</u> subsequent or long-term services → Forward-looking Claim**

These Solutions can be:

- Selling a product/service to end-users in a shop or online (e.g. a contribution entity selling bicycles or heat pumps to private consumers)
- Selling a product/service to end-users and providing the delivery or installation of the product on-site (e.g. a company selling an electric agricultural robot to farmers and delivering the robot to the farms)
- Short term one-off rental (e.g. a company renting outdoor equipment to end-customers for a few days)

In this case, a *Forward-looking Claim* must be used.

The (sub)Claim shall be made at the latest stage of the Contributing Entity's involvement in the Solution: the good or service production, the good or service distribution, or the good installation. Concretely, in reporting year N, the Contributing entity can make a Claim for its “latest-stage” sales of the reporting year N-1. This (sub)Claim (in reporting year N) is calculated by **multiplying the estimated positive climate impact** (avoided or/and removed emissions) over the whole lifespan of the Solution, **including the application of an annual discount rate of 4%, and after the use, if relevant, of an attribution key**, **by the number of units sold** (at this latest stage) in the reporting year N-1.

For example, company A manufactures heat pumps and sells them to installers (for simplicity purposes, we assume here that company A produces all the pieces necessary for the manufacturing). It is involved in the following phases (with reference to the figure 7 above): the good or service production. Company B instals the heat pumps produced by company A, and is therefore only involved in the good or service installation phase. To define the attribution key, the financial cost method can be used: if the production cost of the heat pump is 10,000€ and the cost of the delivery and installation is 1,000€, then company A can claim 91% (10,000/11,000) of the positive climate impact, and company B 9%. Company A then applies the 4% discount rate over its positive climate impact from year 2, and multiplies it by the number of heat pumps manufactured in reporting year N-1.

See Appendix 1 for a concrete detailed use case and resources to apply the discount rate.

2. **The Contributing Entity’s Solution consists of a multi-year service → Year-on-Year Claim**

These Solutions can be:

- Annual subscription (e.g. a company selling annual subscriptions to try 5 second-hand clothes per month)
- Maintenance contract for equipment/product/infrastructure (e.g. a company selling a maintenance contract for the electrical equipment of a factory)

In this case, a *Year-on-Year Claim* must be used.

The general logic is the same. As in the first case, the claim shall be made at the latest stage of the Contributing Entity's involvement in the Solution, which in this case is at the end of each contract year.
Indeed, because multi-year contracts can be interrupted, cancelled or modified, we consider the lifetime period of the Solution to be one contract year by default. The Contributing Entity can consider several years of contract in the calculation (with a maximum number of years equal to the duration of the validity period of the SDD) if explained and justified in the SDD (e.g. in the case of infrastructure projects). The calculation of the positive climate impact shall take this parameter into account for both the Solution and the baseline/reference scenario.

Concretely, the (sub)Claim in reporting year N is calculated by **multiplying the positive climate impact** (avoided or/and removed emissions) **actually** enabled by the Solution in reporting year N-1 (or more if the specific case above is applied) **after the use, if relevant, of an attribution key, by the number of services (or items in the contract) actually delivered** in the reporting year N-1 (or more). This means that with the one-year contract default parameter, a 3-year service sold in reporting year N-1 will deliver each year (in N, N+1, N+2) one year of positive climate impact, and thus Claim, if the Contributing Entity indeed performs the service. In reporting year N+2, the Contributing Entity will Claim one year of positive climate impact of the Solution sold in N+1. The Contributing Entity must therefore calculate the positive climate impact of the Solution each year, which entails calculating the induced emissions of the Solution and the baseline/reference scenario with the relevant data for the given year (e.g., electricity emission factor). This also involves accounting for any replacement of materials (induced GHG emissions) or degradation of the performance. The discount rate is not used as there is no future projection (it is based on the past year). If the service is based on a good (e.g., leasing electric cars), the lifecycle GHG emissions, excluding the use-phase emissions, of the good must be amortised over the good lifespan (either in year of functional unit) and then equitably allocated to each year or functional unit to avoid penalising the Contributing entity. For example, a company that leases electric vehicles will amortise the lifecycle emissions, excluding the use phase, of both the electric car and the alternative solution (e.g., a gasoline car) over their lifespan and allocate them to the annual induced GHG emissions.

An illustrative example of this type of Claim is a company selling a subscription to rent second-hand clothes to prevent customers from buying new clothes shall use a year-on-year claim. It does not necessarily need to apply an attribution key as there is no other relevant stakeholder involved in developing this Solution (the initial seller of the new clothes is not relevant here).

See Appendix 1 for a concrete detailed use case.

3. **The Contributing Entity's Solution consists of a product/service AND a subsequent multi-year service → Mix Claim**

Some Solutions may require different sub-activities, such as a follow-up service to function properly and deliver their positive climate impact.

These Solutions can be:

- Building, operating, and maintaining infrastructure or equipment (e.g. railway, renewable energy asset, low-energy public lighting equipment, heating solutions for buildings, *etc.*)
- Sale or leasing of a product or a service for several years (more than one)
  e.g. a company leasing / renting electric vehicles

In this case, a *Mix Claim* must be used.

In any case, because the type of Claim to apply is different, an attribution key must be used to distinguish between the two sub-activities, even if the Contributing Entity performs both. For the first sub-activity (the product/service), the Contributing Entity uses the *Forward-looking Claim*. For the second sub-activity (the multi-year service), it uses the *Year-on-Year Claim*.

See Appendix 1 for a concrete detailed use case.

The figure below summarises the options to compute a claim:

	Option 1: Forward Looking Claim	Option 2: Year-on-year Claim	Option 3: Mix Claim
Activities concerned			
General Type	An activity that consists in the manufacturing and sale of a product / service without any associated monitoring afterwards or long-term contract	An activity that consists in offering a leased solution to a customer or a solution operated directly under contract	An activity that implies both the sale of a product AND a contract over several years (whether these two parts are carried out by the same Contributing Entity or two different stakeholders).
Activities	Sale of a product or service in a shop / online Delivery / on-site installation of a product / service *Examples*: • Sale of bicycles, heats pumps • Delivery of a technical equipment or machine • Installation of an equipment (one shot renovation work)	Subscription to a service Maintenance contract *Examples:* • Subscription to a second hand clothing service • Maintenance contract of lighting equipments in a building	Construction and Operations of Infrastructure Building of a product then distributed through a contract / leasing / subscription *Examples:* • A railway Solution • A renewable energy Solution • Electrical vehicles distributed through leasing contracts
Claim			
Moment when the claim can be made	Latest interaction with customer: good or service production, good or service distribution, good or service installation. → claim in year N for the installations/ deliveries / sales of year N-1	Latest approved interaction with the customer: end of one year of contract → claim in year N for the contracts delivered in year N-1	The two parts of the activities must be separated and then rules of option 1 and option 2 followed for each part.
Computation of impact	Avoided emissions over the whole lifetime of the solution calculated with discount rate and all accounted at once	Avoided emissions over the period of time considered (1 year of contract) accounted at once	
Discount rate	Yes, 4% (from year 2)	no	Yes for the activity relating to option 1
Attribution key	If applicable. See “Attribution Key” part above.		

VI. Issuance of Climate Dividends

1. Consolidation by the Contributing Entity

Climate Dividends are **issued by a legal entity**, e.g. a company. If a company has multiple Solutions eligible to Climate Dividends, in other words, if it is a Contributing Entity for different Solutions, the Climate Dividends generated by each Solution shall be summed to calculate the total Climate Dividends.

2. Information contained in the issuance of Climate Dividends

When a company issues Climate Dividends, its Claims (one per Solution) have been verified. It must include the following information:

- **The type of positive climate impact**: removed or avoided > it can communicate on an aggregated total of Climate Dividends but it must display the split between Climate Dividends R (from removed emissions) and Climate Dividends A (from avoided emissions) in the extra financial report.
- **The date of issuance**
- **The type of claim**: forward looking, year-on-year or mix
- **The volume of the Claim**: 1 tCO2e avoided or removed = 1 Climate Dividends
- **The name of the Contributing Entity**, i.e. the company generating the Climate Dividends
- **The final beneficiary**, i.e. a shareholder, of the Climate Dividends
- **The intermediary shareholder through which the Climate Dividends transited** (to ensure traceability for Climate Dividends distributed to investment funds which do not claim them but redistribute them to their LPs, for example)

The Climate Dividends Association guarantees the traceability of the issuance through a unique registry and ID on its platform.

VII. Validation and verification by an independent third-party

1. Identity of Verifiers/Validators

The validation of SDD and the verification of Claim are done by independent third parties, also known as Validators/Verifiers .

A Verifier and Validator is an **independent third-party**, **recognised by the Climate Dividends Association**, that has the ISO 14065 accreditation or equivalent (i.e. COFRAC ISO: 17029) and can demonstrate experience in environmental auditing.

By accepting the Verification and Validation (VV) assignment, the external validator/verifier agrees to:

- Declare whether impartiality and independence are compromised
- Sign a NDA with the Climate Dividends Association and respect confidentiality clauses
- Accept that the results of the verification and validation will be disclosed associated with the name of the Verifier and those of the people involved in the VV

2. Intervention of Verifiers/Validators

The Validation only concerns the SDD. The VV provides a validation opinion with a validity period. By default, this validity period is of 5 years but the VV may:

- Suggest a shorter or longer period of time (maximum 10 years)
- Add some data update conditions to the validity period. For example, it can confirm a validity period of 5 years for the SDD but require that the data used to calculate the emissions of the Solution and/or baseline/reference scenario are updated every year (e.g., to consider the evolution of the electricity grid carbon intensity).

The Verification only concerns the Claim, i.e. the positive climate impact calculation eligible for Climate Dividends for the given year.

If the Contributing Entity has several Solutions eligible for Climate Dividends, the same verifier/validator should validate all the SDDs and verify the impact calculations to ensure that there is no overlap or oversight between the different Solutions.

However, the Contributing Entity can change its Verifier for the next Claims (next year) during the same validity period.

VIII. Distribution of Climate Dividends to shareholders

1. Distribution of Climate Dividends between shareholders

If a company issuing Climate Dividends is financed (in equity) by several investors, Climate Dividends are **distributed in proportion to the contribution** of the investors (shareholders, *etc.*), based on the percentage of equity held, following the same principles as the distribution of financial dividends.

Example 1

A company has 2 shareholders, each owning 50% of the capital. It issues 10,000 Climate Dividends in 2022. Both shareholders will receive 5,000 Climate Dividends.

However, specific terms may be negotiated between the parties to allocate Climate Dividends differently to investors. In this case, it must be discussed with all parties and publicly documented and disclosed.

This notion of an investor's contribution is complex and could include other elements in addition to the percentage of capital retained. It is not covered in this current version of the Protocol but is noted for consideration in future versions (See Appendix 6). .

2. Distribution over time

A company's shareholders receive Climate Dividends issued by the company at the time of distribution. They cannot receive Climate Dividends that were issued before they bought shares in the company or after they sold their shares. It is similar to the distribution of financial dividends.

Information on the future distribution of Climate Dividends, based on the lifetime of the Solution, may be made available to shareholders. In addition to annual Climate Dividends, companies issuing Climate Dividends can provide information on avoided and removed emissions over the lifetime of the Solutions generating the Climate Dividends.

If a shareholder sells its share, it will stop receiving Climate Dividends from the date of sale. Consequently, any new Climate Dividend distribution will be made to the new shareholder until the next distribution.

Example 2

Team for the Planet shareholders may also wish to sell their shares, which is only possible once a year under Team for the Planet rules. In this situation, the new shareholder will receive the corresponding Climate Dividends when the next dividend distribution is made.

3. Climate Dividends' ownership

When a shareholder buys shares in a company, they can decide whether they are the ultimate shareholder entitled to the Climate Dividends or whether they are an intermediate shareholder not entitled to the Climate Dividends.

For example, if a fund invests in a company that issues Climate Dividends, those dividends may be passed on to the fund's primary investors, known as Limited Partners (LPs).

Once this decision has been made, the final recipients of Climate Dividends can only be changed once a year before the annual Climate Dividends are actually issued.

They cannot be sold or transferred by the primary beneficiary to any other entity. Climate Dividends cannot be "sold" from one entity to another because they are not an asset but rather extra-financial information, unlike the shares that give the right to receive Climate Dividends.

IX. Communication guidelines

1. Communication by a shareholder receiving Climate Dividends

Main guidelines

All equity investors can communicate about Climate Dividends generated by a company in which they hold shares.

However, only the ultimate recipient of the Climate Dividends can claim them and communicate about their ownership. Intermediary shareholders (e.g. investment funds) that have received and passed Climate Dividends may communicate on their intermediary or indirect role in this issuance of Climate Dividends.

Example 3

Investment fund A owns 30% of company B which owns 50% of company C which generated 1,000,000 Climate Dividends in year N.

Company C will therefore distribute 500,000 Climate Dividends to company B (50% x 1 million).

Company A will not receive any Climate Dividends as it does not directly own company C. However, company A can report that its investments indirectly generated 150,000 Climate Dividends (30% x 50% x 1 million).

An institutional shareholder can only communicate on Climate Dividends if it has also calculated the carbon footprint of its investments (i.e. Scope 3 emissions, category 15 according to the guidelines of the GHG Protocol or according to ISO 14064-1). The amount of Climate Dividends received each year must be reported separately from these emissions.

Climate Dividends cannot be included in the carbon footprint nor used to reduce it. They cannot be added to voluntary offset credits or used to claim that the investor has achieved its own carbon neutrality status as a result of the Climate Dividends received.

Globally, Climate Dividends cannot be manipulated, added to or subtracted from any other climate-related information (carbon footprint, carbon credits, etc.).

When communicating about Climate Dividends, a shareholder investor must:

- Be as transparent as possible about:
  - **The total Climate Dividends** received or passed (for intermediary shareholders) in the reporting year, with preferably subtotals per investment lot and a distinction between Climate Dividends from removed and avoided emissions
  - **The detailed Climate Dividends** calculated for each investee, with additional details of the investee's emissions to enable a clear comparison between the positive and negative climate impacts
- Explicitly state that they are Climate Dividends (not carbon credits or anything else)
- Disclose the year of issue of the Climate Dividends
- Indicate the percentage of companies that generate Climate Dividends (vs. the total number of companies in the portfolio) and/or the percentage invested in companies that generate Climate Dividends (vs. the total invested amount).

A shareholder can communicate about:

- "**Expected" Climate Dividends**, after the implementation of the Solution and before Verification and issuance of Climate Dividends.
- **"Actual" Climate Dividends**, after Verification and issuance.

Where to communicate about Climate Dividends

Climate Dividends can be communicated on a voluntary basis:

- Through **financial and extra-financial information**, together with the company's balance sheet, in a new section called "extra-financial dividends".
- Alongside the **shareholder's carbon footprint**, alongside the tCO_2e reported under Scope 3 category 15 ("Investment") of the GHG Protocol or equivalent in accordance with ISO 14064-1.
- In a **CSR or climate strategy report** published under the section “contribution to global net zero through investments”.
    - For companies following the Net Zero Initiative framework of Carbone 4 to report on their transition strategy, Climate Dividends received can be used to report the pillar 2bis of “financing of avoided emissions” and pillar 3Bis of “financing of removed emissions”.

	Pillar A Reducing my GHG emissions	**Pillar B Reducing others’ emissions**	**Pillar C Developing carbon sinks**
In my operations	-	-	-
Upstream and Downstream	-	-	-
Outside my value chain	-	Climate Dividends from Solutions avoiding emissions	Climate Dividends from Solutions removing emissions

    - For companies following the strategic plan proposed by Sweep, companies can report Climate Dividends received as a measure of their contribution to global net zero.

- For shareholders relying on the ACT4finance methodology, they will be able to report the Climate Dividends received in their assessment.

Discussions are underway with other frameworks and standards to integrate Climate Dividends. Follow-up information on this will be included in future versions of the Protocol.

Wording

We recommend that companies receiving Climate Dividends use the following wording (non-exhaustive list):

- " Our investments have collectively contributed to the global net-zero, with up to XXX tCO_2e of avoided and removed emissions in 20YY".
- "We have invested in companies that, with their solutions, are collectively contributing to global carbon neutrality. As a result, our YY euros invested in companies A, B, C etc. led to the issuance of XX Climate Dividends in 20XX".

2. Communication by a company issuing Climate Dividends

Most of the rules listed for shareholders also apply to companies issuing Climate Dividends.

A company can only communicate on Climate Dividends if it has calculated its carbon footprint, including its Scope 3 emissions (see V. Eligibility criteria).

Climate Dividends cannot be included in the carbon footprint of the company assessment nor used to reduce it.

When communicating about Climate Dividends, a company must:

- Be as transparent as possible about:
  - **The total Climate Dividends** generated in the reporting year, with a distinction between Climate Dividends from removed and avoided emissions

    - **The detailed Climate Dividends** generated by each Solution (if the company has multiple Solutions leading to Climate Dividends), with the carbon footprint of each Solution to enable the comparison between the positive and negative climate impacts

- Explicitly state that they are Climate Dividends (not carbon credits or anything else)
- Disclose the year of issue of the Climate Dividends
- Indicate the percentage of revenue linked to the solutions that generate Climate Dividends

A company can communicate on:

- "**Expected" Climate Dividends**, after the implementation of the Solution and before verification and issuance of Climate Dividends.
- **"Actual" Climate Dividends**, after Verification and issuance.

Glossary

Avoided Emissions

Additional GHG that would have been emitted in the fictitious and most credible scenario in which the Solution is not implemented. This calculation is done by comparing the GHG emissions of a scenario with the solution implemented to the GHG emissions of an alternative fictitious reference scenario without the solution (called baseline or reference scenario).

Baseline/reference scenario

When dealing with activities that deliver positive climate impacts, the baseline scenario describes a fictional situation corresponding to the business-as-usual world, where those activities would not have been implemented.

Claim

Number of tonnes of CO_2e avoided and/or removed disclosed for a given year by a Contributing Entity. It is the result of a calculation of the positive climate impact of a Solution based on a methodology respecting the general principles stated in the present Protocol.It is subject to a verification by a third independent party. The claim's status goes from "submitted" to "under verification" to either "verified" or "denied". If and once verified, it enables the Contributing Entity to convert its avoided and/or removed emissions into Climate Dividends that can be distributed to shareholders.

Climate Dividend

Untradable and externally verified extra-financial information corresponding to a positive impact for the climate generated by a Solution that can solely be claimed by the equity shareholders of the company carrying out the Solution (also referred to as Contributing Entity).

The positive climate impact is measured by the avoided emissions and/or removed emissions and is expressed in **tCO_2e**: One Climate Dividend corresponds to 1 tonne of carbon dioxide equivalent (tCO_2e) avoided or 1 tCO_2 removed.

Contributing Entity

Entity, most of the time a company, contributing to the development and/or implementation of a Solution. It is the Entity which applies for Climate Dividends.

GreenHouse Gases

As recognised per the Intergovernmental Panel on Climate Change (IPCC) and as listed by the GHG Protocol here, the greenhouse gases considered are

- carbon dioxide (CO_2)
- methane (CH_4)
- nitrous oxide (N_2O)
- hydrofluorocarbons (HFCs)
- perfluorinated compounds
- sulphur hexafluoride (SF_6)
- nitrogen trifluoride (NF_3)
- perfluorocarbons (PFCs)
- fluorinated ethers (HFEs)
- perfluoropolyethers (e.g., PFPEs)
- chlorofluorocarbon (CFCs)
- hydrochlorofluorocarbon (HCFCs)

All GHG are then converted into **tons of CO_2-equivalent (t CO_2e)** using the 100 years Global Warming Potentials values relative to CO_2 (GWP) from the IPCC AR6.

Leakage

Carbon leakage refers to the indirect transfer of GHG emissions (from one country or company to another for example) rather than the absolute avoidance/removal of emissions. This is sometimes referred to as “burden shifting”.

Life Cycle Assessment (LCA)

Compilation and evaluation of the inputs, outputs and the potential environmental impacts of a product system throughout its life cycle.

Lifespan or lifetime (of a Solution)

The expected period of time during which the Solution (product or service) will be used by its intended user.

Methodology

Series of hypotheses and principles to evaluate the climate impact of a Solution. It can be generalist or specific to a sector or a type of product/ service.

Nature-based Solutions

Nature-based Solutions (NBS) are defined by IUCN as “actions to protect, sustainably manage, and restore natural or modified ecosystems, that address societal challenges effectively and adaptively, simultaneously providing human well-being and biodiversity benefits”.

Classic examples of Nature-based solutions are the activities of tree planting or preservation of ecosystems (mangroves for example).

Product Carbon Footprint (PCF)

A measure of the total greenhouse gas emissions generated by a product or service, from extraction of raw materials to end-of-life. It is based on a life cycle assessment (LCA) but focuses on the single issue of global warming. It is measured in carbon dioxide equivalent (CO_2e).

Rebound Effect

An increased consumption that results from actions that increase efficiency and reduce consumer costs. It is also called Takeback Effect or Offsetting Behaviour. A simple illustration is the increased energy consumption compared to the expected energy consumption after implementing energy efficiency measures due to cost savings.

Removed emissions

CO_2 that is removed from the atmosphere and stored in biologic or geologic pools. This includes for example biological sequestration (trapping carbon in biomass), mechanical sequestration (capturing emissions from the atmosphere and storing them underground) and mineral sequestration (trapping carbon in solid carbonate salts). Solutions that enable (their users) to remove CO_2 from the atmosphere can be eligible for Climate Dividends.

Solution

A product or service that contributes to global carbon neutrality either by avoiding or removing emissions.

Solution Scenario

The GHG emissions due to the Solution's activity over its whole life cycle.

Solution Detailed Declaration (SDD)

Information concerning a Solution that a Contributing Entity provides to enter the issuance process of Climate Dividends. It covers:

- More detailed information about the Contributing Entity
- More detailed information about the Solution and its positive climate impact
- PCF of the Solution
- A description and justification of the baseline/reference scenario
- A description of the methodology and its compliance with the Climate Dividends Protocol

It is subject to validation by a third independent party.

Validation

Process of evaluating the relevance and reasonableness of the assumptions, limitations and methods that support a statement of a Solution Detailed Declaration. The outcome of the validation is an approval or denial.

Validity period

Period after the approval of the SDD during which the Contributing Entity can submit Claims for Verification in order to issue Climate Dividends (without having to go through a methodology/SDD validation).

Verification

Process of evaluating the Claim of a Contributing Entity. For the present Protocol, Verification is requested under limited assurance.

Verifiers/Validators

Verifiers, also called validators, are third independent parties that perform the Validation and Verification. They must be acknowledged by the Climate Dividends Association.

Appendix 1:

Concrete use cases for computation of claim

1. Option 1: The Contributing Entity's Solution consists of a product/service with no subsequent services → Forward-looking claim

The claim (in reporting year N) is made using the following procedure:

- Define the Solution's lifespan
- Assess the positive climate impact per year over the Solution's lifespan - in avoided or removed emissions – of 1 item of the Solution sold in reporting year N-1 by calculating the annual difference between the emissions generated by the item and the emissions of the baseline/reference scenario
- Apply the discount rate for each year (excluding year 1)

$$\frac{\text{“Estimated positive climate impact in Y for 1 item of the Solution sold in N-1”}}{(1+t)^{(Y-1)}}$$

where
“Estimated positive climate impact for 1 item of the Solution sold in N-1”
Y is the number of the year under consideration
t is the discount rate

- Sum up the annual positive climate impact, after the use of the discount rate, over the Solution's lifespan to obtain the estimated total positive climate impact per item of the Solution sold

- Multiply the total by the number of items sold in reporting year N-1

→ A google spreadsheet is available here to give you a basis to calculate your forward looking claim (copy the spreadsheet, fill in the yellow cells and adapt the model with your own data).

Example 4

Company A manufactures and sells heat pumps to an end user who would otherwise have purchased an average boiler on the market.

In order to establish its Claim in a given year (e.g. 2023), Company A will take into account the activity carried out in the previous year (e.g. 100 heat pumps sold in 2022).

Since it is responsible for both the production and the installation of the heat pump, it does not need to apply an attribution key. The functional unit (FU) considered is 1 m^2.

It must then:

- Define the heat pump lifespan
  → 20 years here

- Assess the avoided emissions enabled by one item of the Solution (i.e. the heat pump) over its entire lifespan using a 4% discount rate

  - Assess the avoided emissions per functional unit per year over the item lifetime
    → 10 $kgCO_2e/m^2$ in year 1, etc. (see the table below)

  - Multiply it by the correspond annual FU (for each year)
    → Company uses the company average for this calculation. On average the heat pump was installed in a 100 m^2 building in 2022, which leads to 100 m^2 x 10 $kgCO_2e/m^2$ in year 1, etc. (see the table below)

  - Apply the annual discount rate of 4% on the avoided GHG emissions per FU per year
    → See the table below

  - Sum the total avoided emissions over the Solution's lifespan of 1 item

after the use of the discount rate

→ See the table below

Year	GHG emission per heat pump per m2 (in kgCO2e/m2)	GHG emissions of the baseline/reference scenario (in kgCO2e/m2)	Avoided emissions per heat pump per m2 (in kgCO2e/m2)	Average surface of the building equiped by the heat pump (in m2)	Avoided emissions per heat pump (in kgCO2e)	Avoided emissions per heat pump after discount rate (in kgCO2e) *> formula: avoided emissions / (1+4%)^(year - 1)*
1	5,00	15,00	10,00	100,00	1 000,00	1 000,00
2	4,70	14,27	9,57	100,00	957,10	920,29
3	4,42	13,56	9,14	100,00	913,95	844,99
4	4,15	12,88	8,73	100,00	872,67	775,80
5	3,90	12,24	8,33	100,00	833,19	712,21
6	3,67	11,62	7,95	100,00	795,43	653,79
7	3,45	11,04	7,59	100,00	759,33	600,11
8	3,24	10,49	7,25	100,00	724,81	550,80
9	3,05	9,97	6,92	100,00	691,81	505,50
10	2,86	9,47	6,60	100,00	660,27	463,90
11	2,69	8,99	6,30	100,00	630,12	425,69
12	2,53	8,54	6,01	100,00	601,31	390,60
13	2,38	8,12	5,74	100,00	573,77	358,38
14	2,24	7,71	5,47	100,00	547,47	328,79
15	2,10	7,33	5,22	100,00	522,33	301,63
16	1,98	6,96	4,98	100,00	498,32	276,70
17	1,86	6,61	4,75	100,00	475,38	253,81
18	1,75	6,28	4,53	100,00	453,46	232,80
19	1,64	5,97	4,33	100,00	432,54	213,51
20	1,54	5,67	4,13	100,00	412,55	195,82
TOTAL	59,16	192,72	133,56	100,00	13 355,79	10 005,09

- Multiply the avoided emissions over the Solution's lifespan of 1 item after the use of the discount rate by the number of items sold in 2022
  → 100 * 10,000 $kgCO_2e$ = 1,000,000 $kgCO_2e$ = 1,000 tCO_2e

- Have the Claim verified by a third-party verifier, and once approved, convert these avoided emissions into Climate Dividends
  → The company A can claim 1,000 tCO_2e avoided emissions and report and distribute to its shareholders 1,000 Climate Dividends

2. Option 2: The Contributing Entity's Solution consists of a multi-year service → Year-on-year claim

The validity period can be of 10 years maximum (and 5 years by default), which means that if the duration of the contract is longer than this validity period, the methodology and therefore, the baseline scenario will be reviewed during the duration of the contract.

Here a solution is considered to be a one year of contract.

The year-on-year claim is made with the following procedure:

- Assess the emissions of the solution
- Assess the emissions in the reference scenario, based on the performance of the counterfactual situation determined at the year of service, and on the actual energy mix data of the current year.
- Calculate the emissions avoided by the solution over the lifetime considered, i.e. one year of contract (no discount rate applied as this is not an estimate of future impact).
- Multiply this calculated total impact by the number of Solutions in the year under consideration

Example 5

Company B offers an annual subscription to end-customers to enable them to rent used hand clothes. On average, with one subscription, an end-customer rents 10 clothes.

The functional unit is 1 cloth used by an end-customer.

Here, we assume that company B finds by itself the garments in order to have a stock to offer for its rental subscription, it does not

need to apply an attribution key.

Company B has defined its baseline scenario based on the fact that the end-customers would otherwise have purchased new clothes.

In order to establish its Claim on a given year (e.g. 2023), company B takes into account the subscriptions delivered in the previous year (e.g. 2022).

It must then:

- Define the lifespan of the Solution
  → 1 year of subscription

- Quantify the GHG emissions of one item of the Solution (i.e. one annual subscription)
  → 10 * 2000 gCO2e = 0.02 tCO2e

- Quantify the GHG emissions of the reference scenario in 2022, considering that the emissions generated by the customer who would have bought some clothes instead).
  → 10 * 5000 gCO2e = 0,05 tCO2e

- Assess the emissions avoided in 2022 by one annual subscription.
  → 0,05 tCO2e - 0,02 tCO2e = 0,03 tCO2e

- Multiply the total of avoided emissions per subscription by the number of subscriptions sold/running in 2022.
  → 1000 subscriptions in 2022, thus 1000 * 0,03 tCO2e = 30 tCO2e

- Have the Claim verified by a third-party verifier, and once approved, convert these avoided emissions into Climate Dividends
  → The company B can claim 30 tCO_2e avoided emissions and report and distribute to its shareholders 30 Climate Dividends in 2023

3. A Solution covering both previous options → Mix Claim

The Contributing Entity needs to determine the attribution key relevant for its Solution and then it applies, for each sub activity the rules explained in option 1 - forward looking claim - and option 2 - year-on-year claim - accordingly.

Example 6

Company C sells leases of electric vehicles to end-customers.
For this example, we'll assume that company C has only one type of lease: 1000 electric vehicles, all the same car model, leased to a French customer for a fixed period (several years). On average a leased vehicle travelled 10,000km in 2022. Company C has defined its baseline scenario based on the fact that the customer company would otherwise have purchased cars representative of the average market solutions.
Company C is not the producer of the electric vehicles so it is concerned by option 3. Even if the manufacturer of the vehicles does not claim its share of the impact yet, company C must use and disclose an attribution key.

In order to establish its Claim on a given year (e.g. 2023), company C will take into account the active contracts in the previous year (e.g. 2022). The Functional Unit (FU) is 1 km.

It must then:

- Define the Solution's lifespan (in km or years)
  → 175,000 km

- Quantify the GHG emissions of an electric car leased in 2022 by Company C
  → 10,000 km * 20kWh/100 km* 50 gCO_2e/kWh + the lifecycle emissions excluding the use phase amortised over the lifespan (= 7 tCO_2e / 175,000 = 40 gCO_2e/km) = 0,1 tCO_2e + 0,4 tCO_2e = 0,5 tCO_2e

- Quantify the GHG emissions of the reference scenario in 2022 (using the share of each type of vehicle in the French market in 2022 – e.g., x% gasoline car, y% diesel car, etc.)
  → 10,000 km * 160 gCO_2e/km + the lifecycle emissions excluding the

use phase amortised over the lifespan (= 4,5 tCO_2e / 175,000 = 25 gCO_2e/km) = 1,6 tCO_2e + 0,25 tCO_2e = 1,85 tCO_2e

- Assess the avoided GHG emissions enabled by 1 electric car leased in 2022 by Company C
  → 1,85 tCO_2e – 0,5 tCO_2e = 1,35 tCO_2e

- Apply the attribution key
  → Company C uses the following attribution key: 80% for the electric car (product), 20% for the leaser, i.e company C (subsequent multi-year service). No justifications are provided here to simplify the example. This means that 20% x 1,35 tCO_2e = 0,27 avoided tCO_2e can be claimed by company C for each electric car leased

- Multiply this total by the number of leased vehicles in 2022 by Company C
  → 0,27 tCO_2e x 1000 = 2,700 tCO_2e

- Have the Claim verified by a third-party verifier, and once approved, convert these avoided emissions into Climate Dividends

  → The company C can claim 2,700 tCO_2e avoided emissions and report and distribute to its shareholders 2,700 Climate Dividends

Appendix 2:

Comprehensive example of Climate Dividends calculation and issuance

Example 8

Company A manufactures and installs a HFC-free air-conditioner, which consumes 60% less electricity than the average market solutions. It wants to issue Climate Dividends in 2023 for its sales in 2022.

Step 1: Eligibility evaluation

In 2023, Company A fills in the form to check its eligibility. It receives a reply from the Climate Dividends Association.

Here it is eligible because it has met the following criteria:

1. The company has measured its carbon footprint (scope 1, 2 and 3): The carbon footprint of 2022 has been measured and reported by the company.
2. The activity to which the Solution is attached must contribute to global carbon neutrality according to recognised sources aligned with the latest climate science: The Solution's activity is eligible for the EU taxonomy and is not excluded by the additional criteria.

3. The Solution must have a positive climate impact: It claims to avoid emissions by selling air conditioners that are much more energy efficient than what's currently used and sold on the market in the countries where they are installed.
4. The Solution does not cause significant harm to other sustainable goals without any clear mitigation measures: The Contributing Entity has assessed the potential risks of negative impacts on the other issues and explains why they are not significant and/or how they will be monitored and mitigated.
   In this case, the device uses water, so there is a water consumption issue, but the quantities are limited and the water can be recycled indefinitely, so the risk is mitigated.

Step 2: Solution details and Claim for the first submission year

Company A has 2 options to elaborate the information needed to submit the Solution Detailed Declaration (SDD) and the first Solution Claim. Either it appoints a consulting firm specialised in carbon footprint and life cycle analysis, it can do it internally if it has the relevant skills.

It needs to choose or establish a methodology to assess the positive climate impact of the Solution.
In this example, there isn't a previously validated methodology so company A will propose one, using the general principles of the Climate Dividends methodology.

Company A also computes the first Solution Claim (for the positive climate impact of its Solution in 2022). This claim is made according to the option 1 – *Forward-looking Claim* - described in the Climate Dividends Protocol. It takes into account the number of air-conditioners sold in 2022, the avoided emissions enabled over the air-conditioner's lifetime, without an attribution key (Company A manufactures and installs the air-conditioners), and with the discount rate of 4%.

The SDD and the first Solution Claim are uploaded on the Climate Dividends platform. The new methodology is validated by the Climate Dividends Association with the help of an expert in thermal equipment to ensure the relevance of the hypothesis taken by the company. The methodology is now publicly available for other similar Solutions.

Step 3: Validation and Verification by an independent Third Party

Company A then requests the Validation and Verification of its SDD and its first Solution Claim, based on the validated methodology, by an independent third party recognised by the Climate Dividends Association.

The Validator/Verifier reviews the SDD and the Claim. They validate the SDD with a validity period of 5 years with a data update request of the Solution and baseline/reference scenario every year to account for the change of the grid carbon intensity. This means that the SDD is valid for Climate Dividend Claims from 2023 to 2028. Company A will be able to submit Claims without elaborating a new SDD between 2023 and 2028. However, its future annual Claims will require to include a new dataset for the Solution and baseline/reference scenario.

They also verify the first Solution Claim under limited assurance. The verified Claim is 3,000 tCO_2e.

Step 4: Issuance and distribution of Climate Dividends in the first year of the SDD validation

The Verification Opinion has been received. Company A can issue 3,000 Climate Dividends in 2023 (based on the conversion of its verified avoided emissions into Climate Dividends). It distributes them to its shareholders through the Climate Dividends' Platform.

The shareholders of company A are as follows:

- Founder of company A: 20%
- Industrial Corporation: 25%
- Business Angels holding: 10%
- Investment Fund: 45%

Company A distributes its 3,000 Climate Dividends to them accordingly:

- Founder of company A: 600
- Industrial Corporation: 750
- Holding of Business Angels: 300
- Investment Fund: 1,350

The Business Angels Holding consists of 5 business angels, who are former entrepreneurs (not legal entities). They have decided that the Holding will claim the Climate Dividends and not them individually. Therefore, none of the 5 individuals will receive Climate Dividends and the Holding will be able to claim in its reporting and external communication 300 Climate Dividends received in 2023 for the contribution of its investments to global net zero in 2022.

The investment fund is funded by 3 LPs, each of which has provided 33,3% of the total amount raised by the fund. These LPs wish to receive the Climate Dividends generated by their indirect investments. The investment fund will not claim the Climate Dividends directly, but will only be an intermediary shareholder:

- Each LP will be able to claim 450 Climate Dividends received in 2023 for the contribution to global net zero in 2022 of their investments through the Investment Fund.
- The investment fund will solely have the right to report that it has enabled its LPs to receive a total of 1,350 Climate Dividends in 2023 for the year 2022.

Company A and the related investors can communicate about the associated Climate Dividends, providing they meet the criteria set in section IX. Communication.

Step #5: Issuance and distribution of Climate Dividends during the rest of the validity period

For the next 4 years (the rest of the validity period), in order to make its annual Claim, Company A will:

- Check that the methodology used in the original SDD is still valid (as indicated in the Appendix 4 of the present Protocol) - here, we assume it is the case
- Calculate the annual Solution Claim using the latest version of the methodology, considering the data update conditions of the first Solution Claim (for example, the energy performance of the air conditioner assessed with field use might have evolved).

And then, it will request the Verification by an independent third party of its annual Claim by providing the necessary information:

- A copy of the original SDD with the identification code (to save time).
- The type of climate positive impact: avoided and/or removed emissions
- The Claim: the avoided and/or removed emissions (in tCO_2e)
- The Claim computation details

Once the Verifier has verified the Solution Claim under limited assurance, Company A receives the Verification Opinion for the new year. It can then issue and distribute Climate Dividends for the new year, following the same principles as the one detailed in step 4 above.

Appendix 3:

Example of a Solution emitting Climate Dividends and selling Carbon Credits

The scope of Solutions eligible for carbon credits and Climate Dividends differs but overlaps. Thus, **a company can distribute Climate Dividends and sell carbon credits for the same Solution.**

For example, a company producing biochar might want to:

- Issue and distribute Climate Dividends to its shareholders
- And sell carbon credits on the voluntary carbon market in addition to selling its biochar products to regular customers (for soils, filtration purposes, *etc.*).

The method for calculating the positive climate impact can be the same (depending on the different methodologies) resulting in the same amount of tCO_2 removed.

It is assumed that there is no double counting or problems with this approach. Climate dividend reporting is different from any other reporting (e.g. carbon footprint), they cannot be used to offset emissions (neither from the Contributing Entities nor from the investors). Avoided or removed emissions cannot be subtracted from the GHG inventory. So even if the investor of a Contributing Entity buys the carbon credits sold by this Contributing Entity, it won't be able to offset its carbon footprint twice thanks to both the Climate Dividends received and carbon credits bought. Also, unlike carbon credits, Climate Dividends can't be sold by the companies involved in developing the projects that generate them. Carbon credits, once issued, are sold to the ultimate claimant, while Climate Dividends are held by the company and its shareholders. While carbon credits value the ultimate claimants, which are not the companies that contribute to the development of carbon credit projects, Climate Dividends reward the latter. In this way, Climate Dividends incentivize companies to develop these projects and investors to finance them, not only for the profit they will make from the sale of

carbon credits (as a company making profits with heat pumps), but also for the extra-financial information they will be able to claim.

Appendix 4:

List of accepted methodologies

This list will be progressively enriched and expanded: any entity willing to add a methodological framework to this list can submit its methodology to the Climate Dividends Association, which will review it for compliance with the general principles of this Protocol before validating it.

Once validated by the Climate Dividends Association, a methodology will be publicly available to any other Contributing Entity wishing to issue Climate Dividends to ensure comparability and avoid reinventing the wheel all the time.

As of last version of this Protocol, the methodologies that are certified compliant with the following standards are accepted:

- Product Carbon footprint (as defined in ISO 14067)
- Life Cycle Assessment, cradle-to-grave (ISO 14040/14044)
- GHG Protocol's Product Life Cycle Accounting Standard
- FDES (according to the NF EN 15804+A1 standard)

The sector-specific methodologies proposed by the Net Zero Initiative, Riverse and Puro Earth are also validated.

Appendix 5:

Gap analysis with Avoided Emissions Guidance from WBCSD and Net Zero Initiative

The guidance on Avoided Emissions published in March 2023 by the World Business Council for Sustainable Development and the Net Zero Initiative (as well as the Net Zero Initiative Pilar B) is a very interesting document from which this protocol is inspired.

There are many similarities but also some differences.
We intend to discuss with the WBCSD to better understand some of their recommendations and to be able to work on a path between the Climate Dividends' claim and their guidelines The path contemplated so far is that a Contributing Entity distributing Climate Dividends would be easily compatible with the WBCSD guidance (without having to redo a lot of work, but probably with a more stricter claim in terms of impact).

The Climates Dividends Protocol aligns with this Avoided Emissions guidance in many respects:

- The shared belief of the importance of avoided emissions
- The definition of avoided emissions (with no distinction between real reductions of emissions and lesser increase of emissions)
- The need for a company claiming avoided emissions to meet a number of eligibility criteria
- The overall method for evaluating avoided emissions:
    - both documents present two approaches to actually compute the impact estimated that should be used depending on the context: in the Avoided

Emissions Guidance, they are described as Approach A – Forward-looking avoided emissions and Approach B – Year-on-year avoided emissions and in the Climate Dividends, it is the 2 options presented in VI.3. Computation of Claim.

    - choice of baseline scenario: same decision tree and type of option
    - data accuracy recommendations
- The focus on avoided emissions at the Solution/activity scale
- The main communication guidelines
- The assessment of avoided emissions at the Solution/activity level, with the possibility to compute it at the company level afterwards

The **main differences between the two documents** are the following:

- The **Climate Dividends Protocol is a broader document** because it addresses:
    - Removed emissions and not only avoided emissions
    - The validation rules for sectoral methodologies
    - The verification and validation rules for the impact assessed by Contributing Entities (including the validity period)
    - The issuance and distribution of Climate Dividends, once avoided emissions have been calculated
- The **eligibility criteria**
    - The Avoided Emissions Guidance proposes a 3-gate eligibility check

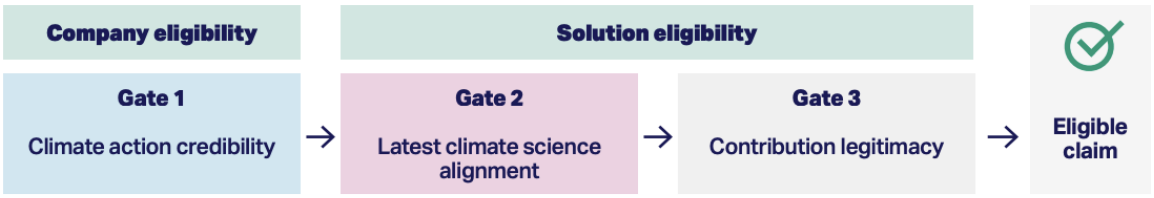
      Gate 1: The company has established and externally communicated a climate strategy consistent with the latest climate science, providing robust GHG footprint measurement and including science-based informed targets covering Scopes 1, 2 and 3, transparently reporting progress on a regular basis.

      Gate 2: The solution (or end-solution of the intermediary solution) has mitigation potential according to the latest climate science and recognised sources, and is not directly applied to activities related to the exploration, extraction, mining and/or production, distribution and sale of fossil fuels i.e., oil, natural gas and coal.

      Gate 3: The solution has a direct and significant decarbonising impact, covers the following cases: “end-use solutions” with direct and significant decarbonising impacts; intermediary solutions with direct and

significant decarbonising impacts; solutions that directly and significantly improve or optimise systems

Figure 17: The three gates to ensure the eligibility of avoided emissions claims



- The Climate Dividends Protocol eligibility criteria are broadly consistent and the compatibility and exclusion criteria to ensure the solution is aligned with a 1.5 degrees trajectory and has a positive climate impact are very similar. For now, it differs on some specific points (in terms of content rather than steps):
  - The company is only required to have calculated its carbon footprint. Because the distribution of Climate Dividends is intended to be accessible to small and medium sized companies that don't necessarily have an official climate change strategy We contemplate the option of specifying this eligibility criterion according to the size of the company (see Appendix 6).
  - The solution must be aligned with the EU taxonomy, but we consider that all activities eligible to the EU taxonomy are eligible (direct contribution, enabling and transitional) and not just those with a direct contribution.
  - The solution's impact is assessed in terms of removed or avoided emissions and the notion of direct and significant impact is not introduced
  - The solution must assess its other potential negative impacts and prove that they are not too significant and/or that they are being mitigated. The WBCSD mentions this point as important but does not make it an eligibility criterion. Since for Climate Dividends it must be disclosed but there is no specific objectivised verification, the difference is quite small.
- In the **evaluation of avoided emissions**, there are a number of small differences:

- The Climate Dividends protocol recognises a 3% cut-off when considering the scope of emissions (i.e. processes with the lowest contribution to impacts, which account for a maximum of 3% of impacts each, may be excluded from the evaluation); no cut-off is mentioned in the Avoided Emissions Guidance but this is common practice in impact evaluation
- When calculating the claim with the approach A - Forward-looking avoided emissions, The Climate Dividends protocol requires the use of a 4% annual discount rate to estimate the future avoided emissions whereas the Avoided Emissions Guidance does not mention a discount rate.
- The Avoided Emissions Guidance indicates that no allocation of avoided GHG emissions between stakeholders should be pursued “as avoided GHG emissions should be quantified at the level of the enabled decarbonisation effect of the considered solution”. On the contrary, the Climate Dividends protocol emphasises the importance of attribution keys to avoid overestimating the company’s impact, to recognise the interdependence of solutions and to allow different stakeholders in the same value chain to claim Climate Dividends.
- This current version of the Climate Dividends Protocol also recognises the decision tree proposed by the NZI for selecting the baseline scenario, which introduces an additional notion of “end of lifetime”.

Appendix 6:

Limitations and Open Issues to be addressed

This current version of the Protocol has some acknowledged limitations and it does not address some important issues that have already been identified.
These will be improved, addressed or specified in future versions.

- The eligibility criterion on the Contributing Entity could be specified according to the size / maturity of the entity (for example, larger companies could be required to have disclosed a transition plan in addition to having calculated their GHG inventory).
- Limited safeguards on the compatibility/ no significant harm caused to other sustainability goals
- No quantified indicator for 1.5°C alignment
- Fixed discount rate that does not take into account the diversity of situations and activities
- No clear rule on how to choose when two compliant emission factors are available
- Need to improve the rules regarding expected accuracy/sources for the factors used
- The concept of added emissions (assessment of the negative impact of a solution compared to a reference scenario) is not taken into account
- No distinction between real reductions of emissions and lesser increase of emissions
- Review of the decision tree for selecting the baseline scenario to see whether we keep the two current decision trees accepted
- Real need for more information and examples about the evaluation of removed emissions to claim Climate Dividends
- Few sectoral methodologies already validated
- Precision could be added regarding the attribution key of positive climate impacts between different stakeholders involved in one activity or in a value chain.

- Need to specify the attribution method between financiers (investors and all organisations involved in financing the Contributing Entity delivering the Solution). The current protocol recommends a simple pro rata allocation between equity investors only, but should be reviewed to look at the whole financing scheme of a Solution and see how the timing of an investment and of the distribution of Climate Dividends can or should be taken into account.
- Communication guidelines for companies and investors on Climate Dividends could be detailed
- Discussion to clarify the path and equivalence with the WBCSD Avoided Emissions Guidance

Appendix 7:

References and Sources

Some of the main references and sources mentioned and/or used in the Climate Dividends Protocol:

- Guidance on Avoided Emissions from WBCSD and NZI: www.wbcsd.org/contentwbc/download/15909/229494/1
- The Avoided Emissions Framework: www.misolutionframework.net/pdf/Net-Zero_Innovation_Module_2-The_Avoided_Emissions_Framework_(AEF)-v2.pdf
- IPCC Report: www.ipcc.ch/report/ar6/wg1/downloads/report/IPCC_AR6_WGI_Chapter07_SM.pdf
  www.ipcc.ch/report/sixth-assessment-report-working-group-3/
- The EU Taxonomy: https: //ec.europa.eu/sustainable-finance-taxonomy/
- Estimating and reporting comparative emissions from WRI: www.wri.org/research/estimating-and-reporting-comparative-emissions-impacts-products
- The Net Zero Initiative, Pilar B: www.carbone4.com/publication-nzi-pilierb
- Riverse Standard Rules: app.hubspot.com/documents/20406207/view/442483846?accessId=074687

Appendix 8:

Changelog

- v2.1.1: Changes focus on typo corrections, clarifying rules regarding the cut-off rule, the discount rate calculation base and the forward looking claim and a better adaptation of the Protocol to removed emissions
- V2: First version of the Climate Dividends Protocol published in May 2023