**Public carbon accounting**

*Draft V3 at 11/06/2023 subject to discussion*

***Carbon accounting calculates the balance weight of the services provided by the entity in an balance account : the ratio between the weight of carbon used in production and the number of services provided. In a decarbonation account, it tracks the entity's contribution to the collective effort to decarbonize the atmosphere.***

**4 principles**

**Principle 1 :** Unless otherwise stated in this document, an entity (market or non-market) that constructs its carbon accounting retains the rules it follows for its monetary accounts and for counting its carbon weights.

**Principle 2** : The entity indicates to the customer on its invoice (for a market entity) or to the user of its products (if it is a non-market entity) a weight taken from its carbon accounting that is as close as possible to the weight of the carbons required for its production. It asks its suppliers for the same service. (The weight transmitted corresponds to the "mine to customer" product footprint and includes, for fuels, the end-of-life combustion carbons).

**Principle 3** : To speed up the transmission of weights along the production chain, the entity records the weights immediately in carbon accounting. Exceptions are justified by the sincerity of the weights transmitted and concern fixed assets and significant work in progress.

**Principle 4** : In its carbon accounting, the entity tracks its contributions to the collective objective of decarbonation : the decrease in the unit weight of its products; the increase in its green production and the decrease in its brown production (as defined by the European taxonomy); its contribution to the decarbonation gains of other entities; and the symmetrical losses of these gains.

**The accounting framework**

**The entity** in the text includes any structure that keeps its accounts in public accounts. **The carbon weight** refers to the international standard for measuring the weight of greenhouse gases caused by human activity, expressed in kilos of CO2 equivalent. As in monetary accounting, the accountant reports changes in methods and justifies deviations from the rules.

1. **Balancing account**

**The carbon balance account** tracks the weight of carbon in production and the quantities of services rendered on an annual basis. It is used to calculate the balance weight of services that would have balanced the weights required for their production. The balance weight is indicated to customer users from the closing of the account until the closing of the following financial year.

**The production weight** is the carbon weight of the expense items in the monetary account. The product footprint standard required of suppliers is "from mine to customer".

The weight of production therefore corresponds to the entity's footprint according to the "upstream scopes 1, 2 and 3" standard.

The weight of purchases is exceptionally corrected for certain entities by :

* - Adding the weight of carbons introduced by the production process (oil, cement, etc.) and those that will appear at the end of life (combustion of hydrocarbons, etc.).
* - Removing the weight of captured carbons (forests, industrial capture, etc.).

**A account of carbon to be invoiced** traces the exceptions to the immediate recording of purchase weights in the balancing account.

Best practice suggests the following exceptions

- Work in progress on heavy production, building sites, etc. (until delivery)

- Operating property assets and major works (over 20 years)

- Other new fixed assets for a financial year (vehicles, machinery, software, etc. excluding product inventories, office automation tools, etc.) if their weighting exceeds 30% of the weighting of production (smoothed over three years).

**The balance weight** of services rendered is the weight of output divided by quantity. If the entity has several services, it divides the weight of its output between them in the same way as it divides its production costs.

The physical unit of services rendered must be known to the user: hours or days billed, meals, weight, kilometres travelled, number of objects or services, etc.

1. **Decarbonation account**

**The entity's decarbonation account** tracks its contributions to the collective decarbonation objective. These may be gains (a reduction in carbon in the atmosphere, counted as a positive) or losses. The balance is the entity's decarbonation result for the year. The three types of contribution made by an entity are :

* The effort to reduce its balance weight, given mathematically by the change in balance weight multiplied by the quantity of services rendered.
* More rarely, the effort to reduce its brown production or develop its green production, also given mathematically if the European taxonomy has set a target for the balance weight: a gain if green production increases or brown production decreases, a loss in the other two cases, gain or loss equal to the difference between the balance weight and the target weight multiplied by the change in the quantity of service.
* Sharing with partner entities the decarbonation gains to which the entity has contributed. Entities collaborating on decarbonation may agree to share the decarbonation gain obtained (alongside any agreement to share monetary gains).

The two entities involved in a shared decarbonation gain trace it through a document that can be used by their respective accountants under the same conditions as an invoice.

**Under discussion**

**Projecting the decarbonation account for the entity's projects**

The entity keeps a carbon account for each significant project to which it contributes or plans to contribute, whether under construction or planned. It records the carbons already emitted and projects the carbons to be emitted over the duration of the project, for the entity on the one hand, and for the territory on the other.

**Projecting the entity's decarbonation account**

This is the consolidation of the trajectories of the projects and that of the entity.

**Projecting the territory's decarbonation account**

This is the same concept, but consolidates the decarbonation accounts of the main public and private entities in the region.