



Guide to ClimateCalc calculator

ClimateCalc Version 3.0

www.climatecalc.eu

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1 Purpose

This guide is made with the purpose to be a tool to get started making carbon calculations in the company. For a description of the background of ClimateCalc and which standards and data that have been used, we refer to www.climatecalc.eu on subpage “Standards and data”.

The guide is updated according to ClimateCalc version 3.0 and describes many of the new features in ClimateCalc version 3.0.

2 User access

To use ClimateCalc the company must have at least one user set up with a username and a password. For access to ClimateCalc please see contact information on www.climatecalc.eu on subpage “About ClimateCalc”.

2.1 Multiple users

If needed the company can setup new company users and define permissions to different parts of ClimateCalc. This might be relevant if for example several people should be able to do product calculations, or if an external consultant is to assist the company. The user permissions can be restricted to for example only the product calculation or to the full carbon account. Please refer to section 19.1 in this document.

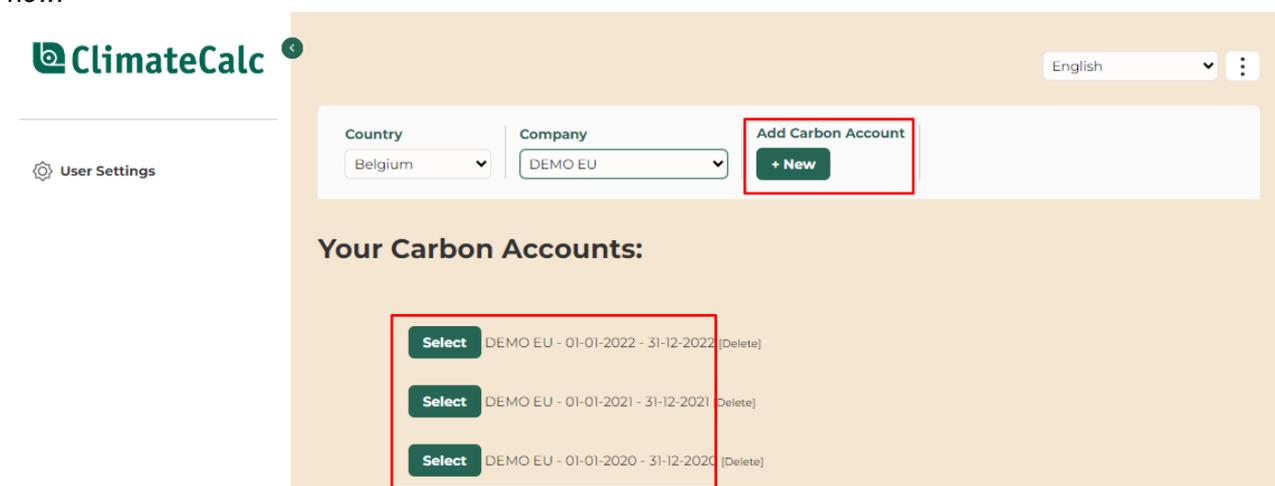
3 Start page of ClimateCalc

After login to ClimateCalc the user enters the start page. On the start page the user can select an existing carbon account or create a new carbon account by pressing the button “+ New”. This button will only be available if the user has the permission to create a new carbon account. Please refer to section 19.1 in this document for customizing user permissions.

NOTICE:

A user which only has permissions to the product calculation will only have access to the certified or previously certified carbon accounts.

Figure 3.1. Start page of ClimateCalc with the options for selecting an existing carbon account or creating a new.



3.1 Creating a new carbon account

First step is for the company to define the period for the company's carbon account. As a point of reference, the period must be a full year and may be either the previous calendar year or the company's latest financial year.

Figure 3.2. Creating a period for carbon account.

The screenshot shows the ClimateCalc web interface. On the left is a navigation menu with 'User Settings' and 'Labels'. The main content area has a header with 'Country' (Belgium) and 'Company' (DEMO EU) dropdowns, and an 'Add Carbon Account' button with a '+ New' sub-button. Below this is the 'Your Carbon Accounts:' section, which contains a form for creating a new account. The form has two date pickers: 'From:' (01-01-2023) and 'To:' (31-12-2023), which are highlighted with a red box. Below the date pickers is a checkbox labeled 'Copy data from previous version:' which is currently unchecked. At the bottom of the form is a green 'Create' button.

NOTICE:

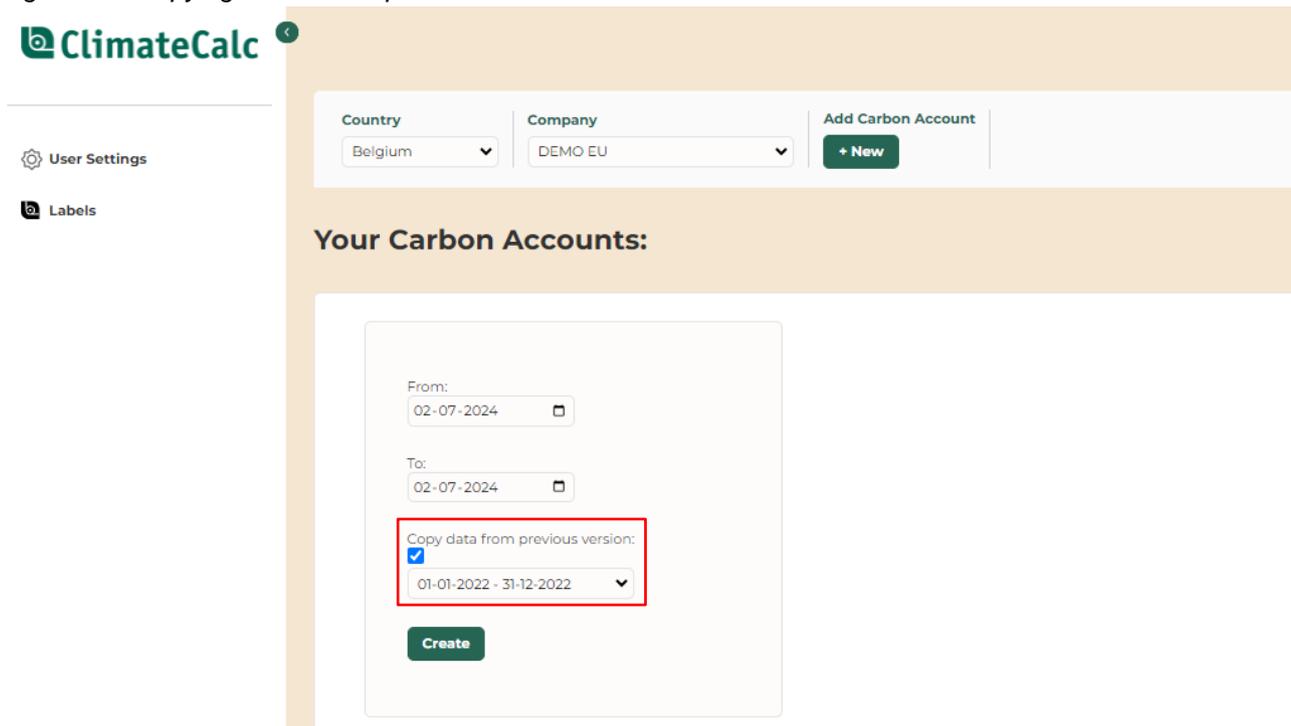
It is not possible to change the period for a carbon account after creation. If an error was made by defining the period it can be corrected by making a new copy and delete the wrong carbon account afterwards. Please refer to section 3.2 and section 3.3.

3.2 Copying data from previous period

If a company has previously created a carbon account, all entries can be copied to a new period. The purpose is to make the entry of new data and data references easier.

To copy data tick off the box: "Copy data from previous version" before creating the new carbon account. If there are more than one previous carbon account, the company can select a specific carbon account in the drop-down menu to be copied.

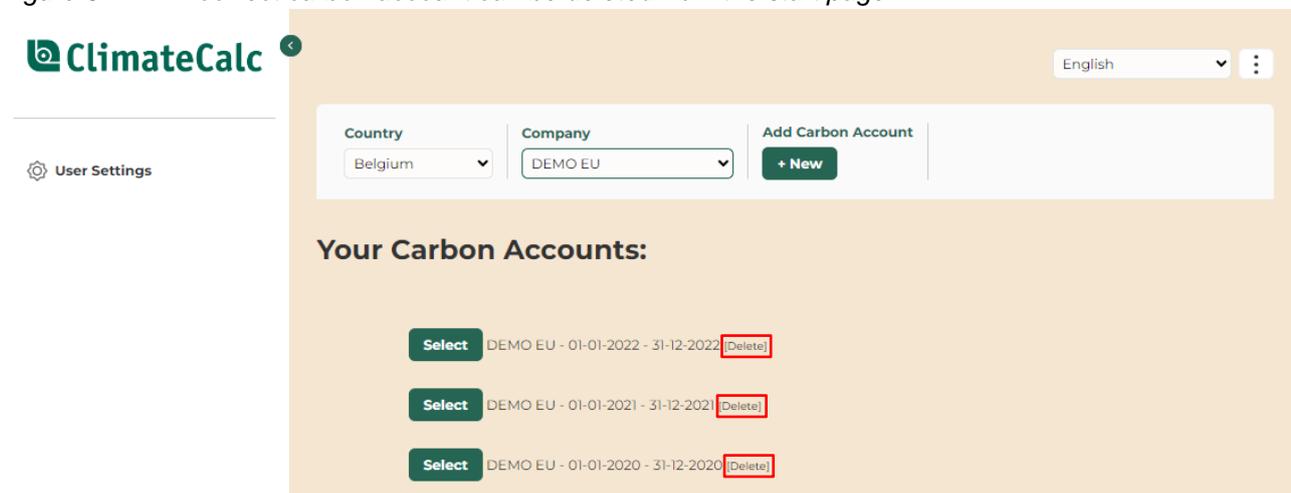
Figure 3.3. Copying data from a previous carbon account.



3.3 Deleting carbon account for a period

If the company mistakenly has created a carbon account for an incorrect period, the carbon account can be deleted from the start page.

Figure 3.4. An incorrect carbon account can be deleted from the start page.

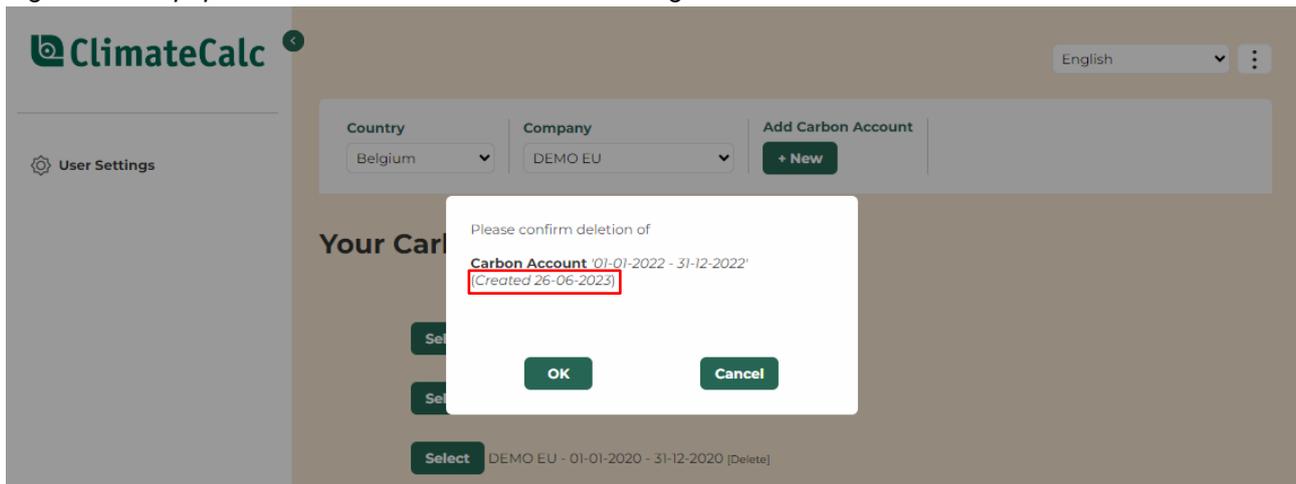


NOTICE:

Any data entered in a carbon account with an incorrect period can be copied to a carbon account with a correct period before the incorrect carbon account is deleted.

When a carbon account with an incorrect period is to be deleted, it's important to be aware not to delete any valid carbon accounts. To ensure this, the date of creation of the account appears in the popup window for confirming the delete of the account.

Figure 3.5. Popup window for confirmation of the deleting. The date of creation is shown.



NOTICE:

Once an account has been deleted, it can only be recreated by the ClimateCalc secretariate.

4 Construction of the carbon calculator

The calculator is constructed with a left side menu with tabs divided into different categories:

<p>Output tabs:</p>	<ul style="list-style-type: none">  Carbon account  Product calculation  Development  Benchmark 	<p>The output tabs show the results of the data, which the company has entered in the form of the company's carbon account plus possible product specific calculations, development and the benchmark function.</p> <p>NOTICE that the tabs for product calculation and benchmark are locked until the company is certified.</p> <p>These tabs are described in section 15-18 in this document.</p>
<p>Input tabs:</p>	<ul style="list-style-type: none">  Input company  Input employees  Input substrate  Input purchased transportation  Outsourcing 	<p>On the input tabs data is entered, which provides the background for the company's carbon account and product specific calculations.</p> <p>Download a template for collection of data to the carbon account www.climatecalc.eu on subpage "Calculation and tools".</p> <p>NOTICE: The tab: "Company information" is the first tab to be completed.</p> <p>NOTICE: The tab: "Outsourcing" is only visible if product calculations have been shared by a contractor.</p> <p>These tabs are described in section 9-13 in this document.</p>
<p>Emission calculation:</p>	<ul style="list-style-type: none">  Emission calculation 	<p>On this tab, ClimateCalc makes detailed calculations of the greenhouse gas emissions based on data entered in the input tabs.</p> <p>This tab is described in section 14 in this document.</p>
<p>User settings</p>	<ul style="list-style-type: none">  User Settings 	<p>On this tab different user settings can be defined for the user logged in.</p> <p>This tab is described in section 5 in this document.</p>
<p>Labels</p>	<ul style="list-style-type: none">  Labels 	<p>On this tab the two types of labels provided by ClimateCalc can be downloaded in different languages.</p>

NOTE: Some of the tabs listed above are not available in ClimateCalc Basic.

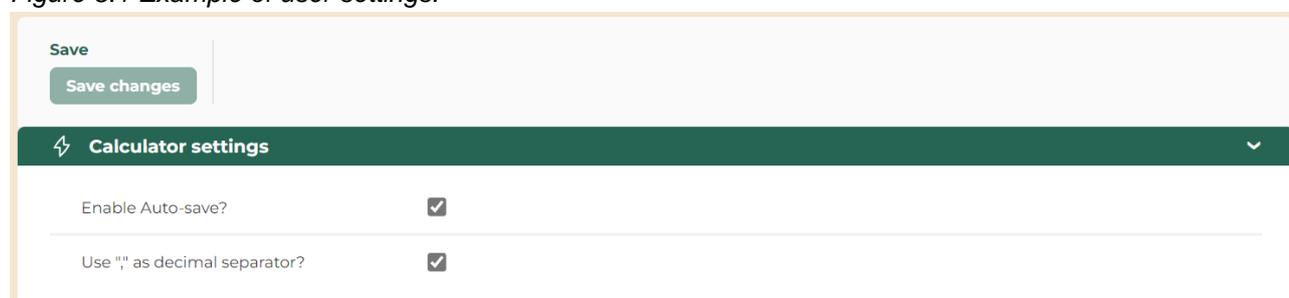
5 Tab: User setting

On this tab the following user settings can be defined:

Available user setting	Explanation
Enable Auto-save?	When tick marked all changes made in the ClimateCalc calculator will automatically be saved. NOTICE: Auto-save is not available in the administration section of the ClimateCalc calculator.
Use “,” as decimal separator	When tick marked decimals will be separated by comma (,). If no tick decimals are separated by a dot (.)

NOTICE:
The user settings are specific for the user logged in.

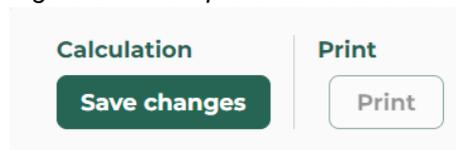
Figure 5.1 Example of user settings.



6 Typing in data

When typing in data, there is an Auto-save function available, but it is also possible to manually save while typing in data in the top section of each tab. In section 5 in this document, it’s described how the Auto-save function is adjusted.

Figure 6.1 Example of buttons to save and print data in the top section of each tab.



When typing, ClimateCalc will automatically draw attention to missing data entry. This is shown with **RED text** or **RED marks**. When the carbon account is to be verified, there must be no red marks.

NOTICE:
In some situations, it may not be possible to save typed data, if red marks occur.

Figure 6.2 Example of typing where the red marks show missing data entry in the fields of “responsibility” and “Describe where data come from”.

A. Purchased fuel for burning in the company's own stationary burning units						Describe where data come from
1.	Natural gas	Fill in only one cell	<input type="text"/> Nm ³	<input type="text"/> kWh	-- responsibility ▾	<input type="text"/>
2.	LPG	Fill in only one cell	<input type="text"/> m ³	11500 kg	-- responsibility ▾	<input type="text"/>
3.	Heating oil (light)	Fill in only one cell	<input type="text"/> litre	<input type="text"/> kg	-- responsibility ▾	<input type="text"/>
4.	Other fuel			<input type="text"/> kg	-- responsibility ▾	<input type="text"/>
5.	Other fuel			<input type="text"/> kg	-- responsibility ▾	<input type="text"/>
6.	Other fuel			<input type="text"/> kg	-- responsibility ▾	<input type="text"/>

As a point of reference all typed data must be stated as the total of the previous calendar year or for the company's latest financial year. Use the template below to collect the relevant data.:

TOOL

Template for collection of data for the carbon account. Download: www.climatecalc.eu on subpage “Calculation and tools”

6.1 Units

For several parameters, it is possible to make entries in different units such as for example consumption of cleaning agents in both "kg" and "litres". As the fields are automatically converted and summed, as a rule only one field must have data entered, unless there is consumption data in the company which is specified in different units. If there is data with units other than those specified in ClimateCalc, conversion can be carried out via section 22 in this document.

6.2 Data sources

In addition to all entered data, it must be stated who is responsible for the data and the source of the data. This will make it easier to carry out the calculation next year and is also a condition for the account to be verified.

7 Language

If the company wishes to present the carbon account or a product calculation in another language, this can be changed in the drop-down menu in the upper right corner of all tabs.

Figure 7.1. Select language via the drop-down menu in the upper right corner.

Belgium ▾	DEMO EU ▾	01-01-2022 - 31-12-2022 ▾	Select	English ▾	⋮
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8 Tab: Company information

In this tab the company must enter general information such as address and contact information. In addition, a clear description of the activities and processes covered by the carbon account must be stated.

Ready for certification and upload of data

When the company has entered all relevant data on the input tabs, the relevant documentation must be uploaded in the upload section. When the company is ready for certification, this must be marked by pressing the button "Completed".

Figure 8.1. Use The button "Completed" when the company is ready for certification. The relevant documentation is uploaded in the section below.

Company information

Company name: Speed Print

Address: Print Road 4

Postal code: 1000

City: Brussels

Country: Belgium

Number of employees: 30

Activities and processes included in the account: Printing in sheetfed and in-house finishing.

Mark when data input is completed and the company is ready for audit (By pushing the button an e-mail is sent to the auditor)

Completed

Upload Documentation

Vælg filer Der er ingen fil valgt

NOTICE:

When the button "Completed" is activated, an e-mail will be sent automatically to the organization that is to audit the company.

NOTICE:

When uploading documentation, a maximum of 50 files can be uploaded at a time.

8.1 Various printing techniques

ClimateCalc offers the possibility to enter data for a variety of printing techniques. The printing techniques used in the company must be ticked to be able to enter data for the printing techniques under the tabs "Input company" and "Product calculation".

Figure 8.2. Example of printing techniques in use.

Printing technologies used in the company

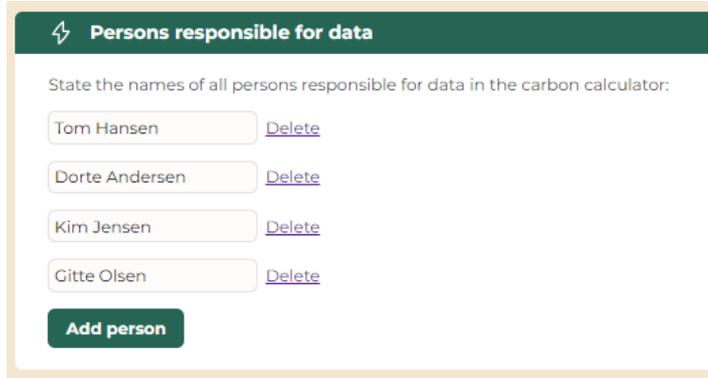
Tick mark the check boxes for the printing technologies used in the company:

- Heatset printing
- Sheetfed printing
- Coldset printing
- Flexographic printing
- Screen Printing
- Digital printing
- Magazine rotogravure printing

8.2 Persons responsible for data

To make the entry of information easier, add the names of all persons responsible for data under the tab “Company information”. The persons responsible can subsequently be selected in the drop-down menu next to the specific data on each tab.

Figure 8.3. Example of typing names of responsible persons for data.

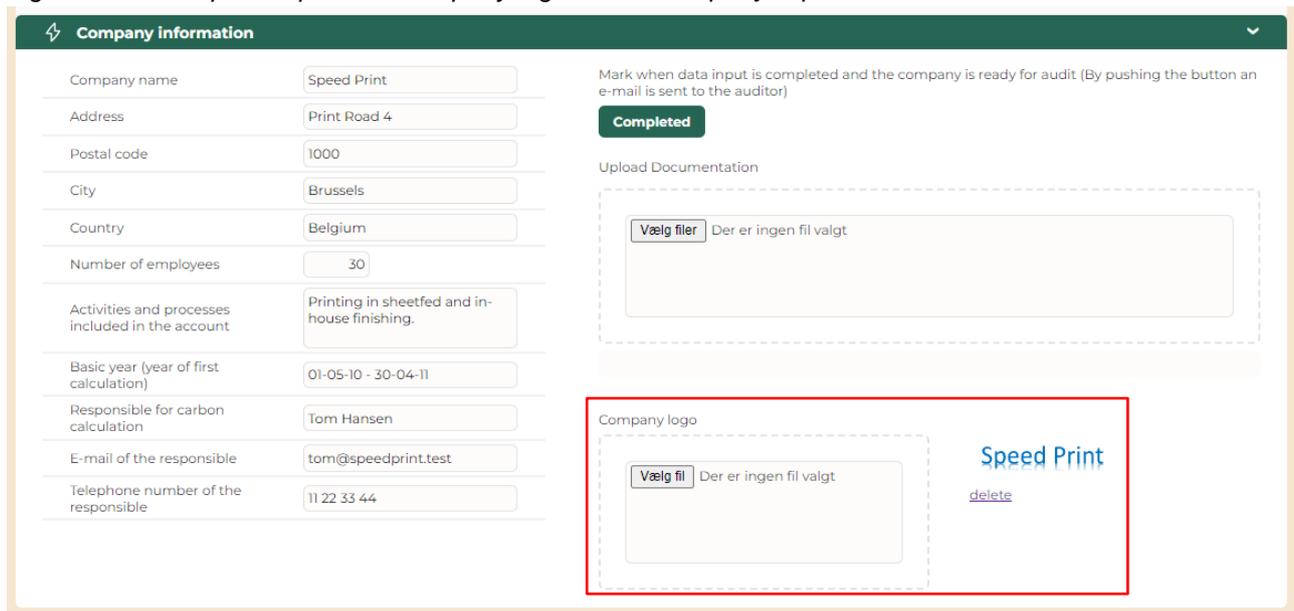


The screenshot shows a form titled "Persons responsible for data" with a green header. Below the header, there is a text prompt: "State the names of all persons responsible for data in the carbon calculator:". There are four input fields, each containing a name and a "Delete" link: "Tom Hansen", "Dorte Andersen", "Kim Jensen", and "Gitte Olsen". At the bottom of the form is a green "Add person" button.

8.3 Company logo

On this tab there is an option to upload a company logo to be presented on the pdf print of the carbon account and the product calculation.

Figure 8.4. Example of upload of company logo for the company “Speed Print”.



The screenshot shows the "Company information" form with a green header. The form contains several input fields for company details: Company name (Speed Print), Address (Print Road 4), Postal code (1000), City (Brussels), Country (Belgium), Number of employees (30), Activities and processes included in the account (Printing in sheetfed and in-house finishing), Basic year (year of first calculation) (01-05-10 - 30-04-11), Responsible for carbon calculation (Tom Hansen), E-mail of the responsible (tom@speedprint.test), and Telephone number of the responsible (11 22 33 44). There is a "Completed" button and a "Mark when data input is completed and the company is ready for audit (By pushing the button an e-mail is sent to the auditor)" prompt. The "Upload Documentation" section has a "Vælg filer" button and the text "Der er ingen fil valgt". The "Company logo" section has a "Vælg fil" button, the text "Der er ingen fil valgt", and a "Speed Print" logo with a "delete" link. A red box highlights the logo upload area.

NOTICE

The recommended file formats are JPG or PNG. The file should be maximum 24 bit and maximum 10 MB. The file name must only contain the characters a-Z and 1-9. Special characters in the file name are not accepted.

8.4 Calculation model version

At the bottom of the tab the current calculation model version of the carbon account is shown. A new carbon account is automatically using calculation model version 3. For an existing carbon account created in version 2 it's possible to upgrade the calculation model to version 3. Please refer to section 21 for further information about how to upgrade the calculation model for an existing carbon account and what the consequences are.

NOTICE

The upgrade of the calculation model from version 2 to version 3 is non-reversible and might have impact on the carbon account and the product calculations.

9 Tab: Input company

NOTE: Some functionalities on this tab are not available in ClimateCalc Basic.

The company must enter data for purchase of fuel, energy, raw materials, waste products etc. for all the relevant parameters in the tab. As a point of reference, all data must be stated as the total of the previous calendar year or of the company's latest financial year.

9.1 Special data

If consumption of for example other fuel, electricity, district heating or plates is entered than what is default in ClimateCalc, specific data must be entered on the tab "Emission calculation".

Figure 9.1. Example of typing specific electricity. The red text shows that supplementary data must be typed on the tab: "Emission calculation".

C. Purchased energy for use in the company and vehicles						Describe where data come from
1.	Electricity for use in the company	Fill in only one cell	<input type="text"/> kWh	<input type="text"/> MJ	-- responsibility --	<input type="text"/>
2.	Electricity (supplier specific)	Fill in only one cell	2500000 kWh	<input type="text"/> MJ	Dorte Andersen	New Energy: supplier

ALSO TYPE EMISSION DATA FOR SUPPLIER SPECIFIC ELECTRICITY ON THE SHEET: EMISSION CALCULATION POINT C2.1 AND C2.2

9.2 Stationary combustion units (paragraph A)

Stationary combustion units are defined as combustion which takes place in for example boilers, kettles, motors, generators and turbines, which are permanently installed and owned by the company or controlled by the company.

9.3 Data for natural gas (paragraph A)

Since the heating value of natural gas varies and is dependent on the specific supplier of natural gas the default data in ClimateCalc might not always be completely representative. To make the data as representative as possible it is recommended to enter data for natural gas in **kWh**.

9.4 Data for electricity (paragraph C)

Data for purchased electricity

Data for purchased electricity should normally be entered in "C1: Electricity for use in the company". However, if the company is purchasing electricity for use in electric vehicles which are not charged in the company and which therefore are not covered by the electricity consumption under C1, the company must also enter data in "C3: Electricity for vehicles (besides C1)".

NOTICE

If the company purchases electricity with a certificate of origin, the specific emission factors can be entered as described in section 14.4 in this document.

Emission data must be entered for both the emission of greenhouse gases from electricity production as well as upstream data for transmission losses in the electricity grid and data for the manufacture and transport of fuels.

It is not possible to declare an emission factor for electricity which is zero in scope 3 because the emission factor for electricity must include upstream emissions from for example the production of the fuels for the generation of the electricity.

Data for on-site produced electricity

Data for on-site produced electricity (e.g. on-site solar panels or a fuel cell) must be entered “C2: Electricity (supplier specific)”.

Data entered in ClimateCalc version 2

Entering data for purchases electricity with a certificate of origin has been changed from ClimateCalc version 2 to version 3. For an existing carbon account created in version 2 it's possible to upgrade the calculation model to version 3. Please refer to section 21 for further information about how to upgrade the calculation model for an existing carbon account and what the consequences are.

9.5 Data for district heating (paragraph C)

The emissions of greenhouse gases from the production of district heating varies from one district heating supplier to another. On the one hand, there may be differences in the energy sources used, and on the other hand some district heating plants in addition to district heating, also produce electricity which is sold via the electricity grid. The large differences between plants mean that it is not reliable to use average data for district heating production in the country. Therefore, it is necessary to obtain specific data from the specific supplier. Data must be available either as

1. Operating data for the district heating plant or
2. Supplier specific data

Operating data for the district heating plant

To calculate the emissions of greenhouse gases from the district heating plant, the composition of the energy sources used, and the efficiency of the plant must be known. The emission calculation is based on a series of generic data including the emissions coming directly from the district heating production as well as the upstream emissions from production and transportation of fuels. ClimateCalc provides, via generic data, the possibility to enter consumption of the following energy sources:

- Coal
- Natural gas
- Biofuel
- Waste heat

The efficiency of the plant must always be entered in the calculator. If the plant produces electricity for the electricity grid the efficiency of the electricity must be entered, too. It should be noted that if a district heating plant also produces electricity, there is a deduction in the calculated greenhouse gases for the share of electricity sold to grid.

Finally, the transmission loss in the heating system must be entered.

Figure 9.2. Example of entering operating data from the district heating plant.

4.	Electricity (supplier specific)	Fill in only one cell	<input type="text"/>	kWh	<input type="text"/>	MJ	-- responsibility	<input type="text"/>
5.	District heating (plant calculation)	Fill in only one cell	350000	kWh	<input type="text"/>	MJ	Dorte Anderser	Green Heat: Suppli
State the share of energy sources for the district heating plant:			Coal:	<input type="text"/>	25	%	Dorte Anderser	Green Heat: e-mail
			Natural gas:	<input type="text"/>	25	%	Dorte Anderser	Green Heat: e-mail
			Biomass:	<input type="text"/>		%	-- responsibility	<input type="text"/>
			Waste heat:	<input type="text"/>	50	%	Dorte Anderser	Green Heat: e-mail
			100%					
State the energy efficiencies for the district heating plant:			Heat efficiency:	<input type="text"/>	50	%	Dorte Anderser	Green Heat: e-mail
			Electricity efficiency:	<input type="text"/>	25	%	Dorte Anderser	Green Heat: e-mail
State the transmission loss in the heating system:			<input type="text"/>	20	%		Dorte Anderser	Green Heat: e-mail
6.	District heating (supplier specific)	Fill in only one cell	<input type="text"/>	kWh	<input type="text"/>	MJ	-- responsibility	<input type="text"/>

Supplier-specific data

To document supplier-specific data, district heating suppliers must provide a declaration. The data should be entered in the "Emission Calculation" tab and must cover both greenhouse gas emissions from the district heating production as well as data for upstream emissions transmission losses in the heating system and emissions from production and transportation of fuels.

NOTICE

Supplier-specific data for district heating production must include upstream emissions from production and transportation of fuel. See section 14 "Tab: Emission calculation" for an explanation of upstream emissions.

9.6 Companies without printing (paragraph F)

ClimateCalc is designed to use the consumption of purchased substrate as the default reference for the key figures in the carbon account. However, the company may have a production process where the quantity of substrate is not representative for the size of the production. In this case, it is relevant to define an alternative reference for calculating the key figures in the carbon account. This may for instance be relevant for finishing companies with a limited or no consumption of purchased substrate. The alternative reference may for example be the company's turnover or produced square meters of product. The alternative reference is entered under point F1 and F2.

NOTICE

Even though data are entered under point F1 and F2 the company may also have a consumption of substrate typed under point D1.

Figure 9.3. Example of entering data for the size of the production for a company without printing and consumption of substrate.

F. Production data for companies without printing		Describe where data come from	
1.	State data for the production size if there is no substrate consumption	<input type="text" value="200000"/>	Kim Jensen <input type="text" value="Financial account"/>
2.	State the unit for the production size, e.g. production hours, turnover, etc.	<input type="text" value="turnover"/>	unit

NOTICE: Do not type data in F1 and F2, if the company has printery and a substrate consumption. Data in F1 and F2 are used for calculation of key figures in the CARBON ACCOUNT as an alternative to a substrate consumption.

10 Tab: Input employees

NOTE: This tab is not available in ClimateCalc Basic.

The company must make a calculation of the commute of the employees to and from work. All data must be stated as the total of the previous calendar year or of the company's latest financial year. For all entered data, it must be indicated who is responsible for the data and where it originates from.

For calculating the commute of the employees to and from work, two methods have been developed:

10.1 Standard calculation (paragraph H)

A method for standard calculation has been developed in ClimateCalc, which makes it easy for the company to make a quick calculation of the impact of the employee's commuting to and from work. The standard calculation is based on generic data for the emission of greenhouse gases from different modes of transportation.

When using the standard calculation, the company must make a qualified and conservative estimate of the used modes of transportation, distances, and the number of working days for the employee's commuting to and from work. In the verification process, the company must be able to account for the basis of the estimate.

NOTICE

The consumption of fuel of employees with a company car is entered on the tab: "Input company" under paragraph B.

If the standard calculation shows that employee's commuting to and from work accounts for **more than 5%** of the company's total greenhouse gas emissions (See tab "Carbon account"), a detailed calculation should be made, possibly via paragraph I: "Own calculation".

Figure 10.1. Example of entering employee commuting via standard calculation.

H. Standard calculation of fuel consumption by employee commuting to and from work					
Means of transport	Number of employees	Average distance per employee per day (both ways)	Average number of working days per employee per year	Calculated amount of fuel per year	Describe where data come from
1. Employees with company car	<input type="text" value="5"/> persons				
2. Transportation petrol car	<input type="text" value="43"/> persons	<input type="text" value="32"/> Km	<input type="text" value="220"/> days	13636 litre petrol	Dorte Andersen <input type="button" value="Estimated: Dorte anc"/>
3. Transportation diesel car	<input type="text" value="1"/> persons	<input type="text" value="41"/> Km	<input type="text" value="220"/> days	333 litre diesel	Dorte Andersen <input type="button" value="Estimated: Dorte anc"/>
4. Transportation scooter	<input type="text" value="1"/> persons	<input type="text" value="20"/> Km	<input type="text" value="220"/> days	242 litre petrol	Dorte Andersen <input type="button" value="Estimated: Dorte anc"/>
5. Transportation motor cycle	<input type="text" value="2"/> persons	<input type="text" value="10"/> Km	<input type="text" value="220"/> days	263 litre petrol	Dorte Andersen <input type="button" value="Estimated: Dorte anc"/>
6. Transportation bicycle/walking	<input type="text" value="5"/> persons				Dorte Andersen <input type="button" value="Estimated: Dorte anc"/>
7. Public transportation	<input type="text" value="2"/> persons	<input type="text" value="30"/> Km	<input type="text" value="220"/> days	608 kg CO2 eq	Dorte Andersen <input type="button" value="Estimated: Dorte anc"/>
Number of employees	59 / 59				

10.2 Own calculation (paragraph I)

In the own calculation form, the company has the option to enter detailed information about the consumption of fuel in the form of petrol, diesel or "other fuel". If data is entered about other fuel, the specific data about the fuel used must be entered on the tab: "Emission calculation".

On the own calculation tab, it is possible to directly enter the greenhouse gas emissions for public transportation. This can be calculated via other transportation models.

For all data, which is entered in the form “Own calculation”, an account or other documentation must be available, showing the background for the data used.

10.3 Apply worst case values for employee commuting

If the company wish to make a quick worst-case estimate of the emissions related to the employee commuting the company can press the button “Apply worst-case values”. When the button is pressed all existing input is deleted on the tab and the worst-case values will be applied. The tab will be lock to other input unless the button is unlocked again.

NOTICE

The worst-casa values should NOT be applied if specific company data has been entered. By pressing the button all values on this tab will be permanently removed and replaced with worst-case data. The worst-case data will normally be significantly higher than the specific data for the company.

Figure 10.2. Button for applying worst-case values.



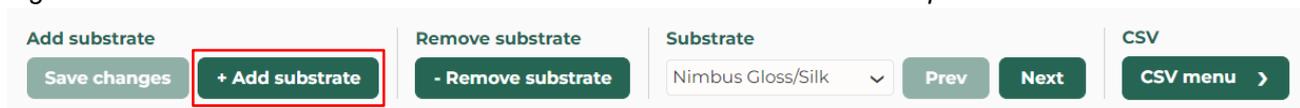
11 Tab: Input substrate

On this tab, the company must enter carbon data of the substrate qualities used. The entered data on the different substrate qualities are included in the carbon account as weighted averages. When product calculations are made, it is a prerequisite that data for the substrate qualities used is entered under “Input substrate”.

11.1 Entering data from the substrate suppliers

By using the button “+ Add substrate” it is possible to enter data for a new substrate quality. The functionalities related to the button “CSV menu” are described at the bottom of this section.

Figure 11.1. Module for administration of data for entered and new substrate qualities.



Data of the substrate qualities can be requested from the substrate suppliers. For this purpose, the letter templates can be used.

TOOL

Letter templates to the substrate suppliers can be download from: www.climatecalc.eu on subpage “Calculation and tools”.

11.2 The share of substrate data to be entered

For the share of the company’s substrate purchases, when no substrate data is entered, Cli-mate-Calc calculates with worst-case data for paper in the carbon account for both production and transportation of substrate to the company. Therefore, it is important to enter data for most of the company’s substrate purchases according to the description below:

- If the company is **only using paper substrate** it is recommended that substrate data is entered for **at least 50 %** of the purchased substrate tonnage in the company.
- If the company is using **other substrate qualities than paper**, there must be entered carbon data for **100%** of the purchased non-paper substrate tonnage in the company. If data are not entered for the entire tonnage the calculator will automatically apply the worst-case data for paper which will not be representative for other substrate qualities.

Figure 11.2. The upper field of the tab shows the weighted average of the entered data and the share of substrate for which data is entered.

⚡ Calculated emission factors based on typed data in this sheet	
Calculated emission factors based on typed data in this sheet	
Emissions from production of substrate	415 kg CO ₂ eq/t
Emissions from transportation of substrate	111 kg CO ₂ eq/t
Typed data for part of total purchased substrate	89 %

11.3 Data on production of substrate (paragraph L)

All substrate data is stated in “tons” with the abbreviation “t” used in fields such as “Annual purchased quantity (t)”.

Substrates can be entered into ClimateCalc in two different categories:

- Paper substrates
- Other substrates

Paper substrate

Two methods can be used when entering carbon data on production of paper substrate from the paper suppliers. It is preferred if the paper suppliers have reported data in accordance with the CEPI-method for Carbon Footprint calculation of paper products (www.cepi.org). This method is referred to as the “Ten Toes” and provides carbon data across 10 different parameters. It must be noted that ClimateCalc only includes data entered under parameters 3-7. When entering data for the other parameters, the data will be displayed in blue writing to indicate that it is not included.

Figure 11.3. Example of entering data based on the CEPI-method in section L.1.

L. Data on production of substrate	
Emissions calculated on the basis of typed data in one of the following two ways	215 kg CO ₂ eq/t
1. Data based on CEPI's method for estimation of Carbon Footprint in 10 parameters	
1. Carbon sequestration in forests:	<input type="text"/> kg CO ₂ eq/t
2. Carbon stored in forest products:	<input type="text" value="1063"/> kg CO ₂ eq/t
3. Greenhouse gas emissions from forest product manufacturing facilities:	<input type="text" value="95"/> kg CO ₂ eq/t
4. Greenhouse gas emissions associated with producing fibre:	<input type="text" value="5"/> kg CO ₂ eq/t
5. Greenhouse gas emissions associated with producing other raw materials/fuels:	<input type="text"/> kg CO ₂ eq/t
6. Greenhouse gas emissions associated with purchased electricity, steam etc.:	<input type="text" value="90"/> kg CO ₂ eq/t
7. Transport-related greenhouse gas emissions:	<input type="text" value="25"/> kg CO ₂ eq/t
8. Emissions associated with product use:	<input type="text"/> kg CO ₂ eq/t
9. Emissions associated with product end-of-life:	<input type="text"/> kg CO ₂ eq/t
10. Avoided emissions and offsets:	<input type="text"/> kg CO ₂ eq/t
Period of validity for typed data:	<input type="text" value="Declaration from supplier"/>

Instead of using the CEPI-method, the company can use data from the paper suppliers’ PaperProfiles. The information on the paper suppliers’ PaperProfiles is not as accurate as the CEPI-method, and therefore PaperProfile data must only be used if data cannot be obtained in accordance with the CEPI- method from the paper suppliers. The following data must be entered from PaperProfiles:

- CO₂ (fossil)
- Purchased electricity consumption
- The country, where the substrate factory is placed, must be selected from the drop-down menu.

Figure 11.4. Example of entering data based on PaperProfile in section L.2.

2. Data based on Paper Profiles	
CO2 (fossil):	<input type="text" value="250"/> kg CO ₂ /t
Purchased electricity consumption:	<input type="text" value="280"/> kWh/t
State the country, where the paper factory is situated in the dropdown menu:	<input type="text" value="Finland"/>
Period of validity for typed data:	<input type="text" value="Declaration from supplier"/>

Other substrates

Data for other substrates than paper must be entered in section L.3 “Data based on other sources”.

Figure 11.5. Example of entering data based on other sources in section L.3.

3. Data based on other sources	
CO2 (fossil)	<input type="text" value="1950"/> kg CO ₂ /t
Data source	<input type="text" value="Declaration from supplier"/>

11.4 Data on transportation of substrate (paragraph M)

Two methods can be used when entering data for transportation of substrate from the substrate suppliers to the company. It is preferred, if the substrate suppliers have provided specific data for the greenhouse gas emissions from the transportation of the substrate from the substrate factory to the company. This can be done, for instance, by the supplier completing the form, which is part of the above tool (letter template and form). Only data on greenhouse gas emissions from the combustion of fuels needs to be entered. The upstream emissions from production of the fuels are automatically added in ClimateCalc.

An alternative to using data from the substrate suppliers is to enter the distance between the substrate factory and the wholesaler, as well as the distance between the wholesaler and the company. When entering distance data, ClimateCalc uses generic data for transportation of goods by truck. Therefore, it is always preferable to use specific data on the greenhouse gas emissions provided directly by the substrate supplier.

Figure 11.6. Example of entering data based on distance.

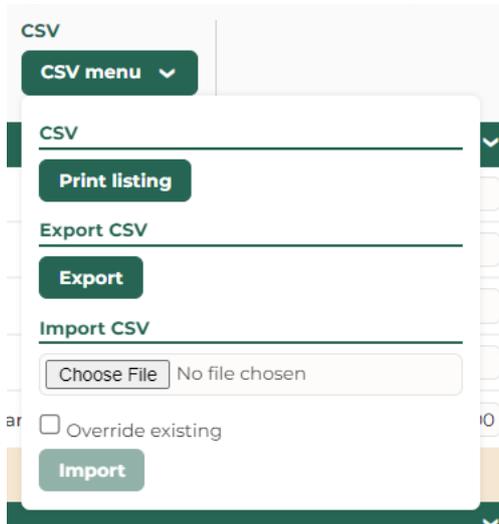
M. Data on transportation of substrate	
Emissions calculated on the basis of typed data in one of the following two ways	179 kg CO ₂ eq/t
1. 1. Data reported by the supplier (only emissions from burning of fuel)	
1. Type the emissionens from transportation of substrate (only direct emissions)	<input type="text"/> kg CO ₂ /t
Date or period of validity for typed data:	<input type="text"/>
2. 2. Own information about distance	
Distance for transportation of substrate from factory to wholesaler or directly to company	<input type="text" value="1870"/> km
Distance for transportation of substrate from wholesaler to company	<input type="text" value="95"/> km

11.5 CSV menu for printing and export and import

The CSV menu in the top section has two options:

- Print listing
- Export / Import

Figure 11.7. CSV menu with the option to “Print listing” and “Export” / “Import”.



Print listing

By clicking the “Print listing” a CSV file can be downloaded with an overview of all the substrates and the CO₂-emission related to the production and transportation of the substrates. The CSV file can be customized in Excel after downloading.

Export / Import

In the Export/Import section the company can export a CSV file containing all the data entered on the tab: Input substrate. After updating the data in the CSV file, it can be uploaded, and all the data imported again.

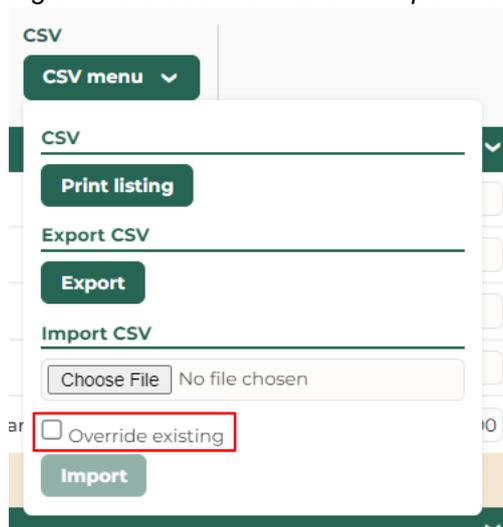
NOTICE

It is recommended to save the downloaded CSV file as a backup file and make all changes of the data in a copy of the original file. This makes it possible to restore the original data if mistakes are made during the update.

NOTICE

If there are no tick mark in “Override existing” the data will not be updated and all substrate data will be imported as a copy of the existing substrates.

Figure 11.8. CSV menu with the option to tick-mark for “Override existing” before import.



When updating data in the CSV-file and importing the data, please note that for all substrates there must be **valid data** in the **column T “Country”** in the CSV-file. The data are valid when:

- The name of the country must be in English
- The country must be available as a country in section L.2 (Data based on PaperProfiles).
- If section L.2 is not relevant the country must always be defined as “None”.

If data in column T “Country” isn’t valid the system will not accept the CSV-file for upload.

The best way to ensure valid data input for a new substrate in the CSV-file is to make a copy of an existing substrate quality and customize it afterwards.

11.6 Sharing of substrate data in multi-site organisations

If the company is part of a multi-site organisation it is possible to share the substrate data between the different sites in the organisation. Please refer to section 20 in this document for a description of how the substrate data can be shared in a multi-site organisation.

NOTICE

A company using shared data in a multi-site organisation cannot use the CSV functionality for export and import for updating the substrate data.

12 Tab: Input purchased transportation

NOTE: This tab is not available in ClimateCalc Basic

On this tab, the company must enter data for the transportation of products between the company and possible sub suppliers, as well as data for transportation of products to the customer.

Transportation of products to the customer is in ClimateCalc defined as:

”Transportation of products to the first delivery address”.

This boundary is defined in the international standards for calculation of carbon emission of print production on which ClimateCalc is based. Please refer to www.climatecalc.eu on subpage “Standards and data” for a further explanation of this.

The customer’s further transportation of the product, as well as any transportation via distribution companies and postal services is not included in ClimateCalc.

To calculate the purchased transportation, two methods have been developed:

12.1 Standard calculation

A method for standard calculation has been developed in ClimateCalc, which makes it easy for the company to quickly assess the impact of purchased transportation. The standard calculation is based on generic data for greenhouse gas emissions from transportation of goods.

When using the standard calculation, the company must make a qualified and conservative estimate of the annually transported quantity and the average distance divided across vehicles of different sizes. In the verification process, the company must be able to account for the basis of the estimate.

Figure 12.1 Example of entering data via standard calculation.

T. Transportation of products to customers			
Standard calculation - Annual amount of transported products			Describe where data come from
1.	Lorry 3,5-16 ton (fleet average)	3233260 kg	Tom Hansen
	Average distance of transported products	200 Km	Tom Hansen
2.	Lorry 16-32 ton (fleet average)	3145890 kg	Tom Hansen
	Average distance of transported products	200 Km	Tom Hansen
3.	Lorry >32 ton (fleet average)	kg	-- responsibility --
	Average distance of transported products	Km	-- responsibility --
Total calculated quantity of delivered printed matters (Carbon account):		5692290 kg	

12.2 Own calculation

In “own calculation”-form, the company has the option to enter detailed information about fuel consumption such as petrol, diesel, bottled gas, electricity or ”other fuel”. If data is entered for “other fuel”, specific data about the used fuel must be entered under the tab: “Emission calculation”.

In addition, under “own calculation” there is also the option to enter the emissions of greenhouse gases directly. This can be calculated by using other transportation models.

For all data entered under “own calculation”, an account or other documentation must be available, which shows the basis for the data used.

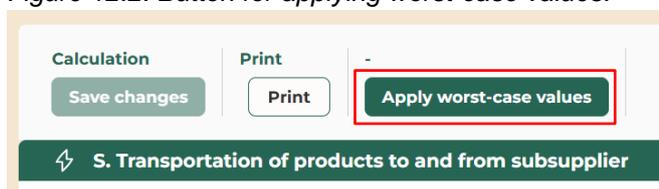
12.3 Apply worst case values for purchased transportation

If the company wish to make a quick worst-case estimate of the emissions related to purchased transportation the company can press the button “Apply worst-case values”. When the button is pressed all existing input is deleted on the tab and the worst-case values will be applied. The tab will be lock to other input unless the button is unlocked again.

NOTICE

The worst-casa values should NOT be applied if specific company data has been entered. By pressing the button all values on this tab will be permanently removed and replaced with worst-case data. The worst-case data will normally be significantly higher than the specific data for the company.

Figure 12.2. Button for applying worst-case values.



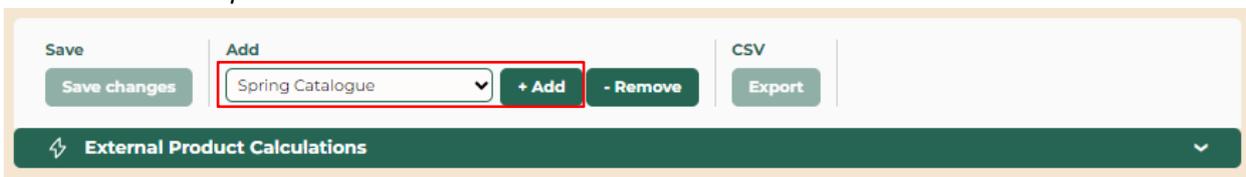
13 Tab: Outsourcing

NOTE: Some functionalities on this tab are not available in ClimateCalc Basic.

If a company has outsourcing activities that involves a ClimateCalc certified contractor, it is possible to request the contractor to share product calculations with the company which then will be listed on the tab: Outsourcing. This tab is only visible if product calculations has been shared with the company.

All the shared product calculations will be listed in the dropdown menu in the top section and the company can choose to allocate the relevant product calculations to their own carbon account by clicking “+ Add”.

Figure 13.1. Top section on the tab: Outsourcing where the shared product calculations can be selected and added from the drop-down menu.



If product calculations have been shared, and they are no longer relevant, they can be removed from the list in the drop-down menu by clicking “- Remove”.

After allocating the shared product calculation, it is an option to enter data for the “Yearly purchased amount” of the specific product and the shared product calculation can be assigned an “Internal name”.

Figure 13.2 Example of list of two shared product calculations with data entered for the “Yearly purchased amount” and assignment of an internal name.

The screenshot shows the ClimateCalc interface. At the top, there are filters for 'Belgium', 'TRAINING OUTSOURCING', and a date range '01-01-2022 - 31-12-2022'. Below this is a 'Select' button. The main content area is titled 'External Product Calculations' and contains a table with the following data:

Product	Spring Catalogue	Leaflet 4+4 48 p.
Internal name	<input type="text"/>	Leaflet 4+4 48 p.
Yearly purchased amount	2000 kg	1000 kg
Comments	<input type="text"/>	<input type="text"/>
Calculated yearly	2680 kg CO ₂ eq	1771 kg CO ₂ eq
Calculated yearly	0,893 kg CO ₂ eq /kg	0,885 kg CO ₂ eq /kg
Supplier and product		
Supplier	TRAINING CONTRACTOR	TRAINING CONTRACTOR
Certificate number:	CC-100007/BE	CC-100007/BE
Customer:	Web shop	Web shop
Product name:	Spring Catalogue	Leaflet
Order number:	1212027	111314
Responsible for the calculation:	Kim Johnson	Kim Johnson
Calculated	27-08-2023 17:13:54	27-08-2023 17:16:32
Total weight of materials to the customer	1036 kg	443 kg
Result		
Production of substrate	258 kg CO ₂ eq	158 kg CO ₂ eq
Transportation of substrate to the company	214 kg CO ₂ eq	70 kg CO ₂ eq
Production of ink and varnish	161 kg CO ₂ eq	66 kg CO ₂ eq
Production of packing	18 kg CO ₂ eq	7 kg CO ₂ eq
Work of subsupplier	0 kg CO ₂ eq	0 kg CO ₂ eq
Transportation to the customer	33 kg CO ₂ eq	4 kg CO ₂ eq
Company related emissions	188 kg CO ₂ eq	78 kg CO ₂ eq
Other emissions	46 kg CO ₂ eq	20 kg CO ₂ eq
Total emissions	918 kg CO₂ eq	403 kg CO₂ eq

A shared product calculation cannot be removed if “Yearly purchased amount” or “Internal name” has been entered or the share product calculation is used in one of the company’s own product calculations.

13.1 Outsourcing in the carbon account

When entering data of “Yearly purchased amount”. The emission related to the outsourcing will be included on the tab “Carbon Account” as a separate row in scope 3: “External production”. It will also be visible on the tab: “Emission calculation” in paragraph O.

13.2 Outsourcing in product calculation

The shared product calculations allocated on the tab: “Outsourcing” will all be available on the tab: “Product calculation” in the section “Work of sub suppliers”. The weight of the outsourced product must be entered, when including shared product calculations in the company’s own product calculations.

Figure 13.3 Example of using a shared product calculation in the company's own product calculation.

⚡
Work of sub-suppliers

+ Add
- Remove

State the name of the used sub-suppliers: **Supplier 1**

Choose data for external production

Choose product: Leaflet 4+4 48 p. ▼

Weight of product: kg

Comments: Spring production

State the sub-supplier's emissions

State the emissions from the sub-supplier's work on the order: kg CO₂ eq

State where to find the documentation from the sub-supplier:

State transportation to and from the sub-supplier in one of the two following ways

Standard calculation: Transported amount and distance: kg km

Choose the size of the truck in the dropdown menu (load weight): ▼

Own calculation: Emission calculated via transportation mode: kg CO₂ eq

Describe where data come from:

13.3 Sharing of product calculations by the contractor

A contractor that wants to share a product calculation with other companies using ClimateCalc must do the following:

1. Define the companies that are eligible to receive shared product calculations in the administration module of ClimateCalc. Notice that it requires a certain user permission to manage the sharing of product calculations in the administration module. Please refer to section 19.4 in this document.
2. The specific product calculation must be marked as shared on the tab: "Product calculation". The companies that are eligible to receive shared product calculations will be listed at the bottom of the tab: "Product calculation" where they can be tick marked. Notice that it requires a certain user permission to share specific product calculations. Please refer to section 19.1 in this document.

14 Tab: Emission calculation

NOTE: This tab is not available in ClimateCalc Basic.

On the tab “Emission calculation”, ClimateCalc makes detailed calculations of greenhouse gas emissions based on data entered in the input tabs. The company only needs to focus on the tab “Emission calculation” if the company wishes to see the results of the detailed calculations or if it has its own data in the form of specific emission factors. If the company uses printing ink or other materials without default data in the calculator, these must be entered in the calculator as well as on the tab “Emission calculation”.

14.1 Detailed calculations

Data entered in the input tabs is automatically converted into greenhouse gas emissions using standard emission factors, which state the emission of CO₂ equivalents per unit. For instance, the standard emission factor can be “CO₂ eq/kg printing ink” or “CO₂ eq/kWh electricity”.

In addition to converting to CO₂ equivalents, an automatic allocation of emissions into Scope 1, Scope 2, and Scope 3 is done in accordance with the guidelines in The Greenhouse Gas Protocol. For a more detailed definition of the different scopes, we refer to section 15 in this document and www.climatecalc.eu on subpage “Standards and data”.

Through the detailed calculations, it is possible to see how the emissions of, for instance, purchased diesel are divided among the emissions from diesel combustion and the emissions from production of diesel.

14.2 Specific emission factors

If the company has specific emission factors from energy sources or raw materials used, these can be entered under “Specific emission factors”. If specific emission factors are entered, ClimateCalc will use these data instead of the default emission factor. When entering specific emission factors, the origin of the data and the person responsible for the data must be stated.

If the input tabs indicate consumption of “other fuel”, electricity, district heating, or printing plates that are different from the default options in the tool, **specific data must be entered** in the form of emission factors and, in some cases, heating values.

14.3 Upstream emissions

The term “upstream” is used in connection with several parameters. “Upstream” refers to when emission factors include other emissions besides direct emissions from fuel combustion or raw material production. Upstream emissions are for example indirect emissions from production and transportation of fuels and materials.

14.4 Location-based and market-based energy (scope 2)

ClimateCalc is by default calculating the scope 2 emissions from the purchased electricity according to the location-based method¹. If the company also wish to report scope 2 emissions according to the market-based method the company must enter specific emission factors for the market-based purchased electricity.

¹ GHG Protocol Scope 2 Guidance - An amendment to the GHG Protocol Corporate Standard, World Resources Institute

NOTICE

When emission factors for market-based electricity are entered it is possible for the company to present the scope 2 emissions on the carbon account and the product calculations according to both the location-based method and the market-based method. Please refer to section 15.6 and 16.16 in this document for a more detailed description.

To be able to enter scope 2 data for market-based electricity the consumption of purchased electricity must be entered in the following cells on the tab Input company:

- C1: Electricity for use in the company
- C3: Electricity for vehicles (besides C1) **Optional**

Please refer to section 9.4 in this document for a more detailed description.

NOTICE

It is not possible to declare an emission factor for electricity which is zero in scope 3 because the emission factor for electricity must include upstream emissions from for example the production of the fuels for the generation of the electricity.

Figure 14.1 Example of entering emission factors for market-based electricity used in the company. Notice that the scope 2 emissions are shown separately for the location-based and market-based electricity.

C. Purchased energy for use in the company and vehicles							
		Scope 1 Direct emissions	Scope 2 Energy indirect emissions	Scope 3 Other indirect emissions	Standard emission factor	Specific emission factor	Describe where data come from
1.1	Emissions from production of electricity (location based)	2,500,000 kWh	513 ton		0,205	<input type="text"/> kg CO ₂ eq / kWh	<input type="text"/>
1.2	Upstream emissions (location based)			0 ton		<input type="text"/> kg CO ₂ eq / kWh	<input type="text"/>
1.3	Emission from production of electricity (market based)	2,500,000 kWh	125 ton			<input type="text"/> 0,05 kg CO ₂ eq / kWh	Supplier decalarator
1.4	Upstream emissions (market based)			13 ton		<input type="text"/> 0,005 kg CO ₂ eq / kWh	Supplier decalarator
2.1	Emissions from production of electricity (specific delivery)	0 kWh	0 ton			<input type="text"/> kg CO ₂ eq / kWh	<input type="text"/>
2.2	Upstream emissions (specific delivery)	0 kWh		0 ton		<input type="text"/> kg CO ₂ eq / kWh	<input type="text"/>
3.1	Emissions from production of electricity for vehicles (location based)	0 kWh	0 ton		0,205	<input type="text"/> kg CO ₂ eq / kWh	<input type="text"/>
3.2	Upstream emissions (location based)			0 ton		<input type="text"/> kg CO ₂ eq / kWh	<input type="text"/>
3.3	Emission from production of electricity for vehicles (market based)	0 kWh	0 ton			<input type="text"/> kg CO ₂ eq / kWh	<input type="text"/>
3.4	Upstream emissions (market based)			0 ton		<input type="text"/> kg CO ₂ eq / kWh	<input type="text"/>

If the company has entered data into Input company “C2: Electricity (supplier specific)” the scope 2 emission will always be market-based and the emission will be the same for both methods.

If the company is purchasing district heating the scope 2 emission will always be market-based and the emission will be the same for both methods.

15 Tab: Carbon account

The company's carbon account is automatically generated based on the entered data from the input tabs and, if applicable, own data from the tab "Emission calculation". The carbon account is divided into different sections, which are briefly described below.

15.1 Key figures for greenhouse gas emissions

In the green section to the right, the most important numbers and key figures for the carbon account are presented, aiming to facilitate the company's year-to-year performance comparison. This section includes data for:

- Total amount of delivered printed products
- Waste substrate percentage
- Total greenhouse gas emissions (Scope 1+2+3)
- Total energy consumption (Scope 1 + 2)
- Key figures of total emissions (Scope 1+2+3) per ton of printed product
- Key figures of total energy consumption (Scope 1 + 2) per ton of printed product

NOTICE

The above parameters will change if the company has entered data regarding the production size under "Input company", paragraph F.

15.2 Direct and indirect emissions – Scope 1, Scope 2, and Scope 3

At the bottom section of the carbon account, both the direct and indirect emissions are specified by dividing them into Scope 1, Scope 2, and Scope 3, as described in The Greenhouse Gas Protocol:

- Scope 1: Direct emissions of greenhouse gases from the company, such as combustion of oil or gas in own boilers or vehicles.
- Scope 2: Indirect emissions of greenhouse gases from production of purchased energy, such as electricity and district heating.
- Scope 3: Other indirect emissions of greenhouse gases, such as production of raw materials, purchased transportation services, and the employee commuting.

For further information we refer to www.climatecalc.eu on subpage "Standards and data".

15.3 Company- and product-related emissions

In addition to the division into Scope 1, 2, and 3, the carbon account is further divided into *company-related emissions* and *product-related emissions*. This division of emissions reflects whether customers have a real influence on the size of the emissions or not. The emissions categorized as product-related can be customized according to the specific requirements of each order under the tab: "Product calculation". For example, the choice of substrate quality for a specific order will significantly impact the final greenhouse gas emissions of the product.

This division is defined in the international standards for calculation of carbon emission of print production on which ClimateCalc is based. Please refer to www.climatecalc.eu on subpage "Standards and data" for a further explanation of this.

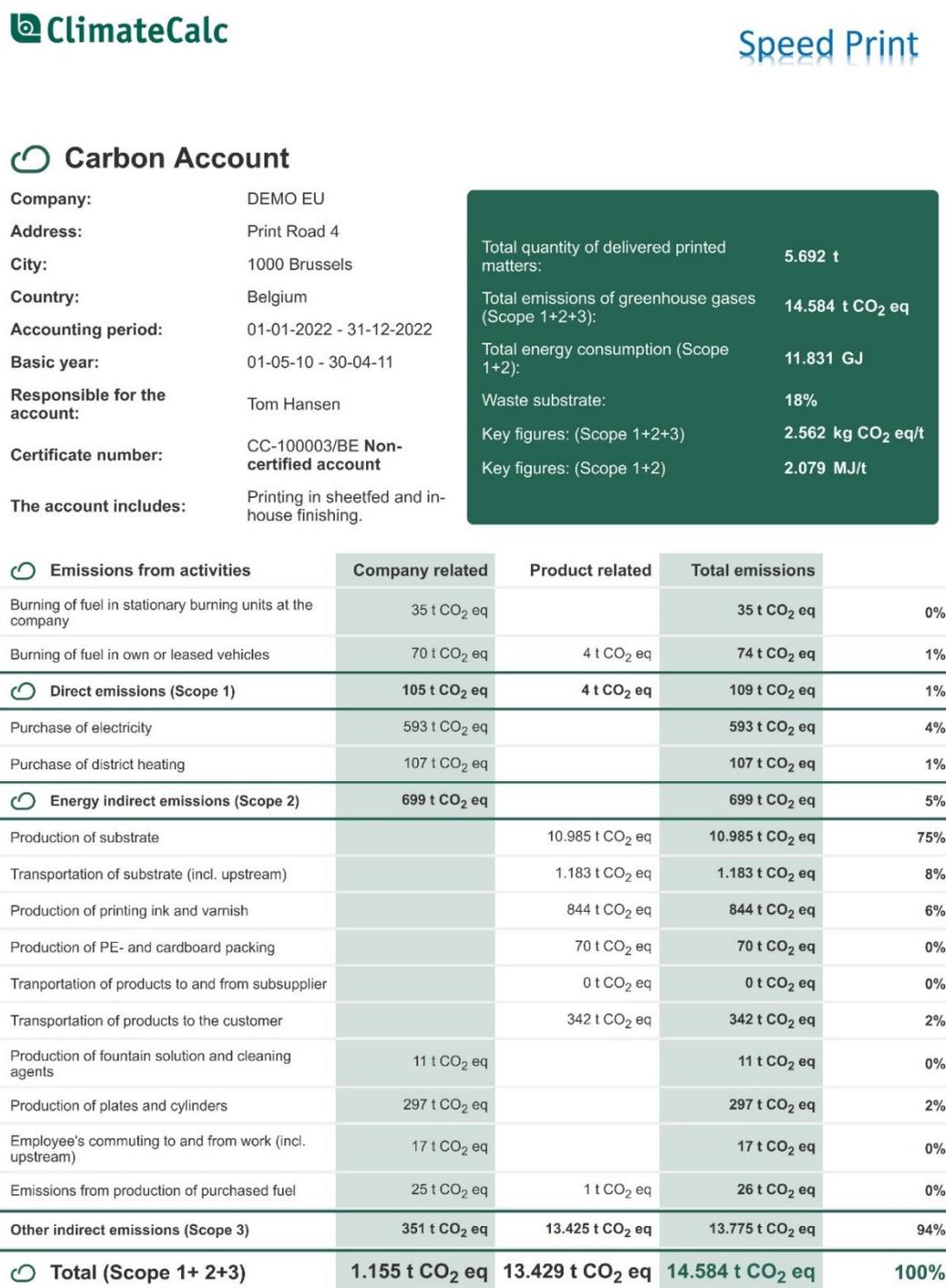
15.4 Compare data with previous year

In the top section on the tab there is an option for tick marking to show data for both the current account and the previous carbon account. The data for the previous year will be presented in yellow.

15.5 Presentation of the carbon account

In the top section on the tab there is an option for downloading a pdf print of the carbon account. If a company logo has been uploaded on the tab “Company information” it will automatically be presented in the pdf file. Please refer to section 8.3 in this document.

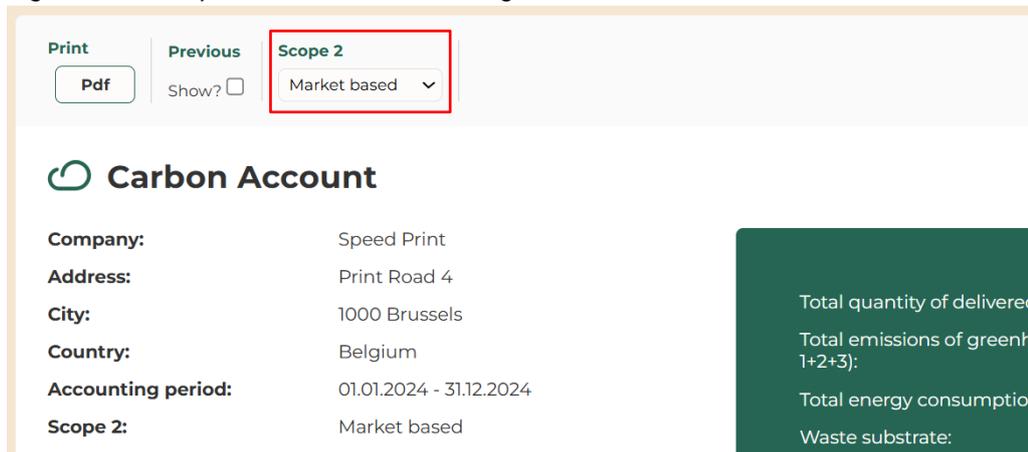
Figure 15.1. Example of a pdf print of the carbon account with company logo for the company “Speed Print”.



15.6 Presenting the carbon account with scope 2 emissions according to the market-based method

ClimateCalc is by default calculating the scope 2 emissions from the purchased electricity according to the location-based method². If the company has entered data for market-based electricity on the tab Emission calculation, the company can present the carbon account as either location-based or market-based by using the drop-down menu in the in the top section on the tab. Please refer to section 14.4 in this document for instructions in how to enter data for the market-based purchased electricity.

Figure 15.2. Drop-down menu for selecting the market-based or location-based method.



² GHG Protocol Scope 2 Guidance - An amendment to the GHG Protocol Corporate Standard, World Resources Institute

16 Tab: Product calculation

NOTE: Some functionalities on this tab are not available in ClimateCalc Basic.

Under this tab, the company has the option to calculate the carbon impact of producing specific products. The product calculation tab is locked until the company has been certified.

NOTICE

If there are missing or erroneous information in a product calculation, it will be indicated by **text** or **arrows** marked in **RED**. In case of significant errors in the product calculation, the calculator reports errors in the result field in the green top section. The product calculation cannot be completed until the error has been corrected.

16.1 Landing page

The landing page of the product calculation makes it possible to administrate and search the product calculations of the company.

The top section of the landing page has five buttons which are described below:

Figure 16.1. Top section for the landing page of the product calculation.

<input type="checkbox"/>	Internal name ^	Order number	Customer	Product name	Responsible	Calculated date	Product tonnage	Total emissions
<input type="checkbox"/>						From dd-mm-åååå To dd-mm-åååå		
<input type="checkbox"/>	1212028 Market & Sales	1212028	Market & Sales	Summer Catalogue	Kim Johnson	09-08-2024	1,155	1,017
<input type="checkbox"/>	1212029 Market & Sales	1212029	Market & Sales	Winter Catalogue	Kim Johnson	09-08-2024	918	839
<input type="checkbox"/>	1212030 Market & Sales	1212030	Market & Sales	Christmas Catalogue	Kim Johnson	09-08-2024	918	839
<input type="checkbox"/>	111314 Retail united	111314	Retail united	Leaflet Sport	Kim Johnson	09-08-2024	443	403
<input type="checkbox"/>	111315 Retail united	111315	Retail united	Leaflet Foods	Kim Johnson	09-08-2024	443	407

+ Add calculation

By clicking the button “+ Add calculation” a new product calculation can be made. See section 16.2 for further information.

Open calculation

One or more tick marked product calculations on the landing page can be opened by clicking the button “Open calculation”.

Delete

One or more tick marked product calculations on the landing page can be deleted by clicking the button “Delete”.

Print+CSV menu

By clicking the button “Print+CSV menu” a CSV-file or a pdf-file can be generated for one or more tick marked product calculations on the landing page. See section 16.3 for further information.

Settings

In the settings menu the columns shown on the landing page can be customized. The selected columns can be saved by the logged in user by pressing save in the settings menu.

Figure 16.2. The settings menu in the product calculation.

Filtering and sorting

In the green headlines of the columns, it is possible to mark which column that should be used for sorting. The selected sorting can be saved by the user logged in by pressing save in the settings menu.

In the white cells below the headlines, it is possible to filter the content in the individual columns. The selected filter can be saved by the user logged in by pressing save in the settings menu.

Figure 16.3. Filtering and sorting is possible in the top of the columns.

16.2 Making product calculations

The product calculations are managed in the top section of the product calculation. To create a new product calculation, follow these steps:

1. Click on the button “+ Add calculation”.

2. Describe the product calculation in the text fields.
3. Enter the relevant data for the product.
4. Click on the button “Save changes” if Auto-save is not enabled. Please refer to section 5 in this document,

Figure 16.4. Top section of the product calculation.



As an alternative to create a new product calculation, from scratch it is possible to select an existing product calculation and click the button “+ Copy”. After copy, the product calculation must be named and saved as described above.

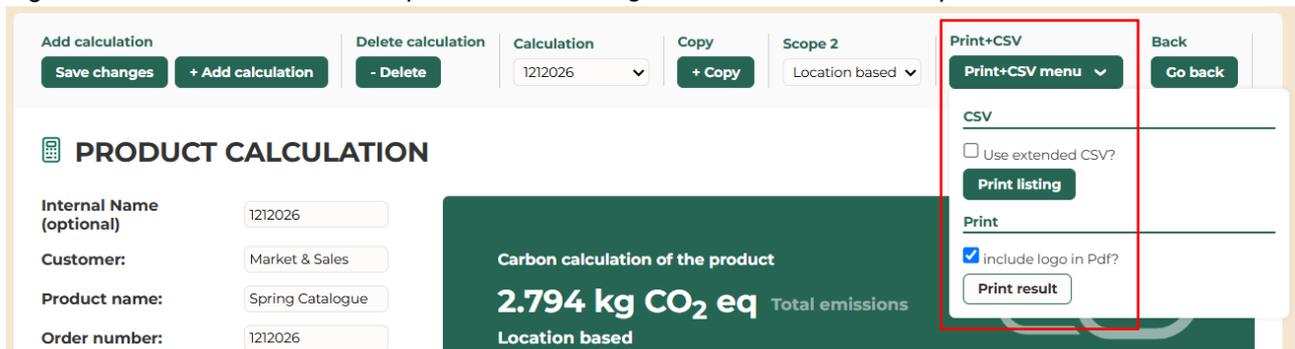
By clicking the button “Go back” the user will return to the landing page of the product calculation.

16.3 CSV menu for printing and export

The CSV menu in the top section has two options:

- Print listing
- Print result

Figure 16.5. CSV menu with the option to “Print listing” and “Print result” of the product calculation.



Print listing

By clicking the “Print listing” a CSV file can be downloaded with an overview of all the product calculations. The CSV file can be customized in Excel after downloading.

By tick marking “Use extended csv?” all the detailed results of the product calculations are included in the CSV-file.

Print result

By clicking the “Print result” a pdf-file can be downloaded showing the result of the individual product calculation. If a company logo has been uploaded on the tab “Company information” it will be an option to include the company logo in the pdf-file by tick marking in the CSV menu. Please refer to section 8.3 in this document.

Figure 16.6. Example of a pdf print of a product calculation with company logo for the company “Speed Print”.

The screenshot shows a PDF printout from ClimateCalc. At the top left is the ClimateCalc logo, and at the top right is the text "Speed Print". Below this is a section titled "PRODUCT CALCULATION" with a grid of details:

Customer:	Market & Sales
Product name:	Spring Catalogue
Order number:	1212027
Responsible for the calculation:	Tom Hansen
Company:	DEMO EU
Certificate number:	Non-certified account
Last calculated by	demo@demo.eu
Last calculated date	21.02-2024

Below the details is a green box titled "Carbon calculation of the product" with a cloud icon. It displays "2.794 kg CO₂ eq Total emissions" and "Location based". A table below lists the breakdown of emissions:

Production of substrate	2.025 kg CO ₂ eq
Transportation of substrate to the company	218 kg CO ₂ eq
Production of ink and varnish	161 kg CO ₂ eq
Production of packing	18 kg CO ₂ eq
Work of subsupplier	0 kg CO ₂ eq
Transportation to the customer	20 kg CO ₂ eq
Company related emissions	213 kg CO ₂ eq
Other emissions	140 kg CO ₂ eq
Total weight of materials to the customer	1.036 kg

16.4 About the order

In making a product calculation, the following information about the order must always be provided:

- Customer
- Product name
- Order number
- Person responsible for the calculation
- It is an option to give the calculation an internal name

16.5 Substrate consumption

In the substrate consumption section, the qualities included in the specific order are selected. Please note that only the default data for paper (worst case) and the substrate qualities entered under the tab: "Input substrate" can be selected. Information about the substrate data entered is shown by pointing at the information pictogram ⓘ next to the substrate quality.

In addition to the substrate quality, the substrate consumption, and the amount of substrate in the finished product must be stated. This can be done either by a weight calculation or by a sheet calculation.

NOTICE

For each substrate quality, data should only be entered in either weight or sheets. If data is entered in both categories, the calculator will return an error.

Weight calculation

A weight calculation is done by entering two out of three of the following pieces of information for each substrate quality:

- Substrate consumption for the order
- Amount of substrate in the finished product
- Substrate waste percentage (waste substrate / purchased substrate)

Sheet calculation

A sheet calculation is done by entering the following information for each substrate quality:

- Substrate size
- Grammage
- Consumption of sheets for the order
- Substrate waste percentage (waste substrate / purchased substrate)

For the product calculation, ClimateCalc automatically suggests an average substrate waste percentage based on the information entered under the tab "Input company". For each order, it should be considered whether the specific waste percentage differs from the average. If so, the actual data for the product must be used.

Figure 16.7. Example of entering substrate data in product calculation. Notice that the average substrate waste from the company's carbon account is stated in italic.

☰
Substrate consumption

+ Add
- Remove

Substrate quality 1

State the used substrate qualities in the dropdown menu: Speed silk ▼ i

Substrate data is typed on the sheet: Input substrate

Weight calculation: State two data of substrate consumption mentioned below

Consumption of substrate for the order:	720	kg	0 kg
Amount of substrate in the finished product:	1.040	kg	0 kg
Substrate waste (waste substrate/purchased substrate):	200	%	0 kg

The carbon calculator's substrate waste/purchased substrate (average): 18 %

Sheet calculation: State all data of substrate consumption mentioned below

Substrate format:	720	mm	
Substrate format:	1.040	mm	
Grammage:	200	g/m ²	

Consumption of sheets for the order:	8.000		1.198 kg
Substrate waste (waste substrate/purchased substrate):	21	%	252 kg

The carbon calculator's substrate waste/purchased substrate (average): 18 %

Describe where data come from:

16.6 Companies without printing

For companies that have selected a different reference for the size of the production than the amount of purchased substrate, the order size is stated using the same unit as entered on the tab: "Input company", paragraph F.

NOTICE

When performing product calculation for companies with no in-house substrate consumption, it is necessary to determine the product weight based on the weight of the pallet load, as the product weight in such cases will not automatically be calculated under the section "Transportation of products to the customer". The weight of the product must then be stated with the weight of the pallets.

16.7 Consumption of printing ink, varnish and packing

The consumption of printing ink, varnish, and packing must be stated for the specific product. During the product calculation, ClimateCalc automatically suggests an average consumption based on the information provided under the tab "Input company". For each order, it should be considered, whether the consumption for the specific product differs from the average. If so, the actual data for the product must be used.

NOTICE

If it has been chosen to hide some printing techniques under the tab "Company information" this will cause for the parameters for this printing technique to be hidden under the tab "Product calculation".

The entered consumption of packing on the order must include all packing made of cardboard and plastic supplied to the order, and not only transportation packing.

16.8 Sub-suppliers' work

Sub-supplier's work as well as transportation between the company and sub-supplier must be calculated and included in the product calculation. Therefore, the company must communicate with the sub-supplier and request information on the amount of greenhouse gas emissions caused by the work of the order.

NOTICE

It must be clarified to the sub-supplier whether their calculation of emissions should include transportation to and from the sub-supplier as well as possible transportation to the customer.

NOTICE

Data from sub-suppliers must cover the same parameters that are typically included in the ClimateCalc calculation tool. The parameters are specified in the standards on which the ClimateCalc calculation tool is based. For further information, please refer to www.climate-calc.eu and the subpage "Standards and data".

When communicating with the sub-supplier, the developed letter template can be used.

TOOL

Letter template to sub-supplier. Download: www.climatecalc.eu on subpage “Calculation and tools”.

Emissions related to transportation of the products between the company and the sub-suppliers must be calculated and included in the product calculation for the specific order. This can either be done by a standard calculation or an “own calculation”. Please refer to section 12 in this document for further clarification on this.

Figure 16.8. Example of entering data for sub-supplier work in product calculation and transportation between company and sub-supplier.

Work of sub-suppliers

+ Add **- Remove**

State the name of the used sub-suppliers: **Supplier 1**
European Bookbind

State the sub-supplier's emissions

State the emissions from the sub-supplier's work on the order: 500 kg CO₂ eq

State where to find the documentation from the sub-supplier: Mail from European Bookbind

State transportation to and from the sub supplier in one of the two following ways

Standard calculation: Transported amount and distance: 16969 kg 30 km

Choose the size of the truck in the dropdown menu (load weight): Lorry 16-32 ton (fleet average)

Own calculation: Emission calculated via transportation model: kg CO₂ eq

Describe where data come from: Google Maps

16.9 Outsourcing in product calculation

If the company has outsourcing activities that involves a ClimateCalc certified contractor and the contractor has shared product calculations with the company, it is possible for the company to use the shared product calculation in the company’s own product calculations.

The shared product calculations will be available in the section “Work of sub suppliers”. The weight of the outsourced product must be entered when including shared product calculations in the company’s own product calculations. Please refer to section 13 in this document for further information on how shared product calculations can be use.

16.10 Transportation of products to the customer

The transport related emissions of products to the customer must be calculated and included in the product calculation for the specific order. ClimateCalc performs a theoretical calculation of the weight of the product based on the weight of paper, inks and packing added to the product in-house. The weight of pallets and other transportation materials, as well as any paper waste and supplied packing at the sub-suppliers must be entered manually.

For a detailed explanation, please refer to section 12 in this document, where the transportation to the customer must be calculated.

NOTICE

Error will be reported in the transportation calculation if transportation data is entered for a tonnage that is less than the calculated tonnage of the product.

In the transport section the company can choose to copy the calculated weight directly to transport calculation by clicking: **[copy]**.

To enter the transported distance, two methods are available:

- Enter the delivery address and press the button “**Validate**”.
- Enter the distance manually.

It is also an option to enter data calculated by the company itself under “Own calculation”.

Figure 16.9. Example of entering data for transportation of products to the customer. The option of copying the weight and enter the delivery address is marked with red boxes.

Tranportation of products to the customer		
Calculated weight of the printed matter (in-house added material):	22425 kg	
Calculated weight of the packing (in-house added material):	62 kg	
State the weight of pallets:	<input type="text" value="1025"/> kg	Data come from: <input type="text" value="Order data"/>
State any adjustment of added packing at the subsuppliers:	<input type="text" value="50"/> kg	Data come from: <input type="text" value="Mail European Bookbind"/>
Total weight of materials to the customer	[copy] <input type="text" value="23561"/> kg	State transportation data for the total weight below

State transportation to the customer in one of the two following ways	
+ Add	- Remove
Delivery 1	
<input type="text" value="Rue Wiertz 60, 1047 Bruxelles, Belgien"/>	<input type="button" value="Validate"/>
Validated address will be displayed here...	
Standard calculation: Transported amount and distance:	<input type="text"/> kg <input type="text"/> km
Choose the size of the truck in the dropdown menu (load weight):	<input type="text" value="Lorry 16-32 ton (fleet average)"/> ▼
Own calculation: Emission calculated via transportation model:	<input type="text"/> kg CO ₂ eq
Describe where data come from:	<input type="text"/>

Figure 16.10. After copying the weight and validating the delivery address the transport calculation is completed.

Tranportation of products to the customer			
Calculated weight of the printed matter (in-house added material):	22425	kg	
Calculated weight of the packing (in-house added material):	62	kg	
State the weight of pallets:	<input type="text" value="1025"/>	kg	Data come from: <input type="text" value="Order data"/>
State any adjustment of added packing at the subsuppliers:	<input type="text" value="50"/>	kg	Data come from: <input type="text" value="Mail European Bookbind"/>
Total weight of materials to the customer	[copy] 23561	kg	

State transportation to the customer in one of the two following ways		Delivery 1	
	<input type="text" value="Rue Wiertz 60, 1047 Bruxelles, Belgium"/>	<input type="text" value="Rue Wiertz 60, 1047 Bruxelles, Belgique"/>	<input type="button" value="Remove"/>
Standard calculation: Transported amount and distance:	<input type="text" value="23561"/> kg	<input type="text" value="871,4"/> km	
Choose the size of the truck in the dropdown menu (load weight):	<input type="text" value="Lorry 16-32 ton (fleet average)"/>		
Own calculation: Emission calculated via transportation model:	<input type="text" value=""/>	kg CO ₂ eq	
Describe where data come from:	<input type="text" value="Order data"/>		

16.11 Company-related emissions

Based on the stated substrate consumption of the order, the order is assigned a company-related emission, which represents the company's average emissions that cannot be attributed to individual products.

For a further explanation, please refer to section 15 in this document. If the company has no printing and no substrate consumption, the company related emissions are calculated based on the size of the order using the same unit as entered on the tab: "Input company", paragraph F.

16.12 Other emissions

ClimateCalc is based on international standards for calculation of carbon emission of print production. Please refer to www.climatecalc.eu on subpage "Standards and data" for a further explanation of this. When calculating greenhouse gas emissions for the parameters included in ClimateCalc, a minimum 95% of the emissions in the defined scope will be included. To compensate for the unaccounted emissions, the product calculation has a supplement equivalent to the missing 5%.

16.13 Compensation

It is possible to mark an order as compensated and upload documentation for the purchased compensation. This can be done by tick marking for compensation next to the result at the top of the page.

Figure 16.11. Example of an order marked as compensated and where documentation for purchased compensation has been uploaded.

The screenshot displays the 'PRODUCT CALCULATION' interface. At the top, there are navigation buttons: 'Add calculation' (Save changes, + Add calculation), 'Delete calculation' (- Delete), 'Calculation' (1212027), 'Copy' (+ Copy), 'Scope 2' (Location based), 'Print+CSV' (Print+CSV menu), and 'Back' (Go back). The main section is titled 'PRODUCT CALCULATION' and contains a form with the following fields:

- Internal Name (optional): 1212027
- Customer: Market & Sales
- Product name: Spring Catalogue
- Order number: 1212027
- Responsible for the calculation: Tom Hansen
- Certificate number: Non-certified account
- Compensated:
- Last calculated by: [empty]
- Last calculated date: 10.03-2025
- Compensated by: [empty]
- Compensated date: 10.03-2025
- Compensation: [empty]

A file upload area is highlighted with a red box, showing a file named 'Certificate_8438.pdf' with a 'Vælg filer' button and a 'delete' link below it.

The 'Carbon calculation of the product' section shows a total of 2.794 kg CO₂ eq (Location based). The breakdown is as follows:

Category	Value
Production of substrate	2.025 kg CO ₂ eq
Transportation of substrate to the company	218 kg CO ₂ eq
Production of ink and varnish	161 kg CO ₂ eq
Production of packing	18 kg CO ₂ eq
Work of subsupplier	0 kg CO ₂ eq
Transportation to the customer	20 kg CO ₂ eq
Company related emissions	213 kg CO ₂ eq
Other emissions	140 kg CO ₂ eq

16.14 Versions in the product calculations

ClimateCalc saves the product calculations in versions every time a change is made in the source-data of the company's carbon account. If for example the data for the used substrate is changed under the tab: Input substrate a warning in red is shown the next time the specific product calculation is opened. The user can then open the product calculation and then decide which version of the product calculation that must be saved as the valid product calculation.

Figure 16.12. Example of changes in the source data for the product calculation where it can be opened.

Sourcedata has changed. Do you want to open and recalculate?

Open

PRODUCT CALCULATION

Customer:

Product name:

Order number:

Responsible for the calculation:

Certificate number: **Non-certified account**

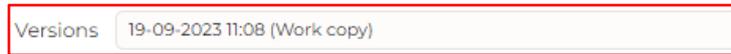
Compensated

Last calculated by: admin@grakom.dk

Last calculated date: 19-09-2023

When opened the user can see the different versions in the dropdown menu in the top and select and save the valid version.

Figure 16.13. Example of versions of product calculations available in the dropdown menu.



Versions 19-09-2023 11:08 (Work copy)

PRODUCT CALCULATION

Customer: Web shop

Product name: Spring Catalogue

Order number: 1212027

Responsible for the calculation: Kim Johnson

Certificate number: Non-certified account

Compensated

Last calculated by

Last calculated date 19-09-2023

16.15 Sharing of product calculations

If the company has defined companies that are eligible to receive shared product calculations in the administration module of ClimateCalc, it will be possible to share product calculations with the defined companies. Please refer to section 19.4 in this document.

The companies eligible to receive shared product calculations will be listed at the bottom of the tab: “Product calculation” where they can be tick marked. Notice that it requires a certain user permission to share specific product calculations. Please refer to section 19.1 in this document.

Figure 16.14. Example of sharing a product calculation by tick marking the company at the bottom of the product calculation.



Share with TRAINING OUTSOURCING

16.16 Presenting the product calculation with scope 2 emissions according to the market-based method

ClimateCalc is by default calculating the scope 2 emissions from the purchased electricity according to the location-based method³. If the company has entered data for market-based electricity on the tab Emission calculation the company can present the product calculation as either location-based or market-based by using the drop-down menu in the in the top section on the tab. Please refer to section 14.4 in this document for instructions in how to enter data for the market-based purchased electricity.

³ GHG Protocol Scope 2 Guidance - An amendment to the GHG Protocol Corporate Standard, World Resources Institute

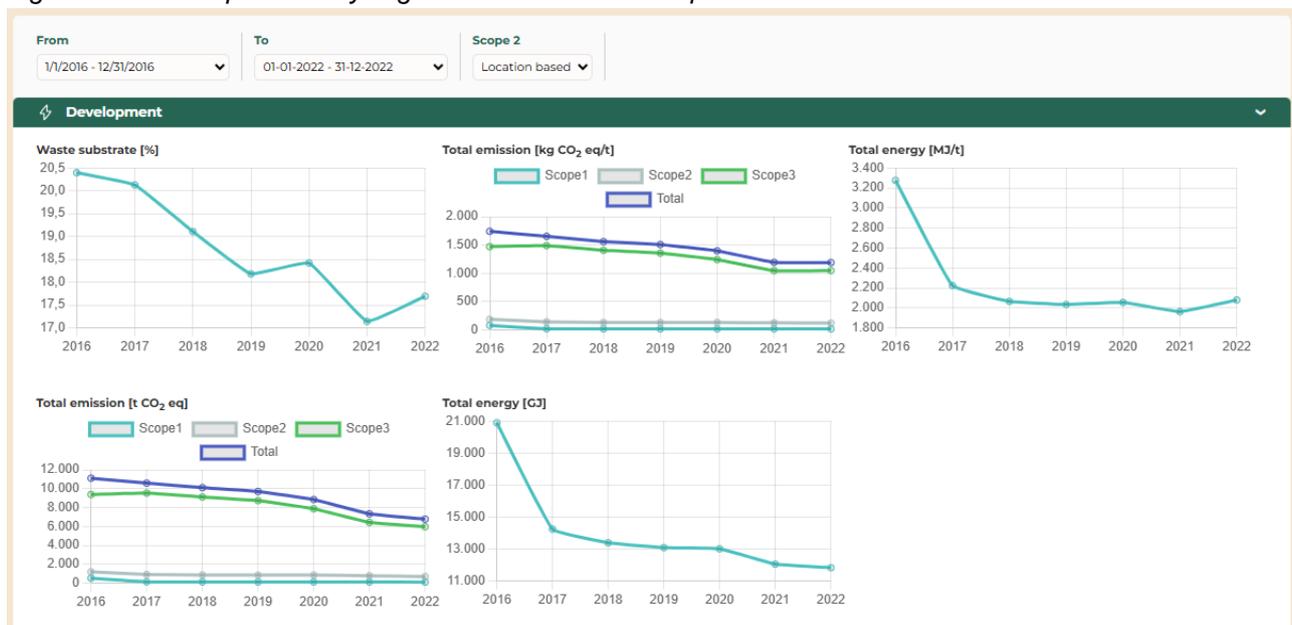
17 Tab: Development

Under this tab, the company has the option to analyse the development of their key performance indicators from the carbon account for a defined period:

- Waste substrate [%]
- Total emissions of CO₂ per ton printed product [kg CO₂ eq/ton]
- Total energy consumption per ton printed product [MJ/ton]
- Total emissions of CO₂ [ton CO₂ eq]
- Total energy consumption [GJ]

Please refer to section 15 in this document for further details on these key performance indicators.

Figure 17.1. Example of analysing the KPI's for a defined period.



17.1 Presenting the development with scope 2 emissions according to the market-based method

ClimateCalc is by default calculating the scope 2 emissions from the purchased electricity according to the location-based method⁴. If the company has entered data for market-based electricity on the tab Emission calculation the company can present the key performance indicators for CO₂ as either location-based or market-based by using the drop-down menu in the in the top section on the tab. If not all carbon accounts for a defined period have market-based data available, the key performance indicators for CO₂ will only show the carbon accounts where the market-based data has been entered. Please refer to section 14.4 in this document for instructions in how to enter data for the market-based purchased electricity.

⁴ GHG Protocol Scope 2 Guidance - An amendment to the GHG Protocol Corporate Standard, World Resources Institute

18 Tab: Benchmark

NOTE: This tab is not available in ClimateCalc Basic

Under this tab, the company has the option to benchmark its own performance on the carbon emissions. By comparing to the performance of other companies it becomes easier for the company to assess the potential for improvements. The tab for benchmark is locked, until the company has been certified.

NOTICE

All companies are anonymous in the benchmarking in ClimateCalc. A company cannot see the names of the other companies included in the selected benchmark. To ensure anonymity, benchmarking is only possible if there are at least four companies with the same profile in the selected benchmark analysis. Benchmark occurs across companies in all countries.

Benchmarking is based on the company's key performance indicators included in the carbon account for the selected period:

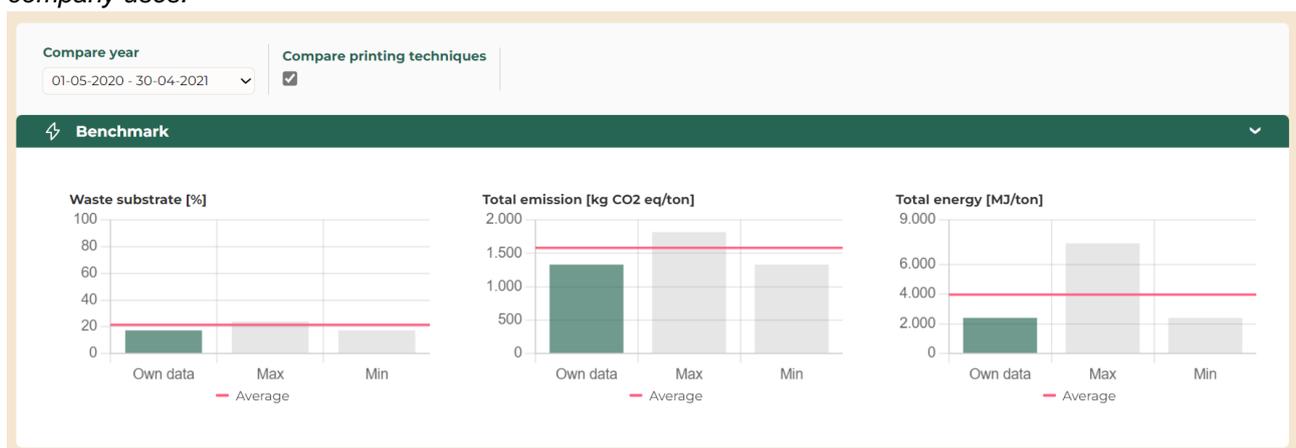
- Waste substrate [%]
- Total emissions of CO₂ per ton printed product [kg CO₂ eq/ton]
- Total energy consumption per ton printed product [MJ/ton]

Please refer to section 15 in this document for further details on these key performance indicators.

There are two ways to conduct benchmarking:

- By comparing all companies regardless of printing techniques used.
- By comparing with companies with the exact same printing techniques as the company has stated under the tab "Company information".

Figure 18.1. Example of benchmark with marking for comparison with the same printing techniques as the company uses.



The benchmark displays the following parameters with different colours for each of the key performance indicators:

- Green: Level of the company (Own)
- Grey: Level of companies with the highest and lowest value (Max. and Min.)
- Red: Average level across all companies

NOTICE

Benchmarking is not possible, if the company has entered alternative data of the size of the production under “Input company”, paragraph F. This is because when a company uses an alternative reference for the key figures, the company cannot compare itself with other companies.

19 Administration

In the administration module of ClimateCalc the company can administrate the local company users and define their permissions. In the administration module it is also possible to manage the sharing of product calculations.

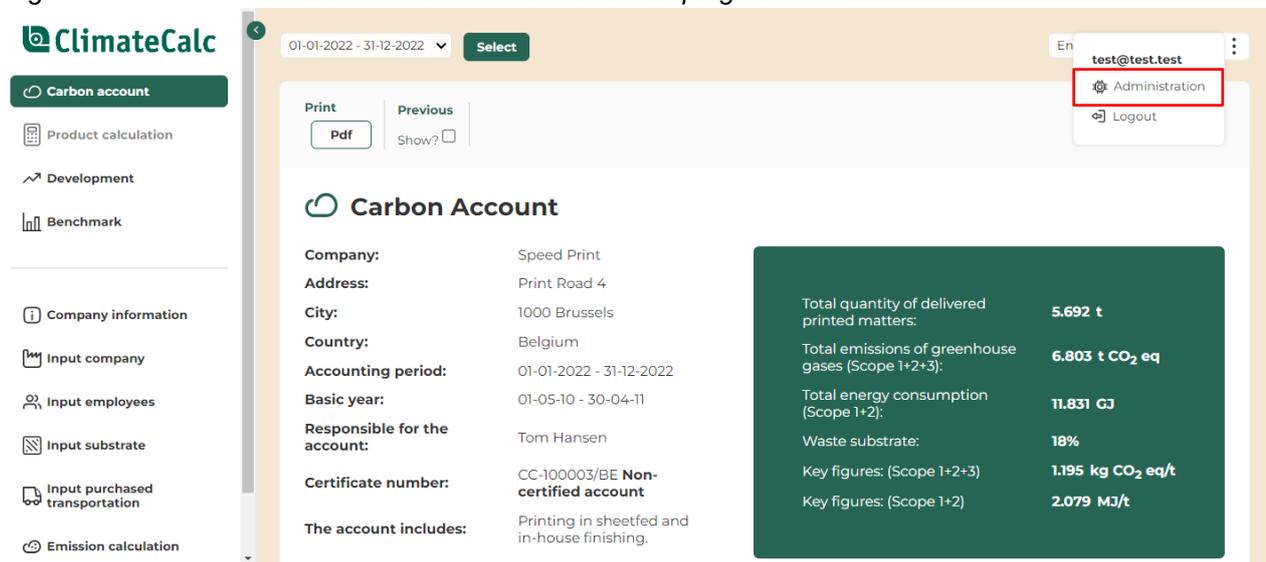
NOTICE:

Auto-save is not available in the administration module of ClimateCalc, and all changes must be saved manually by clicking “Save changes”.

The administration module of ClimateCalc can be accessed by clicking the three dots in the top right corner of any tab in the calculator. The user access to the administration module and the different functionalities is depending on the permissions settings of the user logged in.

The three dots also give access to logout and shows the current user logged in.

Figure 19.1 Access to the administration module in the top right corner.



19.1 Administration of user permissions

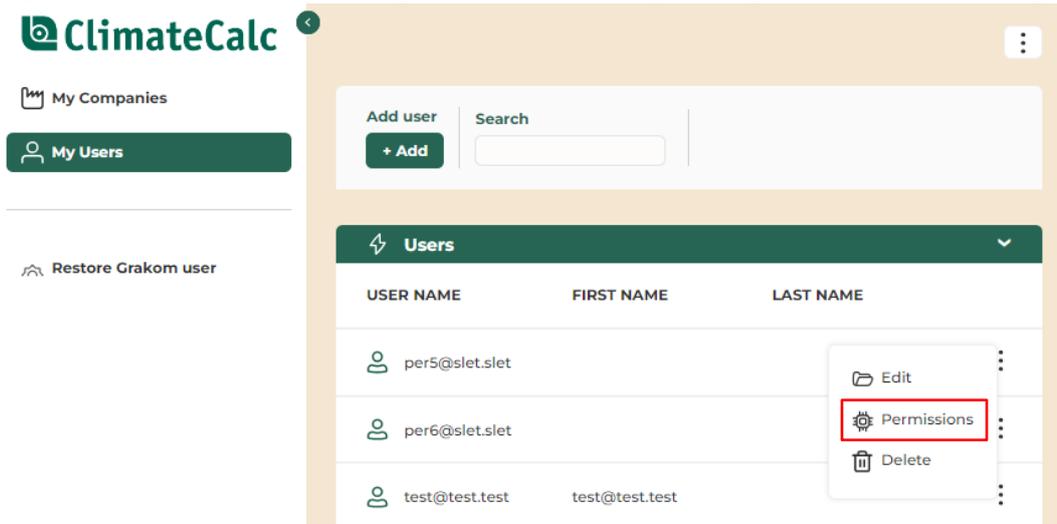
The administration of the user permissions is handled on the tab “My users” in the administration module of ClimateCalc.

Figure 19.2 Access to the user administration.



On the tab “My users” the current company users are listed. By clicking the three dots to the right of the user the permissions can be customized.

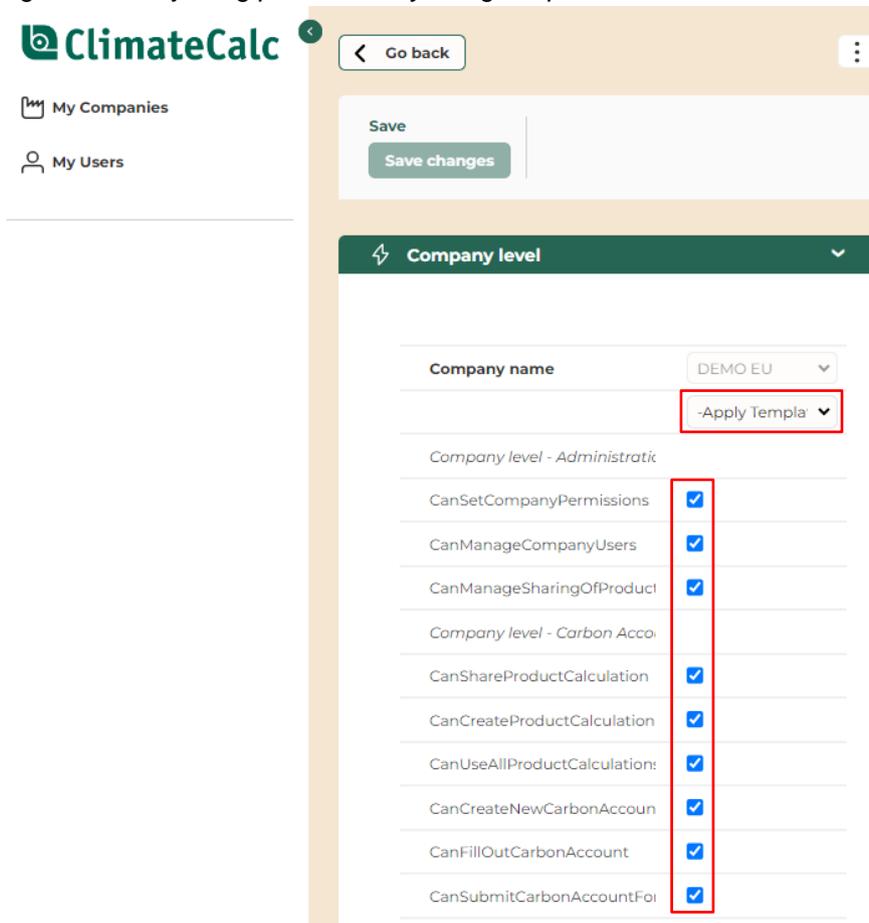
Figure 19.3 The permission settings can be accessed by clicking the three dots to the right.



All new company users are by default assigned the permissions as “Company administrator” and the permissions of the user might need to be customized. This can be done by tick marking the permission individually or by selecting one of the default permission templates:

- CompanyAdmin
- CompanyUser
- CompanyProductCalculationUser

Figure 19.4 Adjusting permission by using templates or the tick marks.



Remember to press “**Save changes**” before closing the window.

In the table below the different permission settings for the company are explained.

Permission setting in Administration	Explanation of the permissions
CanSetCompanyPermissions	Can set permissions for users on company level
CanManageCompanyUsers	Can add and remove users on company level.
CanManageSharingOfProductCalculations	Can define the organisations that product calculations can be shared with in the 'Product calculation' in the calculation module.
CanShareProductCalculation	Can share a calculated product calculation with the organisations defined.
CanCreateProductCalculation	Can make product calculations in certified carbon accounts.
CanUseAllProductCalculations	Can access product calculations for all company users. If this permission is not activated the user can only access own product calculations.
CanCreateNewCarbonAccount	Can create a carbon account for a new period in the calculation module and can delete carbon accounts.
CanFillOutCarbonAccount	Can access the input tabs in the calculation module.
CanSubmitCarbonAccountForAudit	Can activate the button 'Completed' on the tab 'Company information' in the calculation module.

For company users in a multi-site set up the permissions can be assigned on either multi-site level or site level by the multi-site company administrator.

19.2 Adding new users

The administration of the users is handled on the tab “My users” in the administration module of ClimateCalc.

Figure 19.5 New users are added on the tab “My users” by pressing “+ Add”.



After pressing “+ Add” there must be stated the following data about the user:

- E-mail (username)
- Password
- Name

Note that there are the following options when setting up the user password:

- Auto-generation of password
- Copy of the password to the clipboard (before pressing “Save changes”)
- Tick mark for sending Welcome mail with login credentials directly to the new user (before pressing “Save changes”).

Remember to press “**Save changes**” before closing the window.

If an e-mail (username) is already setup in ClimateCalc it's not possible to create a new user with the same e-mail.

Figure 19.6 The module for adding new users. Remember to press "Save changes".

The screenshot shows the ClimateCalc user creation interface. On the left, there is a navigation menu with 'My Companies' and 'My Users'. The main content area has a 'Go back' button at the top left. Below it, there are two tabs: 'Save' and 'Available Companies'. The 'Save' tab is active and contains a 'Save changes' button, which is highlighted with a red box. The 'Available Companies' tab contains a 'Select company' dropdown and an '+ Add to' button. Below the tabs, there is a section titled 'Account' with a dropdown arrow. It contains two error messages: 'The Email field is required.' and 'The Password field is required.'. Below these, there is an 'E-mail (Username)' input field. Underneath, there are two buttons: 'Generate a new password' and 'Copy to clipboard', both highlighted with a red box. Below these buttons are 'Password' and 'Confirm password' input fields. At the bottom of the 'Account' section, there is a 'Send welcome mail' checkbox, also highlighted with a red box. Below the 'Account' section is a section titled 'Personal information' with a dropdown arrow, containing 'Firstname' and 'Lastname' input fields.

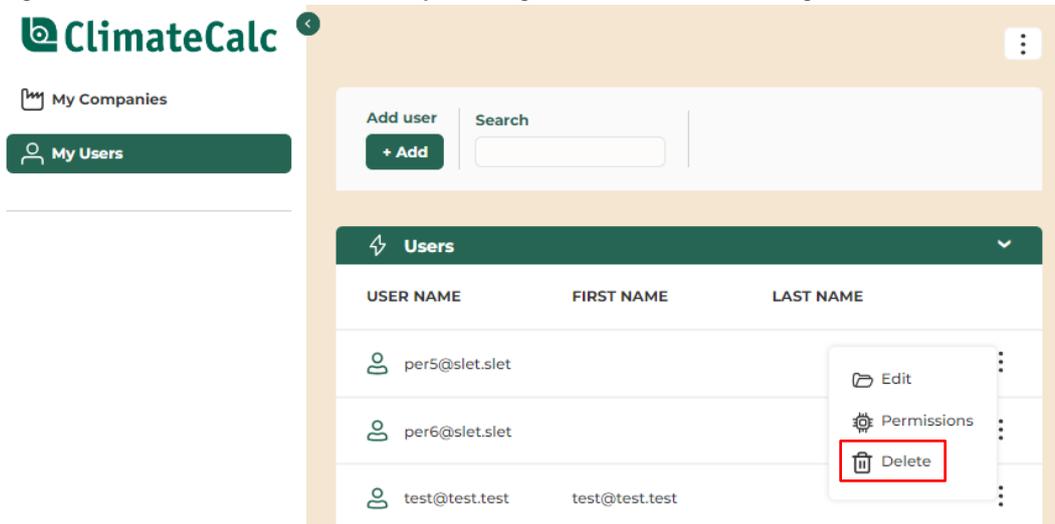
All new company users are by default assigned the permissions as "Company administrator" and the permissions of the user might need to be customized. Please refer to section 19.1 in this document.

19.3 Deleting users

By clicking the three dots to the right of the user the user can be deleted. The user will then be deleted instantly, but only if that user is allocated to one company.

If the user which is to be deleted is also allocated to other companies, the user will only be removed from the company or companies that the user logged in has permissions to manage.

Figure 19.7 A user can be deleted by clicking the three dots to the right.



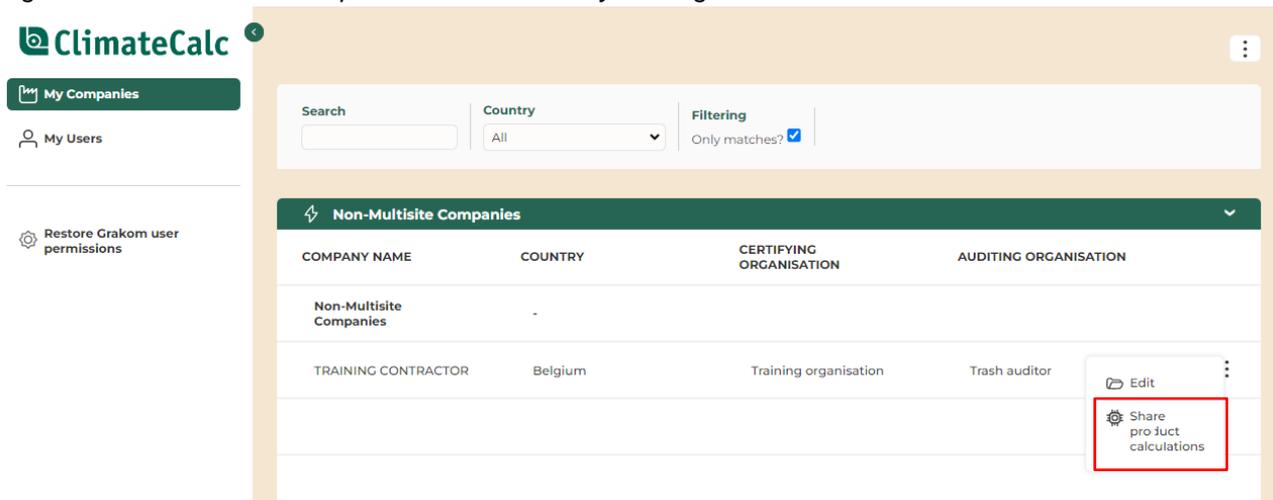
19.4 Manage the sharing of product calculations

If the company wants to share product calculations with other companies using ClimateCalc the company must define the companies that are eligible to receive shared product calculations in the administration module of ClimateCalc. Notice that it requires a certain user permission to manage the sharing of product calculations in the administration module. Please refer to section 19.1 in this document.

The sharing of product calculations is managed on the tab “My Companies”. On this tab the user that is logged in can access the companies that the user has permissions to administrate. Most company users will only have access to one company unless that the user works in a multi-site organisation or are involved in the carbon account of several companies.

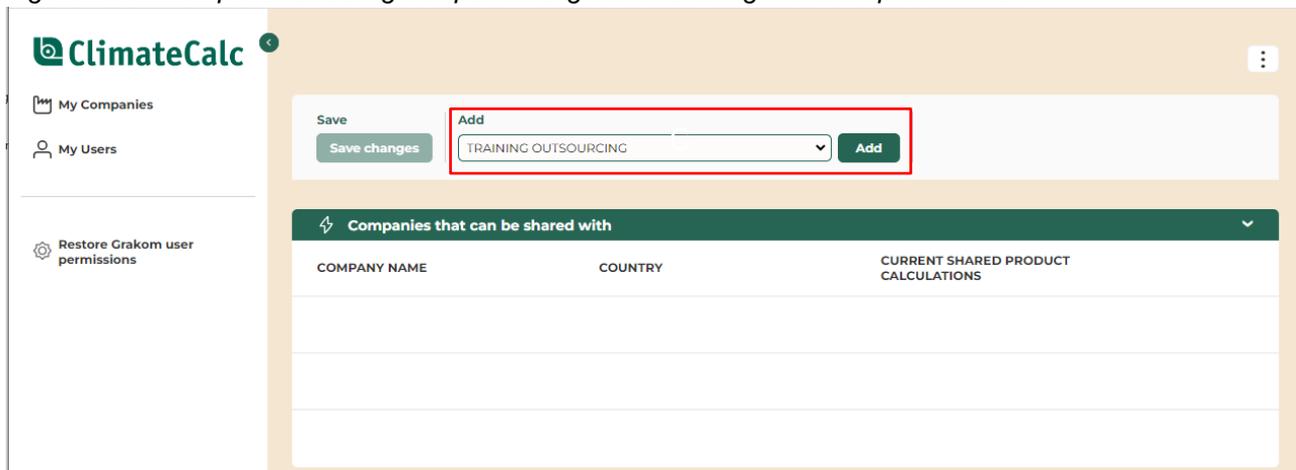
By clicking the three dots to the right of the company there is access to the two sections as shown in the figure below:

Figure 19.8 Access to share product calculations by clicking the three dots.



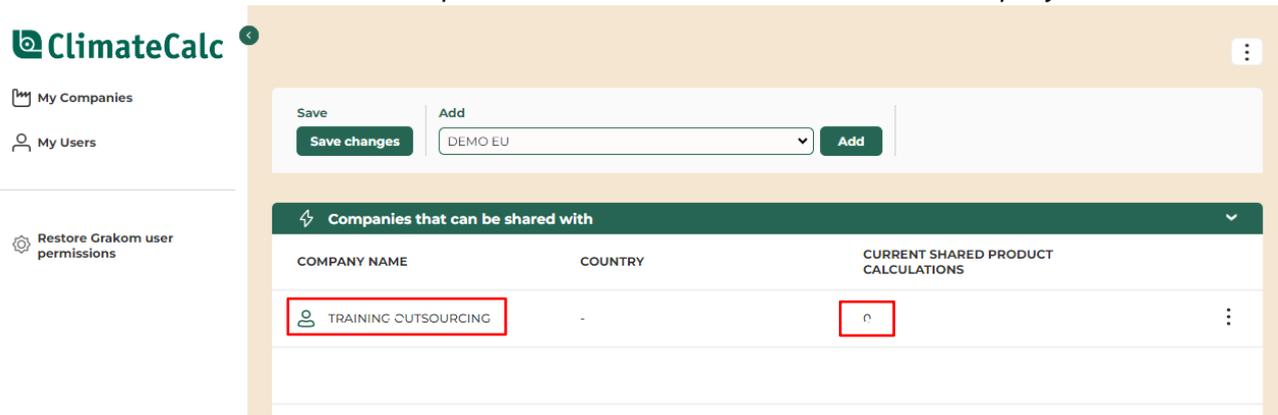
By clicking “Share product calculations” the companies eligible for sharing product calculations can be selected in the drop-down menu and added to the list by clicking “Add”.

Figure 19.9 Example of selecting companies eligible for sharing in the drop-down menu.



After adding the company eligible for sharing product calculations the company will be shown on the list below.

Figure 19.10 Example of selected company (TRAINING OUTSOURCING) eligible for sharing product calculations. The number of current shared product calculations are shown next to the company.



Remember to press “**Save changes**” before closing the window.

The selected companies can be removed from the list by clicking the three dots to the right.

20 Multi-site

If the company is part of a multi-site organisation it is possible to share the substrate data between the different sites in the organisation.

20.1 Sharing substrates in multi-site organisations

A substrate can be shared by tick-marking in the bottom section of each substrate quality. In this section it is also possible to tick-mark for “Notify changes in multi-site”. If the shared data are changed, a notification will then be shown on the start page for the site using the shared data. Please refer to section 20.3 in this document.

Figure 20.1 Example of sharing a substrate quality in a multi-site organisation.

The screenshot shows a sidebar with navigation options: Input substrate, Input purchased transportation, Emission calculation, Labels, and User Settings. The main content area is titled '3. Data based on other sources' and contains the following fields:

- CO2 (fossil): kg CO₂/t
- Data source:
- Share in multi site:
- Notify changes in multi site:

20.2 Copying shared substrates in multi-site organisations

If a site in a multi-site organisation has marked a substrate for sharing it will then be accessible for copying for other sites in the organisation on the tab “Input substrate”. The other sites can then select the shared substrates in a drop-down menu.

Figure 20.2 Shared substrates can be selected in the drop-down menu.

The screenshot shows the 'Input substrate' form with the following sections:

- Buttons: Add substrate, Remove substrate, Substrate (dropdown), Prev, Next, CSV (CSV menu >)
- Section: Calculated emission factors based on typed data in this sheet
 - Calculated emission factors based on typed data in this sheet
 - Emissions from production of substrate: 250 kg CO₂ eq/t
 - Emissions from transportation of substrate: 12 kg CO₂ eq/t
 - Typed data for part of total purchased substrate: 0 %
 - Substrate quality:
 - Substrate supplier:
 - Substrate factory:
 - Comments:
 - Annual purchased amount (t):
- Section: L. Data on production of substrate
 - Shared substrates: --Select Company-- (dropdown), --Select Carbon Account-- (dropdown), --Select Substrate-- (dropdown), Copy

NOTICE:

Before copying remember to add a new substrate which is empty. If the copy function is used on an existing substrate quality the copied data will override the existing data.

After selecting a shared substrate in the drop-down menu, the shared data will be shown in a gray column. Before clicking the button “Copy” the data can be customized by removing the tick-marks in the top section or in the transport section in paragraph M at the bottom. The data in paragraph L cannot be customized. If the tick-marks are removed the share data will not be copied. This is particularly relevant for the transport data I paragraph M since data for transport normally differs from site to site.

Figure 20.3 Example of a shared substrate ready for being copied. Notice the tick-marks that can be unticked before clicking the button “Copy.”

Calculated emission factors based on typed data in this sheet

Calculated emission factors based on typed data in this sheet		Substrate quality:	Speed web Gloss/Silk <input checked="" type="checkbox"/>	<input type="text"/>
Emissions from production of substrate	250 kg CO ₂ eq/t	Substrate supplier:	Speed Paper <input checked="" type="checkbox"/>	<input type="text"/>
Emissions from transportation of substrate	12 kg CO ₂ eq/t	Substrate factory:	Fictitious mill <input checked="" type="checkbox"/>	<input type="text"/>
Typed data for part of total purchased substrate	0 %	Comments:	<input checked="" type="checkbox"/>	<input type="text"/>
		Annual purchased amount (t):		<input type="text"/>

L. Data on production of substrate

Shared substrates: TRAINING MULTI HQ | 01-01-2022 - 31-12-2022 | Speed web Gloss/Silk | **Copy**

Emissions calculated on the basis of typed data in one of the following two ways: 0 kg CO₂ eq/t

No data are typed in

1. 1. Data based on CEPI's method for estimation of Carbon Footprint in 10 parameters

1. 1. Carbon sequestration in forests:	0	<input type="text"/>	kg CO ₂ eq/t
2. 2. Carbon stored in forest products:	780	<input type="text"/>	kg CO ₂ eq/t
3. 3. Greenhouse gas emissions from forest product manufacturing facilities:	280	<input type="text"/>	kg CO ₂ eq/t
4. 4. Greenhouse gas emissions associated with producing fibre:	20	<input type="text"/>	kg CO ₂ eq/t
5. 5. Greenhouse gas emissions associated with producing other raw materials/fuels:	150	<input type="text"/>	kg CO ₂ eq/t

Figure 20.4 Example of a shared substrate in the transport section ready for being copied. Notice the tick-marks that can be unticked before clicking the button “Copy.”

M. Data on transportation of substrate

Emissions calculated on the basis of typed data in one of the following two ways: 0 kg CO₂ eq/t

No data are typed in

1. 1. Data reported by the supplier (only emissions from burning of fuel)

1. Type the emissionens from transportation of substrate (only direct emissions)	25 <input checked="" type="checkbox"/>	<input type="text"/>	kg CO ₂ /t
Date or period of validity for typed data:	Duration from supplier <input checked="" type="checkbox"/>	<input type="text"/>	
2. 2. Own information about distance			
Distance for transportation of substrate from factory to wholesaler or directly to company	0 <input checked="" type="checkbox"/>	<input type="text"/>	km
Distance for transportation of substrate from wholesaler to company	0 <input checked="" type="checkbox"/>	<input type="text"/>	km

After copying the shared substrate, the Annual purchased amount must be entered for the site that has copied the shared substrate.

Figure 20.5 Example of a shared substrate where all shared data are copied. Notice that the Annual purchased amount must be entered.

Add substrate

Save changes You still need to fill in 1 field. + Add substrate

Remove substrate

- Remove substrate

Substrate

Speed web Gloss/Silk ▼ Prev Next CSV

Calculated emission factors based on typed data in this sheet

Calculated emission factors based on typed data in this sheet		Substrate quality:	Speed web Gloss/Silk <input checked="" type="checkbox"/>	Speed web Gloss/Silk
Emissions from production of substrate	250 kg CO ₂ eq/t	Substrate supplier:	Speed Paper <input checked="" type="checkbox"/>	Speed Paper
Emissions from transportation of substrate	12 kg CO ₂ eq/t	Substrate factory:	Fictitious mill <input checked="" type="checkbox"/>	Fictitious mill
Typed data for part of total purchased substrate	0%	Comments:	<input checked="" type="checkbox"/>	
Annual purchased amount (t):				<input style="border: 1px solid red;" type="text"/>

L. Data on production of substrate

Shared substrates TRAINING MULTI HQ ▼ 01-01-2022 - 31-12-2022 ▼ Speed web Gloss/Silk ▼ Copy

Emissions calculated on the basis of typed data in one of the following two ways 670 kg CO₂ eq/t

1. 1. Data based on CEPI's method for estimation of Carbon Footprint in 10 parameters

1. 1. Carbon sequestration in forests:	0	<input type="text"/>	kg CO ₂ eq/t
2. 2. Carbon stored in forest products:	780	<input style="color: blue;" type="text" value="780"/>	kg CO ₂ eq/t
3. 3. Greenhouse gas emissions from forest product manufacturing facilities:	280	<input type="text" value="280"/>	kg CO ₂ eq/t
4. 4. Greenhouse gas emissions associated with producing fibre:	20	<input type="text" value="20"/>	kg CO ₂ eq/t
5. 5. Greenhouse gas emissions associated with producing other raw materials/fuels:	150	<input type="text" value="150"/>	kg CO ₂ eq/t
6. 6. Greenhouse gas emissions associated with purchased electricity, steam etc.:	180	<input type="text" value="180"/>	kg CO ₂ eq/t

NOTICE

A company using shared data in a multi-site organisation cannot use the CSV functionality for export and import for updating the substrate data.

20.3 Notification about updated data

If the site that is sharing a substrate quality is making changes to data which is copied by another site a notification will then be shown on the start page for the site using the shared data for all users who has access to the tab: "Input substate".

The user receiving the notification can click on the button: "Go to" to go directly to the substrate with the updated data ready for being copied as described in section 20.2.

Figure 20.6 Example of a notification about changes in shared substrate data copied by a site. The button "Go to" will direct the user to the substrate with the updated data ready for being copied.

The screenshot shows the ClimateCalc user interface. At the top left is the ClimateCalc logo. Below it is a "User Settings" link. The main header area contains a navigation bar with "Country" (set to Belgium), "Company" (set to TRAINING MULTI SITE), and an "Add Carbon Account" button with a "+ New" option. A language dropdown is set to "English". Below the header is a section titled "Your Carbon Accounts:" with a "Select" button and a list of accounts: "TRAINING MULTI SITE - 01-01-2022 - 31-12-2022 [Delete]". A "My Notifications" section is highlighted with a green header. It contains a table with the following data:

Date	Title	Text	
11-09-23 11:15	Shared substrate changed	The source substrate of Speed silk in account 01-01-2022 - 31-12-2022 on company TRAINING MULTI SITE has been modified. Update the copy again to get the latest data	Go to Delete

21 Upgrade of carbon account from version 2 to version 3

For existing carbon accounts created in version 2 it's possible to upgrade the calculation model to version 3. Upgrading a carbon account is only relevant if a company wish to present old carbon accounts according to both the location-based method and the market-based method.

21.1 Upgrading a current calculation model

At the bottom of the tab "Company information" it's possible to upgrade the calculation model for an existing carbon account from version 2 to version 3. Please refer to section 8.4 in this document.

NOTICE

The upgrade of the calculation model from version 2 to version 3 is non-reversibel and might have impact on the carbon account and the product calculations. If the company has entered data into Input company C2, C4 or C6 the upstream emissions will be moved from scope 2 to scope 3 when upgrading from version 2 to version 3.

By upgrading a carbon account from version 2 to version 3 all input tabs will be unlocked and it will be possible to make changes to the data entered.

21.2 Updating data for electricity

After upgrade to version 3 it's possible to enter updated data for electricity in the carbon account.

Updating data for Input company "C1: Electricity for use in the company"

If data for electricity has been entered on the tab Input company "C1: Electricity for use in the company" it possible to enter data for location-based and market-based electricity as described in section 14.4 in this document.

Figure 21.1. Example of data entered in C1 for purchased electricity used in the company.

C. Purchased energy for use in the company and vehicles							Describe where data come from	
1.	Electricity for use in the company	Fill in only one cell	2,500.00	kWh		MJ	Dorte Andersen	New Energy: supplier specification
2.	Electricity (supplier specific)	Fill in only one cell		kWh		MJ	-- responsibility	
3.	Electricity for vehicles (besides C1)	Fill in only one cell		kWh		MJ	-- responsibility	
4.	Electricity (supplier specific)	Fill in only one cell		kWh		MJ	-- responsibility	

Updating data for Input company "C2: Electricity (supplier specific)"

If data for electricity has been entered on the tab Input company "C2: Electricity (supplier specific)". The consumption of electricity must be moved from C2 to C1 before it possible to enter data for both location-based and market-based electricity.

Figure 21.2. Example on how to move data for purchased electricity from C2 (red) to C1 (green).

C. Purchased energy for use in the company and vehicles							Describe where data come from	
1.	Electricity for use in the company	Fill in only one cell		kWh		MJ	-- responsibility	
2.	Electricity (supplier specific)	Fill in only one cell	1,000.00	kWh		MJ	Tom Williams	New Energy: supplier specification
3.	Electricity for vehicles (besides C1)	Fill in only one cell		kWh		MJ	-- responsibility	
4.	Electricity (supplier specific)	Fill in only one cell		kWh		MJ	-- responsibility	

After moving the consumption of electricity from C2 to C1 on the tab Input company the specific emission factors on the tab Emission calculation must be moved as well as described in section 14.4 in this document:

- If the emission factors entered C2.1 and C2.2 represent market-based electricity the emission factors must be moved to C1.3 and C1.4. See **green marking** in the figure below.
- If the emission factors entered C2.1 and C2.2 represent location-based electricity the emission factors must be moved to C1.1 and C1.2. See **blue marking** in the figure below.

Figure 21.3. Example on how to move specific emission factors form C2.1+C2.2 (red) to C1.3+C1.4 (green) or C1.1+C1.2 (blue).

C. Purchased energy for use in the company and vehicles							
		Scope 1 Direct emissions	Scope 2 Energy indirect emissions	Scope 3 Other indirect emissions	Standard emission factor	Specific emission factor	Describe where data come from
1.1	Emissions from production of electricity (location based)	0 kWh	0 ton		1,04	<input type="text"/> kg CO ₂ eq / kWh	<input type="text"/>
1.2	Upstream emissions (location based)			0 ton		<input type="text"/> kg CO ₂ eq / kWh	<input type="text"/>
1.3	Emission from production of electricity (market based)	0 kWh	0 ton			<input type="text"/> kg CO ₂ eq / kWh	<input type="text"/>
1.4	Upstream emissions (market based)			0 ton		<input type="text"/> kg CO ₂ eq / kWh	<input type="text"/>
2.1	Emissions from production of electricity (specific delivery)	1.000.000 kWh	500 ton			<input type="text" value="0,5"/> kg CO ₂ eq / kWh	<input type="text" value="Supplier declaration"/>
2.2	Upstream emissions (specific delivery)	1.000.000 kWh		50 ton		<input type="text" value="0,05"/> kg CO ₂ eq / kWh	<input type="text" value="Supplier declaration"/>

22 Calculation factors

Energy units

Energy	kWh	MJ	kcal
1 kcal =	0,001163	0,004187	1
1 MJ =	0,2778	1	238,85
1 kWh =	1	3,6	859,85

Size units

Abbreviation	Pronouncement	Size
k	Kilo	1.000
M	Mega	1.000.000
G	Giga	1.000.000.000
T	Tera	1.000.000.000.000

23 Guide version history

In the guide version 4 from 2025-04-02 the following changes were made:

Section 8.4: Calculation model version

Description of the version of the calculation model.

Section 9.4: Data for electricity (paragraph C)

Updated description of how data for purchased electricity must be entered in C1. It's has been specified that on-site produced electricity must be entered in C2.

Section 10.3: Apply worst case values for employee commuting

The new facility for applying worst-case values is described

Section 12.3: Apply worst case values for purchased transportation

The new facility for applying worst-case values is described

Section 14.4: Location-based and market-based energy (scope 2)

Description of how emission factors are entered for market-based and location-based electricity.

Section 15.6: Presenting the carbon account with scope 2 emissions according to the market-based method

Description of how the carbon account can be presented according to both the location-based and market-based method.

Section 16.5: Information about the substrate data

The new facility for showing the substrate data by using the information pictogram is described.

Section 16.16: Presenting the product calculation with scope 2 emissions according to the market-based method

Description of how the product calculation can be presented according to both the location-based and market-based method.

Section 17.1: Presenting the development with scope 2 emissions according to the market-based method

Description of how the development can be presented according to both the location-based and market-based method.

Section 21: Upgrade of carbon account from version 2 to version 3

New section describing how to upgrade an existing carbon account from calculation model version 2 to version 3. It's also described how to update data for electricity if a company wish to present old carbon accounts according to both the location-based method and the market-based method.

In the guide version 3 from 2024-07-03 the following changes were made:

Section 3: Start page of ClimateCalc

It is specified that a user which only has permissions to the product calculation will only have access to certified or previously certified carbon accounts.

Section 3.1: Creating a new carbon account

It is described that the period of a carbon account can be corrected by making a new copy and delete the wrong carbon account afterwards.

Section 3.2: Copying data from previous period

The new facility for coping a specific carbon account is described.

Section 8: Company information

The maximum number of files with documentation is specified.

Section 8.3: Company logo

The recommended file formats have been specified as well as restrictions for the characters used in the file name.

Section 11.6: Sharing of substrate data in multi-site organisations

It is specified that a company using shared data in a multi-site organisation cannot use the CSV functionality for export and import for updating the substrate data.

Section 16.1: Landing page

The new landing page of the product calculation has been described in detail.

Section 16.3: CSV menu for printing and export

The new facility to "Use extended csv?" is described.

Section 20.2: Copying shared substrates in multi-site organisations

It is specified that a company using shared data in a multi-site organisation cannot use the CSV functionality for export and import for updating the substrate data.