



EUROPEAN COMMISSION
DIRECTORATE-GENERAL
CLIMATE ACTION
Directorate B - European & International Carbon Markets

Question&Answers

on the harmonised free allocation methodology for the EU-ETS post 2012

9 November 2011

This document has been developed building on the frequently asked questions to the Helpdesk for the Member States Competent Authorities which is driven by a consortium of consultants (Ecofys NL, Fraunhofer ISI, Entec). The document is based on a draft prepared by Ecofys.

The aim of the document is providing for more clarity on some of the issues that led to the larger number of questions to the Helpdesk.

The following document is meant to clarify and complement the explanation contained in the guidance documents on the harmonised allocation rules, in order to address some specific cases.

The following document does not represent an official position of the Commission and is not legally binding.

LIST OF CONTENTS

1	Capacity determination and starting dates	4
1.1	How to determine the start of normal operation of an installation?	4
1.2	How to determine the initial capacity of sub-installations of an installation that enters the ETS?	4
1.3	How to determine the start of changed operation in case of significant capacity extensions?	5
1.4	How to determine the start of changed operation in case of significant capacity reductions?	6
1.5	Is it obligatory to report changes in capacity, to assess whether they are significant and to determine the allocation according to the rules for significant changes of capacity?	6
1.6	How to determine the new capacity of a sub-installation after a significant change in capacity?	7
2	Questions related to measurable heat and cross boundary heat flows	7
2.1	Can the fuel benchmark be used if the quantity of consumed measurable heat is not known?	7
2.2	How to allocate emission allowances in case of heat recovery?	7
2.3	Can heat consumption of offices and spaces be included in a heat benchmark sub-installation?	9
2.4	Is own heat consumption of utilities (e.g. a CHP unit) included in a heat benchmark sub-installation?	9
2.5	How to allocate if an ETS installation also acts as a heat distributor?	9
2.6	How does the allocation for a heat producer change when its consumers enter or leave the scope of ETS during the baseline period?	10
2.7	How does the allocation for a heat consumer change when its heat supply changes during the baseline period?	11
3	Questions on waste gases	11
3.1	Composition of a waste gas: Can a gas containing merely a mixture of pure hydrocarbons (e.g. just ethylene) without any component with oxygen in it be considered as a waste gas? Is incompletely oxidised carbon excluded from the process emissions installation if no oxygen molecule is present in the incompletely oxidised carbon-molecule?	11
4	Questions on the scope of product benchmark sub-installations	12
4.1	GENERAL - Is safety flaring (incl. both the pilot flame and flaring) included in the product benchmark?	12
4.2	MINERAL WOOL - What indirect emissions from electricity consumption is included in the boundaries of the mineral wool product benchmark sub-installation?	13
4.3	REFINERY PRODUCTS AND AROMATICS - Can processes be allocated according to the CWT approach if they occur outside a refinery or aromatics benchmark sub-installation?	13
4.4	REFINERY PRODUCTS: If a refinery contains processes defined by the CWT methodology that are part of the aromatics benchmark sub-installation, should the refinery be split in a refinery benchmark sub-installations and an aromatics benchmark sub-installation?	13
4.5	HYDROGEN - Can hydrogen production that is covered by another product benchmark than the hydrogen product benchmark: e.g. the refinery benchmark or syngas benchmark, be allocated using the hydrogen benchmark?	13
4.6	CLINKER - Can blast furnace slag be allocated via the product benchmark for clinker?	13
5	Questions about the scope of the NIMs	14
5.1	Should installations that will not be part of the ETS after 1 January 2013 submit data and be included in the NIMs?	14
5.2	Should installations which meet the criteria under Article 27 of the ETS Directive, which allows it to opt out of Phase III, submit data and be included in the NIMs?	14
5.3	Should new installations that do not yet have a greenhouse gas permit and are being constructed at the moment and will be commencing operations after the baseline period but before the commencement of Phase III, need to submit data and be included in the NIMs?	14
5.4	Should electricity generators producing heat but only delivering to ETS installations submit data and be included in the NIMs?	14
6	Other questions	14
6.1	Are fuel and heat consumption of off-gas and waste treatment (e.g. deNOx units, VOC incinerators, thermal oxidisers) eligible for free allocation under 'fall-back' sub-installations?	14
6.2	A furnace that produces a variety of products, some of which have a product benchmark and some that will have a fallback applied. What data should be supplied?	15
6.3	Is there an overview available of NACE and PRODCOM codes?	15

6.4 For product benchmark subinstallations where the correction for exchangeability of fuel and electricity is relevant is the heat export taken into account?

16

1 Capacity determination and starting dates

1.1 How to determine the start of normal operation of an installation?

The starting date of normal operation is defined as the first day of the earliest continuous 90 days period during which the activity level of the first of the sub-installations (*AL*) in the installation carrying out ETS activities– aggregated over the 90 days period – is at least 40% of the design capacity (C_{design}).

For each sub-installation:

$$\left(\frac{AL}{C_{design}} \right)_{90 \text{ days period}} \geq 0.4$$

The activity level should be calculated by adding up the total activity level in the 90 days period and dividing this by the daily capacity of the sub-installation multiplied by 90. The activity level does not need to be above the 40% during each day in the 90 days period.

$$\left(\frac{AL}{C_{design}} \right)_{90 \text{ days period}} = \frac{\text{Accumulated activity level over 90 days period}}{C_{design} \left(\frac{90}{365} \right)}$$

The design capacity should be determined at sub-installation level reflecting the capacity of the sub-installation under normal operation. The design capacity needs to be determined on the basis of project documentation and on the guaranteed values given by the supplier. Relevant documents could be reports -the ones accompanying the project-, datasheets, guaranteed performance values.

The continuous 90 days period is to be understood as period of 90 consecutive days in which the relevant sub-installation is operated each day. In case the sector's usual production cycle does not foresee such continuous 90 days periods, the sector-specific production cycles are added to a 90 days period. For the purpose of determining the start of normal operation, the activity level should be considered at a daily basis.

The start of normal operation has to be verified by an independent verifier and approved by the relevant Competent Authority.

For further details on the determination of the start of normal operation, please refer to section 6.3 of [Guidance Document 2](http://ec.europa.eu/clima/documentation/ets/docs/benchmarking/gd2_allocation_methodologies_en.pdf) (http://ec.europa.eu/clima/documentation/ets/docs/benchmarking/gd2_allocation_methodologies_en.pdf)

1.2 How to determine the initial capacity of sub-installations of an installation that enters the ETS?

The way to determine the initial installed capacity depends on the start of normal operation (see question 1.1):

Start of normal operation	Initial capacity
On or before 30 June 2011 AND identified before 30 September 2011	Average of the two highest monthly production volumes in the months following the start of normal operation up to and including September 2011 multiplied by 12

Start of normal operation	Initial capacity
After 30 June 2011 AND The installation obtained all relevant permits before 30 June 2011 AND Start of normal operation identified before 30/09/2011	Experimental verification could be carried out to determine the initial installed capacity.
After 30 June 2011 AND The installation obtained all relevant permits before 30 June 2011 AND Start of normal operation identified after 30/09/2011	The incumbent installation should be allocated zero allowances in the NIMs and should be allocated according to new entrant rules as if it had a significant change in capacity after 30 June 2011. Guidance on these rules is still in development and will be part of Guidance Document 7.
After 30 June 2011 AND The installation did not obtain all relevant permits before 30 June 2011	The installation is a new-entrant should be not be part of the NIMs. It should be allocated as a new installation according to new entrant rules. Guidance on these rules is still in development and will be part of Guidance Document 7.

The determination of the start of normal operation is discussed in section 6.3 of Guidance Document 2 (http://ec.europa.eu/clima/documentation/ets/docs/benchmarking/gd2_allocation_methodologies_en.pdf)

1.3 How to determine the start of changed operation in case of significant capacity extensions?

The starting date of changed operation is defined as the first day of the earliest continuous 90 days period during which the activity level related to the added capacity (AL_{added}) – aggregated over the 90 days period – is at least 40% of the added design capacity ($C_{added,design}$).

$$\left(\frac{AL_{added}}{C_{added,design}} \right)_{90 \text{ days period}} \geq 0.4$$

The activity level should be calculated by adding up the total activity level in the 90 days period and dividing this by the daily capacity of the sub-installation multiplied by 90. The activity level does not need to be above the 40% during each day in the 90 days period.

$$\left(\frac{AL_{added}}{C_{added,design}} \right)_{90 \text{ days period}} = \frac{\text{Aggregated activity level of added capacity over 90 days period}}{C_{added,design} \left(\frac{90}{365} \right)}$$

For the purpose of determining the start of changed operation, the operator should determine the activity data related to the added design capacity on a daily basis:

When possible, the activity level will be based on physically added capacity: e.g. when the capacity extension consists of a new production line, the activity level related to the added capacity is the production of the new production line.

Some capacity extensions will be modifications to existing equipment. It may then be difficult for the

operator to provide the required activity level data related to the added design capacity only. In such cases, the activity level attributed to the added capacity is determined by the total activity level of the relevant sub-installation (AL_{total}) minus the average activity level in calendar years prior to the physical change.

See question 1.1 for more guidance about the determination of the design capacity and of the relevant 90 days period. The start of changed operation has to be verified by an independent verifier.

The determination of the start of changed operation is discussed in section 6.4 of Guidance Document 2
http://ec.europa.eu/clima/documentation/ets/docs/benchmarking/gd2_allocation_methodologies_en.pdf)

1.4 How to determine the start of changed operation in case of significant capacity reductions?

The starting date of changed operation is defined as the first day of the earliest continuous 90 days period during which the activity level related to the remaining capacity ($AL_{remaining}$) – aggregated over the 90 days period – is at least 40% of the design capacity of the remaining capacity ($C_{remaining,design}$).

$$\left(\frac{AL_{total}}{C_{remaining,design}} \right)_{90 \text{ days period}} \geq 0.4$$

The activity level should be calculated by adding up the total activity level in the 90 days period and dividing this by the daily capacity of the sub-installation multiplied by 90. The activity level does not need to be above the 40% during each day in the 90 days period.

$$\left(\frac{AL_{remaining}}{C_{remaining,design}} \right)_{90 \text{ days period}} = \frac{\text{Aggregated activity level over 90 days period}}{C_{remaining,design} \left(\frac{90}{365} \right)}$$

See question 1.1 for more guidance about the determination of the design capacity and of the relevant 90 days period. The start of changed operation has to be verified by an independent verifier.

The determination of the start of changed operation is discussed in section 6.4 of Guidance Document 2
http://ec.europa.eu/clima/documentation/ets/docs/benchmarking/gd2_allocation_methodologies_en.pdf)

1.5 Is it obligatory to report changes in capacity, to assess whether they are significant and to determine the allocation according to the rules for significant changes of capacity?

As a general rule, yes, it is. Anyway, when an operator chooses 2009-2010 as baseline period and the start of changed operation occurs before 1 January 2009, the allocation does not need to be determined according to the rules for significant changes in capacity. For product benchmark sub-installation, it is however always obligatory to report the capacity changes in the methodology report, as they need to be considered within the determination of the standard capacity utilisation factors (SCUFs)

Changes in capacity are discussed in section 6.4 of Guidance Document 2

(http://ec.europa.eu/clima/documentation/ets/docs/benchmarking/gd2_allocation_methodologies_en.pdf)

1.6 How to determine the new capacity of a sub-installation after a significant change in capacity?

The way determine the new capacity depends on the start of changed operation (see questions 1.3 and 1.4):

Start of changed operation	New capacity
On or before 30 June 2011 AND identified before 30 September 2011	The average of the two highest monthly production volumes following the start of normal operation up to and including September 2011 multiplied by 12
Before 30 June 2011 AND identified after 30 September 2011	These changes should be allocated according to new entrant rules. Guidance on these rules is still in development and will be part of Guidance Document 7.
After 30 June 2011	

Changes in capacity are discussed in section 6.4 of Guidance Document 2 (http://ec.europa.eu/clima/documentation/ets/docs/benchmarking/gd2_allocation_methodologies_en.pdf)

2 Questions related to measurable heat and cross boundary heat flows

2.1 Can the fuel benchmark be used if the quantity of consumed measurable heat is not known?

No, the heat benchmark must be applied where the heat consumption or export meets the definition relating to this allocation methodology. Measurable heat means '*a net heat flow transported through identifiable pipelines or ducts using a heat transfer medium, such as, in particular, steam, hot air, water, oil, liquid metals and salts, for which a heat meter is **or could be** installed*', meaning that in case heat **could be** measured (even if not factually done), the heat benchmark subinstallation definition applies. Please refer to table 1 in Guidance Document 2 which sets out the conditions relating to the four allocation methodologies. (http://ec.europa.eu/clima/documentation/ets/docs/benchmarking/gd2_allocation_methodologies_en.pdf)

In addition, please refer to Annex II "Determination of net measurable heat production/consumption" in Guidance Document 3 for a description of some methods to determine amounts of net measurable heat.

(http://ec.europa.eu/clima/documentation/ets/docs/benchmarking/gd3_data_collection_en.pdf)

2.2 How to allocate emission allowances in case of heat recovery?

Measurable heat recovered from a product benchmark sub-installation

Measurable heat recovered from a product benchmark sub-installation is eligible for free allocation. Therefore it can in principle be covered by a product benchmark sub-installation or a heat

benchmark sub-installation, depending on the specific situation and taking into account the rules explained in section 2.2 of Guidance Document 2 (http://ec.europa.eu/clima/documentation/ets/docs/benchmarking/gd2_allocation_methodologies_en.pdf)

An exception to this rule is measurable heat that is recovered from nitric acid production. Such measurable heat should never be covered by another product benchmark or heat benchmark sub-installation (see presentation of case 5 on Commission's website¹)

Cascade use of heat in a heat benchmark sub-installation

The activity level of a heat benchmark sub-installation is the sum of net heat flows consumed by ETS and produced for export to non-ETS installations and entities. These net heat flows are net of returned condensate, assuming that all condensate is returned. The following example assumes that all processes are not covered by a product benchmark and that measurable heat is eligible for free allocation.

Example: Process A has a gross consumption of heat equal to 10 TJ (e.g. steam with a certain pressure and temperature level) that is eligible for free allocation. The net consumption of measurable heat of process A is 7 TJ the residual heat (3TJ at a lower pressure and temperature level) may be used in a cascade where after process A. The total amount of heat eligible for free allocation is determined by summing the net heat consumption over all consuming processes: so (7+3) TJ = 10 TJ minus the total returned condensate.

Heat recovered from a process covered by a fuel benchmark sub-installation

Q&A Updated on 25/08/2011

Heat recovery from a process covered by a fuel benchmark sub-installation potentially leads to:

- A situation in which the fuel is accounted for twice in the allocation (in case the recovered heat is allocated via a product benchmark or heat benchmark sub-installation)
- Or to indirect allocation for electricity production (in case the recovered heat is used for electricity production)

To avoid these situations, the activity level of the fuel benchmark sub-installation should be corrected by subtracting the amount of recovered measurable heat, covered by a product benchmark or heat benchmark sub-installation or used for electricity production, divided by a virtual generation efficiency of 90%.

Alternatively, the deduction from the activity level could be made from the heat benchmark sub-installation concerned, instead than to the fuel BM one, provided that the deducted amount remains the same as when applying the general method described in this paragraph. This alternative might be relevant if the product/process falling under the fuel BM is deemed to be exposed to carbon leakage whereas the product falling under the heat BM is not (i.e. in case recovered heat is delivered to a district heating network).

Heat recovered from processes that do not receive allocation via product, heat or fuel benchmarks

Measurable heat recovered from processes that do not receive allocation via product, heat or fuel benchmarks, is eligible for free allocation as long as the processes are included in an ETS permit and the heat is not directly or indirectly produced by electricity. It can therefore in principle be covered by a product benchmark sub-installation or a heat benchmark sub-installation, depending on the

¹ http://ec.europa.eu/clima/documentation/ets/docs/benchmarking/case_ammonia_en.pdf

specific situation and taking into account the rules explained in section 2.2 of Guidance Document 2 (http://ec.europa.eu/clima/documentation/ets/docs/benchmarking/gd2_allocation_methodologies_en.pdf).

2.3 Can heat consumption of offices and spaces be included in a heat benchmark sub-installation?

If the installation in question contains one or more product benchmark sub-installations, then any measurable heat consumption of offices and spaces should be considered to be included in one of the product benchmark sub-installations (for simplicity, it could be the one which more emissions are attributed to). If the installation does not contain any product benchmark sub-installation then that heat can be included in a heat benchmark sub-installation. The carbon leakage exposure status of the heat benchmark sub-installation that includes the heat for space heating should be the carbon leakage exposure status of the most relevant production process within the installation.

The answer above assumes that the measurable heat involved is eligible for free allocation. What heat is eligible for free allocation is explained in section 2.2 of Guidance Document 2. Footnote 3 of that document discusses heat consumption of offices and spaces. (http://ec.europa.eu/clima/documentation/ets/docs/benchmarking/gd2_allocation_methodologies_en.pdf)

2.4 Is own heat consumption of utilities (e.g. a CHP unit) included in a heat benchmark sub-installation?

For heat to offices and spaces, see question 2.3. Own heat consumption that is part of the heat production process (e.g. for the deaerator and fuel pre-heating) is taken into account in the value of the heat benchmark and should not be covered by a heat benchmark sub-installation. The value of the heat benchmark (62.3 allowances/TJ) can only cover net heat flows that can be consumed outside the heat production system.

2.5 How to allocate if an ETS installation also acts as a heat distributor?

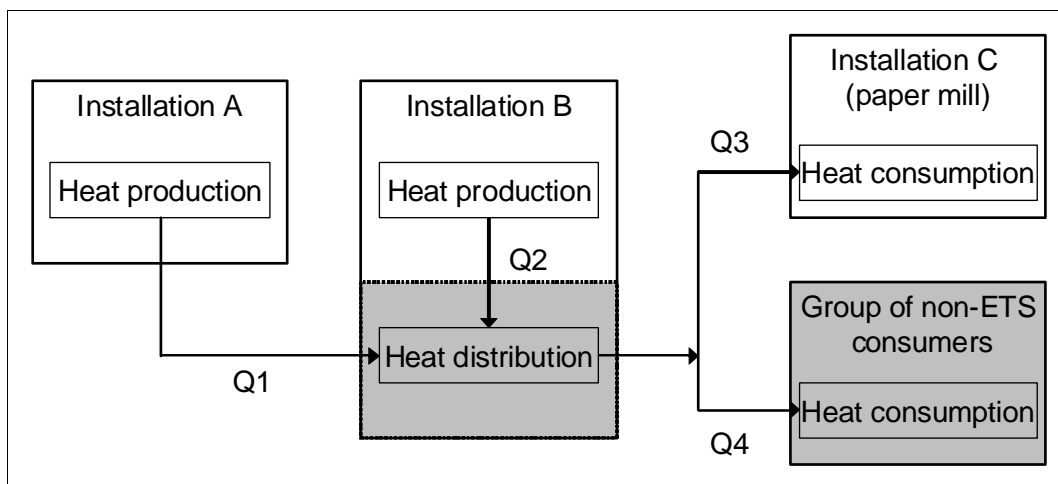
In case an ETS installation acts as a heat distributor within a network of at least two heat producers, the normal rules for cross-boundary heat flows should be followed. In this case, the installation is virtually split into two parts: an ETS heat producer and a heat distributor to be regarded as non-ETS entity (see Guidance Document 6, section 3.2).

A heat distributor is an entity which acts as an intermediary between heat producers and the heat consumers. This means that:

- The distributor is neither producing nor consuming the heat.
- There is no direct contractual relation between the heat producer and the heat consumers concerning the delivery of heat.

Consider the situation below where installation A (e.g. boiler or CHP) provides heat (Q_1) to a heat network which is operated by installation B (another heat producer producing Q_2). The heat is provided to installation C (a paper mill) and group of non-ETS consumers. The example assumes that:

- All heat flows in the figure are net heat flows and the flow is following the direction of the arrow.
- There is no direct delivery contract between installation A and any of the consumers in the heat distribution network



An overview of the preliminary allocation is given below:

- Installation A would be regarded to deliver heat to a heat distributor which should be regarded as non-ETS. Therefore, A should receive the allocation in respect of Q1 via a heat benchmark sub-installation. The exposure status of that installation depends on the status of the products produced by installation C and other final consumers. If not known by installation A and no evidence on the CL exposure is provided, they should be regarded as non-exposed. If there's more than 1 type of consumer in terms of CL exposure (i.e. exposed and non-exposed, or exposed and unknown) on the distribution network then there will be two heat benchmark sub-installations for installation A according to the share of consumption of exposed and non-exposed heat consumers. If there are households on the distribution network then there is an option for an alternative allocation calculation for heat going to households.
- Installation B: in its function as heat producer delivering heat to the heat distributor (although part of the same company), B should receive the allocation in respect of Q2 via a heat benchmark sub-installation. Concerning the CL exposure status, the same rules as for installation A apply.
- Installation C: this installation receives allocation according to product benchmarks or fall-back approaches. However, for the imported heat from the heat distributor (non-ETS entity), allocation is already given to the heat producer. Therefore, the allocation to installation C should be corrected for the import of non-ETS heat:
 1. in case of product benchmarks, fall-back approaches (except heat benchmark only): Deduction of $Q3 \times 62.3$ EUA/TJ from the benchmark-based preliminary allocation prior to any correction
 2. in case of allocation only based on the heat benchmark: Q3 is not considered for the determination of the historical activity level of the heat benchmark sub-installation
- Non-ETS consumers: These entities do not receive free allocation.

2.6 How does the allocation for a heat producer change when its consumers enter or leave the scope of ETS during the baseline period?

Following the rules for cross-boundary heat flows in Guidance Document 6 (http://ec.europa.eu/clima/documentation/ets/docs/benchmarking/gd6_cross_boundary_heat_flow_s_en.pdf), a heat producer only receives allocation for net heat flows it produces for non-ETS consumers. A non-ETS heat consumer may become an ETS heat consumer and vice versa. This can

have an effect in the allocation of the heat producer.

When a non-ETS consumer enters the scope of ETS, the activity level of the heat benchmark sub-installation that covers the heat export to non-ETS consumers will decrease.

When an ETS consumer falls outside the scope of the ETS, the activity level of the heat benchmark sub-installation that covers the heat export to non-ETS consumers will increase. If the change occurred during the baseline period, this influences the historical activity level

A non-ETS consumer entering the ETS scope can never lead to a significant capacity reduction at the heat producer side as physical changes outside the ETS can never give rise to a significant capacity changes. When an ETS consumer falls out of the scope of ETS, the heat producer could have a significant increase in capacity during or after the baseline period only as a result of a physical change, if any (see section 6.4 of Guidance Document 2 for capacity changes before 30 June 2011 (http://ec.europa.eu/clima/documentation/ets/docs/benchmarking/gd2_allocation_methodologies_en.pdf))

2.7 How does the allocation for a heat consumer change when its heat supply changes during the baseline period?

Following the rules for cross-boundary heat flows in Guidance Document 6 (http://ec.europa.eu/clima/documentation/ets/docs/benchmarking/gd6_cross_boundary_heat_flow_s_en.pdf), only heat from ETS sources is eligible for free allocation. Heat supply could change as follows:

- Heat may be imported from another installation that enters or falls outside the scope of the ETS
- A heat consumer may switch to a different heat supplier, outsource its heat supply or start to produce heat itself.

Given that the free allocation is given based on the consumed quantity of heat, then, unless the heat supply is taken from non eligible sources/processes (e.g. heat coming from a nitric acid production plant) nothing changes from the heat consumer perspective.

In case the heat supplier changes from ETS to non-ETS during the baseline period, then a correction of the activity level should be done in order to subtract the heat coming from non ETS sources or installations (see section 2.3. of Guidance Document 6: http://ec.europa.eu/clima/documentation/ets/docs/benchmarking/gd6_cross_boundary_heat_flow_s_en.pdf).

3 Questions on waste gases

3.1 Composition of a waste gas: Can a gas containing merely a mixture of pure hydrocarbons (e.g. just ethylene) without any component with oxygen in it be considered as a waste gas? Is incompletely oxidised carbon excluded from the process emissions installation if no oxygen molecule is present in the incompletely oxidised carbon-molecule?

Q&A added on 18/07/2011

Guidance Document 8²) states that: 'Waste gases are generally defined as gases which emerge from incomplete combustion or other chemical reaction in an EU-ETS installation and which **comply with all of the following** criteria:

- Waste gases are not emitted without further combustion, due to a significant content of incompletely oxidised carbon
- The calorific value of waste gases is high enough for the waste gas to burn without auxiliary

² http://ec.europa.eu/clima/documentation/ets/docs/benchmarking/gd8_waste_gases_en.pdf

fuel input, or to contribute significantly to the total energy input when mixed with fuels of higher calorific value

- The waste gas is produced as by-product of a production process.

Although carbon not containing any oxygen bound could meet these criteria, the guidance note also further specifies when carbon is considered incompletely (e.g. CO or CmHnOo) and completely oxidised (e.g. CO₂). Based on the guidance, waste gases do have to contain a component of CO or CmHnOo and therefore a pure hydrocarbon gas, such as ethylene, would not be considered a waste gas.

The relevant text in the CIMs would be Art 3(h) which defines the process emissions sub-installations says:

*'Process emissions sub-installation' means **greenhouse gas emissions listed in Annex I of Directive 2003/87/EC other than carbon dioxide**, which occur outside the system boundaries of a product benchmark listed in Annex I, **or carbon dioxide emissions**, which occur outside the system boundaries of a product benchmark listed in Annex I, as a result of any of the following activities and **emissions stemming from the combustion of incompletely oxidised carbon** produced as a result of the following activities for the purpose of the production of measurable heat, non-measurable heat or electricity provided that emissions that would have occurred from the combustion of an amount of natural gas, equivalent to the technically usable energy content of the combusted incompletely oxidised carbon, are subtracted:*

- (i) *the chemical or electrolytic reduction of metal compounds in ores, concentrates and secondary materials;*
- (ii) *the removal of impurities from metals and metal compounds; (iii) the decomposition of carbonates, excluding those for flue gas scrubbing;*
- (iii) *chemical syntheses where the carbon bearing material participates in the reaction, for a primary purpose other than the generation of heat;*
- (iv) *the use of carbon containing additives or raw materials for a primary purpose other than the generation of heat;*
- (v) *the chemical or electrolytic reduction of metalloid oxides or non-metal oxides such as silicon oxides and phosphates;*

The definition lists basically three types of emissions.

- non-CO₂ greenhouse gas emissions (i.e. N₂O for specific sectors; see Annex I of Directive 2009/29/EC for the list of activities for which N₂O emissions are included in the EU-ETS for phase 3)
- CO₂ emissions from any of the activities listed in this definition [(i) to (vi)]
- Emissions from the combustion of incompletely oxidised carbon such as CO emitted by any of these activities [(i) to (vi)], if it is combusted to produce heat or electricity.

Neither of these emissions covers carbon without oxygen bound. Category c covers emissions from the combustion of incompletely oxidized carbon and, finally, combustion of incompletely oxidized carbon implies a reaction of carbon with oxygen leading to carbon **with** an oxygen bound.

4 Questions on the scope of product benchmark sub-installations

4.1 GENERAL - Is safety flaring (incl. both the pilot flame and flaring) included in the product benchmark?

Yes; all product benchmarks include emissions related to safety flaring and other flaring of gases that are associated with the production of the relevant benchmarked product. The emissions related to (safety) flaring include:

1. Emissions from the combusted flared gas
2. Emissions from the combustion of fuels necessary to operate a flare, which are of two types:
 - a) The fuels necessary to keep a pilot flame running
 - b) The fuels required to successfully combust the flared gas.

4.2 MINERAL WOOL - What indirect emissions from electricity consumption is included in the boundaries of the mineral wool product benchmark sub-installation?

For the determination of indirect emissions, the total electricity consumption within the system boundaries shall be considered. This includes all electricity use by processes directly or indirectly linked to the production steps: melting, fiberizing and injection of binders, curing and drying and forming. The system boundaries do not include packaging.

4.3 REFINERY PRODUCTS AND AROMATICS - Can processes be allocated according to the CWT approach if they occur outside a refinery or aromatics benchmark sub-installation?

No; processes defined by the CWT methodology only receive allocation according to that approach if they are part of a refinery and in some cases an aromatics benchmark sub-installation. Most of the processes defined by the CWT methodology should receive allocation based on fall-back approaches when they occur outside one of those two product benchmark sub-installations. Some can however be covered by other product benchmarks; e.g. hydrogen.

4.4 REFINERY PRODUCTS: If a refinery contains processes defined by the CWT methodology that are part of the aromatics benchmark sub-installation, should the refinery be split in a refinery benchmark sub-installations and an aromatics benchmark sub-installation?

No; no aromatics benchmark sub-installation should be defined. The refinery benchmark sub-installation should include the CWT processes that produce aromatics.

4.5 HYDROGEN - Can hydrogen production that is covered by another product benchmark than the hydrogen product benchmark: e.g. the refinery benchmark or syngas benchmark, be allocated using the hydrogen benchmark?

No, hydrogen production that is covered by a product benchmark other than the hydrogen benchmark cannot receive allocation via the hydrogen benchmark. In particular this is the case for hydrogen that is extracted from a waste gas, that is produced in a process covered by product benchmark. Since most product benchmarks include 'all processes directly or indirectly linked to the production' of a product, hydrogen extracted from a waste gas, that is produced in a process covered by product benchmark, is normally included in the product benchmark. The hydrogen benchmark should therefore not be applied.

4.6 CLINKER - Can blast furnace slag be allocated via the product benchmark for clinker?

No; blast furnace slag should not receive allocation via the product benchmark for clinker:

- According to the CIMs, the product benchmark for grey cement clinker covers: Grey cement clinker as total clinker produced. Blast furnace slag does not fall under the product definition for the grey clinker benchmark. Although blast furnace slag can substitute clinker in cement production, the slag definitely is definitely not identical to clinker; Blast furnace slag can for instances only partially substitute clinker in cement.
- The CaO content of blast furnace slag is related to the use of limestone in the blast furnace. The use of this lime stone leads to emissions that have been taken into account in the hot metal benchmark. Separately allocating blast furnace slag would therefore result in double counting since slag production would then be allocated both via the hot metal and the clinker benchmark.

5 Questions about the scope of the NIMs

5.1 Should installations that will not be part of the ETS after 1 January 2013 submit data and be included in the NIMs?

In principle every incumbent installation shall be part of the NIMs list.

In case it is absolutely sure that an installation will close before the start of Phase III, relevant Competent Authorities might not require the template filled by those operators. It is then highly recommended to refer to the relevant national legislation and to the relevant CAs to manage those cases.

5.2 Should installations which meet the criteria under Article 27 of the ETS Directive, which allows it to opt out of Phase III, submit data and be included in the NIMs?

Yes; although the EC data collection template gives operators the opportunity to inform that they meet the criteria for a small emitter in section AI 4.(d) in sheet I of the form, baseline data is still required as the NIMs notified by all MS to the Commission must contain the preliminary allocation which would be due to any incumbent installation, even when eligible for an opt-out under Article 27.

5.3 Should new installations that do not yet have a greenhouse gas permit and are being constructed at the moment and will be commencing operations after the baseline period but before the commencement of Phase III, need to submit data and be included in the NIMs?

Such installations do not need to submit a filled in baseline data collection template. They would however need to apply for a permit prior to commencement of the activity and if they wish to receive free allowances, will need to apply to the Phase III New Entrant Reserve, according to the relevant national legislation. Guidance on new installations after 30 June 2011 is still in development and will be part of Guidance Document 7.

5.4 Should electricity generators producing heat but only delivering to ETS installations submit data and be included in the NIMs?

Q&A added on 25/08/2011 updated on 29/09/2011

Unless the National Competent Authority gives other indications, the operators of such installations do need to submit a filled in baseline data collection template; this is also because of the need for cross checking with the heat consumers' data. Those installations shall anyway ALWAYS be included in the NIMs list.

6 Other questions

6.1 Are fuel and heat consumption of off-gas and waste treatment (e.g. deNOx units, VOC incinerators, thermal oxidisers) eligible for free allocation under 'fall-back' sub-installations?

Q&A Updated on 28/09/2011

No. Combustion for the treatment of off-gases and waste can never be covered by a fuel benchmark sub-installation unless it falls under the definition of safety flaring. This definition normally does not cover off-gas and waste treatment. (see section 2 of Guidance Document 8 http://ec.europa.eu/clima/documentation/ets/docs/benchmarking/gd8_waste_gases_en.pdf).

Any recovered measurable heat from off-gas and waste treatment is however eligible for free allocation. The recovered heat can therefore be covered by a product benchmark sub-installation or a heat benchmark sub-installation, depending on the specific situation and taking into account the rules explained in section 2.2 of Guidance Document 2 (http://ec.europa.eu/clima/documentation/ets/docs/benchmarking/gd2_allocation_methodologies_en.pdf).

Emissions that result from off-gas and waste treatment could be covered by a process emissions sub-installation only in case measurable heat is recovered from the treatment of waste gases that

- do not originate from a process that is covered by a product benchmark AND
- result from any of the activities listed in Art. 3(h) of the CIMs. (see

section 4 of Guidance Document 8 http://ec.europa.eu/clima/documentation/ets/docs/benchmarking/gd2_allocation_methodologies_en.pdf).

6.2 A furnace that produces a variety of products, some of which have a product benchmark and some that will have a fallback applied. What data should be supplied?

In this case, the operator will be required to provide the production data for those products that are covered by a product benchmark and data for fallback approaches for the other products produced from the furnace. Assuming that the heat produced by the furnace is not measurable heat then a fuel mix benchmark would need to be applied. The operator would be required to work out the quantity of fuel used within the furnace that relates to the production of each of the products that will be covered by the fuel mix benchmark and the quantity of process emissions. There should be no double counting of emissions between the different allocation methodologies applied. The methodology applied should be discussed and agreed with the verifier.

6.3 Is there an overview available of NACE and PRODCOM codes?

PRODCOM 2007 codes

(http://ec.europa.eu/eurostat/ramon/nomenclatures/index.cfm?TargetUrl=LST_NOM_DTL&StrNom=PRD_2007&StrLanguageCode=EN&IntPcKey=&StrLayoutCode=HIERARCHIC) and PRODCOM 2008 codes

(http://ec.europa.eu/eurostat/ramon/nomenclatures/index.cfm?TargetUrl=LST_NOM_DTL&StrNom=PRD_2008&StrLanguageCode=EN&IntPcKey=&StrLayoutCode=HIERARCHIC) can be found on the Commission's Website:

Some installations such as universities, installations supplying heat for private households, hospitals etc. will not have PRODCOM codes as they do not actually produce a product.

NACE rev. 1.1 codes

(http://ec.europa.eu/eurostat/ramon/nomenclatures/index.cfm?TargetUrl=LST_NOM_DTL&StrNom=NACE_1_1&StrLanguageCode=EN&IntPcKey=&StrLayoutCode=HIERARCHIC) and NACE rev. 2 codes (http://ec.europa.eu/eurostat/ramon/nomenclatures/index.cfm?TargetUrl=LST_NOM_DTL&StrNom=NACE_REV2&StrLanguageCode=EN&IntPcKey=&StrLayoutCode=HIERARCHIC) can be also obtained from a separate list.

6.4 For product benchmark subinstallations where the correction for exchangeability of fuel and electricity is relevant is the heat export taken into account?

Q&A Added on 09/11/2011

In case of product benchmarks where the correction for heat and fuel exchangeability needs to be done, the abovementioned correction is made applying the following formula:

$$F = \frac{Em_{direct} + Em_{NetHeatImport}}{Em_{direct} + Em_{NetHeatImport} + Em_{indirect}} \cdot BM \cdot HAL$$

In order to avoid double allocation, it is of utmost importance to underline that the value of the factor Em_{direct} does not include emissions related to the production of heat which is exported from the production process of the relevant product benchmark, as it is often, for example, in case of hydrogen production process. In such cases, the total direct emissions of the production process need to be reduced by the emissions related to exported heat, by applying the heat benchmark for measurable heat 62.3 tCO₂/TJ.