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EUROPEAN COMMISSION

Brussels, 29.3.2011  
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**COMMISSION DECISION**

**of 29.3.2011**

**on guidance on the methodology to transitionally allocate free emission allowances to installations in respect of electricity production pursuant to Article 10c(3) of Directive 2003/87/EC**

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**on guidance on the methodology to transitionally allocate free emission allowances to installations in respect of electricity production pursuant to Article 10c(3) of Directive 2003/87/EC**

THE EUROPEAN COMMISSION,

Having regard to the Treaty on the Functioning of the European Union,

Having regard to regard to Directive 2003/87/EC of the European Parliament and of the Council of 13 October 2003 establishing a scheme for greenhouse gas emission allowance trading within the Community and amending Council Directive 96/61/EC<sup>1</sup>, and in particular Article 10c(3) thereof,

Whereas:

- (1) Article 10c of Directive 2003/87/EC provides for a transitional derogation from a fundamental principle of that Directive. It allows for the free allocation of emission allowances to certain installations in respect of the production of electricity to modernise the electricity generation sector of the Member States concerned. Whereas such support may be appropriate with the long-term goal of reducing the carbon intensity of the economies of the Member States concerned, Member States should ensure that competition in the internal market is not distorted beyond that which is strictly necessary in the light of the overall objectives of Directive 2003/87/EC, and other Union policies, such as completion of the internal market for electricity. In accordance with Article 10c(2) of Directive 2003/87/EC, transitional free allocations of emission allowances should be deducted from the quantity of allowances that the respective Member State would otherwise auction pursuant to Article 10(2) of that Directive.
- (2) It follows from recital 1 that the allocation methodology implemented should be based on objective and relevant criteria, taking into account the objective of Directive 2003/87/EC to reduce emissions in a cost-effective manner and improve the greenhouse gas efficiency of electricity production.
- (3) In order to ensure that the number of free emission allowances allocated on the basis of Article 10c of Directive 2003/87/EC does not exceed the maximum number of free emission allowances defined by Article 10c(2) of that Directive, a correction factor should be applied to reduce the total quantity of free emission allowances allocated to eligible installations to no higher than the maximum number of free emission allowances allowed at the level of the respective Member State.

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<sup>1</sup> OJ L 275, 25.10.2003, p. 32.

- (4) While Member States should decide on the allocation methodology to be applied, they should apply the same allocation methodology to all installations eligible for transitional free allocation of emission allowances under Article 10c of Directive 2003/87/EC on their respective territory for which data on verified emissions for the period from 2005 to 2007 exist, in order to avoid undue distortions of competition. Moreover, they should consider that an allocation methodology based on benchmarks would likely result in more limited distortions of competition.
- (5) When allocating free emission allowances on the basis of an ex-ante efficiency benchmark, a Member State may use a Union-wide benchmark or a specific benchmark that reflects the share of fuels used for electricity production in the respective Member State, so as to facilitate the transition to full auctioning, while taking into account the most efficient technologies at Union level for the different fuels used to produce electricity as well as the emissions corresponding to the fuel used to produce electricity.
- (6) In order to minimise negative impacts on incentives to reduce emissions, the benchmark should acknowledge the CO<sub>2</sub> efficiency of the various technologies used to produce electricity. It should be based on objective data independently verified to a high degree of accuracy. Wherever possible, data should be supplied by the same source, to ensure consistency, comparability and transparency, and should cover the same period as referred to in the relevant provisions of Directive 2003/87/EC.
- (7) To ensure equal treatment of all eligible installations in a Member State, relevant electricity production data should be used to apply the benchmark. Member States should use the same approach to determine these data for all installations receiving free allocation of emission allowances based on an ex-ante efficiency benchmark. Member States should use default values, where reasons that include commercial confidentiality do not allow using objective data.
- (8) Free allocation of emission allowances based on verified emissions of eligible installations in 2005 – 2007 should be based on the annual average verified emissions in that period. The quantity of emission allowances to be allocated to each installation should be adjusted to avoid undue distortions of competition and to minimise negative impacts on incentives to reduce emissions.
- (9) For consistency and to preserve the environmental integrity of the Union scheme, only data from 2007 should be used for the purposes of this decision with respect to free allocation of emission allowances to eligible installations in Member States which did not participate in the Union scheme in 2005 and 2006.
- (10) The measures provided for in this Decision are adopted in accordance with the opinion of the Climate Change Committee,

HAS ADOPTED THIS DECISION:

*Article 1*  
*General provisions*

1. A Member State that intends to allocate emission allowances on the basis of Article 10c of Directive 2003/87/EC shall adopt allocation methodologies in accordance

with paragraph 2 of that Article. The same allocation methodology shall apply to all installations eligible for transitional free allocation of emission allowances pursuant to that Article 10c on its territory for which data on verified emissions for the period from 2005 to 2007 exist.

2. The allocation methodology shall either be based on an ex-ante efficiency benchmark pursuant to Article 2 or on the verified emissions of eligible installations in the period from 2005 to 2007 pursuant to Article 3.
3. In the application pursuant to Article 10c(5) of the Directive, a Member State shall specify the allocation methodology applied and provide evidence that the allocation methodology applied complies with this decision.

#### *Article 2*

##### *Transitional free allocation of emission allowances based on an ex-ante efficiency benchmark*

1. Where a Member State decides to allocate free emission allowances based on an ex-ante efficiency benchmark, it shall either use the Union-wide ex-ante efficiency benchmark or an ex-ante efficiency benchmark established in accordance with the methodology set out in Annex I.
2. The Union-wide ex-ante efficiency benchmark determined in accordance with the methodology set out in Annex I and referred to in paragraph 1 is 0,6408 tons CO<sub>2</sub> per megawatt hour electricity produced.
3. The benchmarks referred to in paragraph 1 shall be applied to the relevant electricity production data of each eligible installation in a Member State. The relevant electricity production data shall be determined in accordance with Annex II.

#### *Article 3*

##### *Transitional free allocation of emission allowances based on the verified emissions in 2005 - 2007*

1. Where a Member State decides to allocate free emission allowances based on verified emissions of eligible installations in the period from 2005 to 2007, the number of allowances allocated to each eligible installation shall not exceed the annual average emissions of the eligible installation in the period from 2005 to 2007 adjusted with a view to reflecting the performance of each installation in terms of emissions based on the relation between the total annual average emissions of eligible installations in the period from 2008 to 2010 and the total annual average emissions of eligible installations in the period from 2005 to 2007.
2. Where an eligible installation performs production of electricity and heat, only emissions that are strictly attributable to the production of electricity shall be taken into account. In the case of combined heat and power production (CHP), emissions attributable to the production of electricity shall be calculated in accordance with the formula shown in Annex IIA.

*Article 4*  
*Correction factor*

1. If the total quantity of allowances to be allocated in a Member State on the basis of Articles 2 or 3 of this Decision exceeds the maximum number of free emission allowances in the Member State, as determined in accordance with Article 10c(2) of Directive 2003/87/EC, that Member State shall determine a correction factor in accordance with Annex III to this Decision.
2. Member States shall apply the correction factor when calculating the individual free allocation of emission allowances for each installation in 2013 and subsequent years.

*Article 5*  
*Data collection*

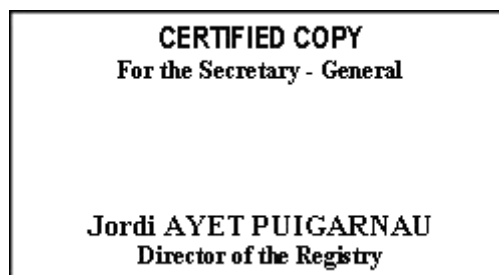
1. Member States shall obtain all input data used to establish the ex-ante efficiency benchmark referred to in Article 2 from publicly available data sources. The input data shall be objective and independently verified to a high degree of accuracy. The data shall represent the annual average of the years 2005 – 2007.
2. Member States whose installations did not participate in the Union scheme in 2005 and 2006 shall only use data from 2007 to calculate the number of emission allowances to be allocated for free in respect of their installations in accordance with paragraph 1 of this Article and Articles 2 and 3.

*Article 6*  
*Addressees*

This Decision is addressed to the Member States.

Done at Brussels, 29.3.2011

*For the Commission*  
*Connie HEDEGAARD*  
*Member of the Commission*



## ANNEX I

### Determination of an ex-ante efficiency benchmark referred to in Article 2(1)

1. The benchmark is based on fuels used for electricity production in the Member State concerned. Data from Eurostat for the years 2005 to 2007 under product code 6000, for electricity and the following indicators, constitute the relevant input data with regard to fuel-specific electricity production:

Eurostat Indicator	
107106	Net electricity generation – Coal fired power stations
107107	Net electricity generation – Lignite fired power stations
107108	Net electricity generation – Oil fired power stations
107109	Net electricity generation – Natural gas fired power stations
107110	Net electricity generation – Derived gas fired power stations
107111	Net electricity generation – Biomass fired power stations

2. The benchmark is derived from fuel-specific inputs that are calculated using net electricity generation from a specific fuel in accordance with Eurostat indicators 107106 – 107111 for Eurostat product code 6000 (electricity), the efficiency of generating electricity by taking into account best available techniques for the specific fuel and a fuel-specific emission factor.

3. The benchmark takes into account the share of fuels in the production of electricity covered by the Union scheme and resulting from combusting these fuels in the Member State concerned.

4. The benchmark reflects the efficiency of generating electricity by using best available techniques in the Union when combusting one unit of a specific fuel. In this respect, reference is made to the most updated version of the Reference Document on Best Available Techniques for Large Combustion Plants<sup>2</sup>, developed under Article 17 of Directive 2008/1/EC of the European Parliament and of the Council<sup>3</sup>.

5. Relevant emissions resulting from the combustion of one unit of any of the fuels providing fuel-specific inputs to the benchmark are determined using an implied emission factor per fuel as submitted under the UNFCCC in the national greenhouse gas inventory of the Member

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<sup>2</sup> The currently most updated version of the Reference Document on Best Available Techniques for Large Combustion Plants can be found at <http://eippcb.jrc.es/reference/>

<sup>3</sup> OJ L 24, 29.1.2008, p. 8.

State concerned or the relevant emission factors indicated in Section 11 of Annex I to Commission Decision 2007/589/EC<sup>4</sup>.

6. The values resulting from calculating fuel-specific inputs to the benchmark are added up taking into account their weighted share in total net electricity production accruing from the sum of net electricity generation from all specific fuels in accordance with Eurostat indicators 107106 – 107111 for Eurostat product code 6000 (electricity) used in order to determine fuel-specific inputs.

7. A benchmark set up in accordance with the principles set out above may take the following form:

$$BM_{MS} = \frac{\sum_{\text{fuel} = i} (EF_i * P_{eli} / \eta_i)}{\sum_{\text{fuel} = i} P_{eli}}$$

With

$BM_{MS}$	Member State specific emission benchmark for electricity production
$i$	Fuel number
$EF_i$	Emission factor for fuel $i$
$P_{eli}$	Fuel-specific electricity production using fuel $i$
$\eta_i$	Fuel-specific efficiency for the production of electricity using fuel $i$ based on best available techniques

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<sup>4</sup>

OJ L 229, 31.8.2007, p.1.



## ANNEX II

### Determination of the relevant electricity production data

The relevant electricity production data of eligible installations for the purpose of Article 2(3) of this Decision is determined as follows:

The following concepts are used:

$rEIP_{FAIel}$  relevant electricity production for an installation eligible for transitional free allocation of emission allowances under Article 10c of Directive 2003/87/EC in a given Member State

$C_{el}$  Installed electrical capacity of an installation eligible for transitional free allocation of emission allowances under Article 10c of Directive 2003/87/EC in a given Member State or electrical design capacity of an installations not in operation, but with physically initiated investment process by 31 December 2008 and eligible for transitional free allocation of emission allowances under Article 10c of that Directive in a given Member State

LF Load factor in hours per year in accordance with the table below

Load factor in hours  
per year

1000

2000

3000

4000

5000

6000

7000

For each installation eligible for transitional free allocation of emission allowances under Article 10c of Directive 2003/87/EC in a given Member State, the following formula determines the relevant electricity production for the purpose of Article 2(2) of this Decision:

$$rEIP_{FAIel} = C_{el} * LF$$

If an installation operates more than one technical unit for electricity production, the installed electrical capacity or electrical design capacity and the load factor in hours per year should be determined for each unit separately.

## ANNEX IIA

Formula to determine emissions attributable to the production of electricity in the case of combined production of electricity and heat

$$Em_{total,el} = Em_{CHP} \cdot \frac{(\eta_{el} / \eta_{ref,el})}{(\eta_{el} / \eta_{ref,el} + \eta_{heat} / \eta_{ref,heat})}$$

$Em_{total,el}$  Annual emissions attributable to the annual production of electricity in the case of combined production of electricity and heat

$Em_{CHP}$  Total annual verified emissions from the combined production of electricity and heat in CHP installations

$\eta_{el}$  Efficiency of electricity production

$\eta_{ref,el}$  Appropriate reference value for efficiency of electricity production pursuant to Commission Decision 2007/74/EC (OJ L32 of 6.2.2007, p. 183)

$\eta_{heat}$  Efficiency of heat production

$\eta_{ref,heat}$  Appropriate reference value for efficiency of heat production pursuant to Commission Decision 2007/74/EC (OJ L32 of 6.2.2007, p. 183)

The efficiency of electricity or heat production is determined by dividing the respective output in terms of electricity and heat (expressed as terajoules) of the relevant installation by the fuel consumption (expressed as terajoules).

All values, with the exception of the reference values for efficiency of electricity and heat production pursuant to Commission Decision 2007/74/EC are calculated on the basis of annual average figures from 2005 to 2007.

### ANNEX III

Determination of the correction factor referred to in Article 4

The correction factor for the year 2013 shall be determined as follows:

CF	=	$TQFA_{13} / All_{BM, VE05-07}$
CF		Correction factor
$TQFA_{13}$		total quantity of free emission allowances available in 2013
$All_{BM, VE05-07}$		Quantity of free emission allowances allocated pursuant to Article 2 and 3