a	Navigation area:			Next sheet	Summary
	Top of sheet End of sheet				

BASELINE DATA REPORT for Phase 4 of the EU ETS

CONTENTS

Language version:	English
Reference filename:	NIMs P4 baseline_COM_en_250119.xls

Information about this file:

Installation name:	
Unique Installation Identifier:	
Relevant baseline period	

If your competent authority requires you to hand in a signed paper copy of the report, please use the space below for signature:

Date

Name and Signature of
legally responsible person

b	Navigation area:	Table of contents	Previous sheet	Next sheet	Summary
	Top of sheet				
	End of sheet				

GUIDELINES AND CONDITIONS

General Information on this Template

1 Directive 2003/87/EC, as amended most recently by Directive 2018/410/EU (hereinafter "the EU ETS Directive") requires Member States to allocate allowances for free to installations based on Community-wide and fully-harmonised rules (Article 10a(1)). The Directive can be downloaded from:
https://eur-lex.europa.eu/eli/dir/2003/87/2018-04-08

2 These Free Allocation Rules (hereinafter "the FAR") [OJ reference to be added when available] have been adopted by the Commission on [19 December 2018]. A draft can be downloaded from:
https://ec.europa.eu/info/law/better-regulation/initiatives/ares-2018-5486983_en

3 An essential element of the FAR is a data collection to be carried out by Member States in order to collect all relevant information from operators of installations needed (a) by the Member States for calculating the preliminary free allocation of allowances, and (b) by the Commission for updating the benchmark values.

4 This data collection template has been developed on behalf of the Commission by its consultants (Umweltbundesamt GmbH Austria and SQ Consult).
The views expressed in this file represent the views of the authors and not necessarily those of the European Commission.

5 This is the final draft of 25 January 2019 for discussion within the relevant expert group (CCEG).
IT NOT TO BE USED for any data submission.

How to use this file

6 Automatic calculation (to be found in the menu Formula/Calculation options) must be turned on.
It is recommended that you go through the file from start to end. There are a few functions which will guide you through the form which depend on previous input, such as cells changing colour if an input is not needed (see colour codes below). However, sometimes it is relevant to first continue data input in another sheet before going on (e.g. "H_specialBM" needs input before "F_ProductBM" can be finalised in cases where Annex III of the CIMs must be applied).
It is especially important to fill in sheet "A_InstallationData", sections A.II.2 (Baseline period chosen) and A.III (definition of sub-installations). Without correct information there, calculation results may be wrong, or data for sub-installations may not be possible to enter correctly.

7 Whenever a value of zero is to be reported, it should be entered rather than keeping the cell empty. If a cell is kept empty, the competent authority (CA) does not know if the value has not been reported, is irrelevant or unknown. Values needed for calculations should always be entered (especially if zero, because some formulas don't give results as long as required cells are empty).

8 In several fields you can choose from predefined inputs. For selecting from such a "drop-down list" either click with the mouse on the small arrow appearing at the right border of the cell, or press "Alt-CursorDown" when you have selected the cell. Some fields allow you to input your own text even if such a drop-down list exists. This is the case when drop-down lists contain empty list entries.

9 Error messages will occur sometimes when data entries are incomplete. However, the non-appearance of error messages is not a guarantee for correct calculations, as not always a data completeness test is possible. If no result appears in a green field, it can be assumed that some data is still missing.
Special care must be taken of consistency of data with the units displayed.
Error messages are often very short due to the little place available. The most important ones are:

incomplete!	Means that data is not sufficient for calculation (e.g. an emission factor is missing in one year)
inconsistent!	The units selected are inconsistent, and calculations based upon related inputs will give wrong results.
negative!	In this calculation no negative values are allowed.
A.II.1.a-g!	These are references to document sections. This means that data in the referenced sections are missing.

10 Colour codes and fonts:

Black bold text:	This is text describing the input required.
Smaller italic text:	This text gives further explanations.
	Yellow fields indicate mandatory inputs. However, if the topic is not relevant for the installation, no input is required.
	Light yellow fields indicate that an input is optional.
	Green fields show automatically calculated results. Red text indicates error messages (missing data etc).
	Shaded fields indicate that an input in another field makes the input here irrelevant.
	Grey shaded areas should be filled by Member States before publishing customized version of the template.
	Light grey areas are dedicated for navigation and hyperlinks.

11 Navigation panels on top of each sheet provide hyperlinks for quick jumps to individual input sections. The first line ("Table of contents", "Previous sheet", "next sheet", "Summary") and the points "Top of sheet" and "End of sheet" are the same for all sheets. Depending on the sheet, further menu items are added. If the background colour of one of the hyperlink areas turns red, this indicates that data is missing in the related section (not in all sheets).

12 This template has been locked against data entry except for yellow fields. However, for transparency reasons, no password has been set. This allows for complete viewing of all formulae. When using this file for data entry, it is recommended to keep the protection in force. The sheets should only be unprotected for checking the validity of formulae. It is recommended to do this in a separate file.

13 In order to protect formulae against unintended modifications, which usually lead to wrong and misleading results,
it is of utmost importance NOT TO USE the CUT & PASTE feature.
If you want to move data, first COPY and PASTE them, and thereafter delete the unwanted data in the old (wrong) place.

14 Data fields have not been optimized for numerical and other formats. However, sheet protection has been limited so as to allow you to use your own formats. In particular, you may decide about the number of decimal places displayed. The number of places is in principle independend from the precision of calculation. In principle the option "Precision as displayed" of MS Excel should be deactivated. For more details, consult MS Excel's "Help" function on this topic.

15 **DISCLAIMER: All formulae have been developed carefully and thoroughly. However, mistakes cannot be fully excluded.**
As described above, full transparency for checking the validity of calculations is ensured. Neither the authors of this file nor the European Commission can be held liable for eventual damages resulting from wrong or misleading results of the provided calculations.
It is the full responsibility of the user of this file (i.e. the operator of an EU ETS installation) to ensure that correct data is reported to the competent authority.

Member State specific information:

This Report must be submitted to your Competent Authority to the following address:

Detail address to be provided by the Member State

Information sources:

EU Websites:

EU-Legislation: http://eur-lex.europa.eu/en/index.htm

EU ETS general: http://ec.europa.eu/clima/policies/ets/index_en.htm

Other Websites:

<to be provided by Member State>

Helpdesk:

<to be provided by Member State, if relevant>

Further guidance as provided by the Member State:

<<< Click here to proceed to next sheet >>>

A. Installation Data	Navigation area:	Table of contents	Previous sheet	Next sheet	Summary
	Top of sheet	Installation ID	Contact persons	Verifier	Further information
	End of sheet	Eligibility	Baseline period	Sub-installations	Technical connections

A. Sheet "InstallationData" - GENERAL INFORMATION ON THIS REPORT

I Identification of the Installation

1 General information:

(a) Name of the installation:
This name should be the same as has been already used for correspondence with the competent authority.

(b) Member State in which the installation is situated:
"Member State" means here: State which participates in the EU ETS, i.e. EU Member States and Iceland, Norway and Liechtenstein.

(c) Has this installation been included in the EU ETS before?

(d) Unique identifier provided by the competent authority:
This is the ID used by the competent authority for correspondence with the installation, e.g. for free allocation in earlier periods.
For installations which have not been included in the EU ETS before, operators are requested to contact the competent authority to receive such ID.
Competent authorities must ensure to have a unique ID available before notifying any data to the European Commission.

(e) Identification code of the installation in the Registry:
This is usually a natural number, i.e. a code different from the Permit identifier used in the Registry (EUTL).
Together with the Member State selected under (b), this Registry ID (unique ID) will result in the Unique ID displayed automatically in (f) below. E.g. if the installaion with Registry ID 123456 is situated in Belgium, this will result in "BE000000000123456". If your installation received free allocation in the previous phase of the EU ETS, please ensure that the Unique ID is identical to the one in the previous phase.

(f) Unique ID for notification to the Commission:

(g) Information on the greenhouse gas emissions permit:
Please provide here information on the greenhouse gas emissions permit (=permit issued in accordance with Articles 5 and 6 of the EU ETS Directive).
Member States may make this information optional if the competent authority is in possession of this information already.

Name of Competent authority:

First GHG permit received when the installation was included in the ETS for the first time:

i. Permit-ID:
ii. Date of issuance:

Most recent update of the permit, if applicable:

iii. Permit-ID:
iv. Date of issuance:

(h) Date of start of operation of the installation:
This input is only relevant if the installation, as a whole, has started operation after 1 January 2014.

(i) This installation is an incumbent:

An installation is an incumbent if it has received a greenhouse gas emission permit for the first time on or before:

- *30 June 2019 for the allocation period 2021-2025, or*
- *30 June 2024 for the period 2026-2030.*

All installations which are not incumbents according to the above criteria will be considered "New entrants" by the competent authority.

New entrants are not to be notified to the Commission under the national implementation measures pursuant to Article 11 of the EU ETS Directive.

Consequently, this template has not been developed for the use by new entrants.

(j) Operator data:

The operator is the [natural or legal] person who operates or controls an installation or, where this is provided for in national legislation, to whom decisive economic power over the technical functioning of the installation has been delegated.

i.	Operator Name:	
ii.	Street, Number:	
iii.	ZIP-Code:	
iv.	City:	
v.	Country:	
vi.	Name of authorized representative:	
vii.	Email:	
viii.	Telephone:	
ix.	Fax:	

(k) Installation address:

i.	Street, Number:	
ii.	ZIP-Code:	
iii.	City:	
iv.	Country:	

2 Contact persons:

Please nominate persons here whom the competent authority can contact in case of questions regarding this report, including its verification.

(a) Authorised representative of the operator in charge of this installation:

i.	Name:	
ii.	Email:	
iii.	Telephone:	
iv.	Fax:	

(b) Primary contact person for technical questions regarding installation data, if different from (a):

i.	Name:	
ii.	Email:	
iii.	Telephone:	
iv.	Fax:	

3 Verifier engaged for this baseline data report:

(a) Name and address of the verifier of this baseline data report:

i.	Company Name:	
ii.	Street, Number:	
iii.	City:	
iv.	Postcode/ZIP:	
v.	Country:	

(b) Authorised representative of the verifier:

The nominated person should be familiar with this report. Ideally it is the lead verifier involved with this report.

i.	Name:	
ii.	Email address:	
iii.	Telephone number:	
iv.	Fax:	

(c) Information about the verifier's accreditation:

i.	Accreditation Member State:	
ii.	Name of the national accreditation body:	
iii.	Registration number issued by the Accreditation body:	

4 Further installation data:

(a) Activities according to Annex I of the EU ETS Directive:

This information is important for the competent authorities because changes compared to previous ETS phases may have taken place.

To the extent feasible, please sort the list with regard to the direct emissions, starting with the activity causing the highest direct emissions.

Number	Name of activity (Annex I of the ETS Directive)
1	
2	
3	
4	
5	
6	

(b) Under which NACE code has your company reported value added for structural business statistics?

If you are not sure about the values to enter here, please contact your relevant national statistics office.

NACE rev 2.0 can be found here:

http://ec.europa.eu/eurostat/ramon/nomenclatures/index.cfm?TargetUrl=LST_CLS_DLD&StrNom=NACE_REV2&StrLanguageCode=EN&StrLayoutCode=HIERARCHIC

NACE codes shall be entered at 4-digit level, in the form "nnnn", i.e. without any dots or other delimiters inbetween.

You will receive an error message if you do not enter exactly 4 digits.

NACE code reported using NACE rev 2 classification:

(c) Please provide the identification code of the installation in the EPRTR, if applicable:

The EPRTR is the European Pollutant Release and Transfer Register.

This information is useful for the competent authorities for consistency checks and alignment of environmental information sources.

(d) Eligibility for exclusion pursuant to Article 27 of the EU ETS Directive

Pursuant to Article 27 of the EU ETS Directive, the following types of installations may be excluded from the EU ETS if they undertake equivalent measures:

- *installations which have reported to the competent authority emissions of less than 25 000 tonnes of carbon dioxide equivalent and, where they carry out combustion activities, have a rated thermal input below 35 MW, excluding emissions from biomass, in each of the last three years.*

  For the data collection in 2019, these three years are 2016 to 2018. For the data collection in 2024, those are 2021 to 2023.
- *Installations which are hospitals.*

i. Did the installation emit less than 25 000 tonnes and have a rated thermal input below 35MW?

ii. Is the Installation a hospital?

iii. The installation is eligible for exclusion pursuant to Article 27 of the EU ETS Directive:

(e) Eligibility for exclusion pursuant to Article 27a of the EU ETS Directive

Pursuant to Article 27a of the EU ETS Directive, following consultation with the operator, Member States may exclude the following types of installations from the EU ETS:

- *installations which have reported to the competent authority emissions of less than 2 500 tonnes of carbon dioxide equivalent, excluding emissions from biomass, in each of the last three years;*
- *units kept in reserve or as backup which did not operate more than 300 hours per year in each of the three years;*

i. Did the installation emit less than 2 500 tonnes CO2(e) per year?

ii. Did units kept in reserve or as back-up in the installation not operate more than 300 hours per year?

iii. (Parts of) this installation is/are eligible for exclusion pursuant to Article 27a of the EU ETS Directive:

(f) Annual emissions from the three previous years for plausiblity checking of (d) above

The following data is automatically taken from sheet "D_Emissions".

	Unit	2016	2017	2018	Maximum
Annual emissions for plausibility checking:	t CO2e/year				

(g) Has the installation been opted-in?

Please provide information if the installation does not carry out at least one Annex I activity of the EU ETS Directive but has been unilaterally included by the Member State (opted-in) pursuant to Article 24 of that Directive.

II Information on this baseline data report

1 Eligibility for free allocation:

(a) Is the installation an electricity generator pursuant to Article 3(u) of the Directive?

Article 3(u) defines: 'electricity generator' means an installation that, on or after 1 January 2005, has produced electricity for sale to third parties, and in which no activity listed in Annex I is carried out other than the combustion of fuels.

The Commission has provided a guidance paper to identify electricity generators.

(b) Is the installation an installation for the capture of CO2, for transport of CO2 or a CO2 storage site?

(c) This installation is considered as covered by Article 10a(3) of the EU ETS Directive:

If the answer to (a) or (b) was positive, the answer to (c) is automatically positive.

The linear factor referred to in Article 10a(4) of the Directive is applied to allocations of installations covered by Article 10a(3) of the Directive except for any year in which those allocations are adjusted in a uniform manner pursuant to Article 10a(5) of the Directive (see also Article 16(8) of the FAR).

(d) Does the installation produce heat not used for electricity production?

(e) Confirmation of non-eligibility for free allocation:

If the answer to (a) or (b) is positive, and if the answer to (d) is negative, the installation is not eligible for free allocation under Article 10a of the EU ETS Directive. If this is relevant for your installation, please confirm here:

Important notes:
If the installation is not eligible for free allocation under Article 10a of the EU ETS Directive, there is no obligation to report further detailed data in the following data sheets. It is only mandatory to complete this sheet ("InstallationData").

If no further data is to be reported, there is also no need for verification of this report.
This report and especially the answers given in points (a) to (f) here have no impact on possible free allocations under Article 10c of the EU ETS Directive ("Option for transitional free allocation for the modernisation of the energy sector").

(f) Application for free allocation:

If the answers to points (a) and (b) are both negative, or if the answer to point (d) is positive, the installation can be considered as eligible for free allocation under Article 10a of the EU ETS Directive. If relevant for your installation, please confirm here that you apply for a free allocation of allowances under Article 10a:

(g) Consent to use the data contained in this file:
The data contained in this file will be used by the competent authority for determining the free allocation pursuant to Article 10a of the EU ETS Directive, and by the European Commission for updating benchmark values. Furthermore these data will be notified to the European Commission in part or as a whole, if requested so, for the purpose of scrutinizing the national implementation measures pursuant to Article 11(1) of the EU ETS Directive.
If the operator confirms point (e) or (f) above, it is automatically assumed that this also confirms consent to use data contained in this file.

2 Baseline period chosen

(a) Please select the baseline period for this report:
This is the baseline period pursuant to Article 2(14) of the FAR.

(b) Years in which the installation was operating:

According to the first sub-paragraph of Article 15(7) of the FAR, for the purpose of the determination of the averages for historical activity levels only calendar years during which the installation has been operating for at least one day shall be taken into account.

Please enter in the table below for each year if the installation was operating at least one day per calendar year. Don't leave yellow cells empty.

Confirm:	2014	2015	2016	2017	2018
Installation was operating in this year:					
Error messages:					

III List of sub-installations

1 Product benchmark sub-installations

Please select here the product benchmark sub-installations relevant at your installation, if any:

For each type of product, only one sub-installation may be chosen. Similar products which are covered by the same product benchmark in Annex I of the FAR are aggregated.

The status regarding the exposure to significant risk of carbon leakage ("CL") is based on <ADD REFERENCE TO CLL ACT>.

Every sub-installation name may occur only once. Otherwise some parts of this template will not function properly.

In the second yellow column you have to provide the start of normal operation pursuant to Article 2(12) of the FAR for each sub-installation. This information is relevant to identfy which years have to be taken into account for the determination of the historic activitiy level pursuant to Article 15(7) in sheets F and G.This input is only relevant if the sub-installation, has started operation after 1 January 2014.

Please note that the correct entries here are essential for all subsequent inputs dealing with sub-installations.

No.	Product type	Start of operation	CL exposed?	
1			N.A.	
2			N.A.	
3			N.A.	
4			N.A.	
5			N.A.	
6			N.A.	
7			N.A.	
8			N.A.	
9			N.A.	
10			N.A.	

2 Sub-installations with fall-back approaches

Please indicate here which fall-back sub-installations are relevant at your installation, if any:

For each type of fall-back approach, a maximum of two sub-installations may exist, one exposed to significant risk of carbon leakage, the other non-exposed.

As an exception to that rule, for measurable heat a third sub-installation is defined for the delivery of district heating.

Please select for each type of sub-installation, if it is relevant in your installation or not. Don't leave the yellow fields empty.

Note that according to Article 10(3) of the FAR an exemption from the distinction of CL and non-CL may be granted for reporting purposes.

This exemption is applicable if at least 95% of inputs, outputs and emissions belong to one of the "CL" or "non-CL" status.

In the second yellow column you have to provide the start of normal operation pursuant to Article 2(12) of the FAR for each sub-installation. This information is relevant to identfy which years have to be taken into account for the determination of the historic activitiy level pursuant to Article 15(7) in sheets F and G.This input is only relevant if the sub-installation, has started operation after 1 January 2014.

Please note that the correct entries here are essential for all subsequent inputs dealing with sub-installations.

No.	Sub-installation type	relevant?	Start of operation	CL exposed?
11	Heat benchmark sub-installation, CL			PRAWDA
12	Heat benchmark sub-installation, non-CL			FAŁSZ
13	District heating sub-installation			FAŁSZ
14	Fuel benchmark sub-installation, CL			PRAWDA
15	Fuel benchmark sub-installation, non-CL			FAŁSZ
16	Process emissions sub-installation, CL			PRAWDA
17	Process emissions sub-installation, non-CL			FAŁSZ

IV List of technical connections

(a) Please enter here the information relevant for identifying technical connections to your installation:

This information is needed by the competent authority for ensuring consistency of the data provided, and for avoiding double counting of allocation data.

Only those cases are relevant, where either measurable heat, waste gases or "transferred CO2" as defined by the Monitoring and Reporting Regulation are transferred.

"Import" here means that something enters the boundaries of the installation to which this report refers, "export" means something leaving those boundaries.

Material and/or energy flows between sub-installations are not relevant, with the exception of heat stemming from nitric acid production.

In the column "Type of entity" the following options can be selected:

- *Installation covered by ETS*
- *Installation outside ETS*
- *Installation producing Nitric Acid*
- *Heat distribution network*

Special case: Nitric acid production:

- *Please select this option for identifying that your installation uses heat from nitric acid production.*
- *Please list this fact even if the nitric acid production is part of your own installation, not only if your installation is connected to such installation.*
- *This information is relevant for the heat balance (sheet "E_EnergyFlows", section II)*

Type of connection options are:

- *Measurable heat*
- *Waste gas*
- *Transferred CO2*
- *Intermediate products covered by product benchmarks (Sections 1.6 and 3.1(l) of Annex IV of the FAR)*

Flow direction options are (perspective of the installation to which this report refers):

- *Import (to this installation)*
- *Export (from this installation)*

No.	Name of installation or entity	Type of entity	Type of connection	Flow direction
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				

(b) Please enter here further information regarding those connected installations, if relevant:

Installation ID is mandatory if the connected installation is covered by the EU ETS, and if it has already been covered by the EU ETS before 30 June 2019 for the first allocation period, and before 30 June 2024 for the second allocation period.

For entities not covered by the EU ETS, contact details are mandatory, but the Registry ID is not required.

No.	Installation ID used in Registry	Name of contact person	email address	phone number
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				

<<< Click here to proceed to next sheet >>>

B+C Annual Emissions Data	Navigation area:	Table of contents	Previous sheet	Next sheet	Summary
	Top of sheet	Source streams (excl. PFC)	PFC source streams	Emission Sources (CEMS)	Fall-back
2014					

2014 2014 2014 2014 2014 2014 2014 2014 2014 2014 2014 2014 2014 2014 2014 2014 2014 2014 2014

B+C Sheet "Annual Emissions Data" for the Year: **2014**

I General guidance for source stream data

Member State requires detailed source stream data generally to be reported mandatorily: PRAWDA

If this is set to "false", entries here are optional and only provide annual total emissions in section D.I.

Please continue with the next points below

II Source streams and emission sources

The tables below are identical to sheet "Accounting" in the Annual Emissions Report template provided by the Commission.

You can therefore copy data for each table from the Annual Emissions Report template without further entries and also find further guidance there.

If the Commission's template is not used in your Member State, or you prefer to enter data manually, each table contains example data at the top (white fields).

Please note that no calculations are made in this sheet. Therefore, totals in columns AU to AY need to be entered correctly as these data will be further used in this template!

Source Streams (excluding PFC emissions)

#	Method	Source stream name	Activity Data	AD Unit	NCV	NCV Unit	EF	EF Unit	C-Content	C-Content Unit	Oxid.factor	OxF Unit	Conv.factor	ConvF Unit	Biomass content	BioC Unit	non-sust. BioC	non-sust. BioC Unit	hourly GHG conc. Average	hourly GHG conc. Unit	hours operating	hours operating Unit	Flue gas (average)	Flue gas (average), Unit	Flue gas (total)	Flue gas (total), Unit	Annual amount of GHG	Annual amount of GHG Unit	GWP (tCO2e/t)	A: Frequency	A: Duration	A: SEF(CF4)	B: AEO	B: CE	B: OVC	F(C2F6)	CF4 Emissions (t CF4)	C2F6 Emissions (t C2F6)	GWP (CF4) (tCO2e/t)	GWP (C2F6) (tCO2e/t)	CF4 Emissions (t CO2e)	C2F6 Emissions (t CO2e)	Collection efficiency, %	CO2e fossil (t)	CO2e bio (t)	CO2e non-sust. bio (t)	Energy content (fossil), TJ	Energy content (bio), TJ
Ex.1	Combustion	Heavy fuel oil	252 000,00	t	45,00	GJ/t	73,00	tCO2/TJ			100,00	%		%	0,00	%	0,00	%																										827 820,0	0,0	0,0	11 340,00	0,00
Ex.2	Process Emissions	Clay	121 000,00	t			0,09	tCO2/t				%		%	0,00	%	0,00	%																										10 640,7	0,0	0,0	0,00	0,00
Ex.3	Mass balance	Steel	-1 808 226,00	t			0,00		0,3878	tC/t		%	100,00	%	0,00	%	0,00	%																										-2 569 306,9	0,0	0,0	0,00	0,00
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PFC Source Streams

#	Method	Name	Activity Data	AD Unit	NCV	NCV Unit	EF	EF Unit	C-Content	C-Content Unit	Oxid.factor	OxF Unit	Conv.factor	ConvF Unit	Biomass content	BioC Unit	non-sust. BioC	non-sust. BioC Unit	hourly GHG conc. Average	hourly GHG conc. Unit	hours operating	hours operating Unit	Flue gas (average)	Flue gas (average), Unit	Flue gas (total)	Flue gas (total), Unit	Annual amount of GHG	Annual amount of GHG Unit	GWP (tCO2e/t)	A: Frequency	A: Duration	A: SEF(CF4)	B: AEO	B: CE	B: OVC	F(C2F6)	CF4 Emissions (t CF4)	C2F6 Emissions (t C2F6)	GWP (CF4) (tCO2e/t)	GWP (C2F6) (tCO2e/t)	CF4 Emissions (t CO2e)	C2F6 Emissions (t CO2e)	Collection efficiency, %	CO2e fossil (t)	CO2e bio (t)	CO2e non-sust. bio (t)	Energy content (fossil), TJ	Energy content (bio), TJ
Ex.	PFC Emissions	Centre Worked Pre-Bake (CWPB): Anode ty	5 000,00	t																										300,00	2,00	0,15	0,00	0,00	0,00	0,12	4,38	0,53	7 390	12 200	32 368	6 519	98,00	39 681,0				
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Emissions Sources (Measurement-Based Approaches)

#	Method	Name	Activity Data	AD Unit	NCV	NCV Unit	EF	EF Unit	C-Content	C-Content Unit	Oxid.factor	OxF Unit	Conv.factor	ConvF Unit	Biomass content	BioC Unit	non-sust. BioC	non-sust. BioC Unit	hourly GHG conc. Average	hourly GHG conc. Unit	hours operating	hours operating Unit	Flue gas (average)	Flue gas (average), Unit	Flue gas (total)	Flue gas (total), Unit	Annual amount of GHG	Annual amount of GHG Unit	GWP (tCO2e/t)	A: Frequency	A: Duration	A: SEF(CF4)	B: AEO	B: CE	B: OVC	F(C2F6)	CF4 Emissions (t CF4)	C2F6 Emissions (t C2F6)	GWP (CF4) (tCO2e/t)	GWP (C2F6) (tCO2e/t)	CF4 Emissions (t CO2e)	C2F6 Emissions (t CO2e)	Collection efficiency, %	CO2e fossil (t)	CO2e bio (t)	CO2e non-sust. bio (t)	Energy content (fossil), TJ	Energy content (bio), TJ
Ex.1	N2O	Nitric acid line 1													0	%	0	%	64	g/Nm3	4	h/year	265	1000Nm3/h	1 060	1000Nm3/year	68	t	298															20 308,7	0,0	0,0	0	0
Ex.2	CO2 transfer	Transfer to EU ETS installation X													0	%	0	%	1 820	g/Nm3	5 000	h/year	50	1000Nm3/h	250 000	1000Nm3/year	455 000	t	1															-455 000,0	0,0	0,0	0	0
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Fall-back

#	Method	Name	Activity Data	AD Unit	NCV	NCV Unit	EF	EF Unit	C-Content	C-Content Unit	Oxid.factor	OxF Unit	Conv.factor	ConvF Unit	Biomass content	BioC Unit	non-sust. BioC	non-sust. BioC Unit	hourly GHG conc. Average	hourly GHG conc. Unit	hours operating	hours operating Unit	Flue gas (average)	Flue gas (average), Unit	Flue gas (total)	Flue gas (total), Unit	Annual amount of GHG	Annual amount of GHG Unit	GWP (tCO2e/t)	A: Frequency	A: Duration	A: SEF(CF4)	B: AEO	B: CE	B: OVC	F(C2F6)	CF4 Emissions (t CF4)	C2F6 Emissions (t C2F6)	GWP (CF4) (tCO2e/t)	GWP (C2F6) (tCO2e/t)	CF4 Emissions (t CO2e)	C2F6 Emissions (t CO2e)	Collection efficiency, %	CO2e fossil (t)	CO2e bio (t)	CO2e non-sust. bio (t)	Energy content (fossil), TJ	Energy content (bio), TJ
Ex.	Fall-back																																											2 850,0	340,0	0,0	45	5
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B+C Annual Emissions Data	Navigation area:	Table of contents	Previous sheet	Next sheet	Summary
	Top of sheet	Source streams (excl. PFC)	PFC source streams	Emission Sources (CEMS)	Fall-back
2015					

2015 2015 2015 2015 2015 2015 2015 2015 2015 2015 2015 2015 2015 2015 2015 2015 2015 2015 2015

B+C Sheet "Annual Emissions Data" for the Year: 2015

I General guidance for source stream data

Member State requires detailed source stream data generally to be reported mandatorily: PRAWDA

If this is set to "false", entries here are optional and only provide annual total emissions in section D.I.

II Source streams and emission sources

The tables below are identical to sheet "Accounting" in the Annual Emissions Report template provided by the Commission.
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Source Streams (excluding PFC emissions)

#	Method	Source stream name	Activity Data	AD Unit	NCV	NCV Unit	EF	EF Unit	C-Content	C-Content Unit	Oxid.factor	OxF Unit	Conv.factor	ConvF Unit	Biomass content	BioC Unit	non-sust. BioC	non-sust. BioC Unit	hourly GHG conc. Average	hourly GHG conc. Unit	hours operating	hours operating Unit	Flue gas (average)	Flue gas (average), Unit	Flue gas (total)	Flue gas (total), Unit	Annual amount of GHG	Annual amount of GHG Unit	GWP (tCO2e/t)	A: Frequency	A: Duration	A: SEF(CF4)	B: AEO	B: CE	B: OVC	F(C2F6)	CF4 Emissions (t CF4)	C2F6 Emissions (t C2F6)	GWP (CF4) (tCO2e/t)	GWP (C2F6) (tCO2e/t)	CF4 Emissions (t CO2e)	C2F6 Emissions (t CO2e)	Collection efficiency, %	CO2e fossil (t)	CO2e bio (t)	CO2e non-sust. bio (t)	Energy content (fossil), TJ	Energy content (bio), TJ
Ex.1	Combustion	Heavy fuel oil	252 000,00	t	45,00	GJ/t	73,00	tCO2/TJ			100,00	%		%	0,00	%	0,00	%																										827 820,0	0,0	0,0	11 340,00	0,00
Ex.2	Process Emissions	Clay	121 000,00	t			0,09	tCO2/t				%		%	0,00	%	0,00	%																										10 640,7	0,0	0,0	0,00	0,00
Ex.3	Mass balance	Steel	-1 808 226,00	t			0,00		0,3878	tC/t		%	100,00	%	0,00	%	0,00	%																										-2 569 306,9	0,0	0,0	0,00	0,00
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PFC Source Streams

#	Method	Name	Activity Data	AD Unit	NCV	NCV Unit	EF	EF Unit	C-Content	C-Content Unit	Oxid.factor	OxF Unit	Conv.factor	ConvF Unit	Biomass content	BioC Unit	non-sust. BioC	non-sust. BioC Unit	hourly GHG conc. Average	hourly GHG conc. Unit	hours operating	hours operating Unit	Flue gas (average)	Flue gas (average), Unit	Flue gas (total)	Flue gas (total), Unit	Annual amount of GHG	Annual amount of GHG Unit	GWP (tCO2e/t)	A: Frequency	A: Duration	A: SEF(CF4)	B: AEO	B: CE	B: OVC	F(C2F6)	CF4 Emissions (t CF4)	C2F6 Emissions (t C2F6)	GWP (CF4) (tCO2e/t)	GWP (C2F6) (tCO2e/t)	CF4 Emissions (t CO2e)	C2F6 Emissions (t CO2e)	Collection efficiency, %	CO2e fossil (t)	CO2e bio (t)	CO2e non-sust. bio (t)	Energy content (fossil), TJ	Energy content (bio), TJ
Ex.	PFC Emissions	Centre Worked Pre-Bake (CWPB): Anode t	5 000,00	t																										300,00	2,00	0,15	0,00	0,00	0,00	0,12	4,38	0,53	7 390	12 200	32 368	6 519	98,00	39 681,0				
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Emissions Sources (Measurement-Based Approaches)

#	Method	Name	Activity Data	AD Unit	NCV	NCV Unit	EF	EF Unit	C-Content	C-Content Unit	Oxid.factor	OxF Unit	Conv.factor	ConvF Unit	Biomass content	BioC Unit	non-sust. BioC	non-sust. BioC Unit	hourly GHG conc. Average	hourly GHG conc. Unit	hours operating	hours operating Unit	Flue gas (average)	Flue gas (average), Unit	Flue gas (total)	Flue gas (total), Unit	Annual amount of GHG	Annual amount of GHG Unit	GWP (tCO2e/t)	A: Frequency	A: Duration	A: SEF(CF4)	B: AEO	B: CE	B: OVC	F(C2F6)	CF4 Emissions (t CF4)	C2F6 Emissions (t C2F6)	GWP (CF4) (tCO2e/t)	GWP (C2F6) (tCO2e/t)	CF4 Emissions (t CO2e)	C2F6 Emissions (t CO2e)	Collection efficiency, %	CO2e fossil (t)	CO2e bio (t)	CO2e non-sust. bio (t)	Energy content (fossil), TJ	Energy content (bio), TJ
Ex.1	N2O	Nitric acid line 1													0	%	0	%	64	g/Nm3	4	h/year	265	1000Nm3/h	1 060	1000Nm3/year	68	t	298															20 308,7	0,0	0,0	0	0
Ex.2	CO2 transfer	Transfer to EU ETS installation X													0	%	0	%	1 820	g/Nm3	5 000	h/year	50	1000Nm3/h	250 000	1000Nm3/year	455 000	t	1															-455 000,0	0,0	0,0	0	0
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#	Method	Name	Activity Data	AD Unit	NCV	NCV Unit	EF	EF Unit	C-Content	C-Content Unit	Oxid.factor	OxF Unit	Conv.factor	ConvF Unit	Biomass content	BioC Unit	non-sust. BioC	non-sust. BioC Unit	hourly GHG conc. Average	hourly GHG conc. Unit	hours operating	hours operating Unit	Flue gas (average)	Flue gas (average), Unit	Flue gas (total)	Flue gas (total), Unit	Annual amount of GHG	Annual amount of GHG Unit	GWP (tCO2e/t)	A: Frequency	A: Duration	A: SEF(CF4)	B: AEO	B: CE	B: OVC	F(C2F6)	CF4 Emissions (t CF4)	C2F6 Emissions (t C2F6)	GWP (CF4) (tCO2e/t)	GWP (C2F6) (tCO2e/t)	CF4 Emissions (t CO2e)	C2F6 Emissions (t CO2e)	Collection efficiency, %	CO2e fossil (t)	CO2e bio (t)	CO2e non-sust. bio (t)	Energy content (fossil), TJ	Energy content (bio), TJ
Ex.	Fall-back																																											2 850,0	340,0	0,0	45	5
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B+C Annual Emissions Data	Navigation area:	Table of contents	Previous sheet	Next sheet	Summary
	Top of sheet	Source streams (excl. PFC)	PFC source streams	Emission Sources (CEMS)	Fall-back
2016					

2016 2016 2016 2016 2016 2016 2016 2016 2016 2016 2016 2016 2016 2016 2016 2016 2016 2016 2016

B+C Sheet "Annual Emissions Data" for the Year: **2016**

I General guidance for source stream data

Member State requires detailed source stream data generally to be reported mandatorily: PRAWDA

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II Source streams and emission sources

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Source Streams (excluding PFC emissions)

#	Method	Source stream name	Activity Data	AD Unit	NCV	NCV Unit	EF	EF Unit	C-Content	C-Content Unit	Oxid.factor	OxF Unit	Conv.factor	ConvF Unit	Biomass content	BioC Unit	non-sust. BioC	non-sust. BioC Unit	hourly GHG conc. Average	hourly GHG conc. Unit	hours operating	hours operating Unit	Flue gas (average)	Flue gas (average), Unit	Flue gas (total)	Flue gas (total), Unit	Annual amount of GHG	Annual amount of GHG Unit	GWP (tCO2e/t)	A: Frequency	A: Duration	A: SEF(CF4)	B: AEO	B: CE	B: OVC	F(C2F6)	CF4 Emissions (t CF4)	C2F6 Emissions (t C2F6)	GWP (CF4) (tCO2e/t)	GWP (C2F6) (tCO2e/t)	CF4 Emissions (t CO2e)	C2F6 Emissions (t CO2e)	Collection efficiency, %	CO2e fossil (t)	CO2e bio (t)	CO2e non-sust. bio (t)	Energy content (fossil), TJ	Energy content (bio), TJ
Ex.1	Combustion	Heavy fuel oil	252 000,00	t	45,00	GJ/t	73,00	tCO2/TJ			100,00	%		%	0,00	%	0,00	%																										827 820,0	0,0	0,0	11 340,00	0,00
Ex.2	Process Emissions	Clay	121 000,00	t			0,09	tCO2/t				%		%	0,00	%	0,00	%																										10 640,7	0,0	0,0	0,00	0,00
Ex.3	Mass balance	Steel	-1 808 226,00	t			0,00		0,3878	tC/t		%	100,00	%	0,00	%	0,00	%																										-2 569 306,9	0,0	0,0	0,00	0,00
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PFC Source Streams

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Emissions Sources (Measurement-Based Approaches)

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Ex.	Fall-back																																											2 850,0	340,0	0,0	45	5
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B+C Annual Emissions Data	Navigation area:	Table of contents	Previous sheet	Next sheet	Summary
2017	Top of sheet	Source streams (excl. PFC)	PFC source streams	Emission Sources (CEMS)	Fall-back

2017 2017 2017 2017 2017 2017 2017 2017 2017 2017 2017 2017 2017 2017 2017 2017 2017 2017 2017

B+C Sheet "Annual Emissions Data" for the Year: 2017

I General guidance for source stream data

Member State requires detailed source stream data generally to be reported mandatorily: PRAWDA

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II Source streams and emission sources

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Source Streams (excluding PFC emissions)

#	Method	Source stream name	Activity Data	AD Unit	NCV	NCV Unit	EF	EF Unit	C-Content	C-Content Unit	Oxid.factor	OxF Unit	Conv.factor	ConvF Unit	Biomass content	BioC Unit	non-sust. BioC	non-sust. BioC Unit	hourly GHG conc. Average	hourly GHG conc. Unit	hours operating	hours operating Unit	Flue gas (average)	Flue gas (average), Unit	Flue gas (total)	Flue gas (total), Unit	Annual amount of GHG	Annual amount of GHG Unit	GWP (tCO2e/t)	A: Frequency	A: Duration	A: SEF(CF4)	B: AEO	B: CE	B: OVC	F(C2F6)	CF4 Emissions (t CF4)	C2F6 Emissions (t C2F6)	GWP (CF4) (tCO2e/t)	GWP (C2F6) (tCO2e/t)	CF4 Emissions (t CO2e)	C2F6 Emissions (t CO2e)	Collection efficiency, %	CO2e fossil (t)	CO2e bio (t)	CO2e non-sust. bio (t)	Energy content (fossil), TJ	Energy content (bio), TJ
Ex.1	Combustion	Heavy fuel oil	252 000,00	t	45,00	GJ/t	73,00	tCO2/TJ			100,00	%		%	0,00	%	0,00	%																														827 820,0	0,0	0,0	11 340,00	0,00
Ex.2	Process Emissions	Clay	121 000,00	t			0,09	tCO2/t				%		%	0,00	%	0,00	%																														10 640,7	0,0	0,0	0,00	0,00
Ex.3	Mass balance	Steel	-1 808 226,00	t			0,00		0,3878	tC/t		%	100,00	%	0,00	%	0,00	%																														-2 569 306,9	0,0	0,0	0,00	0,00
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PFC Source Streams

#	Method	Name	Activity Data	AD Unit	NCV	NCV Unit	EF	EF Unit	C-Content	C-Content Unit	Oxid.factor	OxF Unit	Conv.factor	ConvF Unit	Biomass content	BioC Unit	non-sust. BioC	non-sust. BioC Unit	hourly GHG conc. Average	hourly GHG conc. Unit	hours operating	hours operating Unit	Flue gas (average)	Flue gas (average), Unit	Flue gas (total)	Flue gas (total), Unit	Annual amount of GHG	Annual amount of GHG Unit	GWP (tCO2e/t)	A: Frequency	A: Duration	A: SEF(CF4)	B: AEO	B: CE	B: OVC	F(C2F6)	CF4 Emissions (t CF4)	C2F6 Emissions (t C2F6)	GWP (CF4) (tCO2e/t)	GWP (C2F6) (tCO2e/t)	CF4 Emissions (t CO2e)	C2F6 Emissions (t CO2e)	Collection efficiency, %	CO2e fossil (t)	CO2e bio (t)	CO2e non-sust. bio (t)	Energy content (fossil), TJ	Energy content (bio), TJ
Ex.	PFC Emissions	Centre Worked Pre-Bake (CWPB): Anode ty	5 000,00	t																										300,00	2,00	0,15	0,00	0,00	0,00	0,12	4,38	0,53	7 390	12 200	32 368	6 519	98,00	39 681,0				
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Emissions Sources (Measurement-Based Approaches)

#	Method	Name	Activity Data	AD Unit	NCV	NCV Unit	EF	EF Unit	C-Content	C-Content Unit	Oxid.factor	OxF Unit	Conv.factor	ConvF Unit	Biomass content	BioC Unit	non-sust. BioC	non-sust. BioC Unit	hourly GHG conc. Average	hourly GHG conc. Unit	hours operating	hours operating Unit	Flue gas (average)	Flue gas (average), Unit	Flue gas (total)	Flue gas (total), Unit	Annual amount of GHG	Annual amount of GHG Unit	GWP (tCO2e/t)	A: Frequency	A: Duration	A: SEF(CF4)	B: AEO	B: CE	B: OVC	F(C2F6)	CF4 Emissions (t CF4)	C2F6 Emissions (t C2F6)	GWP (CF4) (tCO2e/t)	GWP (C2F6) (tCO2e/t)	CF4 Emissions (t CO2e)	C2F6 Emissions (t CO2e)	Collection efficiency, %	CO2e fossil (t)	CO2e bio (t)	CO2e non-sust. bio (t)	Energy content (fossil), TJ	Energy content (bio), TJ
Ex.1	N2O	Nitric acid line 1													0	%	0	%	64	g/Nm3	4	h/year	265	1000Nm3/h	1 060	1000Nm3/year	68	t	298															20 308,7	0,0	0,0	0	0
Ex.2	CO2 transfer	Transfer to EU ETS installation X													0	%	0	%	1 820	g/Nm3	5 000	h/year	50	1000Nm3/h	250 000	1000Nm3/year	455 000	t	1															-455 000,0	0,0	0,0	0	0
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Fall-back

#	Method	Name	Activity Data	AD Unit	NCV	NCV Unit	EF	EF Unit	C-Content	C-Content Unit	Oxid.factor	OxF Unit	Conv.factor	ConvF Unit	Biomass content	BioC Unit	non-sust. BioC	non-sust. BioC Unit	hourly GHG conc. Average	hourly GHG conc. Unit	hours operating	hours operating Unit	Flue gas (average)	Flue gas (average), Unit	Flue gas (total)	Flue gas (total), Unit	Annual amount of GHG	Annual amount of GHG Unit	GWP (tCO2e/t)	A: Frequency	A: Duration	A: SEF(CF4)	B: AEO	B: CE	B: OVC	F(C2F6)	CF4 Emissions (t CF4)	C2F6 Emissions (t C2F6)	GWP (CF4) (tCO2e/t)	GWP (C2F6) (tCO2e/t)	CF4 Emissions (t CO2e)	C2F6 Emissions (t CO2e)	Collection efficiency, %	CO2e fossil (t)	CO2e bio (t)	CO2e non-sust. bio (t)	Energy content (fossil), TJ	Energy content (bio), TJ
Ex.	Fall-back																																											2 850,0	340,0	0,0	45	5
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B+C Annual Emissions Data	Navigation area:	Table of contents	Previous sheet	Next sheet	Summary
	Top of sheet	Source streams (excl. PFC)	PFC source streams	Emission Sources (CEMS)	Fall-back
2018					

2018 2018 2018 2018 2018 2018 2018 2018 2018 2018 2018 2018 2018 2018 2018 2018 2018 2018 2018

B+C Sheet "Annual Emissions Data" for the Year: 2018

I General guidance for source stream data

Member State requires detailed source stream data generally to be reported mandatorily: PRAWDA

If this is set to "false", entries here are optional and only provide annual total emissions in section D.I.

II Source streams and emission sources

The tables below are identical to sheet "Accounting" in the Annual Emissions Report template provided by the Commission.

You can therefore copy data for each table from the Annual Emissions Report template without further entries and also find further guidance there.

If the Commission's template is not used in your Member State, or you prefer to enter data manually, each table contains example data at the top (white fields).

Please note that no calculations are made in this sheet. Therefore, totals in columns AU to AY need to be entered correctly as these data will be further used in this template!

Source Streams (excluding PFC emissions)

#	Method	Source stream name	Activity Data	AD Unit	NCV	NCV Unit	EF	EF Unit	C-Content	C-Content Unit	Oxid.factor	OxF Unit	Conv.factor	ConvF Unit	Biomass content	BioC Unit	non-sust. BioC	non-sust. BioC Unit	hourly GHG conc. Average	hourly GHG conc. Unit	hours operating	hours operating Unit	Flue gas (average)	Flue gas (average), Unit	Flue gas (total)	Flue gas (total), Unit	Annual amount of GHG	Annual amount of GHG Unit	GWP (tCO2e/t)	A: Frequency	A: Duration	A: SEF(CF4)	B: AEO	B: CE	B: OVC	F(C2F6)	CF4 Emissions (t CF4)	C2F6 Emissions (t C2F6)	GWP (CF4) (tCO2e/t)	GWP (C2F6) (tCO2e/t)	CF4 Emissions (t CO2e)	C2F6 Emissions (t CO2e)	Collection efficiency, %	CO2e fossil (t)	CO2e bio (t)	CO2e non-sust. bio (t)	Energy content (fossil), TJ	Energy content (bio), TJ
Ex.1	Combustion	Heavy fuel oil	252 000,00	t	45,00	GJ/t	73,00	tCO2/TJ			100,00	%		%	0,00	%	0,00	%																										827 820,0	0,0	0,0	11 340,00	0,00
Ex.2	Process Emissions	Clay	121 000,00	t			0,09	tCO2/t				%		%	0,00	%	0,00	%																										10 640,7	0,0	0,0	0,00	0,00
Ex.3	Mass balance	Steel	-1 808 226,00	t			0,00		0,3878	tC/t		%	100,00	%	0,00	%	0,00	%																										-2 569 306,9	0,0	0,0	0,00	0,00
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PFC Source Streams

#	Method	Name	Activity Data	AD Unit	NCV	NCV Unit	EF	EF Unit	C-Content	C-Content Unit	Oxid.factor	OxF Unit	Conv.factor	ConvF Unit	Biomass content	BioC Unit	non-sust. BioC	non-sust. BioC Unit	hourly GHG conc. Average	hourly GHG conc. Unit	hours operating	hours operating Unit	Flue gas (average)	Flue gas (average), Unit	Flue gas (total)	Flue gas (total), Unit	Annual amount of GHG	Annual amount of GHG Unit	GWP (tCO2e/t)	A: Frequency	A: Duration	A: SEF(CF4)	B: AEO	B: CE	B: OVC	F(C2F6)	CF4 Emissions (t CF4)	C2F6 Emissions (t C2F6)	GWP (CF4) (tCO2e/t)	GWP (C2F6) (tCO2e/t)	CF4 Emissions (t CO2e)	C2F6 Emissions (t CO2e)	Collection efficiency, %	CO2e fossil (t)	CO2e bio (t)	CO2e non-sust. bio (t)	Energy content (fossil), TJ	Energy content (bio), TJ
Ex.	PFC Emissions	Centre Worked Pre-Bake (CWPB): Anode t	5 000,00	t																										300,00	2,00	0,15	0,00	0,00	0,00	0,12	4,38	0,53	7 390	12 200	32 368	6 519	98,00	39 681,0				
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Emissions Sources (Measurement-Based Approaches)

#	Method	Name	Activity Data	AD Unit	NCV	NCV Unit	EF	EF Unit	C-Content	C-Content Unit	Oxid.factor	OxF Unit	Conv.factor	ConvF Unit	Biomass content	BioC Unit	non-sust. BioC	non-sust. BioC Unit	hourly GHG conc. Average	hourly GHG conc. Unit	hours operating	hours operating Unit	Flue gas (average)	Flue gas (average), Unit	Flue gas (total)	Flue gas (total), Unit	Annual amount of GHG	Annual amount of GHG Unit	GWP (tCO2e/t)	A: Frequency	A: Duration	A: SEF(CF4)	B: AEO	B: CE	B: OVC	F(C2F6)	CF4 Emissions (t CF4)	C2F6 Emissions (t C2F6)	GWP (CF4) (tCO2e/t)	GWP (C2F6) (tCO2e/t)	CF4 Emissions (t CO2e)	C2F6 Emissions (t CO2e)	Collection efficiency, %	CO2e fossil (t)	CO2e bio (t)	CO2e non-sust. bio (t)	Energy content (fossil), TJ	Energy content (bio), TJ
Ex.1	N2O	Nitric acid line 1													0	%	0	%	64	g/Nm3	4	h/year	265	1000Nm3/h	1 060	1000Nm3/year	68	t	298															20 308,7	0,0	0,0	0	0
Ex.2	CO2 transfer	Transfer to EU ETS installation X													0	%	0	%	1 820	g/Nm3	5 000	h/year	50	1000Nm3/h	250 000	1000Nm3/year	455 000	t	1															-455 000,0	0,0	0,0	0	0
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#	Method	Name	Activity Data	AD Unit	NCV	NCV Unit	EF	EF Unit	C-Content	C-Content Unit	Oxid.factor	OxF Unit	Conv.factor	ConvF Unit	Biomass content	BioC Unit	non-sust. BioC	non-sust. BioC Unit	hourly GHG conc. Average	hourly GHG conc. Unit	hours operating	hours operating Unit	Flue gas (average)	Flue gas (average), Unit	Flue gas (total)	Flue gas (total), Unit	Annual amount of GHG	Annual amount of GHG Unit	GWP (tCO2e/t)	A: Frequency	A: Duration	A: SEF(CF4)	B: AEO	B: CE	B: OVC	F(C2F6)	CF4 Emissions (t CF4)	C2F6 Emissions (t C2F6)	GWP (CF4) (tCO2e/t)	GWP (C2F6) (tCO2e/t)	CF4 Emissions (t CO2e)	C2F6 Emissions (t CO2e)	Collection efficiency, %	CO2e fossil (t)	CO2e bio (t)	CO2e non-sust. bio (t)	Energy content (fossil), TJ	Energy content (bio), TJ
Ex.	Fall-back																																											2 850,0	340,0	0,0	45	5
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D. Sheet "Emissions" - ATTRIBUTION OF EMISSIONS

I Total Direct Greenhouse Gas Emissions and Energy Input from Fuels

This section contains the summary of the emissions and energy content data from the five sheets "B+C_EmissionsY1 to Y5". In cases where the Member State allows the data to be entered aggregated instead of filling in those five sheets, the relevant entries must be made in section 2 here below.

For further information see general notes at the beginning of sheet B.

1 Automatically calculated data at installation level

Data displayed here are the automatic summary from data entered in sheets B+C.

Installation level data:	Unit	2014	2015	2016	2017	2018
Total CO2 emissions	t CO2 / year					
Biomass emissions	*t CO2 / year*					
Total N2O emissions	t CO2e/year					
Total PFC emissions	t CO2e/year					
Sum of direct emissions	t CO2e/year					
Transferred CO2 exported	t CO2 / year					
Total direct emissions of the installation	**t CO2e/year**					
Total energy input from fuels	**TJ / year**					

2 Input if Member State allows aggregated reporting at installation level

If according to section B.I. you are allowed to enter emission totals instead of detailed source stream data, then input in this section is mandatory.

In such case, please enter below in line with the principles of the M&R Regulation:

- *Total CO2 emissions: the verified CO2 emissions from source streams and emission sources including from any non-sustainable biomass*
- *Biomass emissions: emissions from biomass, either sustainable or for which sustainability criteria do not apply, as if they were non-zero rated*
- *Total N2O emissions from emission sources*
- *Total PFC emissions from primary aluminium production*
- *Transferred amount of CO2 exported from the installation, reported as negative values*
- *Total energy input from fuels including from biomass and waste gases*

Installation level data:	Unit	2014	2015	2016	2017	2018
Total CO2 emissions	t CO2 / year					
Biomass emissions	*t CO2 / year*					
Total N2O emissions	t CO2e/year					
Total PFC emissions	t CO2e/year					
Sum of direct emissions	t CO2e/year					
Transferred CO2 exported	t CO2 / year					
Total direct emissions of the installation	**t CO2e/year**					
Total energy input from fuels	**TJ / year**					

3 Result of installation level data for use in sheets "D_Emissions" and "E_EnergyFlows":

Where data is displayed under points 1 AND 2, the data of point 2 will be used, because no completeness check for data in sheets B+C can be performed.

Such conflicting values are highlighted with red figures in the table below.

The responsibility for avoiding conflicting data entries is fully on the operator of the installation.

Installation level data:	Unit	2014	2015	2016	2017	2018
Total CO2 emissions	t CO2 / year					
Biomass emissions	*t CO2 / year*					
Total N2O emissions	t CO2e/year					
Total PFC emissions	t CO2e/year					
Sum of direct emissions	t CO2e/year					
Transferred CO2 exported	t CO2 / year					
Total direct emissions of the installation	**t CO2e/year**					
Total energy input from fuels	**TJ / year**					

II Attribution of emissions to sub-installations

1 Total emissions at installation level (taken from section D.I.3)

Installation level data:	Unit	2014	2015	2016	2017	2018
Total direct emission of the installation	t CO2e/year					

2 Attribution to sub-installations

The attribution of emissions to sub-installations has to be done in sheets F and G for each sub-installation.

A summary table of attributed emissions can be found in the summary sheet (see link below).

The attribution of emissions to sub-installations can be found in the summary sheet. (K.III.2)

III Cogeneration tool

Are combined heat and power (CHP) units relevant?

This is a tool for assigning fuels and emissions of CHPs for the purpose of updating the benchmark values pursuant to Annex VII, chapter 8.

Please enter "false" here if there is no CHP relevant at your installation. If this is the case the whole tool is not relevant and will be greyed out.

Please note that emissions associated with imported heat might also be relevant for certain sub-installations. Where this imported heat is produced from CHPs in other installations, this tool might be relevant too, if further information on the relevant data from the supplier is known.

This tool exists twofold in this template and each tool should only be used for one CHP. If more CHPs are relevant, a separate template might be used to provide relevant information.

Periods during which the CHP is operated in heat-only or electricity-only generation mode (i.e. periods during which only one of the two products was produced) should be excluded and assignment of fuels and emissions should be calculated separately in accordance with the provisions in sections 10.1.2 and 10.1.3 of Annex VII.

1 Tool for calculating the emissions attributable to heat production in combined heat and power units (CHP)

(a) Total amount of fuel input into CHP units

Please enter here the annual fuel input into the CHP unit.

	Unit	2014	2015	2016	2017	2018
Fuel input into CHP	TJ / year					

(b) Heat output from CHP

This is the total amount of heat produced by the CHP.

	Unit	2014	2015	2016	2017	2018
Heat output from CHP	TJ / year					

(c) Electricity output CHP

This is the total amount of electricity (or mechanical energy, where applicable) produced by the CHP.

	Unit	2014	2015	2016	2017	2018
Electricity output from CHP	MWh / year					
Electricity output from CHP	TJ / year					

(d) Total emissions from CHP

Values should distinguish between emissions from fuel input and from flue gas cleaning.

	Unit	2014	2015	2016	2017	2018
From fuel input to CHP	t CO2 / year					
From flue gas cleaning	t CO2 / year					

Total emissions	t CO2 / year					

(e) Default efficiencies: Heat: 55,00% Electricity: 25,00%

(f) Efficiencies for heat and electricity

These values are dimensionless and automatically calculated from inputs in (a) to (c) above.

If no values are entered there but total emissions under (d) above, default efficiencies from (e) will be used here. Please note that this is only allowed if you provide evidence that the determination of the efficiencies is technically not feasible or would incur unreasonable costs, and values based on technical documentation (design values) of the installation are not available as well.

	Unit	2014	2015	2016	2017	2018
Heat production	-					
Electricity production	-					

(g) Reference efficiencies

These are the reference efficiency for heat production in a stand-alone boiler, and the reference efficiency of electricity production without cogeneration.

For the reference efficiencies the appropriate fuel-specific values from the Commission Delegated Regulation (EU) 2015/2402 should be applied without application of the correction factors for climatic conditions in Annex III and avoided grid losses in Annex IV to that Regulation. The Regulation can be downloaded under the following link:

https://eur-lex.europa.eu/eli/reg_del/2015/2402/oj

Default efficiencies below are for natural gas CHPs producing electricity and hot water.

	Unit	2014	2015	2016	2017	2018
Heat production	-	90,00%	90,00%	92,00%	92,00%	92,00%
Electricity production	-	52,50%	52,50%	53,00%	53,00%	53,00%

(h) Emissions attributable to heat production from CHP

This is the final result of this tool. The values displayed here should be entered in sheets F or G for the attributable emissions for the appropriate sub-installation.

For example, this may include attributable emissions to be taken into account for the total direct emissions, or use of the emission factor for any measurable heat imported.

Calculation results can only be considered correct if complete and consistent data is reported in sections above.

	Unit	2014	2015	2016	2017	2018
Emissions attributable to heat output	t CO2 / year					
Emission factor, heat	t CO2 / TJ					

(i) Fuel input attributable to heat and electricity production

This is the final result of this tool. The values displayed here should be entered in relevant sections in sheets E, F and G.

	Unit	2014	2015	2016	2017	2018
Fuel input for heat	TJ / year					
Fuel input for electricity	TJ / year					

2 Tool for calculating the emissions attributable to heat production in combined heat and power units (CHP)

Detailed instructions for data entries in this tool can be found at the first copy of this tool. (D.III.1)

(a) Total amount of fuel input into CHP units

	Unit	2014	2015	2016	2017	2018
Fuel input into CHP	TJ / year					

(b) Heat output from CHP

	Unit	2014	2015	2016	2017	2018
Heat output from CHP	TJ / year					

(c) Electricity output CHP

	Unit	2014	2015	2016	2017	2018
Electricity output from CHP	MWh / year					
Electricity output CHP	TJ / year					

(d) Total emissions from CHP

	Unit	2014	2015	2016	2017	2018
i. From fuel input to CHP	t CO2 / year					
ii. From flue gas cleaning	t CO2 / year					
iii. Total emissions	t CO2 / year					

(e) Default efficiencies: Heat: 55,00% Electricity: 25,00%

(f) Efficiencies for heat and electricity

	Unit	2014	2015	2016	2017	2018
i. Heat production	-					
ii. Electricity production	-					

(g) Reference efficiencies

	Unit	2014	2015	2016	2017	2018
i. Heat production	-	90,00%	90,00%	92,00%	92,00%	92,00%
ii. Electricity production	-	52,50%	52,50%	53,00%	53,00%	53,00%

(h) Emissions attributable to heat production from CHP

	Unit	2014	2015	2016	2017	2018
i. Emissions attributable to heat output	t CO2 / year					
ii. Emission factor, heat	t CO2 / TJ					

(i) Fuel input attributable to heat and electricity production

	Unit	2014	2015	2016	2017	2018
i. Fuel input for heat	TJ / year					
ii. Fuel input for electricity	TJ / year					

IV Waste gas tool

Does the installation consume waste gases produced outside the boundaries of a product benchmark?

Pursuant to the definition given in Articles 2(10) and 2(11) of the FAR, (combustible) waste gases occuring outside the boundaries of product benchmarks are considered process emissions.

However, for waste gases a CO2 amount equivalent to natural gas used for the "technically usable energy content" is to be subtracted from the total process emissions.

The amount of process emissions without this subtraction is referred to as "uncorrected process emissions" below.

In order to determine the "technically usable energy content" the following information is needed:

- *Amount of waste gases used for electricity production and for production of measurable or other heat outside of product benchmark sub-installations, or exported out of the installation;*
- *Optionally (for consistency checking) the process emissions associated with these waste gas amounts should be reported.*
- *Net calorific value of the waste gas;*
- *Assumptions for the different efficiency for the use of waste gas and natural gas. These assumptions are as follows:Efficiency of electricity production with natural gas is 52.5%, with waste gases 35%;*
- *Emission factor of natural gas: 56.1 t CO2/TJ.*

Because both possible sub-installations can be concerned in one installation, or because different waste gases can occur, this "waste gas tool" exists twofold in this template.

1 Tool for calculating the amount of process emissions if waste gases are produced outside product benchmarks

(a) This section relates to the process emissions sub-installation of this type:

Please select here to which of the two process emission sub-installations the data in this tool is related.

The production, not the use of the waste gas is relevant for determining the correct sub-installation.

(b) Please confirm if waste gases are relevant for this sub-installation:

(c) Type of waste gas:

Please describe the waste gas and the process from which it is produced. Above enter a name for the gas stream, below give a short process description.

If several different waste gases are relevant in your installation, please submit details in separate files using this tool for more complex cases.

(d) Total amount of process emissions before subtracting an equivalent for the technically usable energy content:

This amount must be consistent with the carbon leakage status selected under point (a) above.

	Unit	2014	2015	2016	2017	2018
Uncorrected process emissions	t CO2e/year					

(e) Estimation of waste gas emissions

Optionally, and for the purpose of consistency checks only, please provide an estimation of the quantity of emissions relating to the waste gas used or exported.

This amount must be consistent with the amount of waste gas under point (f) below.

Emissions from waste gases	**Unit**	**2014**	**2015**	**2016**	**2017**	**2018**
outside product benchmarks	t CO2e/year					

(f) Amount of waste gas produced outside product benchmark sub-installations, including for exports:

This amount must be consistent with the carbon leakage status selected under point (a) above.

Only waste gas which is used for the production of heat or electricity is relevant. If the waste gas is flared, only the amount relating to safety flaring is relevant.

You may choose to report either as tonnes or as 1000 Nm3 (cubic meters under standard conditions). The units must be consistent with those for the NCV below.

Amount of waste gas per year	**Unit**	**2014**	**2015**	**2016**	**2017**	**2018**
outside product benchmarks	1000Nm3/year					

(g) Net calorific value of the waste gas

You may choose to report either as GJ/t or as GJ/1000 Nm3. The units must be consistent with those for the amounts above.

	Unit	2014	2015	2016	2017	2018
Net calorific value	GJ/1000Nm3					

(h) Necessary assumptions:

Reference efficiency for production of electricity: using natural gas: 52,50% using waste gas: 35,00%

Emissions factor for natural gas: 56,1 t CO2 / TJ

(i) Emissions to be subtracted for taking into account the technically usable energy content:

These amounts are automatically calculated based on the figures input above. The formula is described in the guidance document No. 8.

Deduction for waste gases	**Unit**	**2014**	**2015**	**2016**	**2017**	**2018**
outside product benchmarks	t CO2 / year					

(j) Process emissions calculated taking into account the correction for waste gases (=d-i)

This is the final result of this tool. The values displayed here should be entered in sheet G for the relevant process emissions sub-installation.

Calculation results can only be considered correct if complete and consistent data is reported in sections above.

In case the result is negative, it is set to zero.

	Unit	2014	2015	2016	2017	2018
Result of waste gas tool:	t CO2 / year					

2 Tool for calculating the amount of process emissions if waste gases are produced outside product benchmarks

Detailed instructions for data entries in this tool can be found at the first copy of this tool. (D.IV.1)

(a) This section relates to the process emissions sub-installation of this type:

(b) Please confirm if waste gases are relevant for this sub-installation:

(c) Type of waste gas:

(d) Total amount of process emissions before subtracting an equivalent for the technically usable energy content:

	Unit	2014	2015	2016	2017	2018
Uncorrected process emissions	t CO2e/year					

(e) Estimation of waste gas emissions

Emissions from waste gases	**Unit**	**2014**	**2015**	**2016**	**2017**	**2018**
outside product benchmarks	t CO2e/year					

(f) Amount of waste gas produced outside product benchmark sub-installations, including for exports:

Amount of waste gas per year	**Unit**	**2014**	**2015**	**2016**	**2017**	**2018**
outside product benchmarks	1000Nm3/year					

(g) Net calorific value of the waste gas

	Unit	2014	2015	2016	2017	2018
Net calorific value	GJ/1000Nm3					

(h) Necessary assumptions:

Reference efficiency for production of electricity: using natural gas: 52,50% using waste gas: 35,00%

Emissions factor for natural gas: 56,1 t CO2 / TJ

(i) Emissions to be subtracted for taking into account the technically usable energy content:

Deduction for waste gases	**Unit**	**2014**	**2015**	**2016**	**2017**	**2018**
outside product benchmarks	t CO2 / year					

(j) Process emissions calculated taking into account the correction for waste gases (=d-i)

	Unit	2014	2015	2016	2017	2018
Result of waste gas tool:	t CO2 / year					

E. Energy flows	Navigation area:	Table of contents	Previous sheet	Next sheet	Summary
	Top of sheet	Attribution of Fuels	Measurable heat	Heat (final result)	Waste gases
	End of sheet	Electricity			

E. Sheet "EnergyFlows" - DATA ON ENERGY INPUT, MEASURABLE HEAT AND ELECTRICITY

I Energy input from fuels

1 Overview and split into use categories

(a) Energy input from fuels, total installation (taken from sheet "D_Emissions", section I):

	Unit	2014	2015	2016	2017	2018
Total energy input from fuels	TJ / year					

(b) Input method:

You can choose the method for entering the values in the table below under point (c). Available options are: "Absolute values" (enter TJ/year), or "percentages".
For fast data entries in simple cases, where most entries will be "100%" or zero, percentages are the better choice.

(c) Distribution of fuel input to different uses

Please enter in the table below the the amount of energy consumed for each use type, or - depending on input (b) - the percentage of amount (a).

- *Fuel input to product BM is the sum of direct fuel input and fuel input to measurable heat consumed by the sub-installation.*
- *Fuel input for production of measurable heat not used for product BM or electricity production*
- *Fuel input to fuel BM sub-installations*
- *Fuel input for electricity production*

For attributing fuel input from cogeneration (CHP) to production of measurable heat and electricity, the "CHP tool" in section D.III. has to be used.

Special care should be taken for attribution of energy input to the two sub-installations which are relevant for allocation purposes:
Fuel benchmark sub-installation "CL" (exposed to a significant risk of Carbon Leakage) and "non-CL" (not exposed to carbon leakage risk).
For control purposes, the rest (100% minus total of inputs) is displayed in the bottom line. This refers to energy input which is not eligible for allocation.

	Usage type of fuel input	Unit	2014	2015	2016	2017	2018
i.	Fuel input to product BM sub-installations	% or TJ / year					
ii.	Fuel input for production of measurable heat	% or TJ / year					
iii.	**Fuel benchmark sub-installation, CL**	**% or TJ / year**					
iv.	**Fuel benchmark sub-installation, non-CL**	**% or TJ / year**					
v.	Fuel input for electricity production	% or TJ / year					
vi.	Rest	% or TJ / year					

For control purposes, the inputs are displayed here in the unit which you have not chosen for input:

	Usage type of fuel input	Unit	2014	2015	2016	2017	2018
vii.	Fuel input to product BM sub-installations	% or TJ / year					
viii.	Fuel input for production of measurable heat	% or TJ / year					
ix.	**Fuel benchmark sub-installation, CL**	**% or TJ / year**					
x.	**Fuel benchmark sub-installation, non-CL**	**% or TJ / year**					
xi.	Fuel input for electricity production	% or TJ / year					
xii.	Rest	% or TJ / year					

II Measurable heat

Complete balance of measurable heat at the installation

The installation has a heat benchmark or district heating sub-installation? FAŁSZ

The name of the product benchmark sub-installation is displayed automatically based in the inputs in sheet "A_InstallationData".
If "TRUE" is displayed here, entries in the section are always relevant. Only where if none of these sub-installation is relevant, the question below has to be answered.

Are any measurable heat flows produced or consumed in, imported to or exported from this installation?

Please enter data in this section!

All heat data should refer to "net amount of measurable heat" (i.e. heat content of heat flow to user minus heat content of the return flow).

Outline of the calculation approach used:

If both types of heat input are relevant, "eligible" (self-produced and/or imported form ETS installations) and "non-eligible" (import from non-ETS or produced from a Nitric acid sub-installation), AND if both types of heat use take place, i.e. "eligible" (internal use and/or export to non-ETS) and "non-eligible" (export to ETS-Installations), it is necessary to earmark the eligible and non-eligible cases.

A hierarchy of approaches is proposed for this earmarking:

- *If the heat amounts can be clearly earmarked (because of the heat grid connections being clearly defined, or because of the steam pressure levels etc.), eligible and non-eligible heat amounts shall be reported according to this real situation.*
- *If this is not feasible, all uses shall be weighted according to the ratio of inputs (ETS input : total input) as defined above.*

For the purpose of this template, the following step-by-step approach is used:

- *A separate balance for the consumption of the "eligible" and "non-eligible" heat is calculated.*
- *For electricity production, heat consumption is split according to the ratio displayed under point (f), unless the amount of heat from non-eligible sources is manually input under (g).iii.*
- *For product benchmarks the total amount of measured heat is asked under (g) below. The amount of "non-eligible" heat is taken as sum of inputs in sheet "F_ProductBM", section (f).iii of each sub-installation (shown here below under (i).xii).*
- *Heat exports to installations covered by the ETS (section (i) below) must always be considered as heat from eligible sources, because the consumer of the heat will not have the information about eligibility of the upstream produced heat. Thus, for avoiding double counting, the heat must be deducted from the eligible amount in this installation. The amount is to be capped by the total available "eligible" heat of the installation.*
- *From the remaining amount of measurable heat, it must be determined how much is consumed within the installation (except for electricity production and product benchmark sub-installations). The amount of "eligible" heat remaining at the end of the previous steps is the upper limit.*
- *After these deductions of heat from the available amount, a new "eligibility ratio" is calculated (point (k)).*
- *The remaining eligible amount can then be attributed to the both heat benchmark sub-installations.*

Heat Inputs

(a) Total net amount of measurable heat produced in the installation:

All heat data should refer to "net amount of measurable heat" (i.e. heat content of heat flow to user minus heat content of the return flow).
Note that heat produced from nitric acid sub-installations has to be reported under point (c) as "non-ETS import".

	Unit	2014	2015	2016	2017	2018
Measurable heat produced	TJ / year					

(b) Measurable heat imported from installations covered by the EU ETS:

Installation names in the drop down list are taken from Section A.IV. Therefore you must ensure that you have entered complete data there.

	Name of installation	Unit	2014	2015	2016	2017	2018
i.		TJ / year					
ii.		TJ / year					
iii.		TJ / year					
iv.	Sub-total	TJ / year					

(c) Measurable heat imported from installations and entities not covered by the EU ETS (not eligible for heat benchmark):

This includes the nitric acid producing sub-installations (select "Within installation" as name of installation, if the nitric acid production is part of this installation).
Note that the data entered here is to be checked for double counting with deductions under product benchmark sub-installations (see sheet "F_ProductBM").

Name of installation or entity	Unit	2014	2015	2016	2017	2018

i.		TJ / year					
ii.		TJ / year					
iii.		TJ / year					
iv.	Sub-total	TJ / year					

(d) Measurable heat produced from electricity

This includes heat from any electric pumps, electric boilers, etc. It is only contained here for completeness but not included in the balance below as this heat is non-eligible.

	Unit	2014	2015	2016	2017	2018
Heat from electricity	TJ / year					

(e) Sum of measurable heat available at installation (=a+b+c)

Total measurable heat	TJ / year						

(f) Ratio of "ETS heat" to "Total heat"

"ETS heat" is heat produced in the installation plus heat imported from ETS installations (=a+b).

Total heat is the ETS heat plus heat imported from non-ETS entities and installations (=a+b+c).

Heat input ratio (a+b) / (a+b+c):	%						

Heat not eligible for sub-installations with heat benchmark

Before the amount of heat falling under the heat benchmark sub-installations can be quantified, the amount not eligible for this purpose has to be identified.

In a first step the non-eligible amounts for heat use within the installation are considered.

This is the amount of heat used for electricity production and heat consumed within product benchmark sub-installations.

(g) Measurable heat consumed for electricity production within the installation (not eligible for heat benchmark):

As default, it is assumed that the whole amount of heat used for electricity production is split between eligible and non-eligible inputs using the ratio calculated under (f).

However, if more precise information is available (e.g. because steam from different sources can be distinguished due to different pressure levels, etc), you can enter alternative amounts of "non-eligible" heat below. If that amount exceeds the amount stated in (c).iv, the available maximum is used for further calculation.

		Unit	2014	2015	2016	2017	2018
i.	Heat used for electricity production	TJ / year					
ii.	Amount of heat from non-ETS sources	TJ / year					
iii.	Manual override of (ii)	TJ / year					

(h) Measurable heat consumed for product benchmark sub-installations within the installation (not eligible for heat benchmark):

According to Article 21 of the FAR a CO2 equivalent for non-ETS heat imports is to be deducted from preliminary allocations for product benchmarks. The data needed for that correction is input in sheet "F_ProductBM", section (d) of each sub-installation.

Therefore here a plausibility check for that data is included.

		Unit	2014	2015	2016	2017	2018
i.		TJ / year					
ii.		TJ / year					
iii.		TJ / year					
iv.		TJ / year					
v.		TJ / year					
vi.		TJ / year					
vii.		TJ / year					
viii.		TJ / year					
ix.		TJ / year					
x.		TJ / year					
xi.	Sub-total	TJ / year					
	Values entered in sheet "F_ProductBM":						
xii.	Amount of heat from non-ETS sources	TJ / year					

Plausibility check:

Please make sure that you check this section again after completing the sheet "F_ProductBM", if applicable, in order to avoid non-plausible inputs.

The best suggested approach for filling this section is to first make the relevant entries under "F_ProductBM" and only then continue with point (i) below.

Non-ETS heat entered in sheet "F_ProductBM" compared to total amount of heat for all product benchmarks:

xiii.	Point xii in relation to point xi:	%					

Non-ETS heat entered in sheet "F_ProductBM" compared to total amount of non-ETS heat imports entered above under point (c):

xiv.	Point xii in relation to point (c) above:	%					

(i) Heat exported to ETS installations (not eligible for heat benchmark):

This amount of heat is allocated to the consumer of the heat.

Installation names in the drop down list are taken from Section A.IV. Therefore you must ensure that you have entered complete data there.

	Name of installation	Unit	2014	2015	2016	2017	2018
i.		TJ / year					
ii.		TJ / year					
iii.		TJ / year					
iv.		TJ / year					
v.		TJ / year					
vi.	Total heat exported to ETS installations	TJ / year					

Heat benchmark and district heating sub-installations:

(j) Sub-total: remaining total measurable heat, potentially belonging to heat benchmark sub-installations (=e-g-h-i):

		Unit	2014	2015	2016	2017	2018
i.	Sub-total:	TJ / year					

This amount can be split into "eligible" and "non-eligible" heat (according to their origin, see introduction to this section above).

Thereafter the factor determined under (e) is corrected taking into account the remainder of eligible and non-eligible heat. This factor is used for point (m).

ii.	eligible by origin:	TJ / year					
iii.	non-eligible by origin:	TJ / year					

(k) Eligibility ratio for the remaining heat calculated under (j):

corrected eligibility ratio (=(j).ii / (j).i):	**%**						

(l) Net amount measurable heat consumed in the installation and eligible under heat benchmark:

This is consumption within the installation excluding for purposes listed in points (g) and (h).

Heat consumed within the installation	TJ / year						

(m) Heat exported to installations or entities not covered by the EU ETS (e.g. district heating networks):

Installation names in the drop down list are taken from Section A.IV. Therefore you must ensure that you have entered complete data there.

	Name of receiving entity or installation	Unit	2014	2015	2016	2017	2018
i.		TJ / year					
ii.		TJ / year					
iii.		TJ / year					
iv.		TJ / year					
v.		TJ / year					
vi.	Total heat exported to outside ETS:	TJ / year					

(n) Heat losses (=j-l-m)

This table shows calculated heat losses (i.e. the amount of heat not covered by points g,h,k,l and m) for reasons of completeness of the heat balance.

If negative values are displayed this means that the heat consumption levels entered above exceed the amount of heat available from production and imports.

		Unit	2014	2015	2016	2017	2018
i.	Heat losses (calculated)	TJ / year					
ii.	Heat losses (fraction of heat available = e)	%					

(o) Total amount of heat potentially part of the heat benchmark or district heating sub-installations (=l+m):

	Unit	2014	2015	2016	2017	2018
Total heat benchmark sub-installations:	TJ / year					

(p) Final result: Amount of heat attributable to heat benchmark or district heating sub-installations

This result is calculated as point (o) multiplied with the corrected eligibility ratio determined under (k).

The maximum allowed value is the eligible amount identified under point (j).ii.

	Unit	2014	2015	2016	2017	2018
Heat eligible for heat benchmark sub-installations	**TJ / year**					

(q) Sub-installation split - Input method:

You can choose the method for entering the values in the table below under point (r). Available options are: "Absolute values" (enter TJ/year), or "percentages".

For fast data entries in simple cases, where most entries will be "100%" or zero, percentages are the better choice.

(r) Attribution of heat sub-installations to Carbon Leakage exposure levels:

Please identify here the amount of measurable heat which is consumed by each sub-installation, where 100% refers to the sum calculated under point (p) above.

Heat benchmark sub-installation "CL" (exposed to a significant risk of Carbon Leakage), "non-CL" (not exposed to carbon leakage risk; which includes heat exported to non-ETS installations and entities but not for district heating) and district heating sub-installation "non-CL".

The data is automatically used again in sheet "G_Fall-back". Therefore data entry is mandatory here, if this tool is used.

	Measurable heat	**Unit**	**2014**	**2015**	**2016**	**2017**	**2018**
i.	Heat benchmark sub-installation, CL	% or TJ / year					
ii.	Heat benchmark sub-installation, non-CL	% or TJ / year					
iii.	District heating sub-installation	% or TJ / year					
	Figures for control:						
iv.	Heat benchmark sub-installation, CL	% or TJ / year					
v.	Heat benchmark sub-installation, non-CL	% or TJ / year					
vi.	District heating sub-installation	% or TJ / year					

III Waste gas balance

Complete balance of waste gases at the installation

This balance is mainly used for consistency checking between related entries made in the "waste gas tool" in section D.IV and the sub-installation level waste gas balances in sheets F and G.

Where possible sections below are automatically filled with data entered in these sections.

Are any waste gases produced or consumed in, imported to or exported from this installation?

Please enter data in this section!

It this question is set to "false", entries here are not relevant and you may proceed with the next point below.

(a) Waste gases produced within the system boundaries of a product benchmark sub-installation

Information is taken from section F.(I).v. If relevant, you must ensure that you have entered complete data there.

	Sub-installation	**Unit**	**2014**	**2015**	**2016**	**2017**	**2018**
i.		TJ / year					
ii.		TJ / year					
iii.		TJ / year					
iv.		TJ / year					
v.		TJ / year					
vi.		TJ / year					
vii.		TJ / year					
viii.		TJ / year					
ix.		TJ / year					
x.		TJ / year					
xi.	Sub-total	TJ / year					

(b) Waste gases produced outside the system boundaries of a product benchmark sub-installation

Information is taken from section D.IV. If relevant, you must ensure that you have entered complete data there.

Note that entries there might relate to waste gases produced in other installations from which they are imported.

	from section D.IV.	**Unit**	**2014**	**2015**	**2016**	**2017**	**2018**
i.	Waste gas 1	TJ / year					
ii.	Waste gas 2	TJ / year					
iii.	Sub-total	TJ / year					

(c) Sum of waste gases (=a+b)

	Unit	2014	2015	2016	2017	2018
Waste gases produced	TJ / year					

(d) Waste gases imported from other installations or entities

Installation names in the drop down list are taken from Section A.IV. Therefore you must ensure that you have entered complete data there.

Please make sure that there is no double counting with (b) where imported amounts are included there.

	Name of installation or entity	**Unit**	**2014**	**2015**	**2016**	**2017**	**2018**
i.		TJ / year					
ii.		TJ / year					
iii.		TJ / year					
iv.	Sub-total	TJ / year					

(e) Waste gases exported to other installations or entities

Installation names in the drop down list are taken from Section A.IV. Therefore you must ensure that you have entered complete data there.

	Name of installation or entity	**Unit**	**2014**	**2015**	**2016**	**2017**	**2018**
i.		TJ / year					
ii.		TJ / year					
iii.		TJ / year					
iv.	Sub-total	TJ / year					

(f) Sum of waste gases available at installation (=c+d-e)

	Unit	2014	2015	2016	2017	2018
Waste gases available	TJ / year					

(g) Waste gases consumed within product benchmark sub-installations

Information is taken from section F.(I).viii. If relevant, you must ensure that you have entered complete data there.

	Type of product BM sub-installation	**Unit**	**2014**	**2015**	**2016**	**2017**	**2018**
i.		TJ / year					
ii.		TJ / year					
iii.		TJ / year					
iv.		TJ / year					
v.		TJ / year					
vi.		TJ / year					
vii.		TJ / year					
viii.		TJ / year					
ix.		TJ / year					
x.		TJ / year					
xi.	Sub-total	TJ / year					

(h) Waste gases consumed within fall-back sub-installations

Information is taken from corresponding entries in sheet "G_Fall-back". If relevant, you must ensure that you have entered complete data there.

	Type of fall-back sub-installation	Unit	2014	2015	2016	2017	2018
i.	Heat benchmark sub-installation, CL	TJ / year					
ii.	Heat benchmark sub-installation, non-CL	TJ / year					
iii.	District heating sub-installation, non-CL	TJ / year					
iv.	Fuel benchmark sub-installation, CL	TJ / year					
v.	Fuel benchmark sub-installation, non-CL	TJ / year					
vi.	Sub-total	TJ / year					

(i) Amount of waste gases consumed for the production of electricity

	Waste gases for electricity	TJ / year					

(j) Amount of waste gases flared other than safety flaring

For product BM sub-installations, information is taken automatically from entries in sheet "F_ProductBM".

For waste gases produced outside product BM sub-installations and flared for non-safety flaring need to be entered here.

	Sub-installation	Unit	2014	2015	2016	2017	2018
i.		TJ / year					
ii.		TJ / year					
iii.		TJ / year					
iv.		TJ / year					
v.		TJ / year					
vi.		TJ / year					
vii.		TJ / year					
viii.		TJ / year					
ix.		TJ / year					
x.		TJ / year					
xi.	produced outside product BM sub-installations	TJ / year					
xii.	Sub-total	TJ / year					

(k) Plausibility check

This is to check completeness of the waste gas balance. If different from zero, please check for any inconsistencies in the values listed above.

i.	Difference (calculated)	TJ / year					
ii.	Difference (as fraction of f)	%					

IV Electricity

Complete balance of electricity at the installation

(a) Does the installation produce electricity?

Note that this question applies to all installations and is not directly related to whether the installation is an "electricity generator" within the meaning of Article 3(u) of the EU ETS Directive. If the answer here is "false", entries below are optional.

(b) Total net amount of electricity produced in the installation

Other electricity production includes e.g. hydro, wind, solar power, from expansion turbines and other non-ETS processes.

		Unit	2014	2015	2016	2017	2018
i.	Net electricity produced from fuels	MWh / year					
ii.	Other electricity produced	MWh / year					

(c) Total electricity imported from the grid or from other installations

	Electricity imported	MWh / year					

(d) Total electricity exported to the grid or to other installations

	Electricity exported	MWh / year					

(e) Total electricity available for use in the installation (= b+c-d)

	Electricity useable	MWh / year					

(f) Total electricity consumed in the installation

	Electricity consumed in the installation	MWh / year					

(g) Plausibility check: Sum of electricity input in sheet "F_ProductBM" for exchangability of electricity

i.	Electricity entered as exchangeable	MWh / year					
ii.	Compare to (f)	%					

<<< Click here to proceed to next sheet >>>

F. Product BM	Navigation area:	Table of contents	Previous sheet	Next sheet	Summary
	Top of sheet	Benchmark 1	Benchmark 2	Benchmark 3	Benchmark 4
	End of sheet	Benchmark 5	Benchmark 6	Benchmark 7	Benchmark 8
		Benchmark 9	Benchmark 10		

F. Sheet "ProductBM" - SUB-INSTALLATION DATA RELATING TO PRODUCT BENCHMARKS

The navigation bar above only contains links to the relevant sub-installations listed in section A.III.1.

I Historic Activity levels and disaggregated production details

1 Sub-installation with product benchmark:

The name of the product benchmark sub-installation is displayed automatically based in the inputs in sheet "A_InstallationData".

This sheet serves the following two purposes:

- ***data needed to determine the amount of free allocation of product benchmark sub-installations;***
- ***data needed to determine improvement rates of product benchmark values.***

(a) Historic activity levels

Under this point the "main activity levels" should be reported, i.e. the data which is directly applicable for the calculation of the allocation.

Usually this is the production data of the product, e.g. tonnes of grey cement clinker or tonnes of glass bottles, as defined by Annex I of the FAR.

However, if a message appears under point (b), the appropriate calculation tool has to be used, and its results are automatically copied into this table under (ii).

Based on the start of normal operation entered in A.III., it will be automatically determined if this sub-installation has been operating for less than one year in the baseline period. If this is the case, the historic activity level will be determined based on the first calendar year after the start of normal operation, pursuant to the third sub-paragraph of Article 15(7).

Corresponding entries are required in column N for that year which will either be 2019 or 2020. However, since the annual production for that year will not be known at the time of the NIMs submission, entries here can only be done at a later stage.

	Annual activity levels:	Unit	2014	2015	2016	2017	2018	
i.		tonnes						
ii.	From sheet "H_SpecialBM":	tonnes						
iii.	Values used for calculation:	tonnes						

(b) Special reporting requirements:

Some product benchmarks require special information to be reported (e.g. CWT values). If relevant, an automatically generated message will appear here.

Further correction factors

(c) Exchangeability of fuel and electricity:

If relevant, an automatically generated message will appear here demanding the input needed for taking into account the exchangeability of fuels and electricity.

According to Article 22 of the FAR the "direct emissions", the net amount of "imported heat" and the "relevant electricity consumption" are needed.

The total direct emissions are usually identical to the values provided under point (g) below. However, in particular where waste gases are used, further corrections might be necessary, so please consider the guidance provided under point (g) below.The net imported heat is taken automatially from (k).i below.

	Parameter	Unit	2014	2015	2016	2017	2018	
i.	Direct emissions	t CO2 / year						
ii.	Net imported heat	TJ / year						
iii.	Relevant electricity consumption	MWh / year						
iv.	Total direct emissions	t CO2 / year						
v.	Indirect emissions	t CO2 / year						

(d) Heat imported from non-ETS installations or entities:

Pursuant to Article 21 of the FAR, an amount of emissions has to be deducted from the preliminary annual allocation from product-benchmark sub-installations.

That amount is the amount of measurable heat imported from non-ETS installations (including any heat from nitric acid sub-installations) or entities multiplied with the heat benchmark.

Please enter the appropriate values here. Note that the values have to be consistent with the sub-totals for import from non-ETS under point E.II.c in sheet "E_Energy flows".

The data must also be consistent with the total net measurable heat imported entered under point (k).i below.

	Parameter	Unit	2014	2015	2016	2017	2018	
i.	Measurable heat imported from non-ETS:	TJ / year						
ii.	Consistency check with sheet "E_Energy flows":	%						
iii.	Consistency check with point (k)(i):	%						

Production details

(e) Identification of products included in this product benchmark sub-installation

A product benchmark can encompass several similar products (or product groups). In some cases intermediates can be relevant for allocation purposes. The relevant products must be identified here in order to allow the competent authority to check if the boundaries defined for this product benchmark are respected.

PRODCOM codes shall be entered in the form "nnnnnnnn", i.e. without any dots or other delimiters inbetween. Only if PRODCOM are not available, at least a 4-digit level NACE code should be provided in the form of "nnnn".

A list of PRODCOM 2010 codes can be found at:

http://ec.europa.eu/eurostat/ramon/nomenclatures/index.cfm?TargetUrl=LST_CLS_DLD&StrNom=PRD_2010&StrLanguageCode=EN&StrLayoutCode=HIERARCHIC

(f) Individual production levels of products included in this product benchmark sub-installation

	PRODCOM 2010	Name of product or group of products	Unit	2014	2015	2016	2017	2018
1								
2								
3								
4								
5								
6								
7								
8								
9								
10								
	Sum of production levels							

Data required for the determination of the benchmark improvement rate pursuant to Article 10a(2) of the EU ETS Directive

Sub-installation with product benchmark:

This sub-section covers the attribution of emissions related to source streams, emissions sources, import and export of measurable heat and waste gases including heat losses in accordance with section 10 of Annex VII of the FAR.

Please note that although some guidance is provided for each of the points below, further information should be sought in Guidance Document No. 5 ("Monitoring and Reporting in relation to the FAR") which also includes examples.

The Guidance can be downloaded from:

< Link to be provided as soon as available >

Upon entries made below, the attributable emissions are calculated in section K.III.2 of the summary sheet.

(g) Directly attributable emissions (DirEm* (MP source streams)) to this sub-installation

Data provided here will impact the attributable emissions in accordance with section 10.1.1 of Annex VII of the FAR.

Please enter here the Directly attributable emissions (DirEm (MP source streams)) to this sub-installation taking into account the following provisions:*

- *The "directly attributable emissions" are monitored in line with the monitoring plan approved under the MRR, i.e. taking into account the emissions from calculation based methodologies (using source streams), measurement based methodologies (CEMS) as well as no-tier approaches ("fall-backs").*

  However, in several situations the "directly attributable emissions" in this section are not identical to those reported under the MRR. Such situations include e.g. source streams used for the production of measurable heat, waste gases etc. In other words, care must be taken when filling the sections below to follow strictly the instructions in order to avoid double counting or omissions.

- *Measurable heat: where the heat is exclusively produced for one sub-installation, the emissions may be directly attributed here via the fuel's emissions.*

  Wherever fuels are used to produce measurable heat as "input" to more than one sub-installation where the heat is consumed (which includes situations with imports from and exports to other installations), the fuels should not be included in the "directly attributable emissions" of the sub-installation but under point (k) below.

  "Inputs" include measurable heat from a unit onsite (e.g. a central power house at the installation, or a more complex steam network with several heat producing units) that supplies heat to more than one sub-installation. In such case, emissions should also not be attributed here but under point (k).i. below.

- *Measurable heat exported: where such heat is recovered from the process and exported, no corrections should be made here. The deduction for the associated emissions will be done based on entries under point (k).v. below.*

- *Waste gases: emissions from waste gases which are IMPORTED from other installations or sub-installations and consumed in this sub-installation, should not be included here but under point (l) below.*

Directly attributable emissions (DirEm*)	**Unit**	**2014**	**2015**	**2016**	**2017**	**2018**
	t CO2e/year					

(h) Fuel input to this sub-installation and relevant emission factor

As required by Annex IV, section 2.4(a) of the FAR, please provide the total fuel input to the sub-installation and a corresponding weighted emission factor, taking into account the related energy content of each fuel which is included in the figure given under point (g), applying the same system boundaries as for point (g).

The term "fuel" should be understood as any source stream in accordance with the M&R Regulation that is combustible and for which a net calorific value can be determined. The weighted emission factor corresponds to the accumulated emissions from the fuels divided by the total energy content.

The weighted emission factor should furthermore include emissions from corresponding flue gas cleaning, if applicable.

Data provided here are only used for consistency checking and have no direct impact on either the attributable emissions or the allocation.

	Unit	**2014**	**2015**	**2016**	**2017**	**2018**
i. Fuel input	TJ / year					
ii. Weighted emission factor	t CO2 / TJ					

(i) Further internal source streams imported to or exported from this sub-installation

Data provided here will impact the attributable emissions in accordance with section 10.1.1 of Annex VII of the FAR.

It is important to note that any source streams should only be listed here if they are not already covered by the direct emissions under (g) above to avoid any data gaps or double counting. Emissions associated with waste gases should NOT be listed here but under (l) below.

Please enter here information on the so-called internal source streams, that are transferred between sub-installations, i.e. imported to or exported from this sub-installation.

For example, if this is the "coke" sub-installation of an integrated iron&steel plant, emissions associated with the consumption of coke occur in the blast furnace and should not be attributed to this (i.e. the "coke") sub-installation. Nevertheless, a part of the emissions will be included under (g) above, because coal entering the coke oven will be one of the source streams attributed there in the first step.

In order to avoid double counting, a correction needs to be made for the coke leaving the coke sub-installation as outgoing "internal source stream". This is done by a negative value of the coke amount figure in case of "export". For giving a complete balance of the emissions of the coal entering the coke sub-installation, emissions associated with the use of coke oven gas (= a waste gas) are already covered under (g) above (as included in the emissions from coal) to the extent the gas is used within this sub-installation. Corrections to account for the exported amounts of the waste gas should not be made here, but under (l).xx. below.

Conversely, if this is the hot metal benchmark sub-installation in an integrated iron&steel plant, coke needs to be listed here as ingoing/imported "internal" source stream with positive amounts.

i. Are further imported or exported internal source streams relevant for this sub-installation?

If there are more than two source streams imported or exported, multiple source streams should be grouped together and respective names provided.

ii. **Name of further source streams - 1:**

	Further source streams - 1	**Unit**	**2014**	**2015**	**2016**	**2017**	**2018**
iii.	Amount imported or exported	t / year					
iv.	Net calorific value (NCV), if applicable	GJ / t					
v.	Carbon content (mass %)	%					
vi.	Biomass content (as fraction of carbon)	%					
vii.	Emissions (fossil, calculated)	t CO2 / year					
viii.	*Memo-Item: Biomass emissions*	*t CO2 / year*					
ix.	Energy content (calculated)	TJ / year					
x.	Error messages (emissions)						

xi. **Name of further source streams - 2:**

	Further source streams - 2	**Unit**	**2014**	**2015**	**2016**	**2017**	**2018**
xii.	Amount imported or exported	t / year					
xiii.	Net calorific value (NCV), if applicable	GJ / t					
xiv.	Carbon content (mass %)	%					
xv.	Biomass content (as fraction of carbon)	%					
xvi.	Emissions (fossil, calculated)	t CO2 / year					
xvii.	*Memo-Item: Biomass emissions*	*t CO2 / year*					
xviii.	Energy content (calculated)	TJ / year					
xiv.	Error messages (emissions)						

(j) Amount of GHG imported or exported as feedstock

Data provided here will impact the attributable emissions in accordance with section 10.1.1 of Annex VII of the FAR.

As required by Annex IV, section 3.1(k) of the FAR, please provide here the amount of transferred CO2 imported from or exported to other sub-installations, installations or other entities, in line with the rules set out in the M&R Regulation.

Exported amounts should be entered as negative values and correspond to CO2 that is exported and not released to the atmosphere by this sub-installation.

	Unit	**2014**	**2015**	**2016**	**2017**	**2018**
GHG imported or exported	t CO2e/year					

(k) Measurable heat import to and export from this sub-installation

Data provided here will impact the attributable emissions in accordance with sections 10.1.2 and 10.1.3 of Annex VII of the FAR.

This includes the total amount of heat either produced in, imported from or exported to (sub-)installations covered by the EU ETS or from installations or entities not covered by the EU ETS. The specific emission factors (EF) associated with the heat should take into account the provisions in FAR Annex VII sections 8 and 10, in particular sections 10.1.2 and 10.1.3 thereof.

Emissions related to measurable heat produced onsite from units serving more than one sub-installation should also be entered here under "imports" instead of directly attributing the emissions via the fuel's emission factor under point (g) above. The same applies to any heat "imported" from other sub-installations.

Where the heat is exclusively produced for one sub-installation and corresponding emissions therefore entered under (g) above, corresponding amounts should not be reported here as imports to avoid double counting.

For attributing emissions from cogeneration (CHP) to production of heat, the "CHP tool" in section D.III. of this template has to be used.

	Total heat imported	**Unit**	**2014**	**2015**	**2016**	**2017**	**2018**
i.	Net heat imported	TJ / year	1,00	2,00	3,00	4,00	5,00
ii.	Specific EF (imported heat)	t CO2 / TJ	1,00	2,00	3,00	4,00	5,00
	Special heat import	**Unit**	**2014**	**2015**	**2016**	**2017**	**2018**
iii.	Net heat imported from pulp sub-installations	TJ / year					
iv.	Net heat imported from nitric acid sub-installation	TJ / year					
	Total heat exported	**Unit**	**2014**	**2015**	**2016**	**2017**	**2018**
v.	Net heat exported	TJ / year					
vi.	Specific EF (exported heat)	t CO2 / TJ					

(l) Waste gas balance for this sub-installation

i. **Are waste gases relevant for this sub-installation?**
If the answer is "false" the whole section will be greyed out and you can continue with the next points below.

ii. **Types of waste gases produced:**
You may choose to report either as tonnes or as 1000 Nm3. The units must be consistent with those for the NCV and EF below.
Data provided here are only used for consistency checking and have no direct impact on either the attributable emissions or the allocation.

		Unit	2014	2015	2016	2017	2018
iii.	Amounts produced	1000Nm3/year					
iv.	Net calorific value	GJ/1000Nm3					
v.	Waste gas produced	TJ / year					
vi.	Specific EF (produced waste gas)	t CO2 / TJ					

vii. **Types of waste gases consumed:**
This includes all types of waste gases that are consumed by this sub-installation for the purpose of the production of measurable heat, non-measurable heat (including safety flaring) or mechanical energy (other than for electricity production). Amounts that are flared other than safety flaring should be reported under the next point below.
Data provided here are only used for consistency checking and have no direct impact on either the attributable emissions or the allocation.

		Unit	2014	2015	2016	2017	2018
viii.	Amounts consumed	1000Nm3/year					
ix.	Net calorific value	GJ/1000Nm3					
x.	Waste gas consumed	TJ / year					
xi.	Specific EF (consumed waste gas)	t CO2 / TJ					

xii. **Types of waste gases flared:**
This includes all types of waste gases that are ultimately flared other than safety flaring, either within or outside this sub-installation.
Data provided here are only used for consistency checking and have no direct impact on the attributable emissions.
However, as of 2026, allocation will be reduced with respect to flaring of waste gases other than safety flaring.

		Unit	2014	2015	2016	2017	2018
xiii.	Amounts flared	1000Nm3/year					
xiv.	Net calorific value	GJ/1000Nm3					
xv.	Waste gas flared	TJ / year					
xvi.	Specific EF (flared waste gas)	t CO2 / TJ					

xvii. **Types of waste gases imported:**
Data provided here will impact the attributable emissions in accordance with section 10.1.5 of Annex VII of the FAR.
This includes all types of waste gases that are produced outside the system boundaries of this sub-installation but imported to this sub-installation and used for the production of measurable heat, non-measurable heat (including safety flaring) or mechanical energy (other than for electricity production).

		Unit	2014	2015	2016	2017	2018
xviii.	Amounts imported	1000Nm3/year					
xix.	Net calorific value	GJ/1000Nm3					
xx.	Waste gas imported	TJ / year					
xxi.	Specific EF (imported waste gas)	t CO2 / TJ					

xxii. **Types of waste gases exported:**
Data provided here will impact the attributable emissions in accordance with section 10.1.5 of Annex VII of the FAR.
This includes all types of waste gases that are produced within the system boundaries of this sub-installation and exported from this sub-installation to any other sub-installation as well as to any other installations or entities.

		Unit	2014	2015	2016	2017	2018
xxiii.	Amounts exported	1000Nm3/year					
xxiv.	Net calorific value	GJ/1000Nm3					
xxv.	Waste gas exported	TJ / year					
xxvi.	Specific EF (exported waste gas)	t CO2 / TJ					

(m) Electricity production
Data provided here will impact the attributable emissions in accordance with chapter 10 of Annex VII of the FAR.
This includes electricity that is produced directly from this sub-installation as required by Annex IV, section 3.1(i) of the FAR. Any electricity that is produced via intermediate measurable heat should not be listed here but under export of measurable heat under (k).v. above.

	Unit	2014	2015	2016	2017	2018
Electricity produced	MWh / year					

(n) Total amount of pulp produced
Pursuant to Annex IV, section 2.4(k), the total amount of pulp produced for the short fibre kraft pulp, long fibre kraft pulp, thermo-mechanical pulp and mechanical pulp, sulphite pulp product benchmark sub-installations should be reported.
This section will be greyed out if this is not one of those pulp producing sub-installation. In such case, please continue with the points below.
Data provided here will be relevant for the update of the specific pulp benchmark.

	Unit	2014	2015	2016	2017	2018
	tonnes					

(o) Import or export of intermediate products covered by product benchmarks
In order to avoid any double counting or gaps in attributed emissions when determining the updated benchmarks, Annex IV, section 2.7(d) of the FAR require you to report any import or export of intermediary products covered by any of the product benchmarks listed in Annex I of the FAR.
Data provided here might impact the update of the specific benchmark.

i. Is there any import or export of intermediate products covered by product benchmarks?

	Imported amounts:	Unit	2014	2015	2016	2017	2018
ii.		tonnes					
iii.		tonnes					
	Exported amounts:	Unit	2014	2015	2016	2017	2018
iv.		tonnes					
v.		tonnes					

vi. Description of the intermediate products imported or exported
Please provide a brief description of the production process with respect to the intermediate products imported or exported.

2 Sub-installation with product benchmark:

Detailed instructions for data entries in this tool can be found at the first copy of this tool. (F.I.1)

(a) Historic activity levels

	Annual activity levels:	Unit	2014	2015	2016	2017	2018	
i.		tonnes						
ii.	From sheet "H_SpecialBM":	tonnes						
iii.	Values used for calculation:	tonnes						

(b) Special reporting requirements:

Further correction factors

(c) Exchangeability of fuel and electricity:

	Parameter	Unit	2014	2015	2016	2017	2018	
i.	Direct emissions	t CO2 / year						
ii.	Net imported heat	TJ / year						
iii.	Relevant electricity consumption	MWh / year						
iv.	Total direct emissions	t CO2 / year						
v.	Indirect emissions	t CO2 / year						

(d) Heat imported from non-ETS installations or entities:

	Parameter	Unit	2014	2015	2016	2017	2018	
i.	Measurable heat imported from non-ETS:	TJ / year						
ii.	Consistency check with sheet "E_Energy flows":	%						
iii.	Consistency check with point (n):	%						

Production details

(e) Identification of products included in this product benchmark sub-installation

A list of PRODCOM 2010 codes can be found at:

http://ec.europa.eu/eurostat/ramon/nomenclatures/index.cfm?TargetUrl=LST_CLS_DLD&StrNom=PRD_2010&StrLanguageCode=EN&StrLayoutCode=HIERARCHIC

(f) Individual production levels of products included in this product benchmark sub-installation

	PRODCOM 2010	Name of product or group of products	Unit	2014	2015	2016	2017	2018
1								
2								
3								
4								
5								
6								
7								
8								
9								
10								
	Sum of production levels							

Data required for the determination of the benchmark improvement rate pursuant to Article 10a(2) of the EU ETS Directive

Sub-installation with product benchmark:

Upon entries made below, the attributable emissions are calculated in section K.III.2 of the summary sheet.

(g) Directly attributable emissions (DirEm* (MP source streams)) to this sub-installation

Directly attributable emissions (DirEm*)	Unit	2014	2015	2016	2017	2018
	t CO2e/year					

(h) Fuel input to this sub-installation and relevant emission factor

		Unit	2014	2015	2016	2017	2018
i.	Fuel input	TJ / year					
ii.	Weighted emission factor	t CO2 / TJ					

(i) Further internal source streams imported to or exported from this sub-installation

i. Are further imported or exported internal source streams relevant for this sub-installation?

ii. **Name of further source streams - 1:**

	Further source streams - 1	Unit	2014	2015	2016	2017	2018
iii.	Amount imported or exported	t / year					
iv.	Net calorific value (NCV), if applicable	GJ / t					
v.	Carbon content (mass %)	%					
vi.	Biomass content (as fraction of carbon)	%					
vii.	Emissions (fossil, calculated)	t CO2 / year					
viii.	*Memo-Item: Biomass emissions*	*t CO2 / year*					
ix.	Energy content (calculated)	TJ / year					
x.	Error messages (emissions)						

xi. **Name of further source streams - 2:**

	Further source streams - 2	Unit	2014	2015	2016	2017	2018
xii.	Amount imported or exported	t / year					
xiii.	Net calorific value (NCV), if applicable	GJ / t					
xiv.	Carbon content (mass %)	%					
xv.	Biomass content (as fraction of carbon)	%					
xvi.	Emissions (fossil, calculated)	t CO2 / year					
xvii.	*Memo-Item: Biomass emissions*	*t CO2 / year*					
xviii.	Energy content (calculated)	TJ / year					
xiv.	Error messages (emissions)						

(j) Amount of GHG imported or exported as feedstock

	Unit	2014	2015	2016	2017	2018
GHG imported or exported	t CO2e/year					

(k) Measurable heat import to and export from this sub-installation

For attributing emissions from cogeneration (CHP) to production of heat, the "CHP tool" in section D.III. has to be used.

	Total heat imported	Unit	2014	2015	2016	2017	2018
i.	Net heat imported	TJ / year					
ii.	Specific EF (imported heat)	t CO2 / TJ					
	Special heat import	**Unit**	**2014**	**2015**	**2016**	**2017**	**2018**
iii.	Net heat imported from pulp	TJ / year					
iv.	Net heat imported from nitric acid sub-	TJ / year					
	Total heat exported	**Unit**	**2014**	**2015**	**2016**	**2017**	**2018**
v.	Net heat exported	TJ / year					
vi.	Specific EF (exported heat)	t CO2 / TJ					

(l) Waste gas balance for this sub-installation

i. **Are waste gases relevant for this sub-installation?**

ii. **Types of waste gases produced:**

		Unit	2014	2015	2016	2017	2018
iii.	Amounts produced	1000Nm3/year					
iv.	Net calorific value	GJ/1000Nm3					
v.	Waste gas produced	TJ / year					
vi.	Specific EF (produced waste gas)	t CO2 / TJ					

vii. **Types of waste gases consumed:**

		Unit	2014	2015	2016	2017	2018
viii.	Amounts consumed	1000Nm3/year					
ix.	Net calorific value	GJ/1000Nm3					
x.	Waste gas consumed	TJ / year					
xi.	Specific EF (consumed waste gas)	t CO2 / TJ					

xii. **Types of waste gases flared:**

		Unit	2014	2015	2016	2017	2018
xiii.	Amounts flared	1000Nm3/year					
xiv.	Net calorific value	GJ/1000Nm3					
xv.	Waste gas flared	TJ / year					
xvi.	Specific EF (flared waste gas)	t CO2 / TJ					

xvii. **Types of waste gases imported:**

		Unit	2014	2015	2016	2017	2018
xviii.	Amounts imported	1000Nm3/year					
xix.	Net calorific value	GJ/1000Nm3					
xx.	Waste gas imported	TJ / year					
xxi.	Specific EF (imported waste gas)	t CO2 / TJ					

xxii. **Types of waste gases exported:**

		Unit	2014	2015	2016	2017	2018
xxiii.	Amounts exported	1000Nm3/year					
xxiv.	Net calorific value	GJ/1000Nm3					
xxv.	Waste gas exported	TJ / year					
xxvi.	Specific EF (exported waste gas)	t CO2 / TJ					

(m) Electricity production

	Unit	2014	2015	2016	2017	2018
Electricity produced	MWh / year					

(n) Total amount of pulp produced

	Unit	2014	2015	2016	2017	2018
	tonnes					

(o) Import or export of intermediate products covered by product benchmarks

i. Is there any import or export of intermediate products covered by product benchmarks?

	Imported amounts:	Unit	2014	2015	2016	2017	2018
ii.		tonnes					
iii.		tonnes					
	Exported amounts:	Unit	2014	2015	2016	2017	2018
iv.		tonnes					
v.		tonnes					

vi. Description of the intermediate products imported or exported

3 Sub-installation with product benchmark:

Detailed instructions for data entries in this tool can be found at the first copy of this tool. (F.I.1)

(a) Historic activity levels

	Annual activity levels:	Unit	2014	2015	2016	2017	2018	
i.		tonnes						
ii.	From sheet "H_SpecialBM":	tonnes						
iii.	Values used for calculation:	tonnes						

(b) Special reporting requirements:

Further correction factors

(c) Exchangeability of fuel and electricity:

	Parameter	Unit	2014	2015	2016	2017	2018	
i.	Direct emissions	t CO2 / year						
ii.	Net imported heat	TJ / year						
iii.	Relevant electricity consumption	MWh / year						
iv.	Total direct emissions	t CO2 / year						
v.	Indirect emissions	t CO2 / year						

(d) Heat imported from non-ETS installations or entities:

	Parameter	Unit	2014	2015	2016	2017	2018	
i.	Measurable heat imported from non-ETS:	TJ / year						
ii.	Consistency check with sheet "E_Energy flows":	%						
iii.	Consistency check with point (n):	%						

Production details

(e) Identification of products included in this product benchmark sub-installation

A list of PRODCOM 2010 codes can be found at:

http://ec.europa.eu/eurostat/ramon/nomenclatures/index.cfm?TargetUrl=LST_CLS_DLD&StrNom=PRD_2010&StrLanguageCode=EN&StrLayoutCode=HIERARCHIC

(f) Individual production levels of products included in this product benchmark sub-installation

	PRODCOM 2010	Name of product or group of products	Unit	2014	2015	2016	2017	2018
1								
2								
3								
4								

5								
6								
7								
8								
9								
10								
	Sum of production levels							

Data required for the determination of the benchmark improvement rate pursuant to Article 10a(2) of the EU ETS Directive

Sub-installation with product benchmark:

Upon entries made below, the attributable emissions are calculated in section K.III.2 of the summary sheet.

(g) Directly attributable emissions (DirEm* (MP source streams)) to this sub-installation

Directly attributable emissions (DirEm*)	Unit	2014	2015	2016	2017	2018
	t CO2e/year					

(h) Fuel input to this sub-installation and relevant emission factor

		Unit	2014	2015	2016	2017	2018
i.	Fuel input	TJ / year					
ii.	Weighted emission factor	t CO2 / TJ					

(i) Further internal source streams imported to or exported from this sub-installation

i. Are further imported or exported internal source streams relevant for this sub-installation?

ii. **Name of further source streams - 1:**

	Further source streams - 1	Unit	2014	2015	2016	2017	2018
iii.	Amount imported or exported	t / year					
iv.	Net calorific value (NCV), if applicable	GJ / t					
v.	Carbon content (mass %)	%					
vi.	Biomass content (as fraction of carbon)	%					
vii.	Emissions (fossil, calculated)	t CO2 / year					
viii.	*Memo-Item: Biomass emissions*	*t CO2 / year*					
ix.	Energy content (calculated)	TJ / year					
x.	Error messages (emissions)						

xi. **Name of further source streams - 2:**

	Further source streams - 2	Unit	2014	2015	2016	2017	2018
xii.	Amount imported or exported	t / year					
xiii.	Net calorific value (NCV), if applicable	GJ / t					
xiv.	Carbon content (mass %)	%					
xv.	Biomass content (as fraction of carbon)	%					
xvi.	Emissions (fossil, calculated)	t CO2 / year					
xvii.	*Memo-Item: Biomass emissions*	*t CO2 / year*					
xviii.	Energy content (calculated)	TJ / year					
xiv.	Error messages (emissions)						

(j) Amount of GHG imported or exported as feedstock

	Unit	2014	2015	2016	2017	2018
GHG imported or exported	t CO2e/year					

(k) Measurable heat import to and export from this sub-installation

For attributing emissions from cogeneration (CHP) to production of heat, the "CHP tool" in section D.III. has to be used.

	Total heat imported	Unit	2014	2015	2016	2017	2018
i.	Net heat imported	TJ / year					
ii.	Specific EF (imported heat)	t CO2 / TJ					
	Special heat import	**Unit**	**2014**	**2015**	**2016**	**2017**	**2018**
iii.	Net heat imported from pulp	TJ / year					
iv.	Net heat imported from nitric acid sub-	TJ / year					
	Total heat exported	**Unit**	**2014**	**2015**	**2016**	**2017**	**2018**
v.	Net heat exported	TJ / year					
vi.	Specific EF (exported heat)	t CO2 / TJ					

(l) Waste gas balance for this sub-installation

i. **Are waste gases relevant for this sub-installation?**

ii. **Types of waste gases produced:**

		Unit	2014	2015	2016	2017	2018
iii.	Amounts produced	1000Nm3/year					
iv.	Net calorific value	GJ/1000Nm3					
v.	Waste gas produced	TJ / year					
vi.	Specific EF (produced waste gas)	t CO2 / TJ					

vii. **Types of waste gases consumed:**

		Unit	2014	2015	2016	2017	2018
viii.	Amounts consumed	1000Nm3/year					
ix.	Net calorific value	GJ/1000Nm3					
x.	Waste gas consumed	TJ / year					
xi.	Specific EF (consumed waste gas)	t CO2 / TJ					

xii. **Types of waste gases flared:**

		Unit	2014	2015	2016	2017	2018
xiii.	Amounts flared	1000Nm3/year					
xiv.	Net calorific value	GJ/1000Nm3					
xv.	Waste gas flared	TJ / year					
xvi.	Specific EF (flared waste gas)	t CO2 / TJ					

xvii. **Types of waste gases imported:**

		Unit	2014	2015	2016	2017	2018
xviii.	Amounts imported	1000Nm3/year					
xix.	Net calorific value	GJ/1000Nm3					
xx.	Waste gas imported	TJ / year					
xxi.	Specific EF (imported waste gas)	t CO2 / TJ					

xxii. **Types of waste gases exported:**

	Unit	2014	2015	2016	2017	2018
xxiii. Amounts exported	1000Nm3/year					
xxiv. Net calorific value	GJ/1000Nm3					
xxv. Waste gas exported	TJ / year					
xxvi. Specific EF (exported waste gas)	t CO2 / TJ					

(m) Electricity production

	Unit	2014	2015	2016	2017	2018
Electricity produced	MWh / year					

(n) Total amount of pulp produced

	Unit	2014	2015	2016	2017	2018
	tonnes					

(o) Import or export of intermediate products covered by product benchmarks

i. Is there any import or export of intermediate products covered by product benchmarks?

Imported amounts:	Unit	2014	2015	2016	2017	2018
ii.	tonnes					
iii.	tonnes					
Exported amounts:	Unit	2014	2015	2016	2017	2018
iv.	tonnes					
v.	tonnes					

vi. Description of the intermediate products imported or exported

4 Sub-installation with product benchmark:

Detailed instructions for data entries in this tool can be found at the first copy of this tool. (F.I.1)

(a) Historic activity levels

Annual activity levels:	Unit	2014	2015	2016	2017	2018
i.	tonnes					
ii. From sheet "H_SpecialBM":	tonnes					
iii. Values used for calculation:	tonnes					

(b) Special reporting requirements:

Further correction factors

(c) Exchangeability of fuel and electricity:

Parameter	Unit	2014	2015	2016	2017	2018
i. Direct emissions	t CO2 / year					
ii. Net imported heat	TJ / year					
iii. Relevant electricity consumption	MWh / year					
iv. Total direct emissions	t CO2 / year					
v. Indirect emissions	t CO2 / year					

(d) Heat imported from non-ETS installations or entities:

Parameter	Unit	2014	2015	2016	2017	2018
i. Measurable heat imported from non-ETS:	TJ / year					
ii. Consistency check with sheet "E_Energy flows":	%					
iii. Consistency check with point (n):	%					

Production details

(e) Identification of products included in this product benchmark sub-installation

A list of PRODCOM 2010 codes can be found at:

http://ec.europa.eu/eurostat/ramon/nomenclatures/index.cfm?TargetUrl=LST_CLS_DLD&StrNom=PRD_2010&StrLanguageCode=EN&StrLayoutCode=HIERARCHIC

(f) Individual production levels of products included in this product benchmark sub-installation

	PRODCOM 2010	Name of product or group of products	Unit	2014	2015	2016	2017	2018
1								
2								
3								
4								
5								
6								
7								
8								
9								
10								
	Sum of production levels							

Data required for the determination of the benchmark improvement rate pursuant to Article 10a(2) of the EU ETS Directive

Sub-installation with product benchmark:

Upon entries made below, the attributable emissions are calculated in section K.III.2 of the summary sheet.

(g) Directly attributable emissions (DirEm* (MP source streams)) to this sub-installation

Directly attributable emissions (DirEm*)	Unit	2014	2015	2016	2017	2018
	t CO2e/year					

(h) Fuel input to this sub-installation and relevant emission factor

	Unit	2014	2015	2016	2017	2018
i. Fuel input	TJ / year					
ii. Weighted emission factor	t CO2 / TJ					

(i) Further internal source streams imported to or exported from this sub-installation

i. Are further imported or exported internal source streams relevant for this sub-installation?

ii. **Name of further source streams - 1:**

Further source streams - 1	Unit	2014	2015	2016	2017	2018

iii.	Amount imported or exported	t / year					
iv.	Net calorific value (NCV), if applicable	GJ / t					
v.	Carbon content (mass %)	%					
vi.	Biomass content (as fraction of carbon)	%					
vii.	Emissions (fossil, calculated)	t CO2 / year					
viii.	*Memo-Item: Biomass emissions*	*t CO2 / year*					
ix.	Energy content (calculated)	TJ / year					
x.	Error messages (emissions)						

xi. **Name of further source streams - 2:**

	Further source streams - 2	**Unit**	**2014**	**2015**	**2016**	**2017**	**2018**
xii.	Amount imported or exported	t / year					
xiii.	Net calorific value (NCV), if applicable	GJ / t					
xiv.	Carbon content (mass %)	%					
xv.	Biomass content (as fraction of carbon)	%					
xvi.	Emissions (fossil, calculated)	t CO2 / year					
xvii.	*Memo-Item: Biomass emissions*	*t CO2 / year*					
xviii.	Energy content (calculated)	TJ / year					
xiv.	Error messages (emissions)						

(j) Amount of GHG imported or exported as feedstock

	Unit	**2014**	**2015**	**2016**	**2017**	**2018**
GHG imported or exported	t CO2e/year					

(k) Measurable heat import to and export from this sub-installation

For attributing emissions from cogeneration (CHP) to production of heat, the "CHP tool" in section D.III. has to be used.

	Total heat imported	**Unit**	**2014**	**2015**	**2016**	**2017**	**2018**
i.	Net heat imported	TJ / year					
ii.	Specific EF (imported heat)	t CO2 / TJ					
	Special heat import	**Unit**	**2014**	**2015**	**2016**	**2017**	**2018**
iii.	Net heat imported from pulp	TJ / year					
iv.	Net heat imported from nitric acid sub-	TJ / year					
	Total heat exported	**Unit**	**2014**	**2015**	**2016**	**2017**	**2018**
v.	Net heat exported	TJ / year					
vi.	Specific EF (exported heat)	t CO2 / TJ					

(l) Waste gas balance for this sub-installation

i. **Are waste gases relevant for this sub-installation?**

ii. **Types of waste gases produced:**

		Unit	**2014**	**2015**	**2016**	**2017**	**2018**
iii.	Amounts produced	1000Nm3/year					
iv.	Net calorific value	GJ/1000Nm3					
v.	Waste gas produced	TJ / year					
vi.	Specific EF (produced waste gas)	t CO2 / TJ					

vii. **Types of waste gases consumed:**

		Unit	**2014**	**2015**	**2016**	**2017**	**2018**
viii.	Amounts consumed	1000Nm3/year					
ix.	Net calorific value	GJ/1000Nm3					
x.	Waste gas consumed	TJ / year					
xi.	Specific EF (consumed waste gas)	t CO2 / TJ					

xii. **Types of waste gases flared:**

		Unit	**2014**	**2015**	**2016**	**2017**	**2018**
xiii.	Amounts flared	1000Nm3/year					
xiv.	Net calorific value	GJ/1000Nm3					
xv.	Waste gas flared	TJ / year					
xvi.	Specific EF (flared waste gas)	t CO2 / TJ					

xvii. **Types of waste gases imported:**

		Unit	**2014**	**2015**	**2016**	**2017**	**2018**
xviii.	Amounts imported	1000Nm3/year					
xix.	Net calorific value	GJ/1000Nm3					
xx.	Waste gas imported	TJ / year					
xxi.	Specific EF (imported waste gas)	t CO2 / TJ					

xxii. **Types of waste gases exported:**

		Unit	**2014**	**2015**	**2016**	**2017**	**2018**
xxiii.	Amounts exported	1000Nm3/year					
xxiv.	Net calorific value	GJ/1000Nm3					
xxv.	Waste gas exported	TJ / year					
xxvi.	Specific EF (exported waste gas)	t CO2 / TJ					

(m) Electricity production

	Unit	**2014**	**2015**	**2016**	**2017**	**2018**
Electricity produced	MWh / year					

(n) Total amount of pulp produced

tonnes						

(o) Import or export of intermediate products covered by product benchmarks

i. Is there any import or export of intermediate products covered by product benchmarks?

	Imported amounts:	**Unit**	**2014**	**2015**	**2016**	**2017**	**2018**
ii.		tonnes					
iii.		tonnes					
	Exported amounts:	**Unit**	**2014**	**2015**	**2016**	**2017**	**2018**
iv.		tonnes					
v.		tonnes					

vi. Description of the intermediate products imported or exported

5 Sub-installation with product benchmark:

Detailed instructions for data entries in this tool can be found at the first copy of this tool. (F.I.1)

(a) Historic activity levels

Annual activity levels:	Unit	2014	2015	2016	2017	2018	
i.	tonnes						
ii. From sheet "H_SpecialBM":	tonnes						
iii. Values used for calculation:	tonnes						

(b) Special reporting requirements:

Further correction factors

(c) Exchangeability of fuel and electricity:

Parameter	Unit	2014	2015	2016	2017	2018	
i. Direct emissions	t CO2 / year						
ii. Net imported heat	TJ / year						
iii. Relevant electricity consumption	MWh / year						
iv. Total direct emissions	t CO2 / year						
v. Indirect emissions	t CO2 / year						

(d) Heat imported from non-ETS installations or entities:

Parameter	Unit	2014	2015	2016	2017	2018	
i. Measurable heat imported from non-ETS:	TJ / year						
ii. Consistency check with sheet "E_Energy flows":	%						
iii. Consistency check with point (n):	%						

Production details

(e) Identification of products included in this product benchmark sub-installation

A list of PRODCOM 2010 codes can be found at:

http://ec.europa.eu/eurostat/ramon/nomenclatures/index.cfm?TargetUrl=LST_CLS_DLD&StrNom=PRD_2010&StrLanguageCode=EN&StrLayoutCode=HIERARCHIC

(f) Individual production levels of products included in this product benchmark sub-installation

	PRODCOM 2010	Name of product or group of products	Unit	2014	2015	2016	2017	2018
1								
2								
3								
4								
5								
6								
7								
8								
9								
10								
	Sum of production levels							

Data required for the determination of the benchmark improvement rate pursuant to Article 10a(2) of the EU ETS Directive

Sub-installation with product benchmark:

Upon entries made below, the attributable emissions are calculated in section K.III.2 of the summary sheet.

(g) Directly attributable emissions (DirEm* (MP source streams)) to this sub-installation

Directly attributable emissions (DirEm*)	Unit	2014	2015	2016	2017	2018
	t CO2e/year					

(h) Fuel input to this sub-installation and relevant emission factor

	Unit	2014	2015	2016	2017	2018
i. Fuel input	TJ / year					
ii. Weighted emission factor	t CO2 / TJ					

(i) Further internal source streams imported to or exported from this sub-installation

i. Are further imported or exported internal source streams relevant for this sub-installation?

ii. **Name of further source streams - 1:**

Further source streams - 1	Unit	2014	2015	2016	2017	2018
iii. Amount imported or exported	t / year					
iv. Net calorific value (NCV), if applicable	GJ / t					
v. Carbon content (mass %)	%					
vi. Biomass content (as fraction of carbon)	%					
vii. Emissions (fossil, calculated)	t CO2 / year					
viii. *Memo-Item: Biomass emissions*	*t CO2 / year*					
ix. Energy content (calculated)	TJ / year					
x. Error messages (emissions)						

xi. **Name of further source streams - 2:**

Further source streams - 2	Unit	2014	2015	2016	2017	2018
xii. Amount imported or exported	t / year					
xiii. Net calorific value (NCV), if applicable	GJ / t					
xiv. Carbon content (mass %)	%					
xv. Biomass content (as fraction of carbon)	%					
xvi. Emissions (fossil, calculated)	t CO2 / year					
xvii. *Memo-Item: Biomass emissions*	*t CO2 / year*					
xviii. Energy content (calculated)	TJ / year					
xiv. Error messages (emissions)						

(j) Amount of GHG imported or exported as feedstock

	Unit	2014	2015	2016	2017	2018
GHG imported or exported	t CO2e/year					

(k) Measurable heat import to and export from this sub-installation

For attributing emissions from cogeneration (CHP) to production of heat, the "CHP tool" in section D.III. has to be used.

Total heat imported	Unit	2014	2015	2016	2017	2018

i.	Net heat imported	TJ / year					
ii.	Specific EF (imported heat)	t CO2 / TJ					

	Special heat import	**Unit**	**2014**	**2015**	**2016**	**2017**	**2018**
iii.	Net heat imported from pulp	TJ / year					
iv.	Net heat imported from nitric acid sub-	TJ / year					

	Total heat exported	**Unit**	**2014**	**2015**	**2016**	**2017**	**2018**
v.	Net heat exported	TJ / year					
vi.	Specific EF (exported heat)	t CO2 / TJ					

(l) Waste gas balance for this sub-installation

i. **Are waste gases relevant for this sub-installation?**

ii. **Types of waste gases produced:**

		Unit	**2014**	**2015**	**2016**	**2017**	**2018**
iii.	Amounts produced	1000Nm3/year					
iv.	Net calorific value	GJ/1000Nm3					
v.	Waste gas produced	TJ / year					
vi.	Specific EF (produced waste gas)	t CO2 / TJ					

vii. **Types of waste gases consumed:**

		Unit	**2014**	**2015**	**2016**	**2017**	**2018**
viii.	Amounts consumed	1000Nm3/year					
ix.	Net calorific value	GJ/1000Nm3					
x.	Waste gas consumed	TJ / year					
xi.	Specific EF (consumed waste gas)	t CO2 / TJ					

xii. **Types of waste gases flared:**

		Unit	**2014**	**2015**	**2016**	**2017**	**2018**
xiii.	Amounts flared	1000Nm3/year					
xiv.	Net calorific value	GJ/1000Nm3					
xv.	Waste gas flared	TJ / year					
xvi.	Specific EF (flared waste gas)	t CO2 / TJ					

xvii. **Types of waste gases imported:**

		Unit	**2014**	**2015**	**2016**	**2017**	**2018**
xviii.	Amounts imported	1000Nm3/year					
xix.	Net calorific value	GJ/1000Nm3					
xx.	Waste gas imported	TJ / year					
xxi.	Specific EF (imported waste gas)	t CO2 / TJ					

xxii. **Types of waste gases exported:**

		Unit	**2014**	**2015**	**2016**	**2017**	**2018**
xxiii.	Amounts exported	1000Nm3/year					
xxiv.	Net calorific value	GJ/1000Nm3					
xxv.	Waste gas exported	TJ / year					
xxvi.	Specific EF (exported waste gas)	t CO2 / TJ					

(m) Electricity production

	Unit	**2014**	**2015**	**2016**	**2017**	**2018**
Electricity produced	MWh / year					

(n) Total amount of pulp produced

	Unit	**2014**	**2015**	**2016**	**2017**	**2018**
	tonnes					

(o) Import or export of intermediate products covered by product benchmarks

i. Is there any import or export of intermediate products covered by product benchmarks?

	Imported amounts:	**Unit**	**2014**	**2015**	**2016**	**2017**	**2018**
ii.		tonnes					
iii.		tonnes					

	Exported amounts:	**Unit**	**2014**	**2015**	**2016**	**2017**	**2018**
iv.		tonnes					
v.		tonnes					

vi. Description of the intermediate products imported or exported

6 Sub-installation with product benchmark:

Detailed instructions for data entries in this tool can be found at the first copy of this tool. (F.I.1)

(a) Historic activity levels

	Annual activity levels:	**Unit**	**2014**	**2015**	**2016**	**2017**	**2018**	
i.		tonnes						
ii.	From sheet "H_SpecialBM":	tonnes						
iii.	Values used for calculation:	tonnes						

(b) Special reporting requirements:

Further correction factors

(c) Exchangeability of fuel and electricity:

	Parameter	**Unit**	**2014**	**2015**	**2016**	**2017**	**2018**	
i.	Direct emissions	t CO2 / year						
ii.	Net imported heat	TJ / year						
iii.	Relevant electricity consumption	MWh / year						
iv.	Total direct emissions	t CO2 / year						
v.	Indirect emissions	t CO2 / year						

(d) Heat imported from non-ETS installations or entities:

	Parameter	**Unit**	**2014**	**2015**	**2016**	**2017**	**2018**	
i.	Measurable heat imported from non-ETS:	TJ / year						
ii.	Consistency check with sheet "E_Energy flows":	%						

iii.	Consistency check with point (n):	%					

Production details

(e) Identification of products included in this product benchmark sub-installation

A list of PRODCOM 2010 codes can be found at:
http://ec.europa.eu/eurostat/ramon/nomenclatures/index.cfm?TargetUrl=LST_CLS_DLD&StrNom=PRD_2010&StrLanguageCode=EN&StrLayoutCode=HIERARCHIC

(f) Individual production levels of products included in this product benchmark sub-installation

	PRODCOM 2010	Name of product or group of products	Unit	2014	2015	2016	2017	2018
1								
2								
3								
4								
5								
6								
7								
8								
9								
10								
	Sum of production levels							

Data required for the determination of the benchmark improvement rate pursuant to Article 10a(2) of the EU ETS Directive

Sub-installation with product benchmark:

Upon entries made below, the attributable emissions are calculated in section K.III.2 of the summary sheet.

(g) Directly attributable emissions (DirEm* (MP source streams)) to this sub-installation

Directly attributable emissions (DirEm*)	Unit	2014	2015	2016	2017	2018
	t CO2e/year					

(h) Fuel input to this sub-installation and relevant emission factor

		Unit	2014	2015	2016	2017	2018
i.	Fuel input	TJ / year					
ii.	Weighted emission factor	t CO2 / TJ					

(i) Further internal source streams imported to or exported from this sub-installation

i. Are further imported or exported internal source streams relevant for this sub-installation?

ii. **Name of further source streams - 1:**

	Further source streams - 1	Unit	2014	2015	2016	2017	2018
iii.	Amount imported or exported	t / year					
iv.	Net calorific value (NCV), if applicable	GJ / t					
v.	Carbon content (mass %)	%					
vi.	Biomass content (as fraction of carbon)	%					
vii.	Emissions (fossil, calculated)	t CO2 / year					
viii.	*Memo-Item: Biomass emissions*	*t CO2 / year*					
ix.	Energy content (calculated)	TJ / year					
x.	Error messages (emissions)						

xi. **Name of further source streams - 2:**

	Further source streams - 2	Unit	2014	2015	2016	2017	2018
xii.	Amount imported or exported	t / year					
xiii.	Net calorific value (NCV), if applicable	GJ / t					
xiv.	Carbon content (mass %)	%					
xv.	Biomass content (as fraction of carbon)	%					
xvi.	Emissions (fossil, calculated)	t CO2 / year					
xvii.	*Memo-Item: Biomass emissions*	*t CO2 / year*					
xviii.	Energy content (calculated)	TJ / year					
xiv.	Error messages (emissions)						

(j) Amount of GHG imported or exported as feedstock

	Unit	2014	2015	2016	2017	2018
GHG imported or exported	t CO2e/year					

(k) Measurable heat import to and export from this sub-installation

For attributing emissions from cogeneration (CHP) to production of heat, the "CHP tool" in section D.III. has to be used.

	Total heat imported	Unit	2014	2015	2016	2017	2018
i.	Net heat imported	TJ / year					
ii.	Specific EF (imported heat)	t CO2 / TJ					
	Special heat import	**Unit**	**2014**	**2015**	**2016**	**2017**	**2018**
iii.	Net heat imported from pulp	TJ / year					
iv.	Net heat imported from nitric acid sub-	TJ / year					
	Total heat exported	**Unit**	**2014**	**2015**	**2016**	**2017**	**2018**
v.	Net heat exported	TJ / year					
vi.	Specific EF (exported heat)	t CO2 / TJ					

(l) Waste gas balance for this sub-installation

i. **Are waste gases relevant for this sub-installation?**

ii. **Types of waste gases produced:**

		Unit	2014	2015	2016	2017	2018
iii.	Amounts produced	1000Nm3/year					
iv.	Net calorific value	GJ/1000Nm3					
v.	Waste gas produced	TJ / year					
vi.	Specific EF (produced waste gas)	t CO2 / TJ					

vii. **Types of waste gases consumed:**

		Unit	2014	2015	2016	2017	2018
viii.	Amounts consumed	1000Nm3/year					
ix.	Net calorific value	GJ/1000Nm3					
x.	Waste gas consumed	TJ / year					
xi.	Specific EF (consumed waste gas)	t CO2 / TJ					

xii. **Types of waste gases flared:**

	Unit	2014	2015	2016	2017	2018
xiii. Amounts flared	1000Nm3/year					
xiv. Net calorific value	GJ/1000Nm3					
xv. Waste gas flared	TJ / year					
xvi. Specific EF (flared waste gas)	t CO2 / TJ					

xvii. **Types of waste gases imported:**

	Unit	2014	2015	2016	2017	2018
xviii. Amounts imported	1000Nm3/year					
xix. Net calorific value	GJ/1000Nm3					
xx. Waste gas imported	TJ / year					
xxi. Specific EF (imported waste gas)	t CO2 / TJ					

xxii. **Types of waste gases exported:**

	Unit	2014	2015	2016	2017	2018
xxiii. Amounts exported	1000Nm3/year					
xxiv. Net calorific value	GJ/1000Nm3					
xxv. Waste gas exported	TJ / year					
xxvi. Specific EF (exported waste gas)	t CO2 / TJ					

(m) Electricity production

	Unit	2014	2015	2016	2017	2018
Electricity produced	MWh / year					

(n) Total amount of pulp produced

	Unit	2014	2015	2016	2017	2018
	tonnes					

(o) Import or export of intermediate products covered by product benchmarks

i. Is there any import or export of intermediate products covered by product benchmarks?

Imported amounts:	Unit	2014	2015	2016	2017	2018
ii.	tonnes					
iii.	tonnes					
Exported amounts:	**Unit**	**2014**	**2015**	**2016**	**2017**	**2018**
iv.	tonnes					
v.	tonnes					

vi. Description of the intermediate products imported or exported

7 Sub-installation with product benchmark:

Detailed instructions for data entries in this tool can be found at the first copy of this tool. (F.I.1)

(a) Historic activity levels

Annual activity levels:	Unit	2014	2015	2016	2017	2018	
i.	tonnes						
ii. From sheet "H_SpecialBM":	tonnes						
iii. Values used for calculation:	tonnes						

(b) Special reporting requirements:

Further correction factors

(c) Exchangeability of fuel and electricity:

Parameter	Unit	2014	2015	2016	2017	2018	
i. Direct emissions	t CO2 / year						
ii. Net imported heat	TJ / year						
iii. Relevant electricity consumption	MWh / year						
iv. Total direct emissions	t CO2 / year						
v. Indirect emissions	t CO2 / year						

(d) Heat imported from non-ETS installations or entities:

Parameter	Unit	2014	2015	2016	2017	2018	
i. Measurable heat imported from non-ETS:	TJ / year						
ii. Consistency check with sheet "E_Energy flows":	%						
iii. Consistency check with point (n):	%						

Production details

(e) Identification of products included in this product benchmark sub-installation

A list of PRODCOM 2010 codes can be found at:

http://ec.europa.eu/eurostat/ramon/nomenclatures/index.cfm?TargetUrl=LST_CLS_DLD&StrNom=PRD_2010&StrLanguageCode=EN&StrLayoutCode=HIERARCHIC

(f) Individual production levels of products included in this product benchmark sub-installation

	PRODCOM 2010	Name of product or group of products	Unit	2014	2015	2016	2017	2018
1								
2								
3								
4								
5								
6								
7								
8								
9								
10								
	Sum of production levels							

Data required for the determination of the benchmark improvement rate pursuant to Article 10a(2) of the EU ETS Directive

Sub-installation with product benchmark:

Upon entries made below, the attributable emissions are calculated in section K.III.2 of the summary sheet.

(g) Directly attributable emissions (DirEm* (MP source streams)) to this sub-installation

Directly attributable emissions (DirEm*)	Unit	2014	2015	2016	2017	2018
	t CO2e/year					

(h) Fuel input to this sub-installation and relevant emission factor

		Unit	2014	2015	2016	2017	2018
i.	Fuel input	TJ / year					
ii.	Weighted emission factor	t CO2 / TJ					

(i) Further internal source streams imported to or exported from this sub-installation

i. Are further imported or exported internal source streams relevant for this sub-installation?

ii. **Name of further source streams - 1:**

	Further source streams - 1	Unit	2014	2015	2016	2017	2018
iii.	Amount imported or exported	t / year					
iv.	Net calorific value (NCV), if applicable	GJ / t					
v.	Carbon content (mass %)	%					
vi.	Biomass content (as fraction of carbon)	%					
vii.	Emissions (fossil, calculated)	t CO2 / year					
viii.	*Memo-Item: Biomass emissions*	*t CO2 / year*					
ix.	Energy content (calculated)	TJ / year					
x.	Error messages (emissions)						

xi. **Name of further source streams - 2:**

	Further source streams - 2	Unit	2014	2015	2016	2017	2018
xii.	Amount imported or exported	t / year					
xiii.	Net calorific value (NCV), if applicable	GJ / t					
xiv.	Carbon content (mass %)	%					
xv.	Biomass content (as fraction of carbon)	%					
xvi.	Emissions (fossil, calculated)	t CO2 / year					
xvii.	*Memo-Item: Biomass emissions*	*t CO2 / year*					
xviii.	Energy content (calculated)	TJ / year					
xiv.	Error messages (emissions)						

(j) Amount of GHG imported or exported as feedstock

	Unit	2014	2015	2016	2017	2018
GHG imported or exported	t CO2e/year					

(k) Measurable heat import to and export from this sub-installation

For attributing emissions from cogeneration (CHP) to production of heat, the "CHP tool" in section D.III. has to be used.

	Total heat imported	Unit	2014	2015	2016	2017	2018
i.	Net heat imported	TJ / year					
ii.	Specific EF (imported heat)	t CO2 / TJ					
	Special heat import	**Unit**	**2014**	**2015**	**2016**	**2017**	**2018**
iii.	Net heat imported from pulp	TJ / year					
iv.	Net heat imported from nitric acid sub-	TJ / year					
	Total heat exported	**Unit**	**2014**	**2015**	**2016**	**2017**	**2018**
v.	Net heat exported	TJ / year					
vi.	Specific EF (exported heat)	t CO2 / TJ					

(l) Waste gas balance for this sub-installation

i. **Are waste gases relevant for this sub-installation?**

ii. **Types of waste gases produced:**

		Unit	2014	2015	2016	2017	2018
iii.	Amounts produced	1000Nm3/year					
iv.	Net calorific value	GJ/1000Nm3					
v.	Waste gas produced	TJ / year					
vi.	Specific EF (produced waste gas)	t CO2 / TJ					

vii. **Types of waste gases consumed:**

		Unit	2014	2015	2016	2017	2018
viii.	Amounts consumed	1000Nm3/year					
ix.	Net calorific value	GJ/1000Nm3					
x.	Waste gas consumed	TJ / year					
xi.	Specific EF (consumed waste gas)	t CO2 / TJ					

xii. **Types of waste gases flared:**

		Unit	2014	2015	2016	2017	2018
xiii.	Amounts flared	1000Nm3/year					
xiv.	Net calorific value	GJ/1000Nm3					
xv.	Waste gas flared	TJ / year					
xvi.	Specific EF (flared waste gas)	t CO2 / TJ					

xvii. **Types of waste gases imported:**

		Unit	2014	2015	2016	2017	2018
xviii.	Amounts imported	1000Nm3/year					
xix.	Net calorific value	GJ/1000Nm3					
xx.	Waste gas imported	TJ / year					
xxi.	Specific EF (imported waste gas)	t CO2 / TJ					

xxii. **Types of waste gases exported:**

		Unit	2014	2015	2016	2017	2018
xxiii.	Amounts exported	1000Nm3/year					
xxiv.	Net calorific value	GJ/1000Nm3					
xxv.	Waste gas exported	TJ / year					
xxvi.	Specific EF (exported waste gas)	t CO2 / TJ					

(m) Electricity production

	Unit	2014	2015	2016	2017	2018
Electricity produced	MWh / year					

(n) Total amount of pulp produced

		tonnes					

(o) Import or export of intermediate products covered by product benchmarks

i. Is there any import or export of intermediate products covered by product benchmarks?

	Imported amounts:	Unit	2014	2015	2016	2017	2018
ii.		tonnes					
iii.		tonnes					
	Exported amounts:	**Unit**	**2014**	**2015**	**2016**	**2017**	**2018**
iv.		tonnes					
v.		tonnes					

vi. Description of the intermediate products imported or exported

8 Sub-installation with product benchmark:

Detailed instructions for data entries in this tool can be found at the first copy of this tool. (F.I.1)

(a) Historic activity levels

	Annual activity levels:	Unit	2014	2015	2016	2017	2018
i.		tonnes					
ii.	From sheet "H_SpecialBM":	tonnes					
iii.	Values used for calculation:	tonnes					

(b) Special reporting requirements:

Further correction factors

(c) Exchangeability of fuel and electricity:

	Parameter	Unit	2014	2015	2016	2017	2018
i.	Direct emissions	t CO2 / year					
ii.	Net imported heat	TJ / year					
iii.	Relevant electricity consumption	MWh / year					
iv.	Total direct emissions	t CO2 / year					
v.	Indirect emissions	t CO2 / year					

(d) Heat imported from non-ETS installations or entities:

	Parameter	Unit	2014	2015	2016	2017	2018
i.	Measurable heat imported from non-ETS:	TJ / year					
ii.	Consistency check with sheet "E_Energy flows":	%					
iii.	Consistency check with point (n):	%					

Production details

(e) Identification of products included in this product benchmark sub-installation

A list of PRODCOM 2010 codes can be found at:

http://ec.europa.eu/eurostat/ramon/nomenclatures/index.cfm?TargetUrl=LST_CLS_DLD&StrNom=PRD_2010&StrLanguageCode=EN&StrLayoutCode=HIERARCHIC

(f) Individual production levels of products included in this product benchmark sub-installation

	PRODCOM 2010	Name of product or group of products	Unit	2014	2015	2016	2017	2018
1								
2								
3								
4								
5								
6								
7								
8								
9								
10								
	Sum of production levels							

Data required for the determination of the benchmark improvement rate pursuant to Article 10a(2) of the EU ETS Directive

Sub-installation with product benchmark:

Upon entries made below, the attributable emissions are calculated in section K.III.2 of the summary sheet.

(g) Directly attributable emissions (DirEm* (MP source streams)) to this sub-installation

	Directly attributable emissions (DirEm*)	Unit	2014	2015	2016	2017	2018
		t CO2e/year					

(h) Fuel input to this sub-installation and relevant emission factor

		Unit	2014	2015	2016	2017	2018
i.	Fuel input	TJ / year					
ii.	Weighted emission factor	t CO2 / TJ					

(i) Further internal source streams imported to or exported from this sub-installation

i. Are further imported or exported internal source streams relevant for this sub-installation?

ii. **Name of further source streams - 1:**

	Further source streams - 1	Unit	2014	2015	2016	2017	2018
iii.	Amount imported or exported	t / year					
iv.	Net calorific value (NCV), if applicable	GJ / t					
v.	Carbon content (mass %)	%					
vi.	Biomass content (as fraction of carbon)	%					
vii.	Emissions (fossil, calculated)	t CO2 / year					
viii.	*Memo-Item: Biomass emissions*	*t CO2 / year*					
ix.	Energy content (calculated)	TJ / year					
x.	Error messages (emissions)						

xi. **Name of further source streams - 2:**

	Further source streams - 2	Unit	2014	2015	2016	2017	2018
xii.	Amount imported or exported	t / year					

xiii.	Net calorific value (NCV), if applicable	GJ / t					
xiv.	Carbon content (mass %)	%					
xv.	Biomass content (as fraction of carbon)	%					
xvi.	Emissions (fossil, calculated)	t CO2 / year					
xvii.	*Memo-Item: Biomass emissions*	*t CO2 / year*					
xviii.	Energy content (calculated)	TJ / year					
xiv.	Error messages (emissions)						

(j) Amount of GHG imported or exported as feedstock

	Unit	2014	2015	2016	2017	2018
GHG imported or exported	t CO2e/year					

(k) Measurable heat import to and export from this sub-installation

For attributing emissions from cogeneration (CHP) to production of heat, the "CHP tool" in section D.III. has to be used.

	Total heat imported	**Unit**	**2014**	**2015**	**2016**	**2017**	**2018**
i.	Net heat imported	TJ / year					
ii.	Specific EF (imported heat)	t CO2 / TJ					
	Special heat import	**Unit**	**2014**	**2015**	**2016**	**2017**	**2018**
iii.	Net heat imported from pulp	TJ / year					
iv.	Net heat imported from nitric acid sub-	TJ / year					
	Total heat exported	**Unit**	**2014**	**2015**	**2016**	**2017**	**2018**
v.	Net heat exported	TJ / year					
vi.	Specific EF (exported heat)	t CO2 / TJ					

(l) Waste gas balance for this sub-installation

i. **Are waste gases relevant for this sub-installation?**

ii. **Types of waste gases produced:**

		Unit	**2014**	**2015**	**2016**	**2017**	**2018**
iii.	Amounts produced	1000Nm3/year					
iv.	Net calorific value	GJ/1000Nm3					
v.	Waste gas produced	TJ / year					
vi.	Specific EF (produced waste gas)	t CO2 / TJ					

vii. **Types of waste gases consumed:**

		Unit	**2014**	**2015**	**2016**	**2017**	**2018**
viii.	Amounts consumed	1000Nm3/year					
ix.	Net calorific value	GJ/1000Nm3					
x.	Waste gas consumed	TJ / year					
xi.	Specific EF (consumed waste gas)	t CO2 / TJ					

xii. **Types of waste gases flared:**

		Unit	**2014**	**2015**	**2016**	**2017**	**2018**
xiii.	Amounts flared	1000Nm3/year					
xiv.	Net calorific value	GJ/1000Nm3					
xv.	Waste gas flared	TJ / year					
xvi.	Specific EF (flared waste gas)	t CO2 / TJ					

xvii. **Types of waste gases imported:**

		Unit	**2014**	**2015**	**2016**	**2017**	**2018**
xviii.	Amounts imported	1000Nm3/year					
xix.	Net calorific value	GJ/1000Nm3					
xx.	Waste gas imported	TJ / year					
xxi.	Specific EF (imported waste gas)	t CO2 / TJ					

xxii. **Types of waste gases exported:**

		Unit	**2014**	**2015**	**2016**	**2017**	**2018**
xxiii.	Amounts exported	1000Nm3/year					
xxiv.	Net calorific value	GJ/1000Nm3					
xxv.	Waste gas exported	TJ / year					
xxvi.	Specific EF (exported waste gas)	t CO2 / TJ					

(m) Electricity production

	Unit	2014	2015	2016	2017	2018
Electricity produced	MWh / year					

(n) Total amount of pulp produced

	tonnes					

(o) Import or export of intermediate products covered by product benchmarks

i. Is there any import or export of intermediate products covered by product benchmarks?

	Imported amounts:	**Unit**	**2014**	**2015**	**2016**	**2017**	**2018**
ii.		tonnes					
iii.		tonnes					
	Exported amounts:	**Unit**	**2014**	**2015**	**2016**	**2017**	**2018**
iv.		tonnes					
v.		tonnes					

vi. Description of the intermediate products imported or exported

9 Sub-installation with product benchmark:

Detailed instructions for data entries in this tool can be found at the first copy of this tool. (F.I.1)

(a) Historic activity levels

	Annual activity levels:	**Unit**	**2014**	**2015**	**2016**	**2017**	**2018**	
i.		tonnes						
ii.	From sheet "H_SpecialBM":	tonnes						
iii.	Values used for calculation:	tonnes						

(b) Special reporting requirements:

Further correction factors

(c) Exchangeability of fuel and electricity:

	Parameter	Unit	2014	2015	2016	2017	2018	
i.	Direct emissions	t CO2 / year						
ii.	Net imported heat	TJ / year						
iii.	Relevant electricity consumption	MWh / year						
iv.	Total direct emissions	t CO2 / year						
v.	Indirect emissions	t CO2 / year						

(d) Heat imported from non-ETS installations or entities:

	Parameter	Unit	2014	2015	2016	2017	2018	
i.	Measurable heat imported from non-ETS:	TJ / year						
ii.	Consistency check with sheet "E_Energy flows":	%						
iii.	Consistency check with point (n):	%						

Production details

(e) Identification of products included in this product benchmark sub-installation

A list of PRODCOM 2010 codes can be found at:
http://ec.europa.eu/eurostat/ramon/nomenclatures/index.cfm?TargetUrl=LST_CLS_DLD&StrNom=PRD_2010&StrLanguageCode=EN&StrLayoutCode=HIERARCHIC

(f) Individual production levels of products included in this product benchmark sub-installation

	PRODCOM 2010	Name of product or group of products	Unit	2014	2015	2016	2017	2018
1								
2								
3								
4								
5								
6								
7								
8								
9								
10								
	Sum of production levels							

Data required for the determination of the benchmark improvement rate pursuant to Article 10a(2) of the EU ETS Directive

Sub-installation with product benchmark:

Upon entries made below, the attributable emissions are calculated in section K.III.2 of the summary sheet.

(g) Directly attributable emissions (DirEm* (MP source streams)) to this sub-installation

Directly attributable emissions (DirEm*)	Unit	2014	2015	2016	2017	2018
	t CO2e/year					

(h) Fuel input to this sub-installation and relevant emission factor

		Unit	2014	2015	2016	2017	2018
i.	Fuel input	TJ / year					
ii.	Weighted emission factor	t CO2 / TJ					

(i) Further internal source streams imported to or exported from this sub-installation

i. Are further imported or exported internal source streams relevant for this sub-installation?

ii. **Name of further source streams - 1:**

	Further source streams - 1	Unit	2014	2015	2016	2017	2018
iii.	Amount imported or exported	t / year					
iv.	Net calorific value (NCV), if applicable	GJ / t					
v.	Carbon content (mass %)	%					
vi.	Biomass content (as fraction of carbon)	%					
vii.	Emissions (fossil, calculated)	t CO2 / year					
viii.	*Memo-Item: Biomass emissions*	*t CO2 / year*					
ix.	Energy content (calculated)	TJ / year					
x.	Error messages (emissions)						

xi. **Name of further source streams - 2:**

	Further source streams - 2	Unit	2014	2015	2016	2017	2018
xii.	Amount imported or exported	t / year					
xiii.	Net calorific value (NCV), if applicable	GJ / t					
xiv.	Carbon content (mass %)	%					
xv.	Biomass content (as fraction of carbon)	%					
xvi.	Emissions (fossil, calculated)	t CO2 / year					
xvii.	*Memo-Item: Biomass emissions*	*t CO2 / year*					
xviii.	Energy content (calculated)	TJ / year					
xiv.	Error messages (emissions)						

(j) Amount of GHG imported or exported as feedstock

	Unit	2014	2015	2016	2017	2018
GHG imported or exported	t CO2e/year					

(k) Measurable heat import to and export from this sub-installation

For attributing emissions from cogeneration (CHP) to production of heat, the "CHP tool" in section D.III. has to be used.

	Total heat imported	Unit	2014	2015	2016	2017	2018
i.	Net heat imported	TJ / year					
ii.	Specific EF (imported heat)	t CO2 / TJ					
	Special heat import	**Unit**	**2014**	**2015**	**2016**	**2017**	**2018**
iii.	Net heat imported from pulp	TJ / year					
iv.	Net heat imported from nitric acid sub-	TJ / year					
	Total heat exported	**Unit**	**2014**	**2015**	**2016**	**2017**	**2018**
v.	Net heat exported	TJ / year					
vi.	Specific EF (exported heat)	t CO2 / TJ					

(l) Waste gas balance for this sub-installation

i. **Are waste gases relevant for this sub-installation?**

ii. **Types of waste gases produced:**

	Unit	2014	2015	2016	2017	2018
iii. Amounts produced	1000Nm3/year					
iv. Net calorific value	GJ/1000Nm3					
v. Waste gas produced	TJ / year					
vi. Specific EF (produced waste gas)	t CO2 / TJ					

vii. **Types of waste gases consumed:**

	Unit	2014	2015	2016	2017	2018
viii. Amounts consumed	1000Nm3/year					
ix. Net calorific value	GJ/1000Nm3					
x. Waste gas consumed	TJ / year					
xi. Specific EF (consumed waste gas)	t CO2 / TJ					

xii. **Types of waste gases flared:**

	Unit	2014	2015	2016	2017	2018
xiii. Amounts flared	1000Nm3/year					
xiv. Net calorific value	GJ/1000Nm3					
xv. Waste gas flared	TJ / year					
xvi. Specific EF (flared waste gas)	t CO2 / TJ					

xvii. **Types of waste gases imported:**

	Unit	2014	2015	2016	2017	2018
xviii. Amounts imported	1000Nm3/year					
xix. Net calorific value	GJ/1000Nm3					
xx. Waste gas imported	TJ / year					
xxi. Specific EF (imported waste gas)	t CO2 / TJ					

xxii. **Types of waste gases exported:**

	Unit	2014	2015	2016	2017	2018
xxiii. Amounts exported	1000Nm3/year					
xxiv. Net calorific value	GJ/1000Nm3					
xxv. Waste gas exported	TJ / year					
xxvi. Specific EF (exported waste gas)	t CO2 / TJ					

(m) Electricity production

	Unit	2014	2015	2016	2017	2018
Electricity produced	MWh / year					

(n) Total amount of pulp produced

	Unit	2014	2015	2016	2017	2018
	tonnes					

(o) Import or export of intermediate products covered by product benchmarks

i. Is there any import or export of intermediate products covered by product benchmarks?

Imported amounts:	Unit	2014	2015	2016	2017	2018
ii.	tonnes					
iii.	tonnes					
Exported amounts:	Unit	2014	2015	2016	2017	2018
iv.	tonnes					
v.	tonnes					

vi. Description of the intermediate products imported or exported

10 Sub-installation with product benchmark:

Detailed instructions for data entries in this tool can be found at the first copy of this tool. (F.I.1)

(a) Historic activity levels

Annual activity levels:	Unit	2014	2015	2016	2017	2018
i.	tonnes					
ii. From sheet "H_SpecialBM":	tonnes					
iii. Values used for calculation:	tonnes					

(b) Special reporting requirements:

Further correction factors

(c) Exchangeability of fuel and electricity:

Parameter	Unit	2014	2015	2016	2017	2018
i. Direct emissions	t CO2 / year					
ii. Net imported heat	TJ / year					
iii. Relevant electricity consumption	MWh / year					
iv. Total direct emissions	t CO2 / year					
v. Indirect emissions	t CO2 / year					

(d) Heat imported from non-ETS installations or entities:

Parameter	Unit	2014	2015	2016	2017	2018
i. Measurable heat imported from non-ETS:	TJ / year					
ii. Consistency check with sheet "E_Energy flows":	%					
iii. Consistency check with point (n):	%					

Production details

(e) Identification of products included in this product benchmark sub-installation

A list of PRODCOM 2010 codes can be found at:

http://ec.europa.eu/eurostat/ramon/nomenclatures/index.cfm?TargetUrl=LST_CLS_DLD&StrNom=PRD_2010&StrLanguageCode=EN&StrLayoutCode=HIERARCHIC

(f) Individual production levels of products included in this product benchmark sub-installation

	PRODCOM 2010	Name of product or group of products	Unit	2014	2015	2016	2017	2018
1								
2								

3								
4								
5								
6								
7								
8								
9								
10								
	Sum of production levels							

Data required for the determination of the benchmark improvement rate pursuant to Article 10a(2) of the EU ETS Directive

Sub-installation with product benchmark:

Upon entries made below, the attributable emissions are calculated in section K.III.2 of the summary sheet.

(g) Directly attributable emissions (DirEm* (MP source streams)) to this sub-installation

Directly attributable emissions (DirEm*)	**Unit**	**2014**	**2015**	**2016**	**2017**	**2018**
	t CO2e/year					

(h) Fuel input to this sub-installation and relevant emission factor

		Unit	**2014**	**2015**	**2016**	**2017**	**2018**
i.	Fuel input	TJ / year					
ii.	Weighted emission factor	t CO2 / TJ					

(i) Further internal source streams imported to or exported from this sub-installation

i. Are further imported or exported internal source streams relevant for this sub-installation?

ii. **Name of further source streams - 1:**

	Further source streams - 1	**Unit**	**2014**	**2015**	**2016**	**2017**	**2018**
iii.	Amount imported or exported	t / year					
iv.	Net calorific value (NCV), if applicable	GJ / t					
v.	Carbon content (mass %)	%					
vi.	Biomass content (as fraction of carbon)	%					
vii.	Emissions (fossil, calculated)	t CO2 / year					
viii.	*Memo-Item: Biomass emissions*	*t CO2 / year*					
ix.	Energy content (calculated)	TJ / year					
x.	Error messages (emissions)						

xi. **Name of further source streams - 2:**

	Further source streams - 2	**Unit**	**2014**	**2015**	**2016**	**2017**	**2018**
xii.	Amount imported or exported	t / year					
xiii.	Net calorific value (NCV), if applicable	GJ / t					
xiv.	Carbon content (mass %)	%					
xv.	Biomass content (as fraction of carbon)	%					
xvi.	Emissions (fossil, calculated)	t CO2 / year					
xvii.	*Memo-Item: Biomass emissions*	*t CO2 / year*					
xviii.	Energy content (calculated)	TJ / year					
xiv.	Error messages (emissions)						

(j) Amount of GHG imported or exported as feedstock

	Unit	**2014**	**2015**	**2016**	**2017**	**2018**
GHG imported or exported	t CO2e/year					

(k) Measurable heat import to and export from this sub-installation

For attributing emissions from cogeneration (CHP) to production of heat, the "CHP tool" in section D.III. has to be used.

	Total heat imported	**Unit**	**2014**	**2015**	**2016**	**2017**	**2018**
i.	Net heat imported	TJ / year					
ii.	Specific EF (imported heat)	t CO2 / TJ					
	Special heat import	**Unit**	**2014**	**2015**	**2016**	**2017**	**2018**
iii.	Net heat imported from pulp	TJ / year					
iv.	Net heat imported from nitric acid sub-	TJ / year					
	Total heat exported	**Unit**	**2014**	**2015**	**2016**	**2017**	**2018**
v.	Net heat exported	TJ / year					
vi.	Specific EF (exported heat)	t CO2 / TJ					

(l) Waste gas balance for this sub-installation

i. **Are waste gases relevant for this sub-installation?**

ii. **Types of waste gases produced:**

		Unit	**2014**	**2015**	**2016**	**2017**	**2018**
iii.	Amounts produced	1000Nm3/year					
iv.	Net calorific value	GJ/1000Nm3					
v.	Waste gas produced	TJ / year					
vi.	Specific EF (produced waste gas)	t CO2 / TJ					

vii. **Types of waste gases consumed:**

		Unit	**2014**	**2015**	**2016**	**2017**	**2018**
viii.	Amounts consumed	1000Nm3/year					
ix.	Net calorific value	GJ/1000Nm3					
x.	Waste gas consumed	TJ / year					
xi.	Specific EF (consumed waste gas)	t CO2 / TJ					

xii. **Types of waste gases flared:**

		Unit	**2014**	**2015**	**2016**	**2017**	**2018**
xiii.	Amounts flared	1000Nm3/year					
xiv.	Net calorific value	GJ/1000Nm3					
xv.	Waste gas flared	TJ / year					
xvi.	Specific EF (flared waste gas)	t CO2 / TJ					

xvii. **Types of waste gases imported:**

		Unit	**2014**	**2015**	**2016**	**2017**	**2018**
xviii.	Amounts imported	1000Nm3/year					
xix.	Net calorific value	GJ/1000Nm3					
xx.	Waste gas imported	TJ / year					

xxi.	Specific EF (imported waste gas)	t CO2 / TJ					

xxii. **Types of waste gases exported:**

		Unit	2014	2015	2016	2017	2018
xxiii.	Amounts exported	1000Nm3/year					
xxiv.	Net calorific value	GJ/1000Nm3					
xxv.	Waste gas exported	TJ / year					
xxvi.	Specific EF (exported waste gas)	t CO2 / TJ					

(m) Electricity production

	Unit	2014	2015	2016	2017	2018
Electricity produced	MWh / year					

(n) Total amount of pulp produced

		2014	2015	2016	2017	2018
	tonnes					

(o) Import or export of intermediate products covered by product benchmarks

i. Is there any import or export of intermediate products covered by product benchmarks?

Imported amounts:	Unit	2014	2015	2016	2017	2018
ii.	tonnes					
iii.	tonnes					
Exported amounts:	**Unit**	**2014**	**2015**	**2016**	**2017**	**2018**
iv.	tonnes					
v.	tonnes					

vi. Description of the intermediate products imported or exported

<<< Click here to proceed to next sheet >>>

G. Fall-back	Navigation area:	Table of contents	Previous sheet	Next sheet	Summary
	Top of sheet	Heat benchmark sub-installation, CL	Heat benchmark sub-installation, non-C	District heating sub-installation	Fuel benchmark sub-installation, CL
	End of sheet	Fuel benchmark sub-installation, non-CL	Process emissions sub-installation, CL	Process emissions sub-installation, non-	

G. Sheet "Fall-back" - SUB-INSTALLATION DATA RELATING TO FALL-BACK SUB-INSTALLATIONS

The navigation bar above only contains links to sub-installations that are selected as "relevant" in section A.III.2.

I Historic Activity levels and disaggregated production details

1 Fall-Back sub-installation: **Heat benchmark sub-installation, CL**

The name of the fall-back sub-installation is displayed automatically based on the overall list of possible fall-back installations.

This sheet serves the following two purposes:

- ***data needed to determine the amount of free allocation of fall-back benchmark sub-installations***
- ***data needed to determine improvement rates of fall-back benchmark values***

(a) Historic activity levels

The following data is taken automatically from sheet "E_EnergyFlows", section E.II.r. Thus, data input is mandatory there.

Based on the start of normal operation entered in A.III., it will be automatically determined if this sub-installation has been operating for less than one year in the baseline period. If this is the case, the historic activity level will be determined based on the first calendar year after the start of normal operation, pursuant to the third sub-paragraph of Article 15(7) of the FAR.

Corresponding entries are required in column N for that year which will either be 2019 or 2020. However, since the annual production for that year will not be known at the time of the NIMs submission, entries here can only be done at a later stage.

Main activity level:	Unit	2014	2015	2016	2017	2018	
Heat benchmark sub-installation, CL	TJ						

Production details

(b) Identification of relevant products or services associated with this sub-installation

Please list here to which production processes or services this sub-installation relates. This may include the following items:

- *Production of goods not covered by product benchmarks within the installation (please provide types of product);*
- *production of mechanical energy, heating or cooling (all uses excluding production of electricity);*
- *export of heat to installations or other entities (other than district heating). In this case please indicate the use of heat in that installation or entity, if known.*

PRODCOM codes shall be entered in the form "nnnnnnnn", i.e. without any dots or other delimiters inbetween. Only if PRODCOM are not available, at least a 4-digit level NACE code should be provided in the form of "nnnn".

A list of PRODCOM 2010 codes can be found at:

http://ec.europa.eu/eurostat/ramon/nomenclatures/index.cfm?TargetUrl=LST_CLS_DLD&StrNom=PRD_2010&StrLanguageCode=EN&StrLayoutCode=HIERARCHIC

NACE codes can be used instead of PRODCOM if several similar products within the same NACE group are covered.

If the heat is exported, the connected installation or entity as input in sheet A_InstallationData section IV can be selected.

	Use type	Within installation or export?	Product name, or heat export other than "district heating"	PRODCOM 2010
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				

Production levels:

	Product name, or heat export other than "district heating"	Unit	2014	2015	2016	2017	2018
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							
	Sum of production levels						

Data required for the determination of the benchmark improvement rate pursuant to Article 10a(2) of the EU ETS Directive

Fall-Back sub-installation: **Heat benchmark sub-installation, CL**

This sub-section covers the attribution of emissions related to source streams, emissions sources, import and export of measurable heat and waste gases including heat losses in accordance with section 10 of Annex VII of the FAR.

Please note that although some guidance is provided for each of the points below, further information should be sought in Guidance Document No. 5 ("Monitoring and Reporting in relation to the FAR") which also includes examples.

The Guidance can be downloaded from:

< Link to be provided as soon as available >

Upon entries made below, the attributable emissions are calculated in section K.III.2 of the summary sheet.

(c) Directly attributable emissions (DirEm*) to this sub-installation

Data provided here will impact the attributable emissions in accordance with section 10.1.1 of Annex VII of the FAR.

Please enter here the direct emissions taking into account the following provisions:

- *The direct emissions are monitored in line with the MP approved under the MRR, i.e. taking into account the emissions from calculation based methodologies (using source streams), measurement based methodologies (CEMS) as well as no-tier approaches ("fall-backs").*

  However, in several situations the "direct emissions" in this section are not identical to those reported under the MRR. Such situations include e.g. source streams used for the production of measurable heat, waste gases etc. In other words, care must be taken fill the sections below following strictly the instructions below in order to avoid double counting or omissions.

- *Measurable heat: where the heat is exclusively produced for this sub-installation, the emissions may be directly attributed here via the fuel's emissions.*

  Wherever fuels are used to produce measurable heat which is consumed in more than one sub-installation (e.g. a central power house at the installation, or a more complex steam network with several heat producing units), the fuels should not be included in the direct emissions of the sub-installation but under point (f).i below.

- *Waste gases: emissions associated with measurable heat produced from waste gases imported from other installations or sub-installations and used in this sub-installation should not be included here, but under point (f).xiii below.*

Total direct emissions	Unit	2014	2015	2016	2017	2018
Heat benchmark sub-installation, CL	t CO2e/year					

(d) Fuel input to this sub-installation and relevant emission factor

As required by FAR Annex IV, section 2.4(a), please provide the total fuel input and a corresponding weighted emission factor taking into account the related energy content of each fuel.

The term "fuel" should be understood as any source stream in accordance with the M&R Regulation that is combustible and for which a net calorific value can be determined. The weighted emission factor corresponds to the accumulated emissions from the fuels, including those used to produce measurable heat, divided by the total energy content.

The weighted emission factor should furthermore include emissions from corresponding flue gas cleaning, if applicable.

Fuel input from waste gases includes the corresponding energy input to produce the measurable heat used by this sub-installation.

The values entered here are used for the waste gas balance in section E.III.h.

Data provided here are only used for consistency checking and have no direct impact on either the attributable emissions or the allocation.

		Unit	2014	2015	2016	2017	2018
i.	Total fuel input	TJ / year					
ii.	Weighted emission factor	t CO2 / TJ					
iii.	Fuel input from waste gases	TJ / year					
iv.	Specific EF (waste gas)	t CO2 / TJ					

(e) Measurable heat produced

Please enter here the measurable heat produced pursuant to section 3.2(a) of Annex IV of the FAR.

This value is usually different from the sub-installation's activity level listed under point (a) above, as it takes into account the heat losses in addition to the net amounts of measurable heat consumed or exported to non-ETS entities, and disregards heat imports, which are to be entered under (f) below.

Measurable heat produced	**Unit**	**2014**	**2015**	**2016**	**2017**	**2018**
Heat benchmark sub-installation, CL	TJ / year					

(f) Measurable heat imported

Data provided here will impact the attributable emissions in accordance with sections 10.1.2 and 10.1.3 of Annex VII of the FAR.

Please enter below the amount of measurable heat imported from each of the following sources:

- *Net heat imported (other sources): this includes heat imported from other installations, or, where measurable heat is consumed by more than one sub-installation, heat produced onsite and consumed within this sub-installation. Measurable heat imported from any product BM sub-installation, pulp production, measurable heat recovered from fuel BM sub-installations or from waste gases should not be included here, because separate entry fields are provided for these figures.*
- *Heat from product BM: this includes measurable heat exported from product BM sub-installations with the exception of measurable heat from sub-installations producing pulp production or nitric acid.*
- *Heat from pulp: this includes heat imported from sub-installations producing pulp.*
- *Heat from fuel BM: this includes measurable heat recovered from waste heat from fuel BM sub-installations.*
- *Heat from waste gases: this includes measurable heat which is produced from waste gases.*

Do not include here any heat imports from "non-eligible" sources, i.e. installatioins not covered by the EU ETS, or heat produced in nitric acid sub-installations.

The specific emission factors (EF) associated with the heat should take into account the provisions in FAR Annex VII sections 8 and 10, in particular sections 10.1.2 and 10.1.3 thereof.

For attributing emissions from cogeneration (CHP) to production of heat, the "CHP tool" in section D.III. has to be used.

	Net heat imported (other sources)	**Unit**	**2014**	**2015**	**2016**	**2017**	**2018**
i.	Net heat imported	TJ / year					
ii.	Specific EF (imported heat)	t CO2 / TJ					
	Heat from product BM	**Unit**	**2014**	**2015**	**2016**	**2017**	**2018**
iv.	Net heat imported	TJ / year					
v.	Specific EF (from product BM)	t CO2 / TJ					
	Heat from pulp	**Unit**	**2014**	**2015**	**2016**	**2017**	**2018**
vii.	Net heat imported	TJ / year					
viii.	Specific EF (from pulp)	t CO2 / TJ					
	Heat from fuel BM	**Unit**	**2014**	**2015**	**2016**	**2017**	**2018**
x.	Net heat imported	TJ / year					
xi.	Specific EF (from fuelBM)	t CO2 / TJ					
	Heat from waste gases	**Unit**	**2014**	**2015**	**2016**	**2017**	**2018**
xiii.	Net heat imported	TJ / year					
xiv.	Specific EF (from waste gas)	t CO2 / TJ					
xvi.	Total net heat imported	TJ / year					

2 Fall-Back sub-installation:

Heat benchmark sub-installation, non-CL	

Detailed instructions for data entries in this tool can be found at the first copy of this tool. (G.I.1)

(a) Historic activity levels

The following data is taken automatically from sheet "E_EnergyFlows", section E.II.r. Thus, data input is mandatory there.

Main activity level:	**Unit**	**2014**	**2015**	**2016**	**2017**	**2018**	
Heat benchmark sub-installation, non-CL	TJ						

Production details

(b) Identification of relevant products or services associated with this sub-installation

	Use type	**Within installation or export?**	**Product name, or heat export other than "district heating"**	**PRODCOM 2010**
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				

Production levels:

	Product name, or heat export other than "district heating"	**Unit**	**2014**	**2015**	**2016**	**2017**	**2018**
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							
	Sum of production levels						

Data required for the determination of the benchmark improvement rate pursuant to Article 10a(2) of the EU ETS Directive

(c) Directly attributable emissions (DirEm*) to this sub-installation

Detailed instructions for data entries here can be found under point 1.c above

Total direct emissions	Unit	2014	2015	2016	2017	2018
Heat benchmark sub-installation, non-CL	t CO2e/year					

(d) Fuel input to this sub-installation and relevant emission factor

Detailed instructions for data entries here can be found under point 1.d above.

		Unit	2014	2015	2016	2017	2018
i.	Total fuel input	TJ / year					
ii.	Weighted emission factor	t CO2 / TJ					
iii.	Fuel input from waste gases	TJ / year					
iv.	Specific EF (waste gas)	t CO2 / TJ					

(e) Measurable heat produced

Detailed instructions for data entries here can be found under point 1.e above.

Measurable heat produced	Unit	2014	2015	2016	2017	2018
Heat benchmark sub-installation, non-CL	TJ / year					

(f) Measurable heat imported

Detailed instructions for data entries here can be found under point 1.f above.

	Net heat imported (other sources)	Unit	2014	2015	2016	2017	2018
i.	Net heat imported	TJ / year					
ii.	Specific EF (imported heat)	t CO2 / TJ					
	Heat from product BM	**Unit**	**2014**	**2015**	**2016**	**2017**	**2018**
iv.	Net heat imported	TJ / year					
v.	Specific EF (from product BM)	t CO2 / TJ					
	Heat from pulp	**Unit**	**2014**	**2015**	**2016**	**2017**	**2018**
vii.	Net heat imported	TJ / year					
viii.	Specific EF (from pulp)	t CO2 / TJ					
	Heat from fuel BM	**Unit**	**2014**	**2015**	**2016**	**2017**	**2018**
x.	Net heat imported	TJ / year					
xi.	Specific EF (from fuelBM)	t CO2 / TJ					
	Heat from waste gases	**Unit**	**2014**	**2015**	**2016**	**2017**	**2018**
xiii.	Net heat imported	TJ / year					
xiv.	Specific EF (from waste gas)	t CO2 / TJ					
xv.	Total net heat imported	TJ / year					

3 Fall-Back sub-installation: District heating sub-installation

Detailed instructions for data entries in this tool can be found at the first copy of this tool. (G.I.1)

(a) Historic activity levels

The following data is taken automatically from sheet "E_EnergyFlows", section E.II.r. Thus, data input is mandatory there.

Main activity level:	Unit	2014	2015	2016	2017	2018	
District heating sub-installation	TJ						

Production details

(b) Identification of relevant products or services associated with this sub-installation

	Use type	District heating network	PRODCOM 2010
1	District heating		
2	District heating		
3	District heating		
4	District heating		
5	District heating		
6	District heating		
7	District heating		
8	District heating		
9	District heating		
10	District heating		

Production levels:

	District heating network	Unit	2014	2015	2016	2017	2018
1		TJ					
2		TJ					
3		TJ					
4		TJ					
5		TJ					
6		TJ					
7		TJ					
8		TJ					
9		TJ					
10		TJ					
	Sum of production levels						

Data required for the determination of the benchmark improvement rate pursuant to Article 10a(2) of the EU ETS Directive

(c) Directly attributable emissions (DirEm*) to this sub-installation

Detailed instructions for data entries here can be found under point 1.c above.

Total direct emissions	Unit	2014	2015	2016	2017	2018
District heating sub-installation	t CO2e/year					

(d) Fuel input to this sub-installation and relevant emission factor

Detailed instructions for data entries here can be found under point 1.d above.

		Unit	2014	2015	2016	2017	2018
i.	Fuel input	TJ / year					
ii.	Weighted emission factor	t CO2 / TJ					
iii.	Waste gases consumed	TJ / year					
iv.	Specific EF (consumed waste gas)	t CO2 / TJ					

(e) Measurable heat produced

Detailed instructions for data entries here can be found under point 1.e above.

Measurable heat produced	Unit	2014	2015	2016	2017	2018
District heating sub-installation	TJ / year					

(f) Measurable heat imported

Detailed instructions for data entries here can be found under point 1.f above.

	Net heat imported (other sources)	Unit	2014	2015	2016	2017	2018
i.	Net heat imported	TJ / year					
ii.	Specific EF (imported heat)	t CO2 / TJ					
	Heat from product BM	**Unit**	**2014**	**2015**	**2016**	**2017**	**2018**
iv.	Net heat imported	TJ / year					
v.	Specific EF (from product BM)	t CO2 / TJ					
	Heat from pulp	**Unit**	**2014**	**2015**	**2016**	**2017**	**2018**
vii.	Net heat imported	TJ / year					
viii.	Specific EF (from pulp)	t CO2 / TJ					
	Heat from fuel BM	**Unit**	**2014**	**2015**	**2016**	**2017**	**2018**
x.	Net heat imported	TJ / year					
xi.	Specific EF (from fuelBM)	t CO2 / TJ					
	Heat from waste gases	**Unit**	**2014**	**2015**	**2016**	**2017**	**2018**
xiii.	Net heat imported	TJ / year					
xiv.	Specific EF (from waste gas)	t CO2 / TJ					
xvi.	Total net heat imported	TJ / year					

4 Fall-Back sub-installation: Fuel benchmark sub-installation, CL

Detailed instructions for data entries in this tool can be found at the first copy of this tool. (G.I.1)

(a) Historic activity levels

The following data is taken automatically from sheet "E_EnergyFlows", section E.I.c. Thus, data input is mandatory there.

Main activity level:	Unit	2014	2015	2016	2017	2018	
Fuel benchmark sub-installation, CL	TJ						

Production details

(b) Identification of relevant products or services associated with this sub-installation

Please list here to which production processes or services this sub-installation relates. This may include the following items:

- *Production of goods not covered by product benchmarks within the installation (please provide types of product);*
- *production of mechanical energy, heating or cooling (all uses excluding production of electricity).*

	Use type	Product name or service type	PRODCOM 2010
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			

Production levels:

	Product name or service type	Unit	2014	2015	2016	2017	2018
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							
	Sum of production levels						

Data required for the determination of the benchmark improvement rate pursuant to Article 10a(2) of the EU ETS Directive

(c) Directly attributable emissions (DirEm*) to this sub-installation

Data provided here will impact the attributable emissions in accordance with section 10.1.1 of Annex VII of the FAR.

Please enter here the direct emissions monitored in line with the MP approved under the MRR, i.e. taking into account the emissions from calculation based methodologies (using source streams), measurement based methodologies (CEMS) as well as no-tier approaches ("fall-backs").

Emissions from the combustion of waste gases should however not be included here but under point (d).iii below.

Total direct emissions	Unit	2014	2015	2016	2017	2018
Fuel benchmark sub-installation, CL	t CO2e/year					

(d) Fuel input to this sub-installation and relevant emission factor

Values for i. and ii. are automatically generated based on entries under (a) and (c) above.

Under iii. and iv. the fuel input from waste gases and the corresponding emission factor has to be entered, respectively.

		Unit	2014	2015	2016	2017	2018
i.	Fuel input entered under (a)	TJ / year					
ii.	Weighted emission factor (=c./d.)	t CO2 / TJ					
iii.	Fuel input from waste gases	TJ / year					
iv.	Specific EF (waste gas)	t CO2 / TJ					
(e)	**Net heat exported**	TJ / year					
	Specific EF (heat export)	t CO2 / TJ					

Data provided here will impact the attributable emissions in accordance with sections 10.1.2 and 10.1.3 of Annex VII of the FAR.

This concerns any waste heat recovered and eligible for a heat BM or district heating sub-installation.

5 Fall-Back sub-installation: Fuel benchmark sub-installation, non-CL

Detailed instructions for data entries in this tool can be found at the first copy of this tool. (G.I.1)

(a) Historic activity levels

The following data is taken automatically from sheet "E_EnergyFlows", section E.I.c. Thus, data input is mandatory there.

Main activity level:	Unit	2014	2015	2016	2017	2018	
Fuel benchmark sub-installation, non-CL	TJ						

Production details

(b) Identification of relevant products or services associated with this sub-installation

Please list here to which production processes or services this sub-installation relates. This may include the following items:

- *Production of goods not covered by product benchmarks within the installation (please provide types of product);*
- *production of mechanical energy, heating or cooling (all uses excluding production of electricity).*

	Use type	Product name or service type	PRODCOM 2010
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			

Production levels:

	Product name or service type	Unit	2014	2015	2016	2017	2018
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							
	Sum of production levels						

Data required for the determination of the benchmark improvement rate pursuant to Article 10a(2) of the EU ETS Directive

(c) Directly attributable emissions (DirEm*) to this sub-installation

Detailed instructions for data entries here can be found under point 4.c above.

Total direct emissions	Unit	2014	2015	2016	2017	2018
Fuel benchmark sub-installation, non-CL	t CO2e/year					

(d) Fuel input to this sub-installation and relevant emission factor

Detailed instructions for data entries here can be found under point 4.d above.

		Unit	2014	2015	2016	2017	2018
i.	Fuel input entered under (a)	TJ / year					
ii.	Weighted emission factor (=c./d.)	t CO2 / TJ					
iii.	Fuel input from waste gases	TJ / year					
iv.	Specific EF (waste gas)	t CO2 / TJ					
(e)	**Net heat exported**	TJ / year					
	Specific EF (heat export)	t CO2 / TJ					

6 Fall-Back sub-installation:

Process emissions sub-installation, CL

Detailed instructions for data entries in this tool can be found at the first copy of this tool. (G.I.1)

(a) Historic activity levels

Values entered here should include eligible emissions from any waste gases as determined in section D.IV.

Main activity level:	Unit	2014	2015	2016	2017	2018	
Process emissions sub-installation, CL	t CO2e						

Production details

(b) Identification of relevant products or services associated with this sub-installation

This type of sub-installation always relates to production of goods not covered by product benchmarks within the installation.

	Process emission type	Product name or service type	PRODCOM 2010
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			

(c) Production levels:

	Product name or service type	Unit	2014	2015	2016	2017	2018
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							
	Sum of production levels						

7 Fall-Back sub-installation:

Process emissions sub-installation, non-CL	

Detailed instructions for data entries in this tool can be found at the first copy of this tool. (G.I.1)

(a) Historic activity levels

Values entered here should include eligible emissions from any waste gases as determined in section D.IV.

Main activity level:	Unit	2014	2015	2016	2017	2018	
Process emissions sub-installation, non-CL	t CO2e						

Production details

(b) Identification of relevant products or services associated with this sub-installation

	Process emission type	Product name or service type	PRODCOM 2010
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			

(c) Disaggregation of production levels:

	Product name or service type	Unit	2014	2015	2016	2017	2018
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							
	Sum of production levels						

<<< Click here to proceed to next sheet >>>

H. Special BM	Navigation area:	Table of contents	Previous sheet	Next sheet	Summary
	Top of sheet	CWT (Refinery products)	Lime	Dolime	Steam cracking
	End of sheet	CWT (Aromatics)	Hydrogen	Synthesis gas	Ethylene oxide / glycols
		Vinyl chloride monomer			

H. Sheet "SpecialBM" - SPECIAL DATA FOR SOME PRODUCT BENCHMARKS

I CWT (Refinery products)

Tool for calculating the historical activity levels for refinery sub-installations

This tool helps you determine the HAL (historical activity levels) for the refinery benchmark (Annex III point 1 of the FAR).
For the aromatics benchmark, which also uses CWT, please use the specific CWT tool for aromatics below (section V of this sheet).
The result of this tool is automatically copied into sheet "F_ProductBM", input line "(a).ii" of the appropriate sub-installation.

(a) Relevance of this tool in your installation:

This message is automatically generated based on your inputs in sheet "A_InstallationData", section A.III.1.

(b) CWT througput data

Please enter here the annual throughput data for each CWT function.
For the definition and boundaries of each CWT function please see Annex II point 1 of the FAR.
For the basis the following abbreviations are used:

- *F Net fresh feed*
- *R Reactor feed (includes recycle)*
- *P Product feed*
- *SG Synthesis gas production for POX units*

Important note: In accordance with Annex II of the FAR, the units for reporting are kilotonnes throughput.

CWT function	Basis (kt/a)	CWT factor	2014	2015	2016	2017	2018	
Atmospheric Crude Distillation	F	1,00						
Vacuum Distillation	F	0,85						
Solvent Deasphalting	F	2,45						
Visbreaking	F	1,40						
Thermal Cracking	F	2,70						
Delayed Coking	F	2,20						
Fluid Coking	F	7,60						
Flexicoking	F	16,60						
Coke Calcining	P	12,75						
Fluid Catalytic Cracking	F	5,50						
Other Catalytic Cracking	F	4,10						
Distillate / Gasoil Hydrocracking	F	2,85						
Residual Hydrocracking	F	3,75						
Naphtha/Gasoline Hydrotreating	F	1,10						
Kerosene/ Diesel Hydrotreating	F	0,90						
Residual Hydrotreating	F	1,55						
VGO Hydrotreating	F	0,90						
Hydrogen Production	P	300,00						
Catalytic Reforming	F	4,95						
Alkylation	P	7,25						
C4 Isomerisation	R	3,25						
C5/C6 Isomerisation	R	2,85						
Oxygenate Production	P	5,60						
Propylene Production	F	3,45						
Asphalt Manufacture	P	2,10						
Polymer-Modified Asphalt Blending	P	0,55						
Sulphur Recovery	P	18,60						
Aromatic Solvent Extraction	F	5,25						
Hydrodealkylation	F	2,45						
TDP/ TDA	F	1,85						
Cyclohexane production	P	3,00						
Xylene Isomerisation	F	1,85						
Paraxylene production	P	6,40						
Metaxylene production	P	11,10						
Phtalic anhydride production	P	14,40						
Maleic anhydride production	P	20,80						
Ethylbenzene production	P	1,55						
Cumene production	P	5,00						
Phenol production	P	1,15						
Lube solvent extraction	F	2,10						
Lube solvent dewaxing	F	4,55						
Catalytic Wax Isomerisation	F	1,60						
Lube Hydrocracker	F	2,50						
Wax Deoiling	P	12,00						
Lube/Wax Hydrotreating	F	1,15						
Solvent Hydrotreating	F	1,25						
Solvent Fractionation	F	0,90						
Mol sieve for C10+ paraffins	P	1,85						
Partial Oxidation of Residual Feeds (POX) for Fuel	SG	8,20						
Partial Oxidation of Residual Feeds (POX) for Hydrogen or Methanol	SG	44,00						
Methanol from syngas	P	-36,20						
Air Separation	P (MNm3 O2)	8,80						
Fractionation of purchased NGL	F	1,00						
Flue gas treatment	F (MNm3)	0,10						
Treatment and Compression of Fuel Gas for Sales	kW	0,15						
Seawater Desalination	P	1,15						

(c) Result: Activity levels for the refinery benchmark expressed as CWT

Here the refinery activity level is calculated using the formula given in the FAR, Annex III point 1 (before determining the average value).

Important note: The reporting above is done in kilotonnes, but the benchmark is expressed in t CO2/CWT, where CWT is expressed in tonnes.
Therefore the results below are multiplied with a factor of 1000, which is not explicitely mentioned in Annex III point 1 of the FAR.
The result of this tool is used in sheet "F_ProductBM", input line (a).ii of the appropriate sub-installation, from which the average is calculated.

	Unit	2014	2015	2016	2017	2018	
Refinery activity level	CWT / year						

II Lime

Tool for calculating the historical activity levels for lime sub-installations

This tool helps you determine the HAL (historical activity levels) for the lime benchmark (Annex III point 2 of the FAR)
The result of this tool is automatically copied into sheet "F_ProductBM", input line "(a).ii" of the appropriate sub-installation.

(a) Relevance of this tool in your installation:
This message is automatically generated based on your inputs in sheet "A_InstallationData", section A.III.1.

(b) Uncorrected Lime production:
Please enter here the annual production data expressed as tonnes of lime, without correction for the composition data:

	Unit	2014	2015	2016	2017	2018	
uncorrected lime production	t / year						

(c) Composition data:
Pursuant to Annex III point 2 of the FAR, the following data is required:
m(CaO) *content of free CaO in the produced lime in each year of the baseline period expressed as mass-%*
In case no data on the content of free CaO is available, a conservative estimate not lower than 85% shall be applied.
m(MgO) *content of free MgO in the produced lime in each year of the baseline period expressed as mass-%*
In case no data on the content of free MgO is available, a conservative estimate not lower than 0.5% shall be applied.

	Unit	2014	2015	2016	2017	2018	
Content of CaO	%						
Content of MgO	%						

(d) Result: Activity levels for lime expressed as standard pure lime
Here the corrected lime activity level is calculated using the formula given in the FAR, Annex III point 2 (before determining the average value).
The result of this tool is used in sheet "F_ProductBM", input line (a).ii of the appropriate sub-installation, from which the average is calculated.

	Unit	2014	2015	2016	2017	2018	
production of standard pure lime	t / year						

III Dolime

Tool for calculating the historical activity levels for Dolime sub-installations

This tool helps you determine the HAL (historical activity levels) for the Dolime benchmark (Annex III point 3 of the FAR). It is not to be used for "sintered dolime".
The result of this tool is automatically copied into sheet "F_ProductBM", input line "(a).ii" of the appropriate sub-installation.

(a) Relevance of this tool in your installation:
This message is automatically generated based on your inputs in sheet "A_InstallationData", section A.III.1.

(b) Uncorrected Dolime production:
Please enter here the annual production data expressed as tonnes of dolime, without correction for the composition data:

	Unit	2014	2015	2016	2017	2018	
uncorrected dolime production	t / year						

(c) Composition data:
Pursuant to Annex III point 3 of the FAR, the following data is required:
m(CaO) *content of free CaO in the produced dolime in each year of the baseline period expressed as mass-%*
In case no data on the content of free CaO is available, a conservative estimate not lower than 52% shall be applied.
m(MgO) *content of free MgO in the produced dolime in each year of the baseline period expressed as mass-%*
In case no data on the content of free MgO is available, a conservative estimate not lower than 33% shall be applied.

	Unit	2014	2015	2016	2017	2018	
Content of CaO	%						
Content of MgO	%						

(d) Result: Activity levels for dolime expressed as standard pure dolime
Here the corrected dolime activity level is calculated using the formula given in the FAR, Annex III point 3 (before determining the average value).
The result of this tool is used in sheet "F_ProductBM", input line (a).ii of the appropriate sub-installation, from which the average is calculated.

	Unit	2014	2015	2016	2017	2018	
production of standard pure dolime	t / year						

IV Steam cracking

1 Tool for calculating the historical activity levels for steam cracking sub-installations

This tool helps you determine the HAL (historical activity levels) for the steam cracking benchmark (Annex III point 4 of the FAR).
The result of this tool is automatically copied into sheet "F_ProductBM", input line "(a).ii" of the appropriate sub-installation.

(a) Relevance of this tool in your installation:
This message is automatically generated based on your inputs in sheet "A_InstallationData", section A.III.1.

(b) Total production of high value chemicals (HVC total)
Please enter here the annual production data expressed as tonnes HVC (without corrections)

	Unit	2014	2015	2016	2017	2018	
HVC total	t / year						

(c) Supplemental feed data:
Pursuant to Annex III point 4 of the FAR, the following data is required:
- *historical supplemental feed of hydrogen in each year of the baseline period expressed in tonnes of hydrogen*
- *historical supplemental feed of ethylene in each year of the baseline period expressed in tonnes of ethylene*
- *historical supplemental feed of other high value chemicals than hydrogen and ethylene in each year of the baseline period expressed in tonnes of HVC*

Supplemental feed	Unit	2014	2015	2016	2017	2018	
Hydrogen	t / year						
Ethylene	t / year						
Other HVC	t / year						

(d) Result: Activity levels for net HVC
Here the corrected activity level (net amount HVC) is calculated using the formula given in the FAR, Annex III point 4 (before determining the average value).
The result of this tool is used in sheet "F_ProductBM", input line (a).ii of the appropriate sub-installation, from which the average is calculated.

	Unit	2014	2015	2016	2017	2018	
Net HVC production levels	t / year						

2 Steam cracking tool part 2: Preliminary allocation (Article 19 of the FAR)

This tool helps you determine the preliminary allocation for the steam cracking sub-installation (Article 19 of the FAR).
It determines the amount which has to be added to the preliminary annual allocation after having corrected for electricity exchangeability.
The required data on historical production of hydrogen, ethylene and other HVC from supplemental feed expressed as tonnes, taken from IV.1.c above;

(a) Production from supplemental feed:
The data is automatically taken from section IV.1.c above. The multipliers are taken from Article 19 of the FAR.

Production from supplemental feed	Multiplier (t CO2 / t)	Unit	2014	2015	2016	2017	2018	
Hydrogen	1,78	t / year						
Ethylene	0,24	t / year						
Other HVC	0,16	t / year						

(b) Result: Amount to be added to the preliminary total allocation for the steam cracking sub-installation:
Calculation based on the formula given in the FAR, Article 19.

	Unit	
Amount for allocation correction:	allowances	N.A.

V CWT (Aromatics)

Tool for calculating the historical activity levels for aromatics sub-installations

This tool helps you determine the HAL (historical activity levels) for the aromatics benchmark (Annex III point 5 of the FAR)
For the refinery benchmark, which also uses CWT, please use the specific CWT tool for refineries above (section I of this sheet).
The result of this tool is automatically copied into sheet "F_ProductBM", input line "(a).ii" of the appropriate sub-installation.

(a) Relevance of this tool in your installation:
This message is automatically generated based on your inputs in sheet "A_InstallationData", section A.III.1.

(b) CWT througput data
Please enter here the annual throughput data for each CWT function.
For the definition and boundaries of each CWT function please see Annex II point 2 of the FAR.
For the basis the following abbreviations are used:
F Net fresh feed
P Product feed
Important note: In accordance with Annex II of the FAR, the units for reporting are kilotonnes throughput.

CWT function	Basis (kt/a)	CWT factor	2014	2015	2016	2017	2018	
Naphtha/Gasoline Hydrotreater	F	1,10						
Aromatic Solvent Extraction	F	5,25						
TDP/ TDA	F	1,85						
Hydrodealkylation	F	2,45						
Xylene Isomerisation	F	1,85						
Paraxylene production	P	6,40						
Cyclohexane production	P	3,00						
Cumene production	P	5,00						

(c) Result: Activity levels for the aromatics benchmark expressed as CWT
Here the aromatics activity level is calculated using the formula given in the FAR, Annex III point 5 (before determining the average value).
Important note: The reporting is done in ktonnes, but the benchmark is expressed in t CO2/CWT, where CWT is expressed in tonnes.
Therefore the results below are multiplied with a factor of 1000, which is not explicitely mentioned in Annex III point 5 of the FAR.
The result of this tool is used in sheet "F_ProductBM", input line (a).ii of the appropriate sub-installation, from which the average is calculated.

	Unit	2014	2015	2016	2017	2018	
Aromatics activity level	CWT / year						

VI Hydrogen

Tool for calculating the historical activity levels for hydrogen sub-installations

This tool helps you determine the HAL (historical activity levels) for the hydrogen benchmark (Annex III point 6 of the FAR).
The result of this tool is automatically copied into sheet "F_ProductBM", input line "(a).ii" of the appropriate sub-installation.
Please note that percentages for Hydrogen content are to be expresed as Vol-%.

(a) Relevance of this tool in your installation:
This message is automatically generated based on your inputs in sheet "A_InstallationData", section A.III.1.

(b) Volume of total production of hydrogen (uncorrected)
Please enter here the annual production data of hydrogen referred to historical hydrogen content in each year of the baseline period.
Due to the very big figures for m3, the figures are to be entered as 1000 Nm3 (norm cubic meters referring to 0°C and 101.325 kPa).

	Unit	2014	2015	2016	2017	2018	
Total hydrogen production	1000Nm3/year						

(c) Hydrogen volume fraction VF(H2)
Please enter here the historical production volume fraction of pure hydrogen in each year of the baseline period. This is a dimensionless figure.
You can enter the figure of 95% either as "0.95" or as "95%".

	Unit	2014	2015	2016	2017	2018	
Volume fraction of hydrogen	-						

(d) Result: Activity levels for hydrogen referred to as tonnes 100% H2
Here the corrected activity level (100% hydrogen) is calculated using the formula given in the FAR, Annex III point 6 (before determining the average value).
If the formula results in a negative value, it is replaced by zero.
The result of this tool is used in sheet "F_ProductBM", input line (a).ii of the appropriate sub-installation, from which the average is calculated.

	Unit	2014	2015	2016	2017	2018	
Hydrogen (as 100% pure H2)	t / year						

VII Synthesis gas

Tool for calculating the historical activity levels for synthesis gas sub-installations

This tool helps you determine the HAL (historical activity levels) for the synthesis gas benchmark (Annex III point 7 of the FAR).
The result of this tool is automatically copied into sheet "F_ProductBM", input line "(a).ii" of the appropriate sub-installation.
Please note that percentages for hydrogen content are to be expresed as Vol-%.

(a) Relevance of this tool in your installation:
This message is automatically generated based on your inputs in sheet "A_InstallationData", section A.III.1.

(b) Volume of total production of synthesis gas (uncorrected)

Please enter here the annual production data of synthesis gas referred to historical hydrogen content in each year of the baseline period.

Due to the very big figures for m3, the figures are to be entered as 1000 Nm3 (norm cubic meters referring to 0°C and 101.325 kPa).

	Unit	2014	2015	2016	2017	2018	
Total synthesis gas production	1000Nm3/year						

(c) Hydrogen volume fraction VF(H2)

Please enter here the historical production volume fraction of pure hydrogen in each year of the baseline period. This is a dimensionless figure.

You can enter the figure of 50% either as "0.50" or as "50%".

	Unit	2014	2015	2016	2017	2018	
Volume fraction of hydrogen	-						

(d) Result: Activity levels for synthesis gas referred to as tonnes with 47% hydrogen content

Here the corrected activity level (referring to 47% H2) is calculated using the formula given in the FAR, Annex III point 7 (before determining the average value).

If the formula results in a negative value, it is replaced by zero.

The result of this tool is used in sheet "F_ProductBM", input line (a).ii of the appropriate sub-installation, from which the average is calculated.

	Unit	2014	2015	2016	2017	2018	
Synthesis gas (47% H2 content)	t / year						

VIII Ethylene oxide / glycols

Tool for calculating the historical activity levels for ethylene oxide / ethylene glycols sub-installations

This tool helps you determine the HAL (historical activity levels) for the ethylene oxide / ethylene glycols benchmark (Annex III point 8 of the FAR).

The result of this tool is automatically copied into sheet "F_ProductBM", input line "(a).ii" of the appropriate sub-installation.

(a) Relevance of this tool in your installation:

This message is automatically generated based on your inputs in sheet "A_InstallationData", section A.III.1.

(b) Production data of Ethylene oxide and glycols:

Please enter here the annual production data of the different products covered by this benchmark in each year of the baseline period.

The table also displays the values of CF(EOE) used for calculation. CF(EOE) is the conversion factor for each substance relative to ethylene oxide.

	CF(EOE)	Unit	2014	2015	2016	2017	2018	
Ethylene oxide	1,000	t / year						
Monoethylene glycol	0,710	t / year						
Diethylene glycol	0,830	t / year						
Triethylene glycol	0,880	t / year						
Sum of products		t / year						

(c) Result: Activity levels for the ethylene oxide / ethylene glycols product benchmark sub-installation:

The historical activity level expressed in tonnes of ethylene oxide equivalents is calculated using the formula given in the FAR, Annex III point 8.

The result of this tool is used in sheet "F_ProductBM", input line (a).ii of the appropriate sub-installation, from which the average is calculated.

	Unit	2014	2015	2016	2017	2018	
Total Ethylene oxide equivalents	t / year						

IX Vinyl chloride monomer (VCM)

Vinyl chloride monomer tool: Preliminary allocation (Article 20 of the FAR)

This tool helps you determine the preliminary allocation for the vinyl chloride monomer ("VCM") sub-installation (Article 20 of the FAR).

The following data is required:

- *The activity levels as input in sheet "ProductBM", section (a), under the appropriate sub-installation;*
- *The direct emissions attributed to this sub-installation;*
- *Net amount of measurable heat imported by this sub-installation from other ETS installations;*
- *Hydrogen related emissions: I.e. historical heat consumption from hydrogen combustion multiplied with the heat benchmark.*

(a) Relevance of this tool in your installation:

This message is automatically generated based on your inputs in sheet "A_InstallationData", section A.III.1.

(b) Emission related data:

Please enter here the data required as outlined above.

Parameter	Unit	2014	2015	2016	2017	2018	
Direct emissions	t CO2 / year						
Net measurable heat imported	TJ / year						
Heat consumption from H2 combustion	TJ / year						
Total direct emissions	t CO2 / year						
Hydrogen related emissions	t CO2 / year						

<<< Click here to proceed to next sheet >>>

I. MS specific	Navigation area:	Table of contents	Previous sheet	Next sheet	Summary
	Top of sheet				
	End of sheet				

I. Sheet "MSspecific" - ADDITIONAL DATA REQUIREMENTS BY THE MEMBER STATE

I To be defined by the Member State

<<< Click here to proceed to next sheet >>>

J. Comments	Navigation area:	Table of contents	Previous sheet	Next sheet	Summary
	Top of sheet				
	End of sheet				

J. Sheet "Comments" - COMMENTS AND FURTHER INFORMATION

I Documents supporting this report

Please list here all relevant documents which are submitted together with this report

Additional documents will be needed to support this report. Please provide this information in an electronic format wherever possible.
You can provide information as Microsoft Word, Excel, or Adobe Acrobat formats.
If needed, check with your competent authority if other file formats than the ones mentioned above are acceptable.
Additional documentation provided should be clearly referenced, and the file name / reference number provided below.
You are advised to avoid supplying non-relevant information as it can slow down the approval of this report.

(a) Monitoring methodology plan as required by Article 4(2)(b) of the FAR (mandatory):
Please provide file name(s) (if in an electronic format) or document reference number(s) (if hard copy) below:

File name/Reference	Document description

(b) Verification report as required by Article 4(2)(c) of the FAR (mandatory):
Please provide file name(s) (if in an electronic format) or document reference number(s) (if hard copy) below:

File name/Reference	Document description

(c) Justification for any data gaps
Article 12(2) of the FAR requires to provide justification for any data gaps and description of the method used to close them.

No.	Affected data set (AD, EF, Heat, electricity,...)	Sub-installation	Time period	Description of the data gap	Justification

(d) Other documents:
Please provide file name(s) (if in an electronic format) or document reference number(s) (if hard copy) below:

File name/Reference	Document description

II Free space for all kinds of supplemental information

In space below you can enter all information which was not suitable for input in other sheets and which you consider important for the competent authority

K. Summary	Navigation area:	Table of contents	Previous sheet		
	Top of sheet	Installation data	Baseline Period & Eligibility	Emissions & Energy Flows	Sub-installation Data
	End of sheet	Preliminary allocation			

K. Sheet "Summary" - OVERVIEW OF MOST IMPORTANT DATA

I Installation data

1 General information (section A.I):

Installation Identifier:		**Member State:**	
Name of the installation:			
Operator Name:			
Verifier (company):			
Included in ETS before:		**Small emitter (Art. 27):**	
Incumbent:		**Hospital:**	
Starting date:		**Small emitter (Art. 27a):**	
		Units < 300h:	
NACE code in 2010 (NACE rev 2):		**EPRTR ID:**	

Activities according to Annex I of the EU ETS Directive:

1.
2.
3.
4.
5.
6.

2 Technical connections (section A.IV):

	Connection Name	EUTL identifier, if applicable	Entity Type
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			

II Baseline period and eligibility

1 Eligibility for free allocation (section A.II.1):

Electricity generator:		CCS Installation:	
Installation covered by Art. 10a(3) of the ETS Directive:		Installation produces Heat:	

It is mandatory that under A.II.1 one of the questions (e) or (f) is answered!

Installation is eligible for free allocation under Article 10a of the EU ETS Directive: **FAŁSZ**

2 Baseline years (Section A.II.2)

	2014	2015	2016	2017	2018
Year to be taken into account:	FAŁSZ	FAŁSZ	FAŁSZ	FAŁSZ	FAŁSZ

III Emissions and Energy Flows

1 Data resulting from input under "Source streams" (Sheets B+C) or from Emissions summary (section D.I)

Installation level data:	**Unit**	**2014**	**2015**	**2016**	**2017**	**2018**
Total CO2 emissions	t CO2 / year					
Biomass emissions	*t CO2 / year*					
Total N2O emissions	t CO2e/year					
Total PFC emissions	t CO2e/year					
Sum of direct emissions	t CO2e/year					
Transferred CO2 exported	t CO2 / year					
Total direct emissions of the installation	**t CO2e/year**					
Total energy input from fuels	**TJ / year**					

2 Attribution of emissions to sub-installations (section D.II)

Data is taken automatically from corresponding entries in sheets F and G in the light blue boxes under each sub-installation.

The attributable emissions are determined as follows:

= *The direct emissions are monitored in line with the MP approved under the MRR, i.e. taking into account the emissions from calculation based methodologies (using source streams), measurement based methodologies (CEMS) as well as no-tier approaches ("fall-backs").*

+/- *Emissions associated with further internal source streams*

+/- *Amount of GHG imported and exported as feedstock*

\+ *Emissions associated with imported heat in accordance with sections 10.1.2 and 10.1.3 of Annex VII of the FAR*

\- *Emissions associated with exported heat in accordance with sections 10.1.2 and 10.1.3 of Annex VII of the FAR*

\+ *Emissions associated with imported waste gases in accordance with section 10.1.5 of Annex VII of the FAR*

\- *Emissions associated with exported waste gases in accordance with section 10.1.5 of Annex VII of the FAR by deducting the energy content multiplied with the emission factor of natural gas and the default correction factor of 0.667*

\+ *Emissions associated with the relevant electricity consumption for sub-installations for which the exchangeability of the fuels and electricity is relevant.*

\- *Emissions associated with electricity produced other than via measurable heat.*

There are cases where the attributable emissions cannot be calculated for the draft preliminary allocation because the heat BM or fuel BM values are needed for the calculation. In such case, no values for the attributable emissions will be displayed as indicated by "not applicable (N.A.)". Those cases are:

\- *where no emission factor for imported or exported heat is applicable or known, i.e. where no such value has been entered. In such cases default values based on the heat BM will be used for calculating the attributable emissions, once known.*

\- *where waste gases are imported. In this case the fuel BM will be used, once known.*

The value "other emissions" is displayed for control purposes. It include emissions related to electricity production, flaring other than safety flaring, and other emissions which do not lead to free allocation.

If for at least one sub-installation "not applicable (N.A.)" is shown for any given year, the values for "other emissions" will not be shown either, in order to avoid any confusion.

Sub-installation level data:	**Unit**	**2014**	**2015**	**2016**	**2017**	**2018**
	t CO2e/year					
	t CO2e/year					
	t CO2e/year					
	t CO2e/year					
	t CO2e/year					

	t CO2e/year					
	t CO2e/year					
	t CO2e/year					
	t CO2e/year					
	t CO2e/year					
Heat benchmark sub-installation, CL	t CO2e/year					
Heat benchmark sub-installation, non-CL	t CO2e/year					
District heating sub-installation	t CO2e/year					
Fuel benchmark sub-installation, CL	t CO2e/year					
Fuel benchmark sub-installation, non-CL	t CO2e/year					
Process emissions sub-installation, CL	**t CO2e/year**					
Process emissions sub-installation, non-	**t CO2e/year**					
Control: Other emissions	t CO2e/year					

Sub-installation level data:	**Unit**	**2014**	**2015**	**2016**	**2017**	**2018**
	%					
	%					
	%					
	%					
	%					
	%					
	%					
	%					
	%					
	%					
Heat benchmark sub-installation, CL	%					
Heat benchmark sub-installation, non-CL	%					
District heating sub-installation	%					
Fuel benchmark sub-installation, CL	%					
Fuel benchmark sub-installation, non-CL	%					
Process emissions sub-installation, CL	**%**					
Process emissions sub-installation, non-	**%**					
Control: Other emissions	%					

3 Cogeneration tool - Section D.III

(a) Cogeneration tool 1

Energy balance	**Unit**	**2014**	**2015**	**2016**	**2017**	**2018**
Fuel input into CHP	TJ / year					
Heat output from CHP	TJ / year					
Electricity output from CHP	TJ / year					

Emissions	**Unit**	**2014**	**2015**	**2016**	**2017**	**2018**
From fuel input to CHP	t CO2 / year					
From flue gas cleaning	t CO2 / year					
Total emissions	t CO2 / year					

Efficiencies	**Unit**	**2014**	**2015**	**2016**	**2017**	**2018**
Heat production	-					
Electricity production	-					
Heat production (reference)	-	90,00%	90,00%	92,00%	92,00%	92,00%
Electricity production (reference)	-	52,50%	52,50%	53,00%	53,00%	53,00%

Results	**Unit**	**2014**	**2015**	**2016**	**2017**	**2018**
Emissions attributable to heat output	**t CO2 / year**					
Emission factor, heat	t CO2 / TJ					
Fuel input for heat	TJ / year					
Fuel input for electricity	TJ / year					

(b) Cogeneration tool 2

Energy balance	**Unit**	**2014**	**2015**	**2016**	**2017**	**2018**
Fuel input into CHP	TJ / year					
Heat output from CHP	TJ / year					
Electricity output CHP	TJ / year					

Emissions	**Unit**	**2014**	**2015**	**2016**	**2017**	**2018**
From fuel input to CHP	t CO2 / year					
From flue gas cleaning	t CO2 / year					
Total emissions	t CO2 / year					

Efficiencies	**Unit**	**2014**	**2015**	**2016**	**2017**	**2018**
Heat production	-					
Electricity production	-					
Heat production (reference)	-	90,00%	90,00%	92,00%	92,00%	92,00%
Electricity production (reference)	-	52,50%	52,50%	53,00%	53,00%	53,00%

Results	**Unit**	**2014**	**2015**	**2016**	**2017**	**2018**
Emissions attributable to heat output	**t CO2 / year**					
Emission factor, heat	t CO2 / TJ					
Fuel input for heat	TJ / year					
Fuel input for electricity	TJ / year					

4 Waste gas tool (waste gases not covered by product benchmarks) - Section D.IV

(a) This section relates to the process emissions sub-installation of this type:

Type of waste gas:

	Unit	**2014**	**2015**	**2016**	**2017**	**2018**
Uncorrected process emissions	t CO2e/year					
Emissions from waste gases	t CO2e/year					
Amount of waste gas per year	1000Nm3/year					
Net calorific value	GJ/1000Nm3					
Deduction for waste gases	**t CO2 / year**					
Result of waste gas tool:	**t CO2 / year**					

Reference efficiency for production of electricity: using natural gas: 52,50% using waste gas: 35,00%

(b) This section relates to the process emissions sub-installation of this type:

Type of waste gas:

	Unit	**2014**	**2015**	**2016**	**2017**	**2018**
Uncorrected process emissions	t CO2e/year					
Emissions from waste gases	t CO2e/year					

Amount of waste gas per year	1000Nm3/year					
Net calorific value	GJ/1000Nm3					
Deduction for waste gases	**t CO2 / year**					
Result of waste gas tool:	**t CO2 / year**					

Reference efficiency for production of electricity: using natural gas: 52,50% using waste gas: 35,00%

5 Energy input from fuels - split into use categories (Section E.I)

Usage type of fuel input	**Unit**	**2014**	**2015**	**2016**	**2017**	**2018**
Fuel input for production of measurable heat	TJ / year					
Fuel input for electricity production	TJ / year					
Fuel input to product BM sub-installations	TJ / year					
Fuel benchmark sub-installation, CL	TJ / year					
Fuel benchmark sub-installation, non-CL	TJ / year					
Rest	TJ / year					

Fuel input to each sub-installation from sheets F and G:

	TJ / year					
	TJ / year					
	TJ / year					
	TJ / year					
	TJ / year					
	TJ / year					
	TJ / year					
	TJ / year					
	TJ / year					
	TJ / year					
Heat benchmark sub-installation, CL	TJ / year					
Heat benchmark sub-installation, non-CL	TJ / year					
District heating sub-installation	TJ / year					
Fuel benchmark sub-installation, CL	TJ / year					
Fuel benchmark sub-installation, non-CL	TJ / year					

6 Calculation of measurable heat (Section E.II)

(a) Total net amount of measurable heat produced in the installation:

	Unit	**2014**	**2015**	**2016**	**2017**	**2018**
Measurable heat produced	TJ / year					

(b) Measurable heat imported from installations covered by the EU ETS:

Name of installation	**Unit**	**2014**	**2015**	**2016**	**2017**	**2018**
	TJ / year					
	TJ / year					
	TJ / year					
Sub-total	TJ / year					

(c) Measurable heat imported from installations and entities not covered by the EU ETS (not eligible for heat benchmark):

Name of installation or entity	**Unit**	**2014**	**2015**	**2016**	**2017**	**2018**
	TJ / year					
	TJ / year					
	TJ / year					
Sub-total	TJ / year					

(d) Measurable heat produced from electricity

Heat from electricity	TJ / year					

(e) Sum of measurable heat available at installation (=a+b+c)

Total measurable heat	TJ / year					

(f) Ratio of "ETS heat" to "Total heat"

Heat input ratio (a+b) / (a+b+c):	%					

(g) Measurable heat consumed for electricity production within the installation (not eligible for heat benchmark):

		2014	**2015**	**2016**	**2017**	**2018**
Heat used for electricity production	TJ / year					
Amount of heat from non-ETS sources	TJ / year					
Manual override of (ii)	TJ / year					

(h) Measurable heat consumed for product benchmark sub-installations within the installation (not eligible for heat benchmark):

	Unit	**2014**	**2015**	**2016**	**2017**	**2018**
	TJ / year					
	TJ / year					
	TJ / year					
	TJ / year					
	TJ / year					
	TJ / year					
	TJ / year					
	TJ / year					
	TJ / year					
	TJ / year					
Sub-total	TJ / year					

Values entered in sheet "F_ProductBM":

Amount of heat from non-ETS sources	TJ / year					

Non-ETS heat entered in sheet "F_ProductBM" compared to total amount of heat for all product benchmarks:

Point xii in relation to point xi:	%					

Non-ETS heat entered in sheet "F_ProductBM" compared to total amount of non-ETS heat imports entered above under point (c):

Point xii in relation to point (c) above:	%					

(i) Heat exported to ETS installations (not eligible for heat benchmark):

Name of installation	**Unit**	**2014**	**2015**	**2016**	**2017**	**2018**
	TJ / year					
	TJ / year					
	TJ / year					
	TJ / year					
	TJ / year					
Total heat exported to ETS installations	TJ / year					

(j) Sub-total: remaining total measurable heat, potentially belonging to heat benchmark sub-installations (=e-g-h-i):

	Unit	**2014**	**2015**	**2016**	**2017**	**2018**
Sub-total:	TJ / year					
eligible by origin:	TJ / year					
non-eligible by origin:	TJ / year					

(k) Eligibility ratio for the remaining heat calculated under (j):

	Unit	2014	2015	2016	2017	2018
corrected eligibility ratio (=(j).ii / (j).i):	%					

(l) Net amount measurable heat consumed in the installation and eligible under heat benchmark:

	Unit	2014	2015	2016	2017	2018
Heat consumed within the installation	TJ / year					

(m) Heat exported to installations or entities not covered by the EU ETS (e.g. district heating networks):

Name of receiving entity or installation	Unit	2014	2015	2016	2017	2018
	TJ / year					
	TJ / year					
	TJ / year					
	TJ / year					
	TJ / year					
Total heat exported to outside ETS:	TJ / year					

(n) Heat losses (=j-l-m)

	Unit	2014	2015	2016	2017	2018
Heat losses (calculated)	TJ / year					
Heat losses (fraction of heat available = e)	%					

(o) Total amount of heat potentially part of the heat benchmark or district heating sub-installations (=l+m):

	Unit	2014	2015	2016	2017	2018
Total heat benchmark sub-installations:	TJ / year					

(p) Final result: Amount of heat attributable to heat benchmark or district heating sub-installations

	Unit	2014	2015	2016	2017	2018
Heat eligible for heat benchmark sub-installations	**TJ / year**					

Summary of heat and district heating sub-installations

	Unit	2014	2015	2016	2017	2018
Heat benchmark sub-installation, CL	**TJ / year**					
Heat benchmark sub-installation, non-CL	**TJ / year**					
District heating sub-installation	**TJ / year**					

7 Complete balance of waste gases at the installation

(a) Waste gases produced within the system boundaries of a product benchmark sub-installation

Sub-installation	Unit	2014	2015	2016	2017	2018
	TJ / year					
	TJ / year					
	TJ / year					
	TJ / year					
	TJ / year					
	TJ / year					
	TJ / year					
	TJ / year					
	TJ / year					
	TJ / year					
Sub-total	TJ / year					

(b) Waste gases produced outside the system boundaries of a product benchmark sub-installation

from section D.IV.	Unit	2014	2015	2016	2017	2018
Waste gas 1	TJ / year					
Waste gas 2	TJ / year					
Sub-total	TJ / year					

(c) Sum of waste gases (=a+b)

	Unit	2014	2015	2016	2017	2018
Waste gases produced	TJ / year					

(d) Waste gases imported from other installations or entities

Name of installation or entity	Unit	2014	2015	2016	2017	2018
	TJ / year					
	TJ / year					
	TJ / year					
Sub-total	TJ / year					

(e) Waste gases exported to other installations or entities

Name of installation or entity	Unit	2014	2015	2016	2017	2018
	TJ / year					
	TJ / year					
	TJ / year					
Sub-total	TJ / year					

(f) Sum of waste gases available at installation (=c+d-e)

	Unit	2014	2015	2016	2017	2018
Waste gases available	TJ / year					

(g) Waste gases consumed within product benchmark sub-installations

Type of product BM sub-installation	Unit	2014	2015	2016	2017	2018
	TJ / year					
	TJ / year					
	TJ / year					
	TJ / year					
	TJ / year					
	TJ / year					
	TJ / year					
	TJ / year					
	TJ / year					
	TJ / year					
	TJ / year					
Sub-total	TJ / year					

(h) Waste gases consumed within fall-back sub-installations

Type of fall-back sub-installation	Unit	2014	2015	2016	2017	2018
Heat benchmark sub-installation, CL	TJ / year					
Heat benchmark sub-installation, non-CL	TJ / year					
District heating sub-installation, non-CL	TJ / year					
Fuel benchmark sub-installation, CL	TJ / year					
Fuel benchmark sub-installation, non-CL	TJ / year					
Sub-total	TJ / year					

(i) Amount of waste gases consumed for the production of electricity

	Unit	2014	2015	2016	2017	2018
Waste gases for electricity	TJ / year					

(j) Amount of waste gases flared other than safety flaring

Sub-installation	Unit	2014	2015	2016	2017	2018
	TJ / year					
	TJ / year					

	TJ / year					
	TJ / year					
	TJ / year					
	TJ / year					
	TJ / year					
	TJ / year					
	TJ / year					
	TJ / year					
produced outside product BM sub-installations	TJ / year					
Sub-total	TJ / year					

(k) Plausibility check

Difference (calculated)	TJ / year					
Difference (as fraction of f)	%					

8 Complete balance of electricity at the installation

Does the installation produce electricity?

	Unit	2014	2015	2016	2017	2018
Net electricity produced from fuels	MWh / year					
Other electricity produced	MWh / year					
Electricity imported	MWh / year					
Electricity exported	MWh / year					
Electricity useable	MWh / year					
Electricity consumed in the installation	MWh / year					

IV Sub-installation data relevant for allocation and benchmark update purposes

Calculation of the indicative number of allowances

The following abbreviations are used in the tables below:

CL-exposed	*Carbon leakage exposure. "True" if the sub-installation serves a sector deemed to be exposed to a significant risk of carbon leakage.*
No. of BM	*Number of the Benchmark*
Started	*Start of operation of the sub-installation*
BM value	*Value of the benchmark according to Annex I of the FAR. For the draft preliminary application, values used are either the indicative minimum or the maximum values as shown included in each sub-installation's overview table below.*
15(7).3?	*Is the third sub-paragraph of Article 15(7) of the FAR relevant (i.e. has the sub-installation been operated less than one year in the baseline period)?*
15(7).3 HAL	*The historic activity level, if the third sub-paragraph of Article 15(7) applies. Note that this value will only be known after the first activity level report will be submitted.*
ElExch?	*Is exchangeability of electricity and fuel relevant for this sub-installation?*
ElExch-F	*Calculation factor for taking into account the exchangeability of electricity and fuel in accordance with Article 22 of the FAR*
non-ETS heat	*Amount to be deducted from the preliminary annual amount of allowances in accordance with Article 21 of the FAR*
WGflare	*Amount to be deducted from the preliminary annual amount of allowances for flared waste gases from 2026 onwards in accordance with the second sub-paragraph of Article 16(5) of the FAR*
HVC-Corr	*Amount to be added to the preliminary annual amount of allowances for steam cracking sub-installations in accordance with Article 19 of the FAR*
VCM-F	*Calculation factor for taking into account hydrogen-related emissions in vinylchloride monomer sub-installations in accordance with Article 20 of the FAR*
Average	*Average of the historical activity levels in the baseline period*
Prelim Alloc Year 1 (min)	*(Draft) preliminary annual number of emission allowances allocated free of charge for the first year of the period in accordance with Article 16(6) of the FAR, i.e. after application of the CL exposure factor, but before linear factor or cross-sectoral correction factor are applied.* *This figure only provides an indicative estimate of the "minimum" preliminary allocation taking into account the lowest possible benchmark value for this sub-installation. The figure is therefore only indicative and should NOT be understood as pre-judgement of the actual free allocation number to be determined by the competent authority once the updated benchmarks are available.*
Prelim Alloc Year 1 (max)	*(Draft) preliminary annual number of emission allowances taking into account the highest possible benchmark value for this sub-installation.The same disclaimer as for the (min) value applies.*
Prelim Alloc Year 1 (actual)	*The actual preliminary annual number of emission allowances taking into account the actual benchmark value for this sub-installation. For the initial NIMs this value cannot be determined, but only at a later stage, once the benchmark values for each allocation period have been published.*

Disclaimer: Please note that the values for the preliminary allocation are only indicative taking into account the minimum or maximum benchmark values as explained above. However, where the preliminary allocation also depends on the heat or fuel benchmark value (e.g. ElExch-F or non-ETS heat), which are also subject to change based on this data collection, the indicative value might not even represent the minimum or maximum preliminary number of allowances, but undergo further correction.

1 Sub-installation with product benchmark 1:

		CL-exposed	ElExch?	Started	No. of BM	15(7).3?	BM value (min/max/actual)	
		N.A.		N.A.	N.A.		N.A.	EUA/tonnes
	non-ETS heat	WGflare	ElExch-F	HVC-Corr	VCM-F	15(7).3 HAL	N.A.	EUA/tonnes
Special factors:			1,0000				N.A.	EUA/tonnes

	Unit	2014	2015	2016	2017	2018	
HAL (Historic activity level) reported	tonnes						Average
Values used for HAL calculation:	tonnes						

HAL total	Prelim Alloc Year 1 (min)	Prelim Alloc Year 1 (max)	Prelim Alloc Year 1 (actual)
tonnes / year	EUA / year	EUA / year	EUA / year

	Unit	2014	2015	2016	2017	2018
Total attributed emissions	**t CO2e/year**					
Fuel input	TJ / year					
Weighted emission factor	t CO2 / TJ					
Direct emissions	t CO2 / year					
Further source streams - 1	t CO2 / year					
Further source streams - 2	t CO2 / year					
GHG imported or exported	t CO2e/year					
Net heat imported	TJ / year					
Specific EF (imported heat)	t CO2 / TJ					
Net heat imported from pulp	TJ / year					
Net heat imported from nitric acid sub-	TJ / year					
Net heat exported	TJ / year					
Specific EF (exported heat)	t CO2 / TJ					
Waste gas produced	TJ / year					
Specific EF (produced waste gas)	t CO2 / TJ					
Waste gas consumed	TJ / year					
Specific EF (consumed waste gas)	t CO2 / TJ					
Waste gas flared	TJ / year					

Specific EF (flared waste gas)	t CO2 / TJ						
Waste gas imported	TJ / year						
Specific EF (imported waste gas)	t CO2 / TJ						
Waste gas exported	TJ / year						
Specific EF (exported waste gas)	t CO2 / TJ						
Relevant electricity consumption	MWh / year						
Electricity produced	MWh / year						
Total amount of pulp produced	tonnes						
Intermediate import:							
	tonnes						
	tonnes						
Intermediate export:							
	tonnes						
	tonnes						

2 Sub-installation with product benchmark 2:

		CL-exposed	ElExch?	Started	No. of BM	15(7).3?	BM value (min/max/actual)	
		N.A.		N.A.	N.A.		N.A.	EUA/tonnes
	non-ETS heat	WGflare	ElExch-F	HVC-Corr	VCM-F	15(7).3 HAL	N.A.	EUA/tonnes
Special factors:			1,0000				N.A.	EUA/tonnes

	Unit	2014	2015	2016	2017	2018	
HAL (Historic activity level) reported	tonnes						Average
Values used for HAL calculation:	tonnes						

HAL total	Prelim Alloc Year 1 (min)	Prelim Alloc Year 1 (max)	Prelim Alloc Year 1 (actual)
tonnes / year	EUA / year	EUA / year	EUA / year

	Unit	2014	2015	2016	2017	2018
Total attributed emissions	**t CO2e/year**					
Fuel input	TJ / year					
Weighted emission factor	t CO2 / TJ					
Direct emissions	t CO2 / year					
Further source streams - 1	t CO2 / year					
Further source streams - 2	t CO2 / year					
GHG imported or exported	t CO2e/year					
Net heat imported	TJ / year					
Specific EF (imported heat)	t CO2 / TJ					
Net heat imported from pulp	TJ / year					
Net heat imported from nitric acid sub-	TJ / year					
Net heat exported	TJ / year					
Specific EF (exported heat)	t CO2 / TJ					
Waste gas produced	TJ / year					
Specific EF (produced waste gas)	t CO2 / TJ					
Waste gas consumed	TJ / year					
Specific EF (consumed waste gas)	t CO2 / TJ					
Waste gas flared	TJ / year					
Specific EF (flared waste gas)	t CO2 / TJ					
Waste gas imported	TJ / year					
Specific EF (imported waste gas)	t CO2 / TJ					
Waste gas exported	TJ / year					
Specific EF (exported waste gas)	t CO2 / TJ					
Relevant electricity consumption	MWh / year					
Electricity produced	MWh / year					
Total amount of pulp produced	tonnes					
Intermediate import:						
	tonnes					
	tonnes					
Intermediate export:						
	tonnes					
	tonnes					

3 Sub-installation with product benchmark 3:

		CL-exposed	ElExch?	Started	No. of BM	15(7).3?	BM value (min/max/actual)	
		N.A.		N.A.	N.A.		N.A.	EUA/tonnes
	non-ETS heat	WGflare	ElExch-F	HVC-Corr	VCM-F	15(7).3 HAL	N.A.	EUA/tonnes
Special factors:			1,0000				N.A.	EUA/tonnes

	Unit	2014	2015	2016	2017	2018	
HAL (Historic activity level) reported	tonnes						Average
Values used for HAL calculation:	tonnes						

HAL total	Prelim Alloc Year 1 (min)	Prelim Alloc Year 1 (max)	Prelim Alloc Year 1 (actual)
tonnes / year	EUA / year	EUA / year	EUA / year

	Unit	2014	2015	2016	2017	2018
Total attributed emissions	**t CO2e/year**					
Fuel input	TJ / year					
Weighted emission factor	t CO2 / TJ					
Direct emissions	t CO2 / year					
Further source streams - 1	t CO2 / year					
Further source streams - 2	t CO2 / year					
GHG imported or exported	t CO2e/year					
Net heat imported	TJ / year					
Specific EF (imported heat)	t CO2 / TJ					
Net heat imported from pulp	TJ / year					
Net heat imported from nitric acid sub-	TJ / year					
Net heat exported	TJ / year					
Specific EF (exported heat)	t CO2 / TJ					

Waste gas produced	TJ / year					
Specific EF (produced waste gas)	t CO2 / TJ					
Waste gas consumed	TJ / year					
Specific EF (consumed waste gas)	t CO2 / TJ					
Waste gas flared	TJ / year					
Specific EF (flared waste gas)	t CO2 / TJ					
Waste gas imported	TJ / year					
Specific EF (imported waste gas)	t CO2 / TJ					
Waste gas exported	TJ / year					
Specific EF (exported waste gas)	t CO2 / TJ					
Relevant electricity consumption	MWh / year					
Electricity produced	MWh / year					
Total amount of pulp produced	tonnes					
Intermediate import:						
	tonnes					
	tonnes					
Intermediate export:						
	tonnes					
	tonnes					

4 Sub-installation with product benchmark 4:

		CL-exposed	ElExch?	Started	No. of BM	15(7).3?	BM value (min/max/actual)	
		N.A.		N.A.	N.A.		N.A.	EUA/tonnes
	non-ETS heat	WGflare	ElExch-F	HVC-Corr	VCM-F	15(7).3 HAL	N.A.	EUA/tonnes
Special factors:			1,0000				N.A.	EUA/tonnes

	Unit	2014	2015	2016	2017	2018	
HAL (Historic activity level) reported	tonnes						Average
Values used for HAL calculation:	tonnes						

HAL total	Prelim Alloc Year 1 (min)	Prelim Alloc Year 1 (max)	Prelim Alloc Year 1 (actual)
tonnes / year	EUA / year	EUA / year	EUA / year

	Unit	2014	2015	2016	2017	2018
Total attributed emissions	**t CO2e/year**					
Fuel input	TJ / year					
Weighted emission factor	t CO2 / TJ					
Direct emissions	t CO2 / year					
Further source streams - 1	t CO2 / year					
Further source streams - 2	t CO2 / year					
GHG imported or exported	t CO2e/year					
Net heat imported	TJ / year					
Specific EF (imported heat)	t CO2 / TJ					
Net heat imported from pulp	TJ / year					
Net heat imported from nitric acid sub-	TJ / year					
Net heat exported	TJ / year					
Specific EF (exported heat)	t CO2 / TJ					
Waste gas produced	TJ / year					
Specific EF (produced waste gas)	t CO2 / TJ					
Waste gas consumed	TJ / year					
Specific EF (consumed waste gas)	t CO2 / TJ					
Waste gas flared	TJ / year					
Specific EF (flared waste gas)	t CO2 / TJ					
Waste gas imported	TJ / year					
Specific EF (imported waste gas)	t CO2 / TJ					
Waste gas exported	TJ / year					
Specific EF (exported waste gas)	t CO2 / TJ					
Relevant electricity consumption	MWh / year					
Electricity produced	MWh / year					
Total amount of pulp produced	tonnes					
Intermediate import:						
	tonnes					
	tonnes					
Intermediate export:						
	tonnes					
	tonnes					

5 Sub-installation with product benchmark 5:

		CL-exposed	ElExch?	Started	No. of BM	15(7).3?	BM value (min/max/actual)	
		N.A.		N.A.	N.A.		N.A.	EUA/tonnes
	non-ETS heat	WGflare	ElExch-F	HVC-Corr	VCM-F	15(7).3 HAL	N.A.	EUA/tonnes
Special factors:			1,0000				N.A.	EUA/tonnes

	Unit	2014	2015	2016	2017	2018	
HAL (Historic activity level) reported	tonnes						Average
Values used for HAL calculation:	tonnes						

HAL total	Prelim Alloc Year 1 (min)	Prelim Alloc Year 1 (max)	Prelim Alloc Year 1 (actual)
tonnes / year	EUA / year	EUA / year	EUA / year

	Unit	2014	2015	2016	2017	2018
Total attributed emissions	**t CO2e/year**					
Fuel input	TJ / year					
Weighted emission factor	t CO2 / TJ					
Direct emissions	t CO2 / year					
Further source streams - 1	t CO2 / year					
Further source streams - 2	t CO2 / year					
GHG imported or exported	t CO2e/year					
Net heat imported	TJ / year					

Specific EF (imported heat)	t CO2 / TJ					
Net heat imported from pulp	TJ / year					
Net heat imported from nitric acid sub-	TJ / year					
Net heat exported	TJ / year					
Specific EF (exported heat)	t CO2 / TJ					
Waste gas produced	TJ / year					
Specific EF (produced waste gas)	t CO2 / TJ					
Waste gas consumed	TJ / year					
Specific EF (consumed waste gas)	t CO2 / TJ					
Waste gas flared	TJ / year					
Specific EF (flared waste gas)	t CO2 / TJ					
Waste gas imported	TJ / year					
Specific EF (imported waste gas)	t CO2 / TJ					
Waste gas exported	TJ / year					
Specific EF (exported waste gas)	t CO2 / TJ					
Relevant electricity consumption	MWh / year					
Electricity produced	MWh / year					
Total amount of pulp produced	tonnes					
Intermediate import:						
	tonnes					
	tonnes					
Intermediate export:						
	tonnes					
	tonnes					

6 Sub-installation with product benchmark 6:

		CL-exposed	ElExch?	Started	No. of BM	15(7).3?	BM value (min/max/actual)	
		N.A.		N.A.	N.A.		N.A.	EUA/tonnes
	non-ETS heat	WGflare	ElExch-F	HVC-Corr	VCM-F	15(7).3 HAL	N.A.	EUA/tonnes
Special factors:			1,0000				N.A.	EUA/tonnes

	Unit	2014	2015	2016	2017	2018	
HAL (Historic activity level) reported	tonnes						Average
Values used for HAL calculation:	tonnes						

HAL total	Prelim Alloc Year 1 (min)	Prelim Alloc Year 1 (max)	Prelim Alloc Year 1 (actual)
tonnes / year	EUA / year	EUA / year	EUA / year

	Unit	2014	2015	2016	2017	2018
Total attributed emissions	**t CO2e/year**					
Fuel input	TJ / year					
Weighted emission factor	t CO2 / TJ					
Direct emissions	t CO2 / year					
Further source streams - 1	t CO2 / year					
Further source streams - 2	t CO2 / year					
GHG imported or exported	t CO2e/year					
Net heat imported	TJ / year					
Specific EF (imported heat)	t CO2 / TJ					
Net heat imported from pulp	TJ / year					
Net heat imported from nitric acid sub-	TJ / year					
Net heat exported	TJ / year					
Specific EF (exported heat)	t CO2 / TJ					
Waste gas produced	TJ / year					
Specific EF (produced waste gas)	t CO2 / TJ					
Waste gas consumed	TJ / year					
Specific EF (consumed waste gas)	t CO2 / TJ					
Waste gas flared	TJ / year					
Specific EF (flared waste gas)	t CO2 / TJ					
Waste gas imported	TJ / year					
Specific EF (imported waste gas)	t CO2 / TJ					
Waste gas exported	TJ / year					
Specific EF (exported waste gas)	t CO2 / TJ					
Relevant electricity consumption	MWh / year					
Electricity produced	MWh / year					
Total amount of pulp produced	tonnes					
Intermediate import:						
	tonnes					
	tonnes					
Intermediate export:						
	tonnes					
	tonnes					

7 Sub-installation with product benchmark 7:

		CL-exposed	ElExch?	Started	No. of BM	15(7).3?	BM value (min/max/actual)	
		N.A.		N.A.	N.A.		N.A.	EUA/tonnes
	non-ETS heat	WGflare	ElExch-F	HVC-Corr	VCM-F	15(7).3 HAL	N.A.	EUA/tonnes
Special factors:			1,0000				N.A.	EUA/tonnes

	Unit	2014	2015	2016	2017	2018	
HAL (Historic activity level) reported	tonnes						Average
Values used for HAL calculation:	tonnes						

HAL total	Prelim Alloc Year 1 (min)	Prelim Alloc Year 1 (max)	Prelim Alloc Year 1 (actual)
tonnes / year	EUA / year	EUA / year	EUA / year

	Unit	2014	2015	2016	2017	2018
Total attributed emissions	**t CO2e/year**					
Fuel input	TJ / year					
Weighted emission factor	t CO2 / TJ					

Direct emissions	t CO2 / year						
Further source streams - 1	t CO2 / year						
Further source streams - 2	t CO2 / year						
GHG imported or exported	t CO2e/year						
Net heat imported	TJ / year						
Specific EF (imported heat)	t CO2 / TJ						
Net heat imported from pulp	TJ / year						
Net heat imported from nitric acid sub-	TJ / year						
Net heat exported	TJ / year						
Specific EF (exported heat)	t CO2 / TJ						
Waste gas produced	TJ / year						
Specific EF (produced waste gas)	t CO2 / TJ						
Waste gas consumed	TJ / year						
Specific EF (consumed waste gas)	t CO2 / TJ						
Waste gas flared	TJ / year						
Specific EF (flared waste gas)	t CO2 / TJ						
Waste gas imported	TJ / year						
Specific EF (imported waste gas)	t CO2 / TJ						
Waste gas exported	TJ / year						
Specific EF (exported waste gas)	t CO2 / TJ						
Relevant electricity consumption	MWh / year						
Electricity produced	MWh / year						
Total amount of pulp produced	tonnes						
Intermediate import:							
	tonnes						
	tonnes						
Intermediate export:							
	tonnes						
	tonnes						

8 Sub-installation with product benchmark 8:

		CL-exposed	ElExch?	Started	No. of BM	15(7).3?	BM value (min/max/actual)	
		N.A.		N.A.	N.A.		N.A.	EUA/tonnes
	non-ETS heat	WGflare	ElExch-F	HVC-Corr	VCM-F	15(7).3 HAL	N.A.	EUA/tonnes
Special factors:			1,0000				N.A.	EUA/tonnes

	Unit	2014	2015	2016	2017	2018	
HAL (Historic activity level) reported	tonnes						Average
Values used for HAL calculation:	tonnes						

HAL total	Prelim Alloc Year 1 (min)	Prelim Alloc Year 1 (max)	Prelim Alloc Year 1 (actual)
tonnes / year	EUA / year	EUA / year	EUA / year

	Unit	2014	2015	2016	2017	2018
Total attributed emissions	**t CO2e/year**					
Fuel input	TJ / year					
Weighted emission factor	t CO2 / TJ					
Direct emissions	t CO2 / year					
Further source streams - 1	t CO2 / year					
Further source streams - 2	t CO2 / year					
GHG imported or exported	t CO2e/year					
Net heat imported	TJ / year					
Specific EF (imported heat)	t CO2 / TJ					
Net heat imported from pulp	TJ / year					
Net heat imported from nitric acid sub-	TJ / year					
Net heat exported	TJ / year					
Specific EF (exported heat)	t CO2 / TJ					
Waste gas produced	TJ / year					
Specific EF (produced waste gas)	t CO2 / TJ					
Waste gas consumed	TJ / year					
Specific EF (consumed waste gas)	t CO2 / TJ					
Waste gas flared	TJ / year					
Specific EF (flared waste gas)	t CO2 / TJ					
Waste gas imported	TJ / year					
Specific EF (imported waste gas)	t CO2 / TJ					
Waste gas exported	TJ / year					
Specific EF (exported waste gas)	t CO2 / TJ					
Relevant electricity consumption	MWh / year					
Electricity produced	MWh / year					
Total amount of pulp produced	tonnes					
Intermediate import:						
	tonnes					
	tonnes					
Intermediate export:						
	tonnes					
	tonnes					

9 Sub-installation with product benchmark 9:

		CL-exposed	ElExch?	Started	No. of BM	15(7).3?	BM value (min/max/actual)	
		N.A.		N.A.	N.A.		N.A.	EUA/tonnes
	non-ETS heat	WGflare	ElExch-F	HVC-Corr	VCM-F	15(7).3 HAL	N.A.	EUA/tonnes
Special factors:			1,0000				N.A.	EUA/tonnes

	Unit	2014	2015	2016	2017	2018	
HAL (Historic activity level) reported	tonnes						Average
Values used for HAL calculation:	tonnes						

HAL total	Prelim Alloc Year 1 (min)	Prelim Alloc Year 1 (max)	Prelim Alloc Year 1 (actual)
tonnes / year	EUA / year	EUA / year	EUA / year

	Unit	2014	2015	2016	2017	2018
Total attributed emissions	**t CO2e/year**					
Fuel input	TJ / year					
Weighted emission factor	t CO2 / TJ					
Direct emissions	t CO2 / year					
Further source streams - 1	t CO2 / year					
Further source streams - 2	t CO2 / year					
GHG imported or exported	t CO2e/year					
Net heat imported	TJ / year					
Specific EF (imported heat)	t CO2 / TJ					
Net heat imported from pulp	TJ / year					
Net heat imported from nitric acid sub-	TJ / year					
Net heat exported	TJ / year					
Specific EF (exported heat)	t CO2 / TJ					
Waste gas produced	TJ / year					
Specific EF (produced waste gas)	t CO2 / TJ					
Waste gas consumed	TJ / year					
Specific EF (consumed waste gas)	t CO2 / TJ					
Waste gas flared	TJ / year					
Specific EF (flared waste gas)	t CO2 / TJ					
Waste gas imported	TJ / year					
Specific EF (imported waste gas)	t CO2 / TJ					
Waste gas exported	TJ / year					
Specific EF (exported waste gas)	t CO2 / TJ					
Relevant electricity consumption	MWh / year					
Electricity produced	MWh / year					
Total amount of pulp produced	tonnes					
Intermediate import:						
	tonnes					
	tonnes					
Intermediate export:						
	tonnes					
	tonnes					

10 Sub-installation with product benchmark 10:

		CL-exposed	ElExch?	Started	No. of BM	15(7).3?	BM value (min/max/actual)	
		N.A.		N.A.	N.A.		N.A.	EUA/tonnes
	non-ETS heat	WGflare	ElExch-F	HVC-Corr	VCM-F	15(7).3 HAL	N.A.	EUA/tonnes
Special factors:			1,0000				N.A.	EUA/tonnes

	Unit	2014	2015	2016	2017	2018	
HAL (Historic activity level) reported	tonnes						Average
Values used for HAL calculation:	tonnes						

HAL total	Prelim Alloc Year 1 (min)	Prelim Alloc Year 1 (max)	Prelim Alloc Year 1 (actual)
tonnes / year	EUA / year	EUA / year	EUA / year

	Unit	2014	2015	2016	2017	2018
Total attributed emissions	**t CO2e/year**					
Fuel input	TJ / year					
Weighted emission factor	t CO2 / TJ					
Direct emissions	t CO2 / year					
Further source streams - 1	t CO2 / year					
Further source streams - 2	t CO2 / year					
GHG imported or exported	t CO2e/year					
Net heat imported	TJ / year					
Specific EF (imported heat)	t CO2 / TJ					
Net heat imported from pulp	TJ / year					
Net heat imported from nitric acid sub-	TJ / year					
Net heat exported	TJ / year					
Specific EF (exported heat)	t CO2 / TJ					
Waste gas produced	TJ / year					
Specific EF (produced waste gas)	t CO2 / TJ					
Waste gas consumed	TJ / year					
Specific EF (consumed waste gas)	t CO2 / TJ					
Waste gas flared	TJ / year					
Specific EF (flared waste gas)	t CO2 / TJ					
Waste gas imported	TJ / year					
Specific EF (imported waste gas)	t CO2 / TJ					
Waste gas exported	TJ / year					
Specific EF (exported waste gas)	t CO2 / TJ					
Relevant electricity consumption	MWh / year					
Electricity produced	MWh / year					
Total amount of pulp produced	tonnes					
Intermediate import:						
	tonnes					
	tonnes					
Intermediate export:						
	tonnes					
	tonnes					

11 Fall-Back sub-installation 1:

Heat benchmark sub-installation, CL

	CL-exposed	Started	15(7).3?	15(7).3 HAL	No. of BM	BM value (min/max/actual)	
Heat benchmark sub-installation, CL	PRAWDA				1		EUA/TJ
							EUA/TJ

							EUA/TJ
	Unit	2014	2015	2016	2017	2018	
HAL (Historic activity level) reported	TJ						Average
Values used for HAL calculation:	TJ						

HAL total	Prelim Alloc Year 1 (min)	Prelim Alloc Year 1 (max)	Prelim Alloc Year 1 (actual)
TJ / year	EUA / year	EUA / year	EUA / year

	Unit	2014	2015	2016	2017	2018
Measurable heat produced	**TJ / year**					
Total attributed emissions	**t CO2e/year**					
Fuel input	TJ / year					
Weighted emission factor	t CO2 / TJ					
Fuel input	TJ / year					
Weighted emission factor	t CO2 / TJ					
Direct emissions	t CO2 / year					
Net heat imported (other)	TJ / year					
Specific EF (imported heat)	t CO2 / TJ					
Net heat imported (product BM)	TJ / year					
Specific EF (from product BM)	t CO2 / TJ					
Net heat imported (pulp)	TJ / year					
Specific EF (from pulp)	t CO2 / TJ					
Net heat imported (fuelBM)	TJ / year					
Specific EF (from fuelBM)	t CO2 / TJ					
Net heat imported (waste gas)	TJ / year					
Specific EF (from waste gas)	t CO2 / TJ					

12 Fall-Back sub-installation 2:

Heat benchmark sub-installation, non-CL

	CL-exposed	Started	15(7).3?	15(7).3 HAL	No. of BM	BM value (min/max/actual)
Heat benchmark sub-installation, non-CL	FAŁSZ				2	EUA/TJ
						EUA/TJ
						EUA/TJ

	Unit	2014	2015	2016	2017	2018	
HAL (Historic activity level) reported	TJ						Average
Values used for HAL calculation:	TJ						

HAL total	Prelim Alloc Year 1 (min)	Prelim Alloc Year 1 (max)	Prelim Alloc Year 1 (actual)
TJ / year	EUA / year	EUA / year	EUA / year

	Unit	2014	2015	2016	2017	2018
Measurable heat produced	**TJ / year**					
Total attributed emissions	**t CO2e/year**					
Fuel input	TJ / year					
Weighted emission factor	t CO2 / TJ					
Fuel input	TJ / year					
Weighted emission factor	t CO2 / TJ					
Direct emissions	t CO2 / year					
Net heat imported (other)	TJ / year					
Specific EF (imported heat)	t CO2 / TJ					
Net heat imported (product BM)	TJ / year					
Specific EF (from product BM)	t CO2 / TJ					
Net heat imported (pulp)	TJ / year					
Specific EF (from pulp)	t CO2 / TJ					
Net heat imported (fuelBM)	TJ / year					
Specific EF (from fuelBM)	t CO2 / TJ					
Net heat imported (waste gas)	TJ / year					
Specific EF (from waste gas)	t CO2 / TJ					

13 Fall-Back sub-installation 3:

District heating sub-installation

	CL-exposed	Started	15(7).3?	15(7).3 HAL	No. of BM	BM value (min/max/actual)
District heating sub-installation	FAŁSZ				3	EUA/TJ
						EUA/TJ
						EUA/TJ

	Unit	2014	2015	2016	2017	2018	
HAL (Historic activity level) reported	TJ						Average
Values used for HAL calculation:	TJ						

HAL total	Prelim Alloc Year 1 (min)	Prelim Alloc Year 1 (max)	Prelim Alloc Year 1 (actual)
TJ / year	EUA / year	EUA / year	EUA / year

	Unit	2014	2015	2016	2017	2018
Measurable heat produced	**TJ / year**					
Total attributed emissions	**t CO2e/year**					
Fuel input	TJ / year					
Weighted emission factor	t CO2 / TJ					
Fuel input	TJ / year					
Weighted emission factor	t CO2 / TJ					
Direct emissions	t CO2 / year					
Net heat imported (other)	TJ / year					
Specific EF (imported heat)	t CO2 / TJ					
Net heat imported (product BM)	TJ / year					
Specific EF (from product BM)	t CO2 / TJ					
Net heat imported (pulp)	TJ / year					
Specific EF (from pulp)	t CO2 / TJ					

Net heat imported (fuelBM)	TJ / year					
Specific EF (from fuelBM)	t CO2 / TJ					
Net heat imported (waste gas)	TJ / year					
Specific EF (from waste gas)	t CO2 / TJ					

14 Fall-Back sub-installation 4: Fuel benchmark sub-installation, CL

	CL-exposed	Started	15(7).3?	15(7).3 HAL	No. of BM	BM value (min/max/actual)
Fuel benchmark sub-installation, CL	PRAWDA				4	EUA/TJ
						EUA/TJ
						EUA/TJ

	Unit	2014	2015	2016	2017	2018	
HAL (Historic activity level) reported	TJ						Average
Values used for HAL calculation:	TJ						

HAL total	Prelim Alloc Year 1 (min)	Prelim Alloc Year 1 (max)	Prelim Alloc Year 1 (actual)
TJ / year	EUA / year	EUA / year	EUA / year

	Unit	2014	2015	2016	2017	2018
Total attributed emissions	**t CO2e/year**					
Fuel input	TJ / year					
Weighted emission factor	t CO2 / TJ					
Fuel input	TJ / year					
Weighted emission factor	t CO2 / TJ					
Direct emissions	t CO2 / year					
Net heat exported	TJ / year					

15 Fall-Back sub-installation 5: Fuel benchmark sub-installation, non-CL

	CL-exposed	Started	15(7).3?	15(7).3 HAL	No. of BM	BM value (min/max/actual)
Fuel benchmark sub-installation, non-CL	FAŁSZ				5	EUA/TJ
						EUA/TJ
						EUA/TJ

	Unit	2014	2015	2016	2017	2018	
HAL (Historic activity level) reported	TJ						Average
Values used for HAL calculation:	TJ						

HAL total	Prelim Alloc Year 1 (min)	Prelim Alloc Year 1 (max)	Prelim Alloc Year 1 (actual)
TJ / year	EUA / year	EUA / year	EUA / year

	Unit	2014	2015	2016	2017	2018
Total attributed emissions	**t CO2e/year**					
Fuel input	TJ / year					
Weighted emission factor	t CO2 / TJ					
Fuel input	TJ / year					
Weighted emission factor	t CO2 / TJ					
Direct emissions	t CO2 / year					
Net heat exported	TJ / year					

16 Fall-Back sub-installation 6: Process emissions sub-installation, CL

	CL-exposed	Started	15(7).3?	15(7).3 HAL	No. of BM	BM value (min/max/actual)
Process emissions sub-installation, CL	PRAWDA				6	EUA/t CO2e
						EUA/t CO2e
						EUA/t CO2e

	Unit	2014	2015	2016	2017	2018	
HAL (Historic activity level) reported	t CO2e						Average
Values used for HAL calculation:	t CO2e						

HAL total	Prelim Alloc Year 1 (min)	Prelim Alloc Year 1 (max)	Prelim Alloc Year 1 (actual)
t CO2e / year	EUA / year	EUA / year	EUA / year

	Unit	2014	2015	2016	2017	2018
Total attributed emissions	**t CO2e/year**					

17 Fall-Back sub-installation 7: Process emissions sub-installation, non-CL

	CL-exposed	Started	15(7).3?	15(7).3 HAL	No. of BM	BM value (min/max/actual)
Process emissions sub-installation, non-CL	FAŁSZ				7	EUA/t CO2e
						EUA/t CO2e
						EUA/t CO2e

	Unit	2014	2015	2016	2017	2018	
HAL (Historic activity level) reported	t CO2e						Average
Values used for HAL calculation:	t CO2e						

HAL total	Prelim Alloc Year 1 (min)	Prelim Alloc Year 1 (max)	Prelim Alloc Year 1 (actual)
t CO2e / year	EUA / year	EUA / year	EUA / year

	Unit	2014	2015	2016	2017	2018
Total attributed emissions	**t CO2e/year**					

V Calculation of preliminary annual amount of allowances allocated free of charge

In this section you can see a summary of preliminary allocation values for the years 2021 to 2025, or 2026 to 2030, respectively, which apply to this installation, and which are based on the data shown in the previous sections based on your entries. The displayed information does not contain any completeness checks. Therefore, the data can only be considered correct if you have ensured that the following conditions are met:

- *Sheet "A_InstallationData" is filled completely, especially sections A.II (eligibility and baseline period) and A.III (list of subinstallations)*
- *Data has been entered for all relevant baseline years and the relevant sections in sheets F and G are filled.*
- *No error messages are displayed in any of the relevant sections of those sheets.*

For understanding the preliminary character of this information, it is important to understand what has been taken into account in the calculation:

- *Depending on your input in section A.II.2 (chosen baseline period), A.III (sub-installation data) and sheets F and G, you see in section IV of this sheet, which baseline years have been used for calculating historical activity levels ("HALs"), to which benchmarks are applied.*
- *As at the time of submitting the data to the competent authority the updated benchmark values are not yet available, you can get an indication of the order of magnitude of the expected allocation by selecting either the "minimum" or "maximum" benchmark values in point 1.a below.*
- *The calculation takes into account for each sub-installation, if it is exposed to a significant risk of carbon leakage, or if this is not the case.*
- *The calculation takes into account, if the installation is covered by Article 10a(3) of the EU ETS Directive, i.e. if it is an electricity generator or an installation for the capture, transport or geological storage of CO2. Pursuant to Article 16(8) of the FAR, the allocation of such installations has to be corrected by applying the linear factor referred to in Article 10a(4) of the EU ETS Directive.This linear factor is taken into account here.*
- *The preliminary allocation of all other installations (those not covered by Article 10a(3) of the EU ETS Directive) has to be multiplied by the cross-sectoral correction factor as determined in accordance with Article 14(6) of the FAR. This factor will be calculated by the European Commission as soon as all Member States have notified their National Implementation Measures (NIMs) and the new benchmark values are published.*
- *In order to help operators understanding how the allocation is calculated, the PRELIMINARY allocation (i.e. allocation before application of the cross-sectoral correction factor or linear factor) is displayed below. For submission to the competent authority, no cross sectoral-correction factor is to be entered.*
- *However, this template offers the possibility to enter a value for the cross-sectoral correction factor. This feature can be used by the operator for his own information only. The results are by no means legally binding.*

Disclaimer: According to Article 16(1) of the FAR, Member States are required to calculate and set the number of emission allowances allocated free of charge from 2021 onwards to each installation applying for free allocation. The results displayed here are therefore indicative only. No warranty, either expressed or implied, is provided in relation to the accuracy, completeness or reliability of the result. No rights or entitlement to a certain amount of allowances can be derived from the result displayed in this template. For correctness of calculations please see also the disclaimer in the sheet "Guidelines and conditions".

1 Total preliminary annual amount of allowances allocated free of charge:

The amounts displayed here reflect the calculation of preliminary annual number of allowances allocated free of charge in accordance with paragraphs 1 to 7 of Article 16 of the FAR, i.e. the factors referred to in Annex V of the FAR (referred to as "Carbon leakage factor" below) have already been applied. Pursuant to Article 16(3) of the FAR, for the district heating sub-installation this factor will be 0.3 for all years.

If for a sub-installation the calculated preliminary annual amount of allowances allocated free of charge results in a negative value, it is set to zero instead.

(a) Calculation of the minimum, maximum, or actual preliminary allocation? Minimum

Based on the selection made here, the indicative minimum, maximum or actual preliminary allocation, as determined in section IV above, will be shown.

Please note that the actual allocation can only be calculated once the new benchmark values are published. Before that, no calculations will be performed below, if "actual" is chosen.

If this field is left empty, the minimum preliminary allocation will be used as the default for all calculations below.

(b) Calculation factors:

	2021	2022	2023	2024	2025
Carbon leakage factor fon non-CL sectors	0,3000	0,3000	0,3000	0,3000	0,3000
Carbon leakage factor for district heating	0,3000	0,3000	0,3000	0,3000	0,3000

Note: for CL exposed sectors, the CL factor is 1.0000 for all years.

(c) Calculation in accordance with Article 16(1) to (7) of the FAR:

	Sub-installation	2021	2022	2023	2024	2025
1						
2						
3						
4						
5						
6						
7						
8						
9						
10						
11	Heat benchmark sub-installation, CL					
12	Heat benchmark sub-installation, non-CL					
13	District heating sub-installation					
14	Fuel benchmark sub-installation, CL					
15	Fuel benchmark sub-installation, non-CL					
16	Process emissions sub-installation, CL					
17	Process emissions sub-installation, non-CL					
	Total preliminary free allocation					

2 Indicative expected final amount of free allowances:

(a) Linear factor referred to in Article 10a(4) of the EU ETS Directive:

	2021	2022	2023	2024	2025
Linear factor	0,8562	0,8342	0,8122	0,7902	0,7682

(b) Cross-sectoral correction factor (CSCF) in accordance with Article 14(6) of the FAR:

For the purpose of your own information, as explained above, you can enter values for the cross-sectoral uniform correction factor in accordance with Article 10a(5) of the ETS Directive here. The default value is 1, until the Commission has published the final value in accordance with Article 14(6) of the FAR.

When submitting this report to the competent authority for the purpose of establishing the national implementation measures, make sure that no data is entered here.

	2021	2022	2023	2024	2025
CSCF					
Value used for calculation	1,0000	1,0000	1,0000	1,0000	1,0000

(c) Factor to be used for calculation:

For installations covered by Article 10a(3) of the Directive, the linear factor displayed in point (a) has to be applied for each year unless the CSCF displayed in point (b) is lower than 1. In such case, the CSCF has to be applied for any such year.

For installations not covered by Article 10a(3), the CSCF displayed in point (b) will be applied for each year.

	2021	2022	2023	2024	2025
Value used for calculation					

(d) Calculation in accordance with Article 16(8) of the FAR:

The amounts displayed here reflect the calculation of the final total amount of allowances allocated free of charge in accordance with Article 16(8) of the FAR, i.e. allocation values with either the linear factor or the cross-sectoral correction factor applied as appropriate (i.e. the result of point (c) above). However, these values cannot be considered final values, because the cross-sectoral correction factor is not known yet at the time of this data collection.

	Sub-installation	2021	2022	2023	2024	2025
1						
2						

3						
4						
5						
6						
7						
8						
9						
10						
11	Heat benchmark sub-installation, CL					
12	Heat benchmark sub-installation, non-CL					
13	District heating sub-installation					
14	Fuel benchmark sub-installation, CL					
15	Fuel benchmark sub-installation, non-CL					
16	Process emissions sub-installation, CL					
17	Process emissions sub-installation, non-CL					
	Total preliminary free allocation					

The results displayed here are by no means legally binding. Please see disclaimer in the introduction of this section.