

# MONITORING METHODOLOGY PLAN for Phase 4 of the EU ETS

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Language version:	English
Reference filename:	MMP P4 3rd draft_COM_en_250119.xls

<b>Information about this file:</b>	
Installation name:	
Unique Installation Identifier:	
Reference date:	25.01.2019

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

## 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](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 for which operators have to prepare a monitoring methodology plan (MMP) pursuant to Article 8 of the FAR.
- 4 This is a template for the MMP and 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 (CEEG). IT IS 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). 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.
- 7 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.



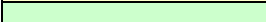



Error messages are often very short due to the little place available. The most important ones are:

<b>incomplete!</b>	Means that data is not sufficient for calculation (e.g. an emission factor is missing in one year).
<b>inconsistent!</b>	The units selected are inconsistent, and calculations based upon related inputs will give wrong results.
<b>negative!</b>	In this calculation no negative values are allowed.
<b>Manual input!</b>	Means that data has to be entered manually in a case where automatic calculation of a parameter is not possible.
<b>Input in A.II.3 ! E.II.1.n !</b>	These are references to document sections. This means that data in the referenced sections are missing.

- 8 Colour codes and fonts:

#### Black bold text:

*Smaller italic text:*

	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.

- 9 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).
- 10 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.
- 11 **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. If you want to move data, first COPY and PASTE them, and thereafter delete the unwanted data in the old (wrong) place.**
- 12 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 independent 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.

- 13 **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 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](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:**



























## B. INSTALLATION DATA

### Identification of the Installation

#### 1 Consent to use the data contained in this file

The information 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 this information might 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.  
Please confirm consent to use information contained in this monitoring methodology plan.

#### 2 About the operator

- (a) Operator Name
- (b) Member State
- (c) Emissions trading permit number  member state/CA prefix
- (d) Competent Authority

#### 3 About your installation

##### (a) Name of the installation and the site on which it is located:

- i. Installation name:
- ii. Site name:
- iii. Registry ID of the installation (as in NIMs):   
This is usually a natural number, i.e. a code different from the Permit identifier used in the Registry (EUTL).  
For example, if the Registry ID is BE000000000123456, please enter here 123456. Together with the Member State selected under (c), this Registry ID
- iv. Unique ID:

Include any Member State specific guidance on naming of installations.

##### (b) Address / location of the site of the installation:

- i. Address Line 1:
- ii. Address Line 2:
- iii. City:
- iv. State/Province/Region:
- v. Postcode/ZIP:
- vi. Country:

Include any Member State specific guidance regarding grid references.

#### 4 Contact details

##### Who can we contact about your monitoring methodology plan?

It will help us to have someone who we can contact directly with any questions about your monitoring methodology plan. The persons you name should have the authority to act on behalf of the operator.

- (a) Primary contact:
- Title:
- First Name:
- Surname:
- Job title:
- Organisation name (if different from the operator):
- Telephone number:
- Email address:
- (b) Alternative contact:
- Title:
- First Name:
- Surname:
- Job title:
- Organisation name (if different from the operator):
- Telephone number:
- Email address:

## C. INSTALLATION DESCRIPTION

### I List of sub-installations

#### 1 Product benchmark sub-installations

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.

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

No.	Product type	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

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.

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

No.	Sub-installation type	relevant?	CL exposed?
11	Heat benchmark sub-installation, CL		PRAWDA
12	Heat benchmark sub-installation, non-CL		FAŁSZ
13	District Heating sub-installation, non-CL		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

### II Description of the installation

#### (a) Description of the installation including its main processes

If the description pursuant to section 1(c) of Annex VI of the FAR exceeds the space provided here, please refer to an attached document file (and then please list exact file name here).

#### (b) Reference to the latest approved monitoring plan:

Please provide a reference to the monitoring plan in accordance with the M&R Regulation where all emission sources are listed as required by section 1(c) of Annex VI of the FAR.

#### (c) Reference to a flow diagram:

Please provide a flow diagram in accordance with section 1(d) of Annex VI of the FAR, which contains at least the following information and provide a reference (filename, date) and attach a copy when submitting this monitoring methodology plan to your competent authority.

- The technical elements of the installation, identifying emissions sources as well as heat producing and consuming units
- All energy and material flows, in particular the source streams, emission sources, measurable and non-measurable heat flows, electricity flows where relevant, and waste gases
- The points of measurement and metering devices
- Boundaries of the sub-installations, including the split between sub-installation serving sectors deemed to be exposed to a significant risk of carbon leakage and sub-installations serving other sectors, based on NACE rev. 2 or PRODCOM 2010

In more complex cases, more detailed flow diagrams should be shown for each relevant sub-installation under point (a).iii. of sheets F and G.

Please also include a (smaller) picture of that flow diagram in the box below.

### III Connections to other EU ETS installations or non-ETS entities

#### (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 CO2 for the purpose of CCS activities cross the boundaries of the installation.

"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.

Type of connection options are:

- Measurable heat
- Waste gas
- transferred CO2 for geological storage (CCS)
- transferred CO2 for use in installation (CCU)
- 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)

**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)

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.*

No.	Installation ID used in CITL	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 >>>](#)

**D. Methods and procedures at installation level**

**I Methods at installation level**

Entries in this section are only relevant if the installation has more than one sub-installation AND any physical units are used by more than one sub-installation. If this is not the case, please proceed with section II below.

**(a) Physical parts of installations which serve more than one sub-installation**

As required by Annex VI, section 2(b), of the FAR please list all physical parts of installations and units which serve more than one sub-installation, including heat supply systems, jointly used boilers and CHP units, etc.

For each part or unit, please select all relevant sub-installations from the drop down lists which contains all sub-installations selected in section C.I.

Units which only serve one sub-installation should not be listed here but described in detail in the section (a) of the relevant sub-installation in sheets F and G.

For example, if a boiler produces measurable heat that is consumed by two product benchmark sub-installation, the boiler should be listed below and both sub-installations selected from the drop-down list. If the heat is consumed by only one of the two sub-installation, no entries are required here, but in sheet F.I.(a).

Ref.	Physical part of the installation or unit	Relevant sub-installations				
		1	2	3	4	5
P1						
P2						
P3						
P4						
P5						
P6						
P7						
P8						
P9						
P10						
P11						
P12						
P13						
P14						
P15						

**(b) Methods to assign parts of installations and their emissions to the respective sub installations:**

As required by Annex VI, section 2(d) of the FAR, please describe for each sub-installation identified under (a) above the methods to assign parts of installations and their emissions to the sub-installation. This description should in particular take into account the provisions in section 3.2.1 of Annex VII of the FAR.

If relevant methods are described in sufficient detail under point (a) of sheets F and G of all relevant sub-installations, please just state so here.

If this information is provided in external files, please provide a reference to those below.

Reference to external files, if relevant

**(c) Method used for ensuring that data gaps and double counting are avoided**

Please describe how it is ensured that no data gaps or double counting occurred pursuant to section 3(b) of Annex VI of the FAR and taking into consideration the provisions in Article 10(5) of the FAR.

If there is more than one sub-installation relevant for your installation, and emissions of one source stream are determined individually for each sub-installation in sheets F or G, please compare the emissions of the annual emission report with the sum of emissions for each sub-installation. If deviations occur please describe according to section 3.2.2 of Annex VII of the FAR the method to correct the data.

Reference to external files, if relevant

**II Procedures**

This section covers the procedures required by sections 1.(f) to (h) of Annex VI of the FAR.

Where relevant and to the extent possible, please refer to the corresponding procedures in the MRR monitoring plan and integrate them there.

**(a) Please give a reference to the procedure for managing the assignment of responsibilities for monitoring and reporting within the installation, and for managing the competences of responsible personnel**

It is possible to refer to an attached document file (then please list exact file name here), if the description exceeds the space provided here.

Title of procedure	
Reference for procedure	
Diagram reference (where applicable)	
Brief description of procedure	
Post or department responsible	
Location where records are kept	
Name of IT system used (where applicable).	
List of EN or other standards applied (where relevant)	

**(b) Please give a reference to the procedure for regular evaluation of the monitoring methodology plan's appropriateness in accordance with Article 9(1)**

This procedure shall in particular ensure that monitoring methods are in place for all data items listed in Annex IV which are relevant at the installation, and that most accurate available data

It is possible to refer to an attached document file (then please list exact file name here), if the description exceeds the space provided here.

Title of procedure	
Reference for procedure	
Diagram reference (where applicable)	
Brief description of procedure	
Post or department responsible	
Location where records are kept	

Name of IT system used (where applicable).	
List of EN or other standards applied (where relevant)	

(c) Please give a reference to the written procedure of the data flow activities pursuant to Art. 11(2), including diagrams where appropriate for clarification

*It is possible to refer to an attached document file (then please list exact file name here), if the description exceeds the space provided here.*

Title of procedure	
Reference for procedure	
Diagram reference (where applicable)	
Brief description of procedure	
Post or department responsible	
Location where records are kept	
Name of IT system used (where applicable).	
List of EN or other standards applied (where relevant)	

(d) Please give a reference to the written procedures of the control activities pursuant to Art. 11(2), including diagrams where appropriate for clarification

*It is possible to refer to an attached document file (then please list exact file name here), if the description exceeds the space provided here.*

Title of procedure	
Reference for procedure	
Diagram reference (where applicable)	
Brief description of procedure	
Post or department responsible	
Location where records are kept	
Name of IT system used (where applicable).	
List of EN or other standards applied (where relevant)	

## E. Energy Flows

### Introduction to this sheet

All descriptions of the methods used in subsequent sections below to quantify parameters to be monitored and reported shall include, where relevant:

- calculation steps
- data sources
- calculation formulae
- relevant calculation factors including unit of measurement
- horizontal and vertical checks for corroborating data
- procedures underpinning sampling plans
- measurement equipment used with reference to the relevant diagram and a description how they are installed and maintained
- a list of laboratories engaged in carrying out relevant analytical procedures

The description shall include the result of a simplified uncertainty assessment in accordance with Article 7(2), where required.  
For each relevant calculation formula the plan shall contain one example using real data.

### I Fuel input

#### (a) Fuel input flows

For the specific purpose of the NIMS data collection, this section should cover all data provided in section E.I in the "baseline data collection" template.

##### i. Information on the methodology applied

Please select below:

- the data source used for the quantities pursuant to section 4.4 of Annex VII of the FAR.
  - the method used for the determination of the energy content pursuant to section 4.6 of Annex VII of the FAR.
- As more than one of the data sources might be involved, the template provides for up to three sources. If even further sources are involved, please select the three main sources and describe further details in the description of the methodology below.

	Data source	Other data source (if applicable)	Other data source (if applicable)
1. Fuel input			
2. Energy content			

##### 3. Description of the methodology applied

The list of aspects this description should cover can be found at the top of this sheet!

##### 4. Reference to external files, if relevant

##### ii. The hierarchical order has been followed?

Selecting "TRUE" here means that the data source with the highest rank within the hierarchy set out in section 4 of Annex VII of the FAR has been used above. If this is not the case, please select "FALSE" and select the reason for that from the drop-down list and describe further details below. Reasons for deviation can be the following:

- Uncertainty assessment: other data sources lead to lower uncertainty according to the simplified uncertainty assessment pursuant to Article 7(2) of the FAR.
- Technical infeasibility: the use of better data sources is technical infeasible.
- Unreasonable costs: the use of better data sources would incur unreasonable costs.

Further details on any deviation from the hierarchy

### II Measurable heat at installation level

#### (a) Measurable heat flows (import, export, consumption and production)

For the specific purpose of the NIMS data collection, this section should cover all data provided in section E.II in the "baseline data collection" template.

##### i. Are measurable heat flows relevant for the installation?

##### ii. Information on the methodology applied

Please select below for all measurable heat flows:

- the data source used for the energy flows pursuant to section 4.5 of Annex VII of the FAR.
- As more than one of the data sources might be involved, the template provides for up to three sources. If even further sources are involved, please select the three main sources and describe further details in the description of the methodology below.
- For example, if heat is imported and consumed within the installation, the imported flows might be measured by instruments subject to national legal metrological control (section 4.5(a)), while the consumed amounts might be measured by other meters under the operator's control (section 4.5(b)).
- the method used for the determination of net amounts pursuant to section 7.2 of Annex VII of the FAR.

	Data source	Other data source (if applicable)	Other data source (if applicable)
1. Quantification of measurable heat flows			
2. Net measurable heat flows			

##### 3. Description of the methodology applied

##### 4. Reference to external file, if relevant

##### ii. The hierarchical order has been followed?

Selecting "TRUE" here means that the data source with the highest rank within the hierarchy set out in section 4 of Annex VII of the FAR has been used above. If this is not the case, please select "FALSE" and select the reason for that from the drop-down list and describe further details below. Reasons for deviation can be the following:

- Uncertainty assessment: other data sources lead to lower uncertainty according to the simplified uncertainty assessment pursuant to Article 7(2) of the FAR.
- Technical infeasibility: the use of better data sources is technical infeasible.
- Unreasonable costs: the use of better data sources would incur unreasonable costs.

Further details on any deviation from the hierarchy

### III Waste gas balance at installation level

#### (a) Waste gas flows (import, export, consumption and production)

For the specific purpose of the NIMS data collection, this section should cover all data provided in section E.III in the "baseline data collection" template.

##### i. Are waste gas flows relevant for the installation?

##### ii. Information on the methodology applied

Please select below for all waste gas flows:

- the data source used for the quantities pursuant to section 4.4 of Annex VII of the FAR.
- As more than one of the data sources might be involved, the template provides for up to three sources. If even further sources are involved, please select the three main sources and describe further details in the description of the methodology below.
- the method used for the determination of energy content pursuant to section 4.6 of Annex VII of the FAR.

	Data source	Other data source (if applicable)	Other data source (if applicable)
1. Quantification of waste gas flows			
2. Energy content of waste gases			

##### 3. Description of the methodology applied

4. Reference to external file, if relevant

ii. **The hierarchical order has been followed?**  If not, why?

*Selecting "TRUE" here means that the data source with the highest rank within the hierarchy set out in section 4 of Annex VII of the FAR has been used above. If this is not the case, please select "FALSE" and select the reason for that from the drop-down list and describe further details below. Reasons for deviation can be the following:*

- *Uncertainty assessment: other data sources lead to lower uncertainty according to the simplified uncertainty assessment pursuant to Article 7(2) of the FAR.*
- *Technical infeasibility: the use of better data sources is technical infeasible.*
- *Unreasonable costs: the use of better data sources would incur unreasonable costs.*

**Further details on any deviation from the hierarchy**

#### IV Electricity at installation level

(a) **Electricity flows (import, export, consumption and production)**

*For the specific purpose of the NIMs data collection, this section should cover all data provided in section E.IV in the "baseline data collection" template.*

i. **Is electricity produced within the installation?**

ii. **Information on the methodology applied**

*Please select below the data source used for the energy flows pursuant to section 4.5 of Annex VII of the FAR.*

*As more than one of the data sources might be involved, the template provides for up to three sources. If even further sources are involved, please select the three main sources and describe further details in the description of the methodology below.*

	Data source	Other data source (if applicable)	Other data source (if applicable)
1. Quantification of energy flows			

2. **Description of the methodology applied**

*The description should cover the determination of all data related to electricity flows listed in section 2.5 of Annex IV of the FAR.*

3. Reference to external file, if relevant

ii. **The hierarchical order has been followed?**  If not, why?

*Selecting "TRUE" here means that the data source with the highest rank within the hierarchy set out in section 4 of Annex VII of the FAR has been used above. If this is not the case, please select "FALSE" and select the reason for that from the drop-down list and describe further details below. Reasons for deviation can be the following:*

- *Uncertainty assessment: other data sources lead to lower uncertainty according to the simplified uncertainty assessment pursuant to Article 7(2) of the FAR.*
- *Technical infeasibility: the use of better data sources is technical infeasible.*
- *Unreasonable costs: the use of better data sources would incur unreasonable costs.*

**Further details on any deviation from the hierarchy**

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

The navigation bar above only contains links to sub-installations listed in section C.I.

**Introduction to this sheet**

All descriptions of the methods used in subsequent sections below to quantify parameters to be monitored and reported shall include, where relevant:

- calculation steps
- data sources
- calculation formulae
- relevant calculation factors including unit of measurement
- horizontal and vertical checks for corroborating data
- procedures underpinning sampling plans
- measurement equipment used with reference to the relevant diagram and a description how they are installed and maintained
- a list of laboratories engaged in carrying out relevant analytical procedures

The description shall include the result of a simplified uncertainty assessment in accordance with Article 7(2), where required. For each relevant calculation formula the plan shall contain one example using real data.

**I Product BM sub-installations**

**1 Sub-installation with product benchmark:**

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

**(a) System boundaries of the sub-installation**

**i. Information on the methodology applied**

As required by Annex VI, section 2(b), please describe the system boundaries of this sub-installation covering the following aspects:

- which technical units are included,
- which processes are carried out,
- which input materials and fuels, and
- which products and outputs are attributed.

Please also describe the import or export of any intermediate products covered by product benchmarks (Sections 1.6 and 3.1(l) of Annex IV of the FAR), and respective amounts are quantified.

If this information is already provided in sufficient detail in section C.II, please just include reference here to this section and proceed with the next points below.

ii. Reference to external files, if relevant

iii. Reference to a separate detailed flow diagram, if relevant

In case of a more complex sub-installation, please provide a detailed flow diagram, if not included under i. above.

**(b) Method for the determination of annual production (=activity) levels**

**i. Information on the methodology applied**

For the specific purpose of the NIMs data collection, this section should cover all data provided in section F.(a) in the "baseline data collection" template.

Please select below:

- the data source used for the quantities pursuant to section 4.4 of Annex VII of the FAR.
- As more than one of the data sources might be involved, the template provides for up to three sources. If even further sources are involved, please select the three main sources and describe further details in the description of the methodology below.
- the method used for the determination of annual quantities pursuant to section 5 of Annex VII of the FAR.

	Data source	Other data source (if applicable)	Other data source (if applicable)
1. Quantities of products			
2. Annual quantities of products			
3. 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.			
4. Description of the methodology applied			

Please consider the definition and system boundaries as set out in Annex I of the FAR and the relevant section in Guidance Document 9.

If the installation did not operate in all years, please provide evidence, as appropriate, and describe how the start of normal operation was determined, if relevant.

Reference to external files, if relevant

ii. The hierarchical order has been followed?

If not, why?

Selecting "TRUE" here means that the data source with the highest rank within the hierarchy set out in section 4 of Annex VII of the FAR has been used above. If this is not the case, please select "FALSE" and select the reason for that from the drop-down list and describe further details below. Reasons for deviation can be the following:

- Uncertainty assessment: other data sources lead to lower uncertainty according to the simplified uncertainty assessment pursuant to Article 7(2) of the FAR.
- Technical infeasibility: the use of better data sources is technical infeasible.
- Unreasonable costs: the use of better data sources would incur unreasonable costs.

Further details on any deviation from the hierarchy

iii. Description of the methodology for keeping track of the products produced

This should include the methodology on how relevant PRODCOM codes are tracked in accordance with section 9. of Annex VII (FAR).

**(c) Exchangeability of fuel and electricity:**

For the specific purpose of the NIMs data collection, this section should cover all data provided in section F.(c) in the "baseline data collection" template.

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 21 of the FAR the "relevant electricity consumption" needs to be described taking into account the sub-installation's system boundaries as listed in Annex I of the FAR.

**i. Information on the methodology applied**

Please select below:

- the data source used for the energy flows pursuant to section 4.5 of Annex VII of the FAR.
- As more than one of the data sources might be involved, the template provides for up to three sources. If even further sources are involved, please select the three main sources and describe further details in the description of the methodology below.

	Data source	Other data source (if applicable)	Other data source (if applicable)
1. Relevant electricity consumption			
2. Description of the methodology applied			

Reference to external files, if relevant

ii. **The hierarchical order has been followed?**  If not, why?

Selecting "TRUE" here means that the data source with the highest rank within the hierarchy set out in section 4 of Annex VII of the FAR has been used. If this is not the case, please select "FALSE" and select the reason for that from the drop-down list and describe further details below. Reasons for deviation can be the following:

- Uncertainty assessment: other data sources lead to lower uncertainty according to the simplified uncertainty assessment pursuant to Article 7(2) of the FAR.
- Technical infeasibility: the use of better data sources is technical infeasible.
- Unreasonable costs: the use of better data sources would incur unreasonable costs.

Further details on any deviation from the hierarchy

(d) **Are measurable heat flows imported from non-ETS installations or entities relevant?**

For the specific purpose of the NIMs data collection, this section should cover all data provided in section F.(d) and F.(k).iv in the "baseline data collection" template.

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. This should also include any heat from nitric acid pursuant to Article 16(5) of the FAR.

Description of the methodology applied

Please describe how it is determined that the heat is from non-ETS origin and that it is consumed within the system boundaries of this sub-installation.

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

(e) **Directly attributable emissions**

i. **Attribution of directly attributable emissions**

For the specific purpose of the NIMs data collection, this section should cover all data provided in section F.(g) in the "baseline data collection" template.

Please describe here how the emissions of source streams and emissions sources are attributed to this sub-installation in accordance with the provisions set out in section 10.1.1 of Annex VII of the FAR, taking into consideration the following exemptions:

- emissions attributable to measurable heat imported to or exported from this sub-installation should not be described here but under point (g) below in accordance with the provisions set out in section 10.1.2, sub-sections 4 and 5 of Annex VII of the FAR.
- 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 (f) below.

The description should include an appropriate reference to the latest approved monitoring plan under the M&R Regulation using the same names for all source streams and emissions.

Reference to external files, if relevant

ii. **Are further internal source streams relevant?**

For the specific purpose of the NIMs data collection, this section should cover all data provided in section F.(i) in the "baseline data collection" template.

If relevant, please describe below how corresponding amounts are monitored, in particular if not already covered by the monitoring plan under the M&R Regulation.

Please select below:

- the data source used for the quantification of amounts imported or exported pursuant to section 4.4 of Annex VII of the FAR.
- the method used for the determination of all calculation factors pursuant section 4.6 of Annex VII of the FAR.

	Data source	Other data source (if applicable)	Other data source (if applicable)
1. Amounts imported or exported			
2. Energy content			
3. Emission factor or carbon content			
4. Biomass content			

5. Description of the methodology applied

Reference to external files, if relevant

iii. **Is transferred CO2 imported or exported relevant?**

For the specific purpose of the NIMs data collection, this section should cover all data provided in section F.(j) in the "baseline data collection" template.

If relevant, please describe below how corresponding amounts are monitored, in particular if not already covered by the monitoring plan under the M&R Regulation.

Reference to external files, if relevant

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

For the specific purpose of the NIMs data collection, this section should cover all data provided in section F.(h) in the "baseline data collection" template.

i. **Information on the methodology applied**

Please select below:

- the data source used for the quantification of the fuel input pursuant to section 4.4 of Annex VII of the FAR.  
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 method used for the determination of weighted emission factor pursuant section 4.6 of Annex VII of the FAR.  
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.  
As more than one of the data sources might be involved, the template provides for up to three sources. If even further sources are involved, please select the three main sources and describe further details in the description of the methodology below.

	Data source	Other data source (if applicable)	Other data source (if applicable)
1. Fuel input			
2. Weighted emission factor			

3. Description of the methodology applied

Reference to external files, if relevant

ii. **The hierarchical order has been followed?**  If not, why?

Selecting "TRUE" here means that the data source with the highest rank within the hierarchy set out in section 4 of Annex VII of the FAR has been used. If this is not the case, please select "FALSE" and select the reason for that from the drop-down list and describe further details below. Reasons for deviation can be the following:

- Uncertainty assessment: other data sources lead to lower uncertainty according to the simplified uncertainty assessment pursuant to Article 7(2) of the FAR.
- Technical infeasibility: the use of better data sources is technical infeasible.
- Unreasonable costs: the use of better data sources would incur unreasonable costs.

Further details on any deviation from the hierarchy

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

For the specific purpose of the NIMs data collection, this section should cover all data provided in section F.(k) in the "baseline data collection" template. The attributable emissions will take into account any import or export of measurable heat pursuant to sections 10.1.2 and 10.1.3 of Annex VII of the FAR.

i. Are measurable heat flows relevant for this sub-installation?

ii. Information on the methodology applied

Please select below:

- the data source used for the energy flows pursuant to section 4.5 of Annex VII of the FAR.
  - the method used for the determination of annual quantities pursuant to section 7.2 of Annex VII of the FAR.
- As more than one of the data sources might be involved, the template provides for up to three sources. If even further sources are involved, please select the three main sources and describe further details in the description of the methodology below.

	Data source	Other data source (if applicable)	Other data source (if applicable)
1. Measurable heat imported			
2. Measurable heat from pulp			
3. Measurable heat from nitric acid			
4. Measurable heat exported			
5. Net measurable heat flows			

5. Description of the methodology applied

Reference to external files, if relevant

iii. The hierarchical order has been followed? If not, why?

Selecting "TRUE" here means that the data source with the highest rank within the hierarchy set out in section 4 of Annex VII of the FAR has been used. If this is not the case, please select "FALSE" and select the reason for that from the drop-down list and describe further details below. Reasons for deviation can be the following:

- Uncertainty assessment: other data sources lead to lower uncertainty according to the simplified uncertainty assessment pursuant to Article 7(2) of the FAR.
- Technical infeasibility: the use of better data sources is technical infeasible.
- Unreasonable costs: the use of better data sources would incur unreasonable costs.

Further details on any deviation from the hierarchy

iv. Description of the methodology for determination of the relevant attributable emission factors in accordance with sections 10.1.2. and 10.1.3. of Annex VII (FAR).

This should cover the emission factor for each type of measurable heat flow identified above.

If the heat is produced from CHPs, please describe how all parameters in chapter 8 of Annex VII of the FAR have been determined.

Reference to external files, if relevant

v. Are measurable heat flows imported from sub-installations producing pulp relevant?

Description of the methodology applied

**(h) Waste gas balance for this sub-installation**

For the specific purpose of the NIMs data collection, this section should cover all data provided in section F.(l) in the "baseline data collection" template.

The attributable emissions will take into account any import or export of waste gases pursuant to section 10.1.5 of Annex VII of the FAR.

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

ii. Information on the methodology applied

Please select below for each type of waste gas produced, consumed (including safety flaring), flared (other than safety flaring), imported and exported:

- the data source used for the quantification of the waste gas amounts pursuant to section 4.4 of Annex VII of the FAR.
  - the method used for the determination of energy content and emission factor pursuant section 4.6 of Annex VII of the FAR.
- As more than one of the data sources might be involved, the template provides for up to three sources. If even further sources are involved, please select the three main sources and describe further details in the description of the methodology below.

	Data source	Other data source (if applicable)	Other data source (if applicable)
1. Waste gases produced			
2. Energy content			
3. Emission factor			
4. Waste gases consumed			
5. Energy content			
6. Emission factor			
7. Waste gases flared (not safety flaring)			
8. Energy content			
9. Emission factor			
10. Waste gases imported			
11. Energy content			
12. Emission factor			
13. Waste gases exported			
14. Energy content			
15. Emission factor			

16. Description of the methodology applied

This should include information for all types of waste gases identified above.

If flaring is relevant in your installation, please explain how it was classified into "safety flaring" and other flaring.

Reference to external files, if relevant

iii. The hierarchical order has been followed? If not, why?

Selecting "TRUE" here means that the data source with the highest rank within the hierarchy set out in section 4 of Annex VII of the FAR has been used. If this is not the case, please select "FALSE" and select the reason for that from the drop-down list and describe further details below. Reasons for deviation can be the following:

- Uncertainty assessment: other data sources lead to lower uncertainty according to the simplified uncertainty assessment pursuant to Article 7(2) of the FAR.
- Technical infeasibility: the use of better data sources is technical infeasible.
- Unreasonable costs: the use of better data sources would incur unreasonable costs.

Further details on any deviation from the hierarchy



**2 Sub-installation with product benchmark:**

*The name of the product benchmark sub-installation is displayed automatically based in the inputs in sheet "C\_InstallationDescription".*

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

**(a) System boundaries of the sub-installation**

i. Information on the methodology applied

[Redacted]

ii. Reference to external files, if relevant

[Redacted]

iii. Reference to a separate detailed flow diagram, if relevant

[Redacted]

**(b) Method for the determination of annual production (=activity) levels**

i. Information on the methodology applied

	Data source	Other data source (if applicable)	Other data source (if applicable)
1. Quantities of products	[Redacted]	[Redacted]	[Redacted]
2. Annual quantities of products	[Redacted]	[Redacted]	[Redacted]
3. Special reporting requirements:	[Redacted]	[Redacted]	[Redacted]
4. Description of the methodology applied	[Redacted]		

[Redacted]

Reference to external files, if relevant

[Redacted]

ii. The hierarchical order has been followed? [Redacted] If not, why?

Further details on any deviation from the hierarchy

[Redacted]

iii. Description of the methodology for keeping track of the products produced

[Redacted]

**(c) Exchangeability of fuel and electricity:**

i. Information on the methodology applied

	Data source	Other data source (if applicable)	Other data source (if applicable)
1. Relevant electricity consumption	[Redacted]	[Redacted]	[Redacted]
2. Description of the methodology applied	[Redacted]		

[Redacted]

Reference to external files, if relevant

[Redacted]

ii. The hierarchical order has been followed? [Redacted] If not, why?

Further details on any deviation from the hierarchy

[Redacted]

**(d) Are measurable heat flows imported from non-ETS installations or entities relevant?**

Description of the methodology applied

[Redacted]

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

**(e) Directly attributable emissions**

i. Attribution of directly attributable emissions

[Redacted]

Reference to external files, if relevant

[Redacted]

ii. Are further internal source streams relevant?

	Data source	Other data source (if applicable)	Other data source (if applicable)
1. Amounts imported or exported	[Redacted]	[Redacted]	[Redacted]
2. Energy content	[Redacted]	[Redacted]	[Redacted]
3. Emission factor or carbon content	[Redacted]	[Redacted]	[Redacted]
4. Biomass content	[Redacted]	[Redacted]	[Redacted]
5. Description of the methodology applied	[Redacted]		

[Redacted]

Reference to external files, if relevant

[Redacted]

iii. Is transferred CO2 imported or exported relevant?

[Redacted]

[Redacted]

Reference to external files, if relevant

[Redacted]

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

i. Information on the methodology applied

	Data source	Other data source (if applicable)	Other data source (if applicable)
1. Fuel input	[Redacted]	[Redacted]	[Redacted]
2. Weighted emission factor	[Redacted]	[Redacted]	[Redacted]
3. Description of the methodology applied	[Redacted]		

[Redacted]

Reference to external files, if relevant

[Redacted]

ii. The hierarchical order has been followed? [Redacted] If not, why? [Redacted]

Further details on any deviation from the hierarchy

[Redacted]

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

i. Are measurable heat flows relevant for this sub-installation?

[Redacted]

ii. Information on the methodology applied

	Data source	Other data source (if applicable)	Other data source (if applicable)
1. Measurable heat imported	[Redacted]	[Redacted]	[Redacted]
2. Measurable heat from pulp	[Redacted]	[Redacted]	[Redacted]
3. Measurable heat from nitric acid	[Redacted]	[Redacted]	[Redacted]
4. Measurable heat exported	[Redacted]	[Redacted]	[Redacted]
5. Net measurable heat flows	[Redacted]	[Redacted]	[Redacted]
6. Description of the methodology applied	[Redacted]		

[Redacted]

Reference to external files, if relevant

[Redacted]

iii. The hierarchical order has been followed? [Redacted] If not, why? [Redacted]

Further details on any deviation from the hierarchy

[Redacted]

iv. Description of the methodology for determination of the relevant attributable emission factors in accordance with sections 10.1.2. and 10.1.3. of Annex VII (FAR).

[Redacted]

Reference to external files, if relevant

[Redacted]

v. Are measurable heat flows imported from sub-installations producing pulp relevant?

[Redacted]

Description of the methodology applied

[Redacted]

**(h) Waste gas balance for this sub-installation**

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

[Redacted]

ii. Information on the methodology applied

	Data source	Other data source (if applicable)	Other data source (if applicable)
1. Waste gases produced	[Redacted]	[Redacted]	[Redacted]
2. Energy content	[Redacted]	[Redacted]	[Redacted]
3. Emission factor	[Redacted]	[Redacted]	[Redacted]
4. Waste gases consumed	[Redacted]	[Redacted]	[Redacted]
5. Energy content	[Redacted]	[Redacted]	[Redacted]
6. Emission factor	[Redacted]	[Redacted]	[Redacted]
7. Waste gases flared (not safety flaring)	[Redacted]	[Redacted]	[Redacted]
8. Energy content	[Redacted]	[Redacted]	[Redacted]
9. Emission factor	[Redacted]	[Redacted]	[Redacted]
10. Waste gases imported	[Redacted]	[Redacted]	[Redacted]
11. Energy content	[Redacted]	[Redacted]	[Redacted]
12. Emission factor	[Redacted]	[Redacted]	[Redacted]
13. Waste gases exported	[Redacted]	[Redacted]	[Redacted]
14. Energy content	[Redacted]	[Redacted]	[Redacted]
15. Emission factor	[Redacted]	[Redacted]	[Redacted]
16. Description of the methodology applied	[Redacted]		

[Redacted]

Reference to external files, if relevant

[Redacted]

iii. The hierarchical order has been followed? [Redacted] If not, why? [Redacted]

Further details on any deviation from the hierarchy

[Redacted]

## 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.

### Introduction to this sheet

All descriptions of the methods used in subsequent sections below to quantify parameters to be monitored and reported shall include, where relevant:

- calculation steps
- data sources
- calculation formulae
- relevant calculation factors including unit of measurement
- horizontal and vertical checks for corroborating data
- procedures underpinning sampling plans
- measurement equipment used with reference to the relevant diagram and a description how they are installed and maintained
- a list of laboratories engaged in carrying out relevant analytical procedures

The description shall include the result of a simplified uncertainty assessment in accordance with Article 7(2), where required.  
For each relevant calculation formula the plan shall contain one example using real data.

### I Fall-back sub-installations

#### 1 Fall-back sub-installation:

Heat benchmark sub-installation, CL

#### (a) System boundaries of the sub-installation

##### i. Information on the methodology applied

As required by Annex VI, section 2(b), please describe the system boundaries of this sub-installation covering the following aspects:

- which technical units are included,
- which processes are carried out,
- which input materials and fuels, and
- which products and outputs are attributed.

If this information is already provided in sufficient detail in section C.II, please just include reference here to this section and proceed with the next points below.

##### ii. Reference to external files, if relevant

##### iii. Reference to a separate detailed flow diagram, if relevant

In case of a more complex sub-installations, please provide a detailed flow diagram, if not included under i. above.

#### (b) Method for the determination of annual activity levels

For the specific purpose of the NIMs data collection, this section should cover all data provided in section G.(a) in the "baseline data collection" template.

##### ii. Information on the methodology applied

Please select below:

- the data source used for the energy flows pursuant to section 4.5 of Annex VII of the FAR.
  - the method used for the determination of annual quantities pursuant to section 7.2 of Annex VII of the FAR.
- As more than one of the data sources might be involved, the template provides for up to three sources. If even further sources are involved, please select the three main sources and describe further details in the description of the methodology below.

	Data source	Other data source (if applicable)	Other data source (if applicable)
1. Quantification of measurable heat flows			
2. Net measurable heat flows			
3. Description of the methodology applied			

Please describe in particular any assumptions if the 95% rule in Article 10(3) of the FAR is applied.

##### 4. Reference to external files, if relevant

##### ii. The hierarchical order has been followed?

If not, why?

Selecting "TRUE" here means that the data source with the highest rank within the hierarchy set out in section 4 of Annex VII of the FAR has been used above. If this is not the case, please select "FALSE" and select the reason for that from the drop-down list and describe further details below. Reasons for deviation can be the following:

- Uncertainty assessment: other data sources lead to lower uncertainty according to the simplified uncertainty assessment pursuant to Article 7(2) of the FAR.
- Technical infeasibility: the use of better data sources is technical infeasible.
- Unreasonable costs: the use of better data sources would incur unreasonable costs.

Further details on any deviation from the hierarchy

##### iii. Description of the methodology for keeping track of the products produced

This should include the methodology on how relevant PRODCOM codes are tracked in accordance with sections 2.1(a) and chapter 9 of Annex VII (FAR).

Please describe here how the emissions of source streams and emissions sources are attributed to this sub-installation in accordance with the provisions set out in section 10.1.1 of Annex VII of the FAR, taking into consideration the following exemptions:

- 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 Directly attributable emissions of the sub-installation but under point (d) below.
- If the heat is produced from CHPs, please describe how all parameters in chapter 8 of Annex VII of the FAR have been determined.
- 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 (d) below.

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

#### (c) Directly attributable emissions

For the specific purpose of the NIMs data collection, this section should cover all data provided in section G.(c) in the "baseline data collection" template.

Please describe here how the emissions of source streams and emissions sources are attributed to this sub-installation in accordance with the provisions set out in section 10.1.1 of Annex VII of the FAR, taking into consideration the following exemptions:

- 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 Directly attributable emissions of the sub-installation but under point (d) below.
- If the heat is produced from CHPs, please describe how all parameters in chapter 8 of Annex VII of the FAR have been determined.
- 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 (d) below.

##### Reference to external files, if relevant

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

For the specific purpose of the NIMs data collection, this section should cover all data provided in section G.(d) in the "baseline data collection" template.

**i. Information on the methodology applied**

Please select below:

- the data source used for the quantification of the fuel input pursuant to section 4.4 of Annex VII of the FAR.  
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 method used for the determination of net calorific values and emission factors pursuant section 4.6 of Annex VII of the FAR.  
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.
- As more than one of the data sources might be involved, the template provides for up to three sources. If even further sources are involved, please select the three main sources and describe further details in the description of the methodology below.

	Relevant?	Data source	Other data source (if applicable)	Other data source (if applicable)
1. Fuel input				
2. Net calorific value				
3. Weighted emission factor				
4. Fuel input from waste gases				
5. Net calorific value				
6. Emission factor				

7. Description of the methodology applied

[Empty text box for methodology description]

Reference to external files, if relevant

[Empty text box for external files]

ii. The hierarchical order has been followed? [ ] If not, why? [ ]

Further details on any deviation from the hierarchy

[Empty text box for deviation details]

**(e) Measurable heat produced**

For the specific purpose of the NIMs data collection, this section should cover all data provided in section G.(e) in the "baseline data collection" template.

**i. Information on the methodology applied**

Please enter below the data source pursuant to section 4.5 of Annex VII of the FAR used to determine the amount of measurable heat produced.

As more than one of the data sources might be involved, the template provides for up to three sources. If even further sources are involved, please select the three main sources and describe further details in the description of the methodology below.

	Data source	Other data source (if applicable)	Other data source (if applicable)
1. Heat produced			

2. Description of the methodology applied

[Empty text box for methodology description]

Reference to external files, if relevant

[Empty text box for external files]

ii. The hierarchical order has been followed? [ ] If not, why? [ ]

Further details on any deviation from the hierarchy

[Empty text box for deviation details]

**(f) Measurable heat imported**

For the specific purpose of the NIMs data collection, this section should cover all data provided in section G.(f) in the "baseline data collection" template.

i. Are further measurable heat flows relevant for this sub-installation? [ ]

[Empty text box for relevance]

**ii. Information on the methodology applied**

Please enter below the data source pursuant to section 4.5 of Annex VII of the FAR used to determine the amount of measurable heat imported and the method used for the determination of net amounts pursuant to section 7.2 of Annex VII of the FAR from each of the following sources, where relevant:

- 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.
  - Heat from product BM: this includes measurable heat exported from product BM sub-installation with the exception of measurable heat from sub-installations producing pulp production.
  - 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.
- As more than one of the data sources might be involved, the template provides for up to three sources. If even further sources are involved, please select the three main sources and describe further details in the description of the methodology below.

	Relevant?	Data source	Other data source (if applicable)	Other data source (if applicable)
1. imported (other sources)				
2. Net measurable flows				
3. imported (from product BM)				
4. Net measurable flows				
5. imported (from pulp)				
6. Net measurable flows				
7. imported (from fuel BM)				
8. Net measurable flows				
9. imported (from waste gases)				
10. Net measurable flows				

11. Description of the methodology applied

[Empty text box for methodology description]

Reference to external files, if relevant

[Empty text box for external files]

ii. The hierarchical order has been followed? [ ] If not, why? [ ]

Further details on any deviation from the hierarchy

[Empty text box for deviation details]

iii. Description of the methodology for determination of the relevant attributable emission factors in accordance with sections 10.1.2. and 10.1.3. of Annex VII (FAR).

This should cover the emission factor for each type of measurable heat flow identified above.

If the heat is produced from CHPs, please describe how all parameters in chapter 8 of Annex VII of the FAR have been determined.

[Empty text box for emission factor methodology]

Reference to external files, if relevant	

<b>2 Fall-back sub-installation:</b>	<b>Heat benchmark sub-installation, non-CL</b>	
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[Detailed instructions for data entries in this tool can be found at the first copy of this tool. \(G.I.1\)](#)

**(a) System boundaries of the sub-installation**

- i. Information on the methodology applied
- ii. Reference to external files, if relevant
- iii. Reference to a separate detailed flow diagram, if relevant

**(b) Method for the determination of annual activity levels**

*For the specific purpose of the NIMs data collection, this section should cover all data provided in section G.(a) in the "baseline data collection" template.*

- i. Information on the methodology applied
 

	Data source	Other data source (if applicable)	Other data source (if applicable)
1. Quantification of measurable heat flows			
2. Net measurable heat flows			
3. Description of the methodology applied			
4. Reference to external files, if relevant			
- ii. The hierarchical order has been followed?  If not, why?
 

Further details on any deviation from the hierarchy
- iii. Description of the methodology for keeping track of the products produced

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

**(c) Directly attributable emissions**

*For the specific purpose of the NIMs data collection, this section should cover all data provided in section G.(c) in the "baseline data collection" template.*

- i. Information on the methodology applied
- ii. Reference to external files, if relevant

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

*For the specific purpose of the NIMs data collection, this section should cover all data provided in section G.(d) in the "baseline data collection" template.*

- i. Information on the methodology applied
 

	Data source	Other data source (if applicable)	Other data source (if applicable)
1. Fuel input			
2. Net calorific value			
3. Weighted emission factor			
4. Fuel input from waste gases			
5. Net calorific value			
6. Emission factor			
7. Description of the methodology applied			
- ii. The hierarchical order has been followed?  If not, why?
 

Further details on any deviation from the hierarchy

**(e) Measurable heat produced**

*For the specific purpose of the NIMs data collection, this section should cover all data provided in section G.(e) in the "baseline data collection" template.*

- i. Information on the methodology applied
 

	Data source	Other data source (if applicable)	Other data source (if applicable)
1. Heat produced			
2. Description of the methodology applied			
- ii. The hierarchical order has been followed?  If not, why?
 

Further details on any deviation from the hierarchy

**(f) Measurable heat imported**  
*For the specific purpose of the NIMs data collection, this section should cover all data provided in section G.(f) in the "baseline data collection" template.*

i. Are further measurable heat flows relevant for this sub-installation?

ii. Information on the methodology applied

	Relevant?	Data source	Other data source (if applicable)	Other data source (if applicable)
1. imported (other sources)				
2. Net measurable flows				
3. imported (from product BM)				
4. Net measurable flows				
5. imported (from pulp)				
6. Net measurable flows				
7. imported (from fuel BM)				
8. Net measurable flows				
9. imported (from waste gases)				
10. Net measurable flows				
11. Description of the methodology applied				

Reference to external files, if relevant

ii. The hierarchical order has been followed? If not, why?

Further details on any deviation from the hierarchy

iii. Description of the methodology for determination of the relevant attributable emission factors in accordance with sections 10.1.2. and 10.1.3. of Annex VII (FAR).

Reference to external files, if relevant

**3 Fall-back sub-installation: District Heating 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) System boundaries of the sub-installation**

i. Information on the methodology applied

ii. Reference to external files, if relevant

iii. Reference to a separate detailed flow diagram, if relevant

**(b) Method for the determination of annual activity levels**  
*For the specific purpose of the NIMs data collection, this section should cover all data provided in section G.(a) in the "baseline data collection" template.*

ii. Information on the methodology applied

	Data source	Other data source (if applicable)	Other data source (if applicable)
1. Quantification of measurable heat flows			
2. Net measurable heat flows			
3. Description of the methodology applied			

4. Reference to external files, if relevant

ii. The hierarchical order has been followed? If not, why?

Further details on any deviation from the hierarchy

iii. Description of the methodology for keeping track of the products produced

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

**(c) Directly attributable emissions**  
*For the specific purpose of the NIMs data collection, this section should cover all data provided in section G.(c) in the "baseline data collection" template.*

Reference to external files, if relevant

**(d) Fuel input to this sub-installation and relevant emission factor**  
*For the specific purpose of the NIMs data collection, this section should cover all data provided in section G.(d) in the "baseline data collection" template.*

i. Information on the methodology applied

	Data source	Other data source (if applicable)	Other data source (if applicable)
1. Fuel input			

2. Net calorific value				
3. Weighted emission factor				
4. Fuel input from waste gases				
5. Net calorific value				
6. Emission factor				
7. Description of the methodology applied				
Reference to external files, if relevant				
ii. The hierarchical order has been followed? <input type="checkbox"/> If not, why? <input type="checkbox"/>				
Further details on any deviation from the hierarchy				

**(e) Measurable heat produced**  
For the specific purpose of the NIMs data collection, this section should cover all data provided in section G.(e) in the "baseline data collection" template.

i. Information on the methodology applied

	Data source	Other data source (if applicable)	Other data source (if applicable)
1. Heat produced			
2. Description of the methodology applied			
Reference to external files, if relevant			
ii. The hierarchical order has been followed? <input type="checkbox"/> If not, why? <input type="checkbox"/>			
Further details on any deviation from the hierarchy			

**(f) Measurable heat imported**  
For the specific purpose of the NIMs data collection, this section should cover all data provided in section G.(f) in the "baseline data collection" template.

i. Are further measurable heat flows relevant for this sub-installation?

ii. Information on the methodology applied

	Relevant?	Data source	Other data source (if applicable)	Other data source (if applicable)
1. imported (other sources)				
2. Net measurable flows				
3. imported (from product BM)				
4. Net measurable flows				
5. imported (from pulp)				
6. Net measurable flows				
7. imported (from fuel BM)				
8. Net measurable flows				
9. imported (from waste gases)				
10. Net measurable flows				
11. Description of the methodology applied				
Reference to external files, if relevant				
ii. The hierarchical order has been followed? <input type="checkbox"/> If not, why? <input type="checkbox"/>				
Further details on any deviation from the hierarchy				
iii. Description of the methodology for determination of the relevant attributable emission factors in accordance with sections 10.1.2. and 10.1.3. of Annex VII (FAR).				
Reference to external files, if relevant				

<b>4 Fall-back sub-installation:</b>	<b>Fuel benchmark sub-installation, CL</b>
<a href="#">Detailed instructions for data entries in this tool can be found at the first copy of this tool. (G.I.1)</a>	
<b>(a) System boundaries of the sub-installation</b>	
i. Information on the methodology applied	
As required by Annex VI, section 2(b), please describe the system boundaries of this sub-installation covering the following aspects:	
- which technical units are included,	
- which processes are carried out,	
- which input materials and fuels, and	
- which products and outputs are attributed.	
If this information is already provided in sufficient detail in section C.II, please just include reference here to this section and proceed with the next points below.	
Reference to external files, if relevant	
iii. Reference to a separate detailed flow diagram, if relevant	
In case of a more complex sub-installations, please provide a detailed flow diagram, if not included under i. above.	
<b>(b) Method for the determination of annual activity levels</b>	
For the specific purpose of the NIMs data collection, this section should cover all data provided in section G.(a) in the "baseline data collection" template.	
ii. Information on the methodology applied	

Please select below:

- the data source used for the quantities pursuant to section 4.4 of Annex VII of the FAR.
  - the method used for the determination of the energy content pursuant to section 4.6 of Annex VII of the FAR.
- As more than one of the data sources might be involved, the template provides for up to three sources. If even further sources are involved, please select the three main sources and describe further details in the description of the methodology below.

	Data source	Other data source (if applicable)	Other data source (if applicable)
1. Fuel input			
2. Energy content			

3. Description of the methodology applied

Please describe in particular any assumptions if the 95% rule in Article 10(3) of the FAR is applied.

4. Reference to external files, if relevant

ii. The hierarchical order has been followed?  If not, why?

Further details on any deviation from the hierarchy

iii. Description of the methodology for keeping track of the products produced

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

#### (c) Directly attributable emissions

For the specific purpose of the NIMs data collection, this section should cover all data provided in section G.(c) in the "baseline data collection" template.

Reference to external files, if relevant

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

For the specific purpose of the NIMs data collection, this section should cover all data provided in section G.(d) in the "baseline data collection" template.

i. Information on the methodology applied

Please select below:

- the data source used for the quantification of the fuel input pursuant to section 4.4 of Annex VII of the FAR.
  - the method used for the determination of net calorific values and emission factors pursuant section 4.6 of Annex VII of the FAR.
- As more than one of the data sources might be involved, the template provides for up to three sources. If even further sources are involved, please select the three main sources and describe further details in the description of the methodology below.

	Relevant?	Data source	Other data source (if applicable)	Other data source (if applicable)
1. Fuel input				
2. Net calorific value				
3. Weighted emission factor				
4. Fuel input from waste gases				
5. Net calorific value				
6. Emission factor				

7. Description of the methodology applied

Reference to external files, if relevant

ii. The hierarchical order has been followed?  If not, why?

Further details on any deviation from the hierarchy

#### (e) Measurable heat exported

For the specific purpose of the NIMs data collection, this section should cover all data provided in section G.(e) in the "baseline data collection" template.

i. Are further measurable heat flows relevant for this sub-installation?

ii. Information on the methodology applied

	Data source	Other data source (if applicable)	Other data source (if applicable)
1. Heat exported			
2. Net measurable heat flows			

3. Description of the methodology applied

Reference to external files, if relevant

ii. The hierarchical order has been followed?  If not, why?

Further details on any deviation from the hierarchy

iii. Description of the methodology for determination of the relevant attributable emission factors in accordance with sections 10.1.2. and 10.1.3. of Annex VII (FAR).

Reference to external files, if relevant



**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) System boundaries of the sub-installation**

**i. Information on the methodology applied**

*If this information is already provided in sufficient detail in section C.II, please just include reference here to this section and proceed with the next points below.*

[Redacted area]

**ii. Reference to external files, if relevant**

[Redacted area]

**iii. Reference to a separate detailed flow diagram, if relevant**

[Redacted area]

**(b) Method for the determination of annual activity levels**

*For the specific purpose of the NIMs data collection, this section should cover all data provided in section G.(a) in the "baseline data collection" template.*

**ii. Information on the methodology applied**

	Data source	Other data source (if applicable)	Other data source (if applicable)
1. Fuel input	[Redacted]		
2. Energy content	[Redacted]		
3. Description of the methodology applied	[Redacted]		

*Please describe in particular any assumptions if the 95% rule in Article 10(3) of the FAR is applied.*

[Redacted area]

**4. Reference to external files, if relevant**

[Redacted area]

**ii. The hierarchical order has been followed?** [Redacted] **If not, why?** [Redacted]

Further details on any deviation from the hierarchy  
[Redacted area]

**iii. Description of the methodology for keeping track of the products produced**

[Redacted area]

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

**(c) Directly attributable emissions**

*For the specific purpose of the NIMs data collection, this section should cover all data provided in section G.(c) in the "baseline data collection" template.*

[Redacted area]

**Reference to external files, if relevant**

[Redacted area]

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

*For the specific purpose of the NIMs data collection, this section should cover all data provided in section G.(d) in the "baseline data collection" template.*

**i. Information on the methodology applied**

*Please select below:*

	Relevant?	Data source	Other data source (if applicable)	Other data source (if applicable)
1. Fuel input		[Redacted]		
2. Net calorific value		[Redacted]		
3. Weighted emission factor		[Redacted]		
4. Fuel input from waste gases		[Redacted]		
5. Net calorific value		[Redacted]		
6. Emission factor		[Redacted]		

**7. Description of the methodology applied**

[Redacted area]

**Reference to external files, if relevant**

[Redacted area]

**ii. The hierarchical order has been followed?** [Redacted] **If not, why?** [Redacted]

Further details on any deviation from the hierarchy  
[Redacted area]

**(e) Measurable heat exported**

*For the specific purpose of the NIMs data collection, this section should cover all data provided in section G.(e) in the "baseline data collection" template.*

**i. Are further measurable heat flows relevant for this sub-installation?**

[Redacted area]

**ii. Information on the methodology applied**

	Relevant?	Data source	Other data source (if applicable)	Other data source (if applicable)
1. Heat exported		[Redacted]		
2. Net measurable heat flows		[Redacted]		
3. Description of the methodology applied	[Redacted]			

[Redacted area]

**Reference to external files, if relevant**

[Redacted area]

**ii. The hierarchical order has been followed?** [Redacted] **If not, why?** [Redacted]

Further details on any deviation from the hierarchy

iii. Description of the methodology for determination of the relevant attributable emission factors in accordance with sections 10.1.2. and 10.1.3. of Annex VII (FAR).	
Reference to external files, if relevant	

<b>6 Fall-back sub-installation:</b>	<b>Process emissions sub-installation, CL</b>	
<a href="#">Detailed instructions for data entries in this tool can be found at the first copy of this tool. (G.I.1)</a>		
<b>(a) System boundaries of the sub-installation</b>		
i. <u>Information on the methodology applied</u> <i>If this information is already provided in sufficient detail in section C.II, please just include reference here to this section and proceed with the next points below.</i>		
ii. <u>Reference to external files, if relevant</u>		
iii. <u>Reference to a separate detailed flow diagram, if relevant</u>		
<b>(b) Method for the determination of annual activity levels</b> <i>For the specific purpose of the NIMs data collection, this section should cover all data provided in section G.(a) in the "baseline data collection" template.</i>		
i. <u>Information on the methodology applied</u>		
Reference to external files, if relevant		
ii. <u>Description of the methodology for keeping track of the products produced</u>		

<b>7 Fall-back sub-installation:</b>	<b>Process emissions sub-installation, non-CL</b>	
<a href="#">Detailed instructions for data entries in this tool can be found at the first copy of this tool. (G.I.1)</a>		
<b>(a) System boundaries of the sub-installation</b>		
i. <u>Information on the methodology applied</u> <i>If this information is already provided in sufficient detail in section C.II, please just include reference here to this section and proceed with the next points below.</i>		
ii. <u>Reference to external files, if relevant</u>		
iii. <u>Reference to a separate detailed flow diagram, if relevant</u>		
<b>(b) Method for the determination of annual activity levels</b> <i>For the specific purpose of the NIMs data collection, this section should cover all data provided in section G.(a) in the "baseline data collection" template.</i>		
i. <u>Information on the methodology applied</u>		
Reference to external files, if relevant		
ii. <u>Description of the methodology for keeping track of the products produced</u>		

[<<< Click here to proceed to next sheet >>>](#)

## H. Sheet "SpecialBM" - SPECIAL DATA FOR SOME PRODUCT BENCHMARKS

### Introduction to this sheet

All descriptions of the methods used in subsequent sections below to quantify parameters to be monitored and reported shall include, where relevant:

- calculation steps
- data sources
- calculation formulae
- relevant calculation factors including unit of measurement
- horizontal and vertical checks for corroborating data
- procedures underpinning sampling plans
- measurement equipment used with reference to the relevant diagram and a description how they are installed and maintained
- a list of laboratories engaged in carrying out relevant analytical procedures

The description shall include the result of a simplified uncertainty assessment in accordance with Article 7(2), where required.

For each relevant calculation formula the plan shall contain one example using real data.

### I CWT (Refinery products)

#### Tool for calculating the historical activity levels for refinery sub-installations

##### (a) Relevance of this tool in your installation:

*This message is automatically generated based on your inputs in sheet "C\_InstallationDescription", section C.I.*

##### (b) CWT throughput data

*Please select below the data source used for the quantities of the supplemental feed pursuant to section 4.4 of Annex VII of the FAR.*

*As more than one of the data sources might be involved, the template provides for up to three sources. If even further sources are involved, please select the three main sources and describe further details in the description of the methodology below.*

*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*

CWT function	Basis (kt/a)	CWT factor	Data source	Other data source (if applicable)	Other data source (if applicable)
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	F	2,85			
Hydrocracking					
Residual Hydrocracking	F	3,75			
Naphtha/Gasoline	F	1,10			
Hydrotreating					
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	P	0,55			
Blending					
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) Further description**

Reference to external files, if relevant

**(d) The hierarchical order has been followed?**

If not, why?

Further details on any deviation from the hierarchy

**II Lime**

**Tool for calculating the historical activity levels for lime sub-installations**

**(a) Relevance of this tool in your installation:**

*This message is automatically generated based on your inputs in sheet "C\_InstallationDescription", section C.I.*

**(b) Information on the methodology applied**

*Please select below the data source used for the properties of lime (CaO and MgO content) pursuant to section 4.6 of Annex VII of the FAR.*

*As more than one of the data sources might be involved, the template provides for up to three sources. If even further sources are involved, please select the three main sources and describe further details in the description of the methodology below.*

Data source	Other data source (if applicable)	Other data source (if applicable)
-------------	-----------------------------------	-----------------------------------

a. Composition data

**(c) Further description**

Reference to external files, if relevant

**(d) The hierarchical order has been followed?**

If not, why?

Further details on any deviation from the hierarchy

**III Dolime**

**Tool for calculating the historical activity levels for Dolime sub-installations**

**(a) Relevance of this tool in your installation:**

*This message is automatically generated based on your inputs in sheet "C\_InstallationDescription", section C.I.*

**(b) Information on the methodology applied**

*Please select below the data source used for the properties of lime (CaO and MgO content) pursuant to section 4.6 of Annex VII of the FAR.*

*As more than one of the data sources might be involved, the template provides for up to three sources. If even further sources are involved, please select the three main sources and describe further details in the description of the methodology below.*

	Data source	Other data source (if applicable)	Other data source (if applicable)
Composition data			

**(c) Further description**

Reference to external files, if relevant

**(d) The hierarchical order has been followed?**

If not, why?

Further details on any deviation from the hierarchy

**IV Steam cracking**

**1 Tool for calculating the historical activity levels for steam cracking sub-installations**

**(a) Relevance of this tool in your installation:**

*This message is automatically generated based on your inputs in sheet "C\_InstallationDescription", section C.I.*

**(b) Supplemental feed data:**

*Please select below the data source used for the quantities of the supplemental feed pursuant to section 4.4 of Annex VII of the FAR.*

*As more than one of the data sources might be involved, the template provides for up to three sources. If even further sources are involved, please select the three main sources and describe further details in the description of the methodology below.*

	Data source	Other data source (if applicable)	Other data source (if applicable)
Hydrogen, ethylene and other HVC			

**(c) Further description**



Reference to external files, if relevant

**(d) The hierarchical order has been followed?**

If not, why?

Further details on any deviation from the hierarchy



**V CWT (Aromatics)**

**Tool for calculating the historical activity levels for aromatics sub-installations**

**(a) Relevance of this tool in your installation:**

*This message is automatically generated based on your inputs in sheet "C\_InstallationDescription", section C.I.*

**(b) CWT throughput data**

*Please select below the data source used for the quantities of the supplemental feed pursuant to section 4.4 of Annex VII of the FAR.*

*As more than one of the data sources might be involved, the template provides for up to three sources. If even further sources are involved, please select the three main sources and describe further details in the description of the methodology below.*

*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

CWT function	Basis (kt/a)	CWT factor	Data source	Other data source (if applicable)	Other data source (if applicable)
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) Further description**

Reference to external files, if relevant

**(d) The hierarchical order has been followed?**

If not, why?

Further details on any deviation from the hierarchy

## VI Hydrogen

### Tool for calculating the historical activity levels for hydrogen sub-installations

**(a) Relevance of this tool in your installation:**

*This message is automatically generated based on your inputs in sheet "C\_InstallationDescription", section C.I.*

**(b) Hydrogen volume fraction VF(H2)**

*Please select below the data source used for the hydrogen volume fraction pursuant to section 4.6 of Annex VII of the FAR.*

*As more than one of the data sources might be involved, the template provides for up to three sources. If even further sources are involved, please select the three main sources and describe further details in the description of the methodology below.*

	Data source	Other data source (if applicable)	Other data source (if applicable)
Total hydrogen production			
Volume fraction of hydrogen			

**(c) Further description**



[Redacted]

Reference to external files, if relevant

[Redacted]

(d) The hierarchical order has been followed?  If not, why?

[Redacted]

Further details on any deviation from the hierarchy

[Redacted]

**VII Synthesis gas**

**Tool for calculating the historical activity levels for synthesis gas sub-installations**

(a) Relevance of this tool in your installation:

[Redacted]

*This message is automatically generated based on your inputs in sheet "C\_InstallationDescription", section C.I.*

[Redacted]

(b) Hydrogen volume fraction VF(H2)

*Please select below the data source used for the hydrogen volume fraction pursuant to section 4.6 of Annex VII of the FAR.*

*As more than one of the data sources might be involved, the template provides for up to three sources. If even further sources are involved, please select the three main sources and describe further details in the description of the methodology below.*

	Data source	Other data source (if applicable)	Other data source (if applicable)
Total synthesis gas production	[Redacted]	[Redacted]	[Redacted]
Composition data	[Redacted]	[Redacted]	[Redacted]

(c) Further description

[Redacted]

[Redacted]

Reference to external files, if relevant

[Redacted]

(d) The hierarchical order has been followed?  If not, why?

[Redacted]

Further details on any deviation from the hierarchy

[Redacted]

**VIII Ethylene oxide / glycols**

**Tool for calculating the historical activity levels for ethylene oxide / ethylene glycols sub-installations**

(a) **Relevance of this tool in your installation:**

*This message is automatically generated based on your inputs in sheet "C\_InstallationDescription", section C.I.*

(b) **Production data of Ethylene oxide and glycols:**

*Please select below the data source used for the quantities of the supplemental feed pursuant to section 4.4 of Annex VII of the FAR.*

*As more than one of the data sources might be involved, the template provides for up to three sources. If even further sources are involved, please select the three main sources and describe further details in the description of the methodology below.*

	CF(EOE)	Data source	Other data source (if applicable)	Other data source (if applicable)
Ethylene oxide	1,000			
Monoethylene glycol	0,710			
Diethylene glycol	0,830			
Triethylene glycol	0,880			

(c) **Further description**



Reference to external files, if relevant

(d) **The hierarchical order has been followed?**

If not, why?

Further details on any deviation from the hierarchy



**IX Vinyl chloride monomer (VCM)**

**Vinyl chloride monomer tool: Preliminary allocation (Article 31 of the FAR)**

(a) **Relevance of this tool in your installation:**

*This message is automatically generated based on your inputs in sheet "C\_InstallationDescription", section C.I.*

(b) **Heat consumption from H2 combustion**

*Please select below the data source used for the energy flows pursuant to section 4.5 of Annex VII of the FAR.*

*As more than one of the data sources might be involved, the template provides for up to three sources. If even further sources are involved, please select the three main sources and describe further details in the description of the methodology below.*

	Data source	Other data source (if applicable)	Other data source (if applicable)

Quantification of heat from H2

**(c) Further description**


Reference to external files, if relevant

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**(d) The hierarchical order has been followed?**

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If not, why?

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Further details on any deviation from the hierarchy

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[<<< Click here to proceed to next sheet >>>](#)

I. MS specific	Navigation area:	<a href="#">Table of contents</a>				
		<a href="#">Top of sheet</a>				

**I. Sheet "MSspecific" - ADDITIONAL DATA REQUIREMENTS BY THE MEMBER STATE**

**I To be defined by the Member State**

J. Comments	Navigation area:	<a href="#">Table of contents</a>				
		<a href="#">Top of sheet</a>				

## 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

*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