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TRADING MARKET EMISSIONS VADEMECUM OF GME'S

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TRADING MARKET EMISSIONS VADEMECUM OF GME'S

Introduction

Today, the challenges of climate change and environmental protection can no longer be neglected by human society, but must be tackled resolutely in order to ensure the improvement of life quality. Energy and environmental efforts to radically reduce greenhouse gas emissions should thus be among the priorities of both national and local governments. In particular, the growing energy demand, the relatively scarce availability of resources and the environmental impact of human activities make it imperative to undertake courageous initiatives and policies, aimed at rationalising energy consumption, utilising resources more efficiently and saving energy. However, to be successfully implemented, these actions should seek the widest possible involvement of citizens, institutions and the entire business community.

GME (Gestore del Mercato Elettrico SpA) started moving in this direction a long time ago, by organising and managing market platforms which are targeted at fostering sustainable economic development through the trading of environmental sustainability instruments.

In addition to managing the Italian Power Exchange (IPEX), GME organises and manages the so-called "Environmental Markets", i.e. the Green Certificates Market (Green Certificates give evidence of power generation from renewables) and the Energy Efficiency Certificates Market (Energy Efficiency Certificates or "White Certificates" give evidence of the reduction of energy consumption attained through energy savings and energy efficiency gains). To these markets, GME added a novel market: the first Italian electronic platform for the trading of greenhouse gas emission units. GME's Italian Emissions Trading Market will contribute to developing the European market of emission rights, as per Directive 2003/87/EC, so as to achieve the Kyoto Protocol emission reduction targets.

This **Vademecum of GME's Emissions Trading Market** is intended to provide the background scenario for GME's activity and, at the same time, a straightforward and comprehensive tool for understanding the market and its advantages for operators.

Salvatore Zecchini President Gestore del Mercato Elettrico S.p.A. Sergio Agosta Chief Executive Officer Gestore del Mercato Elettrico S.p.A.

TRADING MARKET EMISSIONS VADEMECUM OF GME'S

GME'S EMISSIONS TRADING MARKET

The Greenhouse Effect

The greenhouse effect is one of the phenomena whereby some gases naturally present in the atmosphere (e.g. water vapour, carbon dioxide, ozone and methane) warm our planet. Greenhouse gases (GHGs) act as a transparent glass wall, which enables sunlight to filter through the atmosphere and prevents the heat emitted in turn by the Earth's surface from escaping into space. This process makes the Earth and the lower layers of the atmosphere warmer.

Over time, the use of fossil fuels, the growth of the world's population and the process of industrialisation have caused anthropogenic emissions of GHGs to grow progressively, increasing their concentration in the atmosphere.

The International Panel on Climate Change (IPCC) and the majority of scientists now agree that the higher concentration of GHGs, producing an abnormal increase in the Earth's temperature, is the causal factor of global climate change.

If efforts are not undertaken to significantly cut emissions of CO_2 and of other GHGs, the Earth will inevitably undergo climate change, undermining the quality of life of future generations.



The United Nations Framework Convention on Climate Change

To respond to this emergency, the first worldwide United Nations (UN) Conference on Environment and Development - dedicated to the Earth and its future - was held in Rio de Janeiro in 1992.

During the Conference, delegates from 150 countries approved the UN Framework Convention on Climate Change (UNFCCC). The Convention, adopted in New York on 9 May, was opened for signature during the Earth Summit held in Rio in June 1992.

The UNFCCC, signed in Rio by 154 countries and by the European Union (EU), entered into force on 21 March 1994. It was the first international co-operation initiative aimed at mitigating the effects of GHGs. The Convention sets a target for stabilisation of GHG concentrations to protect the climate system and promotes national and international efforts for achieving this target. The industrialised countries made commitments - albeit non-binding - to stabilise GHG emissions at 1990 levels by 2000. In addition to laying down general principles, the Convention opened a factual dialogue between the signatory countries ("Parties") about the most appropriate measures to combat climate change through periodical meetings, called Conferences of the Parties (COPs).

To give more impetus to climate change policies and spur the governments of industrialised countries to take more operational actions, the Third Conference of the Parties (COP3), held in Kyoto in December 1997, approved the Kyoto Protocol.

The Kyoto Protocol

The Kyoto Protocol is an international treaty which binds the countries listed in Annex I (industrialised countries and economies in transition) to the UNFCCC to reduce their overall GHG emissions by 5.2% from their 1990 levels in the 2008-2012 period.

The Protocol came into force on 16 February 2005, after it was ratified by a number of signatory countries of the UNFCCC accounting for at least 55% of global emissions 1990. This condition was fulfilled by the ratification of Russia.

The overall reduction target was shared in a different manner among the signatory countries of the UNFCCC. Under the Kyoto Protocol, the EU committed itself to reducing its emissions by 8%. The meeting of the Council of EU Environment Ministers, held on 17 June 1998, translated this target into individual Member States' emission reduction targets under the *burden sharing agreement*. Italy was required to curb emissions by 6.5% from 1990 levels in the 2008-2012 period.

Considering that any emission reduction is effective regardless of the place where it occurs and with a view to facilitating compliance with its targets, the Kyoto Protocol introduced some instruments, known as flexibility mechanisms. These mechanisms, which are supplemental to domestic action, are as follows:

 Clean Development Mechanism - CDM (art. 12 of the Protocol): under this co-operation mechanism, the countries or companies that implement clean technology projects in developing countries receive emission credits; these credits, which are equal to the reductions obtained with respect to those obtainable without such projects, are defined as Certified Emissions Reductions (CERs);

• *Joint Implementation* - JI (art. 6 of the Protocol): mechanism of cooperation between industrialised countries and countries with economies in transition in view of achieving their respective emission reduction targets. Similarly to CDM, JI makes it possible to earn emission credits from investments in clean technologies in countries with economies in transition. These credits are defined as Emissions Reduction Units (ERUs);

• *Emissions Trading* - ET (art. 17 of the Protocol): this mechanism enables the signatory countries to comply with their emission reduction obligations by buying or selling pollution permits from/to other countries. In other words, interested parties may sell and/or purchase permits when their emissions lie below or above their assigned shares. The emission permits are defined as *Assigned Amount Units* (AAUs).

It is worth stressing that emission abatement - obtained by improving technologies in energy production and industrial processes, by applying efficiency criteria in the use of energy and by resorting to renewables (wind, sun, etc.) - plays a vital role in the struggle against climate change.

Legislation on Emissions Trading: Directive 2003/87/EC

On 13 October 2003, the European Parliament and the Council approved Directive 2003/87/EC.

The Directive established a scheme for GHG emission allowance trading within the Community, beginning on 1 January 2005. The scheme, called EU *Emissions Trading Scheme* (EU ETS), was introduced to promote reductions of GHG emissions "in a cost-effective and economically efficient manner" (art. 1).

The EU ETS is a cap-&-trade system, which sets a maximum limit (cap) on the emissions released by industrial installations that produce GHGs; the cap is set by allocating a given number of emission units to each installation falling under the categories listed in the Directive. Each unit (*European*

Unit Allowance – EUA) represents the right to release one tonne of carbon dioxide-equivalent into the atmosphere, during the reference year of the same unit. The units are allocated to the installations covered by the EU ETS Directive through National Allocation Plans (NAPs).

With regard to the management of emission units, the EU ETS involves a first phase of implementation (2005-2007) and a second phase coinciding with the first Kyoto Protocol compliance period (2008-2012). In each phase, each Member State must develop a NAP (art. 9) stating the total number of units that it intends to allocate to the main sectors of the economy and the related modalities of allocation. In the first phase, Member States must allocate at least 95% of emission units free of charge, whereas in the subsequent five-year period (2008-2012) they must allocate at least 90% of the overall units free of charge.

From 1 January 2005, the installations falling under the categories of activities identified in the Directive (Annex I – energy activities, iron and steel production and processing, the mineral industry and the wood pulp, paper and card industry) may carry out their activities only if they are in possession of an appropriate permit issued by the Competent Authority.

Every year, the Competent Authority grants a permit – under articles 5, 6 and 7 - to emit GHGs from all or part of an installation, if it is satisfied that the operator is capable of monitoring and reporting emissions; a single permit may cover one or more installations on the same site operated by the same operator.

Within 30 April of each year beginning in 2006, operators of installations subject to the obligation are held to surrender of a number of units equal to the total emissions from their installations in the previous year. Any surplus of units, i.e. the positive difference between allocated units and actual emissions, may be "banked" or sold in the market by the end of the reference period, whereas any deficit of units may be covered by buying the permits.

Failure to surrender the units will result into a financial penalty (art. 16) equal to Euro 40/unit for the 2005-2007 period and increasing to Euro 100/unit in the following five-year period; payment of the penalty will not release the installation operator from the obligation to surrender the due number of units.

Finally, the Directive stipulates that Member States must ensure the free movement of emission units within the EU, thereby favouring the development of the European market of emission rights.

Activities	GHGs
Energy activities	
Combustion installations with a rated thermal input exceeding 20 MW (except hazardous or municipal waste installations)	Carbon dioxide
Mineral oil refineries	Carbon dioxide
Coke ovense	Carbon dioxide
Production and processing of ferrous metals	
Metal ore (including sulphide ore) roasting or sintering installations	Carbon dioxide
Installations for the production of pig iron or steel (primary or secon- dary fusion) including continuous casting, with a capacity exceeding 2,5 tonnes per hour	Carbon dioxide
Mineral industry	
Installations for the production of cement clinker in rotary kilns with a production capacity exceeding 500 tonnes per day or lime in rotary kilns with a production capacity exceeding 50 tonnes per day or in other furnaces with a production capacity exceeding 50 tonnes per day	Carbon dioxide
Installations for the manufacture of glass including glass fibre with a melting capacity exceeding 20 tonnes per day	Carbon dioxide
Installations for the manufacture of ceramic products by firing, in particular roofing tiles, bricks, refractory bricks, tiles, stoneware or porcelain, with a production capacity exceeding 75 tonnes per day, and/or with a kiln capacity exceeding 4 m ³ and with a setting density per kiln exceeding 300 kg/m ³	Carbon dioxide
Other activities	
Industrial plants for the production of a) pulp from timber or other fibrous materials	Carbon dioxide
b) paper and board with a production capacity exceeding 20 tonnes per day	Carbon dioxide

National Allocation Plan

In Annex III of the Directive, the Commission set out criteria for the preparation of the National Allocation Plan.

The decision-making process is entrusted to the Competent Authority. In drawing up the NAP, the Competent Authority will ensure that the quantity of allocated units is consistent with the Kyoto Protocol obligations.

The first step in the preparation of the NAP is the determination of the total number of emission units to be allocated at national level. This amount will then be shared among the various industrial sectors covered by the Directive.

After determining the amount of emission units to be allocated to the individual sectors, the quantity to be allocated to each installation will be determined by adopting different criteria for the different sectors.

The 2008-2012 NAP was submitted to the approval of the European Commission in December 2006.

The total number of units to be allocated to existing installations for the 2008-2012 period was calculated by applying the methodology indicated by the European Commission to latest available data. The quantity of allocated units, expressed in MtCO₂, is shown in the following table. The methodology relies on the assumption that the weight of emissions from the EU ETS sectors in total national emissions and the weight of emissions from non-EU ETS sectors in total national emissions remain constant in the 2005-2012 period. The methodology also supposes that the two macro sectors have the same emission reduction potential, taking into account: i) the yearly average allocation of CO_2 units approved by the European Commission for the first period; ii) the weights of the EU ETS sectors in terms of emissions; iii) the distance from the Kyoto targets; and iv) the reduction efforts that the covered sectors are required to undertake.

Proposed Italian NAP - 2008-2012

Year	2008	2009	2010	2011	2012
Total units to be allocated	206.72	198.47	191.41	179.72	177.38

Unit of measurement: million tonnes of CO_2 Source: PNA nazionale 2008-2012.



The major difference vs. the 2005-2007 NAP lies in the sectors of thermal generation and refineries. In particular, the proposed new allocation passed from 131.06 MtCO₂/yr to 100.66 MtCO₂/yr for thermal generation and from 23.76 MtCO₂/yr to 120.06 MtCO₂/yr for refineries. The following table shows the differences between the two plans in terms of allocations to the existing sectors.

Yearly Aver	age Allocations	by .	Activity
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Energy Activities	2005-2007 Allocation	Proposed 2008-2012 Allocation
Thermoelectric (CHP and non-CHP)	131.6	100.66
Other combustion activities	14.9	14.52
District heating	0.23	0.23
Refineries	23.76	20.06
Gas pipeline compressors	0.88	0.88
Other	13.78	13.41

Unit of measurement: million tonnes of CO₂

Source: PNA nazionali 2005-2007 e 2008-2012

At the end of each year, the operator must report to the Competent Authority the GHG emissions released by the installation in the current year. These reports must conform to the emission monitoring & reporting guidelines that the Commission adopted under the criteria stated in Annex IV to the Directive.

Then, the operator's report will be verified on the basis of the principles laid down in Annex V of the Directive. The verification has the purpose of checking whether the operator's monitoring system and reported data and information are reliable, credible and accurate. If the verification indicates that the report does not meet the criteria referred to in the Annex, then the operator involved may transfer emissions units only after submitting a report meeting such criteria.

National Registry of Emission Units

The units allocated to each installation are entered into a National Registry. The Registry is a standardised and secured database, accounting for the issuance, transfer, surrender and cancellation of units. The national Competent Authority, established at the Ministry of Environment, is in charge of these activities.

At European level, the National Registries of the 27 Member States of the EU are interlinked via a central registry, called *Community Independent*

Transaction Log (CITL), with a view to avoiding irregularities and ensuring the consistency of transactions with the Kyoto Protocol obligations. The CITL checks every transfer of units automatically, so as to ensure compliance with the EU ETS Directive.

Under the system, the Competent Authority will open an account in the National Registry for each operator of the installations covered by the EU ETS. The units that are allocated to the installation under the NAP are deposited on this account. The Registry enables the account holder to transfer the units to other accounts, both nationally and internationally.

In addition to installations subject to reduction obligations, any individual or organisation wishing to buy or sell units in the market may open an account in the Registry.

The Registry is managed by a Registry Administrator appointed by the Competent Authority. The Administrator carries out all the necessary administrative tasks and is in charge of the operational management of the Registry. The Italian Ministry of Environment appointed APAT (Italian agency for environmental protection and technical services) as the Administrator of the Italian National Registry of emission units.

The Italian Registry runs on the software system called *Greenhouse Gas Registry for Emissions Trading Arrangements* (GRETA). GRETA is an information system for managing the registry of emissions that Italy adopted under arrangements made between the DEFRA (*Department for Environment, Food and Rural Affairs*, British Ministry of Environment) and the Italian Ministry of Environment.



Yearly EU ETS Cycle

The Linking Directive

The EU stressed the need for promoting the Kyoto Protocol flexibility mechanisms - Joint Implementation (JI) and Clean Development Mechanism (CDM) - within the EU ETS. Recalling that such mechanisms are "desirable and important to achieve the goals of both reducing global greenhouse gas emissions and increasing the cost-effective functioning of the Community scheme" and that they are supplemental to domestic action, the EU established that "the emission credits from the projectbased mechanisms will be recognised for their use in this scheme subject to provisions adopted by the European Parliament and the Council on a proposal from the Commission, which should apply in parallel with the Community scheme in 2005" (art. 30 of Directive 2003/87/EC).

To create a link between the flexibility mechanisms and the EU ETS and provide companies with a wide range of compliance choices, the European Parliament and the Council approved Directive 2004/101/EC (the so-called *Linking Directive*) on 27 October 2004.

The Linking Directive recognised the flexibility mechanisms of the Kyoto Protocol – CDM and JI – within the EU ETS, stipulating that the emission credits earned from the implementation of such projects may be used for complying with emission reduction obligations.

Therefore, the NAP will specify the percentage of the emission reduction obligation that operators will be authorised to fulfil by using the CERs and ERUs.

The Organisation of GME's Emissions Trading Market

To enable GHG emission units (EUAs) to be traded, GME set up an appropriate market, consisting of an electronic platform that may be accessed via a secure Internet connection.

In this market, emission units may be traded continuously and with spot delivery. The market is organised into daily sessions, from 9:00 to 16:00 on all working days.

Any operator having an emission unit holding account with one of the European registries may participate in the market. To be admitted to the market, operators must submit a participation application and sign a participation agreement. In the agreement, operators must declare that they have understood and unconditionally accept to be bound by the Emissions Trading Market Rules. All the relevant documentation, including the rules, is posted on GME's website.

To ensure the functioning of the market mechanism and the security of transactions, GME has opened an emission unit holding account in the APAT Registry.

Operators admitted to GME's market and wishing to sell emission units are required to transfer them to GME's holding account.

The following chart displays the process of transfer of units to GME's holding account.



Operators wishing to buy emission units in the market are held to post an initial cash deposit to guarantee their market transactions. The amount of the deposit must be transferred to an appropriate bank account of GME. The details of this bank account are available on GME's website.

During the market sessions, the available deposit of each operator will be calculated in real time, by subtracting the value of the entered or concluded buy orders from the initial deposit and/or by adding the value of the concluded sell orders to such deposit. Buy orders not covered by the available deposit will instead be rejected for the entire proposed quantity. If the number of units available on the holding account of a given operator is not sufficient to cover a sell order entered by the same operator, the order will be rejected for the entire proposed quantity.

Buy and sell orders are listed in an order book. Each order book shows the best buy and sell orders, ranked by price and, in case of identical price, by time of receipt by GME's information system.

GME organises a different order book for each reference period ("Phase I 2005-2007" and "Phase II 2008-2012") of the emission units (EUAs) allocated under the NAPs. GME also plans to organise an order book for emissions credits (CERs and ERUs) obtained under the Kyoto Protocol flexibility mechanisms CDM and JI.

Operators enter their buy or sell orders by specifying:

- Type of unit (EUA Phase I, EUA Phase II, CERs)
- Type of transaction (buy or sell)

- Quantity

- Price (in case of order with price limit).

Operators may also submit buy or sell orders at "market price", by matching their orders with the best buy or sell orders available upon entry of their

orders into the order book. Trading orders that have not been automatically matched for their entire quantity may be changed or cancelled. If trading orders have been partially accepted, only the remaining part of the order may be changed or cancelled. However, the changed orders lose the time priority that they have acquired.

At the close of the session, all transactions concerning payments to the seller, transfer of emission units to the buyer's account and return of units that have remained unsold are managed by GME at the request of the operator. At the end of the sessions, operators will receive transaction confirmations.

GME will make payments to each selling operator by increasing the available deposit of the same operator and by decreasing the available deposit of the buying operator. The operator may at any time ask for refund of the available deposit – equal to the net amount between the initial deposit, the revenues from sales and the costs for purchases in the market; the available deposit will be transferred to the bank account specified by the operator upon registration. GME will make the bank transfer of the amount corresponding to the available deposit within two working days from the operator's request.

GME will manage the transfer of emission units: at the request of the operator, GME will transfer the units from GME's holding account to each operator's holding account in one of the interlinked registries. Operators' emission unit holding accounts are updated in real time upon the transfer transaction.

Invoicing for the amounts of the transactions made during the market sessions will take place between the counterparties (the data for invoicing will be reported in the transaction confirmations available at the close of the market).

GME will not manage VAT, as the VAT rate may vary depending on the type of operator and on the country where such operator trades.

For participation in the Emissions Trading Market, operators are required to pay fees GME. The amount of such fees is posted on GME's website.

Main European trading platforms

The main European trading platforms are:

- European Climate Exchange (ECX), based in the Netherlands;
- European Energy Exchange (EEX), based in Germany;
- NordPool, based in Norway;
- Powernext, based in France;
- Energy Exchange Austria (EXAA);
- Komodnita Burza Bratislava (KBB);
- Climex Alliance, resulting from the association of local operators, including New Values, SendeCO2, Amsterdam Power Exchange (APX) the APX Power UK, euets.com and STX Energy Services.

The products traded on the main European exchanges are shown in the following table:

Exchange	Start Date	Products
Nord Pool	11.02.2005	Spot, Futures, delivery 5 Dec 2007
EEX	09.03.2005	Spot, Futures
ECX	22.04.2005	Futures, delivery 5 Mar/5 Jun/5 Sep/5 Dec 2007; Mar/Dec 2008; Dec 2009-2012
Climex Alliance	22.06.2005	Spot
Powernext	24.06.2005	Spot
ΕΧΑΑ	28.06.2005	Spot
КВВ	27.12.2005	Spot

Main European Exchanges and Products Traded

Source: processing of data concerning the exchanges

TRADING MARKET EMISSIONS VADEMECUM OF GME'S

ADDENDUM RULES

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

(Text with EEA relevance)

THE EUROPEAN PARLIAMENT AND THE COUNCIL OF THE EUROPEAN UNION.

Having regard to the Treaty establishing the European Community, and in particular Article 175(1) thereof,

Having regard to the proposal from the Commission (1),

Having regard to the opinion of the European Economic and Social Committee (2),

Having regard to the opinion of the Committee of the Regions (3),

Acting in accordance with the procedure laid down in Article 251 of the Treaty (4),

Whereas:

- (1)The Green Paper on greenhouse gas emissions trading within the European Union launched a debate across Europe on the suitability and possible functioning of greenhouse gas emissions trading within the European Union. The European Climate Change Programme has considered Community policies and measures through a multi-stakeholder process, including a scheme for green-house gas emission allowance trading within the Community (the Community scheme) based on the Green Paper. In its Conclusions of 8 March 2001, the Council recognised the particular importance of the European Climate Change Programme and of work based on the Green Paper, and underlined the urgent need for concrete action at Community level.
- The Sixth Community Environment Action Programme (2)established by Decision No 1600/2002/EC of the European Parliament and of the Council (5) identifies climate change as a priority for action and provides for the establishment of a Community-wide emissions trading scheme by 2005. That Programme recognises that the Community is committed to achieving an 8 % reduction in emissions of greenhouse gases by 2008 to 2012 compared to 1990 levels, and that, in the longerterm, global emissions of greenhouse gases will need to be reduced by approximately 70 % compared to 1990 levels.

OJ C 75 E, 26.3.2002, p. 33.

The ultimate objective of the United Nations Framework (3) Convention on Climate Change, which was approved by Council Decision 94/69/EC of 15 December 1993 concerning the conclusion of the United Nations Framework Convention on Climate Change (6), is to achieve stabilisation of greenhouse gas concentrations in the atmosphere at a level which prevents dangerous anthropogenic interference with the climate system.

Once it enters into force, the Kyoto Protocol, which was (4)approved by Council Decision 2002/358/EC of 25 April 2002 concerning the approval, on behalf of the European Community, of the Kyoto Protocol to the United Nations Framework Convention on Climate Change and the joint fulfilment of commitments thereunder (7), will commit the Community and its Member States to reducing their aggregate anthropogenic emis-sions of greenhouse gases listed in Annex A to the Protocol by 8 % compared to 1990 levels in the period 2008 to 2012.

The Community and its Member States have agreed to (5) fulfil their commitments to reduce anthropogenic greenhouse gas emissions under the Kyoto Protocol jointly, in accordance with Decision 2002/358/EC. This Directive aims to contribute to fulfilling the commitments of the European Community and its Member States more effectively, through an efficient European market in greenhouse gas emission allowances, with the least possible diminution of economic development and employment.

Council Decision 93/389/EEC of 24 June 1993 for a (6)monitoring mechanism of Community CO₂ and other greenhouse gas emissions (8), established a mechanism for monitoring greenhouse gas emissions and evaluating progress towards meeting commitments in respect of these emissions. This mechanism will assist Member States in determining the total quantity of allowances to allocate.

Community provisions relating to allocation of allow-(7) ances by the Member States are necessary to contribute to preserving the integrity of the internal market and to avoid distortions of competition.

(*) OJ L 33, 7.2.1994, p. 11.
 (*) OJ L 130, 15.5.2002, p. 1.
 (*) OJ L 167, 9.7.1993, p. 31. Decision as amended by Decision 1999/296/EC (OJ L 117, 5.5.1999, p. 35).

⁽¹⁾ O) C / 5 E, 26.3.2002, p. 33.
(2) OJ C 221, 17.9.2002, p. 27.
(3) OJ C 192, 12.8.2002, p. 59.
(4) Opinion of the European Parliament of 10 October 2002 (not yet published in the Official Journal), Council Common Position of 18 March 2003 (OJ C 125 E, 27.5.2003, p. 72), Decision of the European Parliament of 2 July 2003 (not yet published in the Official Journal) and Council Decision of 22 July 2003.
(5) OJ L 242, 10.9.2002, p. 1.

- (8) Member States should have regard when allocating allowances to the potential for industrial process activities to reduce emissions.
- (9) Member States may provide that they only issue allowances valid for a five-year period beginning in 2008 to persons in respect of allowances cancelled, corresponding to emission reductions made by those persons on their national territory during a three-year period beginning in 2005.
- (10) Starting with the said five-year period, transfers of allowances to another Member State will involve corresponding adjustments of assigned amount units under the Kyoto Protocol.
- (11) Member States should ensure that the operators of certain specified activities hold a greenhouse gas emissions permit and that they monitor and report their emissions of greenhouse gases specified in relation to those activities.
- (12) Member States should lay down rules on penalties applicable to infringements of this Directive and ensure that they are implemented. Those penalties must be effective, proportionate and dissuasive.
- (13) In order to ensure transparency, the public should have access to information relating to the allocation of allowances and to the results of monitoring of emissions, subject only to restrictions provided for in Directive 2003/4/EC of the European Parliament and of the Council of 28 January 2003 on public access to environmental information ⁽¹⁾.
- (14) Member States should submit a report on the implementation of this Directive drawn up on the basis of Council Directive 91/692/EEC of 23 December 1991 standardising and rationalising reports on the implementation of certain Directives relating to the environment (²).
- (15) The inclusion of additional installations in the Community scheme should be in accordance with the provisions laid down in this Directive, and the coverage of the Community scheme may thereby be extended to emissions of greenhouse gases other than carbon dioxide, *inter alia* from aluminium and chemicals activities.
- (16) This Directive should not prevent any Member State from maintaining or establishing national trading schemes regulating emissions of greenhouse gases from activities other than those listed in Annex I or included in the Community scheme, or from installations temporarily excluded from the Community scheme.

(¹) OJ L 41, 14.2.2003, p. 26. (²) OJ L 377, 31.12.1991, p. 48.

- (17) Member States may participate in international emissions trading as Parties to the Kyoto Protocol with any other Party included in Annex B thereto.
- (18) Linking the Community scheme to greenhouse gas emission trading schemes in third countries will increase the cost-effectiveness of achieving the Community emission reductions target as laid down in Decision 2002/358/EC on the joint fulfilment of commitments.
- (19) Project-based mechanisms including Joint Implementation (JI) and the Clean Development Mechanism (CDM) are important to achieve the goals of both reducing global greenhouse gas emissions and increasing the costeffective functioning of the Community scheme. In accordance with the relevant provisions of the Kyoto Protocol and Marrakech Accords, the use of the mechanisms should be supplemental to domestic action and domestic action will thus constitute a significant element of the effort made.
- (20) This Directive will encourage the use of more energyefficient technologies, including combined heat and power technology, producing less emissions per unit of output, while the future directive of the European Parliament and of the Council on the promotion of cogeneration based on useful heat demand in the internal energy market will specifically promote combined heat and power technology.
- (21) Council Directive 96/61/EC of 24 September 1996 concerning integrated pollution prevention and control (³) establishes a general framework for pollution prevention and control, through which greenhouse gas emissions permits may be issued. Directive 96/61/EC should be amended to ensure that emission limit values are not set for direct emissions of greenhouse gases from an installation subject to this Directive and that Member States may choose not to impose requirements relating to energy efficiency in respect of combustion units or other units emitting carbon dioxide on the site, without prejudice to any other requirements pursuant to Directive 96/61/EC.
- (22) This Directive is compatible with the United Nations Framework Convention on Climate Change and the Kyoto Protocol. It should be reviewed in the light of developments in that context and to take into account experience in its implementation and progress achieved in monitoring of emissions of greenhouse gases.

(³) OJ L 257, 10.10.1996, p. 26.

- (23) Emission allowance trading should form part of a comprehensive and coherent package of policies and measures implemented at Member State and Community level. Without prejudice to the application of Articles 87 and 88 of the Treaty, where activities are covered by the Community scheme, Member States may consider the implications of regulatory, fiscal or other policies that pursue the same objectives. The review of the Directive should consider the extent to which these objectives have been attained.
- (24) The instrument of taxation can be a national policy to limit emissions from installations temporarily excluded.
- (25) Policies and measures should be implemented at Member State and Community level across all sectors of the European Union economy, and not only within the industry and energy sectors, in order to generate substantial emissions reductions. The Commission should, in particular, consider policies and measures at Community level in order that the transport sector makes a substantial contribution to the Community and its Member States meeting their climate change obligations under the Kyoto Protocol.
- (26) Notwithstanding the multifaceted potential of marketbased mechanisms, the European Union strategy for climate change mitigation should be built on a balance between the Community scheme and other types of Community, domestic and international action.
- (27) This Directive respects the fundamental rights and observes the principles recognised in particular by the Charter of Fundamental Rights of the European Union.
- (28) The measures necessary for the implementation of this Directive should be adopted in accordance with Council Decision 1999/468/EC of 28 June 1999 laying down the procedures for the exercise of implementing powers conferred on the Commission (¹).
- (29) As the criteria (1), (5) and (7) of Annex III cannot be amended through comitology, amendments in respect of periods after 2012 should only be made through codecision.
- (30) Since the objective of the proposed action, the establishment of a Community scheme, cannot be sufficiently achieved by the Member States acting individually, and can therefore by reason of the scale and effects of the proposed action be better achieved at Community level, the Community may adopt measures, in accordance with the principle of subsidiarity as set out in Article 5 of the Treaty. In accordance with the principle of proportion-

(¹) OJ L 184, 17.7.1999, p. 23.

ality, as set out in that Article, this Directive does not go beyond what is necessary in order to achieve that objective,

HAVE ADOPTED THIS DIRECTIVE:

Article 1

Subject matter

This Directive establishes a scheme for greenhouse gas emission allowance trading within the Community (hereinafter referred to as the 'Community scheme') in order to promote reductions of greenhouse gas emissions in a cost-effective and economically efficient manner.

Article 2

Scope

1. This Directive shall apply to emissions from the activities listed in Annex I and greenhouse gases listed in Annex II.

2. This Directive shall apply without prejudice to any requirements pursuant to Directive 96/61/EC.

Article 3

Definitions

For the purposes of this Directive the following definitions shall apply:

- (a) 'allowance' means an allowance to emit one tonne of carbon dioxide equivalent during a specified period, which shall be valid only for the purposes of meeting the requirements of this Directive and shall be transferable in accordance with the provisions of this Directive;
- (b) 'emissions' means the release of greenhouse gases into the atmosphere from sources in an installation;
- (c) 'greenhouse gases' means the gases listed in Annex II;
- (d) 'greenhouse gas emissions permit' means the permit issued in accordance with Articles 5 and 6;
- (e) 'installation' means a stationary technical unit where one or more activities listed in Annex I are carried out and any other directly associated activities which have a technical connection with the activities carried out on that site and which could have an effect on emissions and pollution;
- (f) 'operator' means any person who operates or controls an installation or, where this is provided for in national legislation, to whom decisive economic power over the technical functioning of the installation has been delegated;
- (g) 'person' means any natural or legal person;

(h) 'new entrant' means any installation carrying out one or more of the activities indicated in Annex I, which has obtained a greenhouse gas emissions permit or an update of its greenhouse gas emissions permit because of a change in the nature or functioning or an extension of the installation, subsequent to the notification to the Commission of the national allocation plan;

- (i) 'the public' means one or more persons and, in accordance with national legislation or practice, associations, organisations or groups of persons;
- (j) 'tonne of carbon dioxide equivalent' means one metric tonne of carbon dioxide (CO₂) or an amount of any other greenhouse gas listed in Annex II with an equivalent global-warming potential.

Article 4

Greenhouse gas emissions permits

Member States shall ensure that, from 1 January 2005, no installation undertakes any activity listed in Annex I resulting in emissions specified in relation to that activity unless its operator holds a permit issued by a competent authority in accordance with Articles 5 and 6, or the installation is temporarily excluded from the Community scheme pursuant to Article 27.

Article 5

Applications for greenhouse gas emissions permits

An application to the competent authority for a greenhouse gas emissions permit shall include a description of:

- (a) the installation and its activities including the technology used;
- (b) the raw and auxiliary materials, the use of which is likely to lead to emissions of gases listed in Annex I;
- (c) the sources of emissions of gases listed in Annex I from the installation; and
- (d) the measures planned to monitor and report emissions in accordance with the guidelines adopted pursuant to Article 14.

The application shall also include a non-technical summary of the details referred to in the first subparagraph.

Article 6

Conditions for and contents of the greenhouse gas emissions permit

1. The competent authority shall issue a greenhouse gas emissions permit granting authorisation to emit greenhouse gases from all or part of an installation if it is satisfied that the operator is capable of monitoring and reporting emissions. A greenhouse gas emissions permit may cover one or more installations on the same site operated by the same operator.

2. Greenhouse gas emissions permits shall contain the following:

- (a) the name and address of the operator;
- (b) a description of the activities and emissions from the installation;
- (c) monitoring requirements, specifying monitoring methodology and frequency;
- (d) reporting requirements; and
- (e) an obligation to surrender allowances equal to the total emissions of the installation in each calendar year, as verified in accordance with Article 15, within four months following the end of that year.

Article 7

Changes relating to installations

The operator shall inform the competent authority of any changes planned in the nature or functioning, or an extension, of the installation which may require updating of the greenhouse gas emissions permit. Where appropriate, the competent authority shall update the permit. Where there is a change in the identity of the installation's operator, the competent authority shall update the permit to include the name and address of the new operator.

Article 8

Coordination with Directive 96/61/EC

Member States shall take the necessary measures to ensure that, where installations carry out activities that are included in Annex I to Directive 96/61/EC, the conditions of, and procedure for, the issue of a greenhouse gas emissions permit are coordinated with those for the permit provided for in that Directive. The requirements of Articles 5, 6 and 7 of this Directive may be integrated into the procedures provided for in Directive 96/61/EC.

Article 9

National allocation plan

1. For each period referred to in Article 11(1) and (2), each Member State shall develop a national plan stating the total quantity of allowances that it intends to allocate for that period and how it proposes to allocate them. The plan shall be based on objective and transparent criteria, including those listed in Annex III, taking due account of comments from the public. The Commission shall, without prejudice to the Treaty, by 31 December 2003 at the latest develop guidance on the implementation of the criteria listed in Annex III.

For the period referred to in Article 11(1), the plan shall be published and notified to the Commission and to the other Member States by 31 March 2004 at the latest. For subsequent periods, the plan shall be published and notified to the Commission and to the other Member States at least 18 months before the beginning of the relevant period.

2. National allocation plans shall be considered within the committee referred to in Article 23(1).

3. Within three months of notification of a national allocation plan by a Member State under paragraph 1, the Commission may reject that plan, or any aspect thereof, on the basis that it is incompatible with the criteria listed in Annex III or with Article 10. The Member State shall only take a decision under Article 11(1) or (2) if proposed amendments are accepted by the Commission. Reasons shall be given for any rejection decision by the Commission.

Article 10

Method of allocation

For the three-year period beginning 1 January 2005 Member States shall allocate at least 95% of the allowances free of charge. For the five-year period beginning 1 January 2008, Member States shall allocate at least 90% of the allowances free of charge.

Article 11

Allocation and issue of allowances

1. For the three-year period beginning 1 January 2005, each Member State shall decide upon the total quantity of allowances it will allocate for that period and the allocation of those allowances to the operator of each installation. This decision shall be taken at least three months before the beginning of the period and be based on its national allocation plan developed pursuant to Article 9 and in accordance with Article 10, taking due account of comments from the public.

2. For the five-year period beginning 1 January 2008, and for each subsequent five-year period, each Member State shall decide upon the total quantity of allowances it will allocate for that period and initiate the process for the allocation of those allowances to the operator of each installation. This decision shall be taken at least 12 months before the beginning of the relevant period and be based on the Member State's national allocation plan developed pursuant to Article 9 and in accordance with Article 10, taking due account of comments from the public.

3. Decisions taken pursuant to paragraph 1 or 2 shall be in accordance with the requirements of the Treaty, in particular Articles 87 and 88 thereof. When deciding upon allocation, Member States shall take into account the need to provide access to allowances for new entrants.

4. The competent authority shall issue a proportion of the total quantity of allowances each year of the period referred to in paragraph 1 or 2, by 28 February of that year.

Article 12

Transfer, surrender and cancellation of allowances

1. Member States shall ensure that allowances can be transferred between:

(a) persons within the Community;

(b) persons within the Community and persons in third countries, where such allowances are recognised in accordance with the procedure referred to in Article 25 without restrictions other than those contained in, or adopted pursuant to, this Directive.

2. Member States shall ensure that allowances issued by a competent authority of another Member State are recognised for the purpose of meeting an operator's obligations under paragraph 3.

3. Member States shall ensure that, by 30 April each year at the latest, the operator of each installation surrenders a number of allowances equal to the total emissions from that installation during the preceding calendar year as verified in accordance with Article 15, and that these are subsequently cancelled.

4. Member States shall take the necessary steps to ensure that allowances will be cancelled at any time at the request of the person holding them.

Article 13

Validity of allowances

1. Allowances shall be valid for emissions during the period referred to in Article 11(1) or (2) for which they are issued.

2. Four months after the beginning of the first five-year period referred to in Article 11(2), allowances which are no longer valid and have not been surrendered and cancelled in accordance with Article 12(3) shall be cancelled by the competent authority.

Member States may issue allowances to persons for the current period to replace any allowances held by them which are cancelled in accordance with the first subparagraph.

3. Four months after the beginning of each subsequent fiveyear period referred to in Article 11(2), allowances which are no longer valid and have not been surrendered and cancelled in accordance with Article 12(3) shall be cancelled by the competent authority.

Member States shall issue allowances to persons for the current period to replace any allowances held by them which are cancelled in accordance with the first subparagraph.

Article 14

Guidelines for monitoring and reporting of emissions

1. The Commission shall adopt guidelines for monitoring and reporting of emissions resulting from the activities listed in Annex I of greenhouse gases specified in relation to those activities, in accordance with the procedure referred to in Article 23(2), by 30 September 2003. The guidelines shall be based on the principles for monitoring and reporting set out in Annex IV.

2. Member States shall ensure that emissions are monitored in accordance with the guidelines.

3. Member States shall ensure that each operator of an installation reports the emissions from that installation during each calendar year to the competent authority after the end of that year in accordance with the guidelines.

Article 15

Verification

Member States shall ensure that the reports submitted by operators pursuant to Article 14(3) are verified in accordance with the criteria set out in Annex V, and that the competent authority is informed thereof.

Member States shall ensure that an operator whose report has not been verified as satisfactory in accordance with the criteria set out in Annex V by 31 March each year for emissions during the preceding year cannot make further transfers of allowances until a report from that operator has been verified as satisfactory.

Article 16

Penalties

1. Member States shall lay down the rules on penalties applicable to infringements of the national provisions adopted pursuant to this Directive and shall take all measures necessary to ensure that such rules are implemented. The penalties provided for must be effective, proportionate and dissuasive. Member States shall notify these provisions to the Commission by 31 December 2003 at the latest, and shall notify it without delay of any subsequent amendment affecting them.

2. Member States shall ensure publication of the names of operators who are in breach of requirements to surrender sufficient allowances under Article 12(3).

3. Member States shall ensure that any operator who does not surrender sufficient allowances by 30 April of each year to cover its emissions during the preceding year shall be held

liable for the payment of an excess emissions penalty. The excess emissions penalty shall be EUR 100 for each tonne of carbon dioxide equivalent emitted by that installation for which the operator has not surrendered allowances. Payment of the excess emissions penalty shall not release the operator from the obligation to surrender an amount of allowances equal to those excess emissions when surrendering allowances in relation to the following calendar year.

4. During the three-year period beginning 1 January 2005, Member States shall apply a lower excess emissions penalty of EUR 40 for each tonne of carbon dioxide equivalent emitted by that installation for which the operator has not surrendered allowances. Payment of the excess emissions penalty shall not release the operator from the obligation to surrender an amount of allowances equal to those excess emissions when surrendering allowances in relation to the following calendar year.

Article 17

Access to information

Decisions relating to the allocation of allowances and the reports of emissions required under the greenhouse gas emissions permit and held by the competent authority shall be made available to the public by that authority subject to the restrictions laid down in Article 3(3) and Article 4 of Directive 2003/4/EC.

Article 18

Competent authority

Member States shall make the appropriate administrative arrangements, including the designation of the appropriate competent authority or authorities, for the implementation of the rules of this Directive. Where more than one competent authority is designated, the work of these authorities undertaken pursuant to this Directive must be coordinated.

Article 19

Registries

1. Member States shall provide for the establishment and maintenance of a registry in order to ensure the accurate accounting of the issue, holding, transfer and cancellation of allowances. Member States may maintain their registries in a consolidated system, together with one or more other Member States.

2. Any person may hold allowances. The registry shall be accessible to the public and shall contain separate accounts to record the allowances held by each person to whom and from whom allowances are issued or transferred.

3. In order to implement this Directive, the Commission shall adopt a Regulation in accordance with the procedure referred to in Article 23(2) for a standardised and secured system of registries in the form of standardised electronic databases containing common data elements to track the issue, holding, transfer and cancellation of allowances, to provide for public access and confidentiality as appropriate and to ensure that there are no transfers incompatible with obligations resulting from the Kyoto Protocol.

Article 20

Central Administrator

1. The Commission shall designate a Central Administrator to maintain an independent transaction log recording the issue, transfer and cancellation of allowances.

2. The Central Administrator shall conduct an automated check on each transaction in registries through the independent transaction log to ensure there are no irregularities in the issue, transfer and cancellation of allowances.

3. If irregularities are identified through the automated check, the Central Administrator shall inform the Member State or Member States concerned who shall not register the transactions in question or any further transactions relating to the allowances concerned until the irregularities have been resolved.

Article 21

Reporting by Member States

1. Each year the Member States shall submit to the Commission a report on the application of this Directive. This report shall pay particular attention to the arrangements for the allocation of allowances, the operation of registries, the application of the monitoring and reporting guidelines, verification and issues relating to compliance with the Directive and on the fiscal treatment of allowances, if any. The first report shall be sent to the Commission by 30 June 2005. The report shall be drawn up on the basis of a questionnaire or outline drafted by the Commission in accordance with the procedure laid down in Article 6 of Directive 91/692/EEC. The questionnaire or outline shall be sent to Member States at least six months before the deadline for the submission of the first report.

2. On the basis of the reports referred to in paragraph 1, the Commission shall publish a report on the application of this Directive within three months of receiving the reports from the Member States.

3. The Commission shall organise an exchange of information between the competent authorities of the Member States concerning developments relating to issues of allocation, the operation of registries, monitoring, reporting, verification and compliance.

Article 22

Amendments to Annex III

The Commission may amend Annex III, with the exception of criteria (1), (5) and (7), for the period from 2008 to 2012 in the light of the reports provided for in Article 21 and of the experience of the application of this Directive, in accordance with the procedure referred to in Article 23(2).

Article 23

Committee

1. The Commission shall be assisted by the committee instituted by Article 8 of Decision 93/389/EEC.

2. Where reference is made to this paragraph, Articles 5 and 7 of Decision 1999/468/EC shall apply, having regard to the provisions of Article 8 thereof.

The period laid down in Article 5(6) of Decision 1999/468/EC shall be set at three months.

3. The Committee shall adopt its rules of procedure.

Article 24

Procedures for unilateral inclusion of additional activities and gases

1. From 2008, Member States may apply emission allowance trading in accordance with this Directive to activities, installations and greenhouse gases which are not listed in Annex I, provided that inclusion of such activities, installations and greenhouse gases is approved by the Commission in accordance with the procedure referred to in Article 23(2), taking into account all relevant criteria, in particular effects on the internal market, potential distortions of competition, the environmental integrity of the scheme and reliability of the planned monitoring and reporting system.

From 2005 Member States may under the same conditions apply emissions allowance trading to installations carrying out activities listed in Annex I below the capacity limits referred to in that Annex.

2. Allocations made to installations carrying out such activities shall be specified in the national allocation plan referred to in Article 9.

3. The Commission may, on its own initiative, or shall, on request by a Member State, adopt monitoring and reporting guidelines for emissions from activities, installations and greenhouse gases which are not listed in Annex I in accordance with the procedure referred to in Article 23(2), if monitoring and reporting of these emissions can be carried out with sufficient accuracy.

4. In the event that such measures are introduced, reviews carried out pursuant to Article 30 shall also consider whether Annex I should be amended to include emissions from these activities in a harmonised way throughout the Community.

Article 25

Links with other greenhouse gas emissions trading schemes

1. Agreements should be concluded with third countries listed in Annex B to the Kyoto Protocol which have ratified the Protocol to provide for the mutual recognition of allowances between the Community scheme and other greenhouse gas emissions trading schemes in accordance with the rules set out in Article 300 of the Treaty.

2. Where an agreement referred to in paragraph 1 has been concluded, the Commission shall draw up any necessary provisions relating to the mutual recognition of allowances under that agreement in accordance with the procedure referred to in Article 23(2).

Article 26

Amendment of Directive 96/61/EC

In Article 9(3) of Directive 96/61/EC the following subparagraphs shall be added:

Where emissions of a greenhouse gas from an installation are specified in Annex I 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 (*) in relation to an activity carried out in that installation, the permit shall not include an emission limit value for direct emissions of that gas unless it is necessary to ensure that no significant local pollution is caused.

For activities listed in Annex I to Directive 2003/87/EC, Member States may choose not to impose requirements relating to energy efficiency in respect of combustion units or other units emitting carbon dioxide on the site.

Where necessary, the competent authorities shall amend the permit as appropriate.

The three preceding subparagraphs shall not apply to installations temporarily excluded from the scheme for greenhouse gas emission allowance trading within the Community in accordance with Article 27 of Directive 2003/87/EC.

(*) OJ L 275, 25.10.2003, p. 32.'

Article 27

Temporary exclusion of certain installations

1. Member States may apply to the Commission for installations to be temporarily excluded until 31 December 2007 at the latest from the Community scheme. Any such application shall list each such installation and shall be published.

2. If, having considered any comments made by the public on that application, the Commission decides, in accordance with the procedure referred to in Article 23(2), that the installations will:

- (a) as a result of national policies, limit their emissions as much as would be the case if they were subject to the provisions of this Directive;
- (b) be subject to monitoring, reporting and verification requirements which are equivalent to those provided for pursuant to Articles 14 and 15; and
- (c) be subject to penalties at least equivalent to those referred to in Article 16(1) and (4) in the case of non-fulfilment of national requirements;

it shall provide for the temporary exclusion of those installations from the Community scheme.

It must be ensured that there will be no distortion of the internal market.

Article 28

Pooling

1. Member States may allow operators of installations carrying out one of the activities listed in Annex I to form a pool of installations from the same activity for the period referred to in Article 11(1) and/or the first five-year period referred to in Article 11(2) in accordance with paragraphs 2 to 6 of this Article.

2. Operators carrying out an activity listed in Annex I who wish to form a pool shall apply to the competent authority, specifying the installations and the period for which they want the pool and supplying evidence that a trustee will be able to fulfil the obligations referred to in paragraphs 3 and 4.

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Addendum rules

3. Operators wishing to form a pool shall nominate a trustee:

- (a) to be issued with the total quantity of allowances calculated by installation of the operators, by way of derogation from Article 11;
- (b) to be responsible for surrendering allowances equal to the total emissions from installations in the pool, by way of derogation from Articles 6(2)(e) and 12(3); and
- (c) to be restricted from making further transfers in the event that an operator's report has not been verified as satisfactory in accordance with the second paragraph of Article 15.

4. The trustee shall be subject to the penalties applicable for breaches of requirements to surrender sufficient allowances to cover the total emissions from installations in the pool, by way of derogation from Article 16(2), (3) and (4).

5. A Member State that wishes to allow one or more pools to be formed shall submit the application referred to in paragraph 2 to the Commission. Without prejudice to the Treaty, the Commission may within three months of receipt reject an application that does not fulfil the requirements of this Directive. Reasons shall be given for any such decision. In the case of rejection the Member State may only allow the pool to be formed if proposed amendments are accepted by the Commission.

6. In the event that the trustee fails to comply with penalties referred to in paragraph 4, each operator of an installation in the pool shall be responsible under Articles 12(3) and 16 in respect of emissions from its own installation.

Article 29

Force majeure

1. During the period referred to in Article 11(1), Member States may apply to the Commission for certain installations to be issued with additional allowances in cases of *force majeure*. The Commission shall determine whether *force majeure* is demonstrated, in which case it shall authorise the issue of additional and non-transferable allowances by that Member State to the operators of those installations.

2. The Commission shall, without prejudice to the Treaty, develop guidance to describe the circumstances under which *force majeure* is demonstrated, by 31 December 2003 at the latest.

Article 30

Review and further development

1. On the basis of progress achieved in the monitoring of emissions of greenhouse gases, the Commission may make a proposal to the European Parliament and the Council by 31 December 2004 to amend Annex I to include other activities and emissions of other greenhouse gases listed in Annex II.

2. On the basis of experience of the application of this Directive and of progress achieved in the monitoring of emissions of greenhouse gases and in the light of developments in the international context, the Commission shall draw up a report on the application of this Directive, considering:

- (a) how and whether Annex I should be amended to include other relevant sectors, *inter alia* the chemicals, aluminium and transport sectors, activities and emissions of other greenhouse gases listed in Annex II, with a view to further improving the economic efficiency of the scheme;
- (b) the relationship of Community emission allowance trading with the international emissions trading that will start in 2008;
- (c) further harmonisation of the method of allocation (including auctioning for the time after 2012) and of the criteria for national allocation plans referred to in Annex III;

(d) the use of credits from project mechanisms;

- (e) the relationship of emissions trading with other policies and measures implemented at Member State and Community level, including taxation, that pursue the same objectives;
- (f) whether it is appropriate for there to be a single Community registry;
- (g) the level of excess emissions penalties, taking into account, *inter alia*, inflation;
- (h) the functioning of the allowance market, covering in particular any possible market disturbances;
- (i) how to adapt the Community scheme to an enlarged European Union;
- (j) pooling;
- (k) the practicality of developing Community-wide benchmarks as a basis for allocation, taking into account the best available techniques and cost-benefit analysis.

The Commission shall submit this report to the European Parliament and the Council by 30 June 2006, accompanied by proposals as appropriate.

3. Linking the project-based mechanisms, including Joint Implementation (JI) and the Clean Development Mechanism (CDM), with the Community scheme is desirable and important to achieve the goals of both reducing global greenhouse gas emissions and increasing the cost-effective functioning of the Community scheme. Therefore, the emission credits from the project-based mechanisms will be recognised for their use in this scheme subject to provisions adopted by the European Parliament and the Council on a proposal from the Comminision, which should apply in parallel with the Community scheme in 2005. The use of the mechanisms shall be supplemental to domestic action, in accordance with the relevant provisions of the Kyoto Protocol and Marrakesh Accords.

Article 31

Implementation

1. Member States shall bring into force the laws, regulations and administrative provisions necessary to comply with this Directive by 31 December 2003 at the latest. They shall forthwith inform the Commission thereof. The Commission shall notify the other Member States of these laws, regulations and administrative provisions.

When Member States adopt these measures, they shall contain a reference to this Directive or be accompanied by such a reference on the occasion of their official publication. The methods of making such reference shall be laid down by Member States. 2. Member States shall communicate to the Commission the text of the provisions of national law which they adopt in the field covered by this Directive. The Commission shall inform the other Member States thereof.

Article 32

Entry into force

This Directive shall enter into force on the day of its publication in the Official Journal of the European Union.

Article 33

Addressees

This Directive is addressed to the Member States.

Done at Luxembourg, 13 October 2003.

For the European Parliament The President P. COX For the Council The President G. ALEMANNO

ANNEX I	
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CATEGORIES OF ACTIVITIES REFERRED TO IN ARTICLES 2(1), 3, 4, 14(1), 28 AND 30

- 1. Installations or parts of installations used for research, development and testing of new products and processes are not covered by this Directive.
- The threshold values given below generally refer to production capacities or outputs. Where one operator carries out several activities falling under the same subheading in the same installation or on the same site, the capacities of such activities are added together.

Activities	Greenhouse gases
Energy activities	
Combustion installations with a rated thermal input exceeding 20 MW (except hazardous or municipal waste installations)	Carbon dioxide
Mineral oil refineries	Carbon dioxide
Coke ovens	Carbon dioxide
Production and processing of ferrous metals	
Metal ore (including sulphide ore) roasting or sintering installations	Carbon dioxide
Installations for the production of pig iron or steel (primary or secondary fusion) including continuous casting, with a capacity exceeding 2,5 tonnes per hour	Carbon dioxide
Mineral industry	
Installations for the production of cement clinker in rotary kilns with a produc- tion capacity exceeding 500 tonnes per day or lime in rotary kilns with a produc- tion capacity exceeding 50 tonnes per day or in other furnaces with a production capacity exceeding 50 tonnes per day	Carbon dioxide
Installations for the manufacture of glass including glass fibre with a melting capa- city exceeding 20 tonnes per day	Carbon dioxide
Installations for the manufacture of ceramic products by firing, in particular roofing tiles, bricks, refractory bricks, tiles, stoneware or porcelain, with a production capacity exceeding 75 tonnes per day, and/or with a kiln capacity exceeding 4 m ³ and with a setting density per kiln exceeding 300 kg/m ³	Carbon dioxide
Other activities	
Industrial plants for the production of (a) pulp from timber or other fibrous materials	Carbon dioxide
(b) paper and board with a production capacity exceeding 20 tonnes per day	Carbon dioxide

ANNEX II

GREENHOUSE GASES REFERRED TO IN ARTICLES 3 AND 30

Carbon dioxide (CO₂) Methane (CH₄) Nitrous Oxide (N₂O) Hydrofluorocarbons (HFCs) Perfluorocarbons (PFCs) Sulphur Hexafluoride (SF₄)

ANNEX III

CRITERIA FOR NATIONAL ALLOCATION PLANS REFERRED TO IN ARTICLES 9, 22 AND 30

- 1. The total quantity of allowances to be allocated for the relevant period shall be consistent with the Member State's obligation to limit its emissions pursuant to Decision 2002/358/EC and the Kyoto Protocol, taking into account, on the one hand, the proportion of overall emissions that these allowances represent in comparison with emissions from sources not covered by this Directive and, on the other hand, national energy policies, and should be consistent with the national climate change programme. The total quantity of allowances to be allocated shall not be more than is likely to be needed for the strict application of the criteria of this Annex. Prior to 2008, the quantity shall be consistent with a path towards achieving or over-achieving each Member State's target under Decision 2002/358/EC and the Kyoto Protocol.
- The total quantity of allowances to be allocated shall be consistent with assessments of actual and projected progress towards fulfilling the Member States' contributions to the Community's commitments made pursuant to Decision 93/389/EEC.
- 3. Quantities of allowances to be allocated shall be consistent with the potential, including the technological potential, of activities covered by this scheme to reduce emissions. Member States may base their distribution of allowances on average emissions of greenhouse gases by product in each activity and achievable progress in each activity.
- 4. The plan shall be consistent with other Community legislative and policy instruments. Account should be taken of unavoidable increases in emissions resulting from new legislative requirements.
- 5. The plan shall not discriminate between companies or sectors in such a way as to unduly favour certain undertakings or activities in accordance with the requirements of the Treaty, in particular Articles 87 and 88 thereof.
- 6. The plan shall contain information on the manner in which new entrants will be able to begin participating in the Community scheme in the Member State concerned.
- 7. The plan may accommodate early action and shall contain information on the manner in which early action is taken into account. Benchmarks derived from reference documents concerning the best available technologies may be employed by Member States in developing their National Allocation Plans, and these benchmarks can incorporate an element of accommodating early action.
- 8. The plan shall contain information on the manner in which clean technology, including energy efficient technologies, are taken into account.
- 9. The plan shall include provisions for comments to be expressed by the public, and contain information on the arrangements by which due account will be taken of these comments before a decision on the allocation of allow-ances is taken.
- 10. The plan shall contain a list of the installations covered by this Directive with the quantities of allowances intended to be allocated to each.
- 11. The plan may contain information on the manner in which the existence of competition from countries or entities outside the Union will be taken into account.



- Activity data;
- Emission factors;
- Oxidation factors;
- Total emissions; and
- Uncertainty.
- C. For each Annex I activity carried out on the site for which emissions are measured:
 - Total emissions;
 - Information on the reliability of measurement methods; and
 - Uncertainty.
- D. For emissions from combustion, the report shall also include the oxidation factor, unless oxidation has already been taken into account in the development of an activity-specific emission factor.

Member States shall take measures to coordinate reporting requirements with any existing reporting requirements in order to minimise the reporting burden on businesses.

ANNEX V

CRITERIA FOR VERIFICATION REFERRED TO IN ARTICLE 15

General Principles

- 1. Emissions from each activity listed in Annex I shall be subject to verification.
- 2. The verification process shall include consideration of the report pursuant to Article 14(3) and of monitoring during the preceding year. It shall address the reliability, credibility and accuracy of monitoring systems and the reported data and information relating to emissions, in particular:
 - (a) the reported activity data and related measurements and calculations;
 - (b) the choice and the employment of emission factors;
 - (c) the calculations leading to the determination of the overall emissions; and
 - (d) if measurement is used, the appropriateness of the choice and the employment of measuring methods.
- Reported emissions may only be validated if reliable and credible data and information allow the emissions to be determined with a high degree of certainty. A high degree of certainty requires the operator to show that:
 - (a) the reported data is free of inconsistencies;
 - (b) the collection of the data has been carried out in accordance with the applicable scientific standards; and
 - (c) the relevant records of the installation are complete and consistent.
- 4. The verifier shall be given access to all sites and information in relation to the subject of the verification.
- 5. The verifier shall take into account whether the installation is registered under the Community eco-management and audit scheme (EMAS).

Methodology

Strategic analysis

6. The verification shall be based on a strategic analysis of all the activities carried out in the installation. This requires the verifier to have an overview of all the activities and their significance for emissions.

Process analysis

7. The verification of the information submitted shall, where appropriate, be carried out on the site of the installation. The verifier shall use spot-checks to determine the reliability of the reported data and information.

Risk analysis

- 8. The verifier shall submit all the sources of emissions in the installation to an evaluation with regard to the reliability of the data of each source contributing to the overall emissions of the installation.
- 9. On the basis of this analysis the verifier shall explicitly identify those sources with a high risk of error and other aspects of the monitoring and reporting procedure which are likely to contribute to errors in the determination of the overall emissions. This especially involves the choice of the emission factors and the calculations necessary to determine the level of the emissions from individual sources. Particular attention shall be given to those sources with a high risk of error and the abovementioned aspects of the monitoring procedure.
- 10. The verifier shall take into consideration any effective risk control methods applied by the operator with a view to minimising the degree of uncertainty.

Report

11. The verifier shall prepare a report on the validation process stating whether the report pursuant to Article 14(3) is satisfactory. This report shall specify all issues relevant to the work carried out. A statement that the report pursuant to Article 14(3) is satisfactory may be made if, in the opinion of the verifier, the total emissions are not materially misstated.

- 12. The verifier shall be independent of the operator, carry out his activities in a sound and objective professional manner, and understand:
 - (a) the provisions of this Directive, as well as relevant standards and guidance adopted by the Commission pursuant to Article 14(1);
 - (b) the legislative, regulatory, and administrative requirements relevant to the activities being verified; and
 - (c) the generation of all information related to each source of emissions in the installation, in particular, relating to the collection, measurement, calculation and reporting of data.
Emissions Trading Market Rules (*)

Section I GENERAL PROVISIONS

Article 1 Text and Annexes

1.1 These Rules (hereafter referred to as the "Rules") and their Annexes, which are an integral part hereof, govern the operation of the market for the trading of greenhouse gas emission units (hereafter referred to as the "Emissions Trading Market"), as per 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*", as amended by Directive 2004/101/EC of the European Parliament and of the Council of the European Parliament and of the Council of 27 October 2004 "*amending Directive 2003/87/EC establishing a scheme for greenhouse gas emission allowance trading within the Community, in respect of the Kyoto Protocol's project mechanisms*", as amended and as provided for in the relevant transposition legislation.

Article 2 Definitions

- 2.1 For the purposes of the Rules, the following definitions shall apply:
 a) APAT means "Agenzia per la protezione dell'ambiente e per i servizi tecnici" (agency for environmental protection and technical services"), which was set up in accordance with Article 38, Legislative Decree no. 300 of 30 July 1999 (concerning the reform of the Italian Government's organisation under Article 11, Law no. 59 of 15 March 1997) and which administers the Registry of emission units under Art. 3, Decree of the Italian Ministry of Environment and Land Protection of 23 February 2006, published in "Supplemento Ordinario, Gazzetta Ufficiale" no. 57 of 9 March 2006;
- b) available deposit means the initial interest-bearing cash deposit that the selling Market Participant has posted prior to the start of the market session, possibly increased by the receivables arising from sell transactions and decreased by the payables arising from buy transactions made in the same market session, as well as by the value of the buy orders entered into the order book and not yet matched;
- c) bank in charge of treasury services means the bank to which GME has entrusted treasury services;
- d) CER (Certified Emission Reduction) means an emission unit that has been issued in accordance with Article 12 of the Kyoto Protocol and with the decisions adopted under the United Nations Framework

 $({}^{\star})$ This is an unofficial translation. In the event of any discrepancy between the English text and the Italian original, the latter shall prevail.

Convention on Climate Change (UNFCCC) or the Kyoto Protocol;

- e) continuous trading means a modality of trading that is based on automatic matching of trading orders and continuous entry of new orders during the market sessions;
- f) EM means the Emissions Trading Market organised and managed by GME for the trading of greenhouse gas emission units;
- g) emission units means: EUAs, CERs and ERUs;
- ERU (Emission Reduction Unit) means an emission unit that has been issued in accordance with Article 6 of the Kyoto Protocol and with the decisions adopted under the UNFCCC or the Kyoto Protocol;
- i) EUA (European Unit Allowance) means the right to emit one tonne of carbon dioxide-equivalent under Directive 2003/87/EC, as amended;
- j) exclusion from the market means the loss of the status of Market Participant;
- k) GME means "Gestore del Mercato Elettrico SpA", the company responsible for the economic management of the electricity market under Article 5, Legislative Decree no. 79 of 16 March 1999; under Article 4 of its by-laws, GME organises and manages a venue for the trading of emission allowances, as per 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", as amended and as provided for in the relevant transposition legislation;
- I) GME's holding account means the account that GME has opened in the Registry of APAT;
- m) initial interest-bearing deposit means the cash deposit that the buying Market Participant has posted prior to the start of the market session in order to enter buy orders into the order book;
- n) market means the Emissions Trading Market;
- o) Market Participant means the natural or legal person that has been admitted to trading in the market;
- p) Market Participant's holding account means the account that the Market Participant has opened in the Registry of APAT or in any other European Registry;
- q) reference period means the period of validity as defined in Directive 2003/87/EC;
- r) Market Participant's identification code means the alphanumerical sequence that uniquely identifies a Market Participant for participation in the Emissions Trading Market;
- s) market session means the period of time within which trading orders may be entered;
- t) order book means the on-line listing of trading orders that Market Participants have entered into the market information system; the orders are ranked by price and by time of entry;
- u) order or transaction identification code means the alphanumerical

sequence that uniquely identifies an order or a transaction made during a given market session;

- v) reference price means the average price of all transactions of emission units that have been made during a given market session, weighted for the related quantities and calculated for each type and for each reference period;
- w) suspension from the market means the temporary prohibition for a Market Participant to enter trading orders into the market;
- x) trading order means the buy or sell order that Market Participants enter into the order book of the market; the trading order contains the data required for exposure and execution;
- y) transaction means the result of the matching of one or more buy orders with one or more sell orders.
- z) type means the subdivision of emission units into CERs, ERUs and EUAs;
- aa) value of buy transactions means the sum of the products between the number of bought emission units and the respective unit purchasing prices;
- bb) value of sell transactions means the sum of the products between the number of sold emission units and the respective unit selling prices;
- cc) working day means a day from Monday to Friday, with the exception of public holidays recognised by the Italian State for all civil purposes and the days, if any, indicated in the Technical Rules.

Article 3

General principles and amendments to the Rules

- **3.1** GME shall formulate the Rules under criteria of neutrality, transparency, objectivity and competition between Market Participants.
- **3.2** GME shall fulfil its tasks under transparent and non-discriminatory criteria.
- **3.3** GME shall put in place an organisational structure suitable for preventing the occurrence of conflicts of interest, as well as procedures for monitoring and enforcing compliance with the Rules and the Technical Rules.
- **3.4** Market Participants shall conduct their activities in the Emissions Trading Market in accordance with common principles of ethics and good faith.
- **3.5** GME shall prepare amendments to the Rules and make them known by posting them on its website. Amendments to the Rules shall enter into force upon the date of their publication.

Article 4 Technical Rules

- **4.1** The implementing and procedural provisions of the Rules shall be set out in the Technical Rules. GME shall formulate the Technical Rules under criteria of neutrality, transparency, objectivity and competition between Market Participants.
- **4.2** The Technical Rules shall be published on GME's website and become effective upon the date of their publication.
- **4.3** GME shall prepare amendments to the Technical Rules and make them known by posting them on its website. Amendments to the Technical Rules shall enter into force upon the date of their publication.

Article 5

Units of measurement and rounding off

- **5.1** For the purposes of the market:
- a) the unit of measurement of the emission unit shall be the tonne of $\mathrm{CO}_2;$
- b) the unit of measurement of the currency shall be the euro, with two decimal places;
- c) the unit of measurement of the unit prices of emission units shall be the euro/emission unit, with two decimal places.
- **5.2** For the purposes of the market, all figures shall be rounded off under the mathematical criterion. In particular, figures shall be rounded up or down to the nearest last decimal allowed and, if the result is halfway, they shall be rounded up.

Article 6

Access to the Emissions Trading Market information system

- **6.1** Access to the Emissions Trading Market information system shall take place through the Internet, according to the modalities described in the Technical Rules.
- **6.2** Market Participants shall have access to the Emissions Trading Market via special procedures, as provided in the Technical Rules. Said procedures shall authenticate Market Participants and guarantee the confidentiality of their transactions.
- **6.3** Market Participants shall treat the access codes and any other data or device required to access GME's information system as confidential

Article 7 Fees for the services provided by GME

- **7.1** For the services provided by GME, Market Participants shall pay GME a yearly fixed fee and a fee for each emission unit traded.
- **7.2** On a yearly basis, GME shall define the amount of the fees referred to in para. 7.1 above and post it on its website.

Article 8

Information about the Emissions Trading Market sessions

- **8.1** The aggregate data and results of the Emissions Trading Market shall be of public domain and posted on GME's website. Market Participants shall have access to the data and results of the Emissions Trading Market that concern them directly.
- **8.2** Unless a notification obligation is mandated by laws, regulations or other decisions issued or made by public authorities, GME shall maintain the information pertaining to trading orders and transactions confidential for a minimum period of twelve months.

Article 9

Communication and publication of data and information

- **9.1** Unless otherwise required, the data and information covered hereby shall be communicated and published electronically. In particular:
- a) communications to a Market Participant shall be made by posting data and information in the section of the Emissions Trading Market information system whose access is restricted to the same Market Participant;
- b) publication shall be made by posting data and information in the section of the Emissions Trading Market information system whose access is non-restricted.
- **9.2** Trading orders entered by Market Participants shall be deemed to have been received upon the date and at the time recorded by the Emissions Trading Market information system. Any other communication shall be deemed to have been received:
- a) on the day and at the time of receipt, if received from O8:00 to 17:00 of a working day;
- at O8:00 of the first working day following the one of receipt, if received between 17:00 and 24:00 of a working day, or between 00:00 and 24:00 of a non-working day;
- c) at O8:00 of the day of receipt, if received between O0:00 and O8:00 of a working day.

9.3 For the purpose of determining the time of receipt, the time shall be obtained from GME's records. For electronic communications, the time shall be obtained from GME's information system.

Section II PARTICIPATION IN THE EMISSIONS TRADING MARKET

Article 10

Requirements for participation in the Emissions Trading Market

- **10.1** Participation in the market is open to parties that have adequate professional qualifications and are proficient in the use of Information Technology (IT) or Information Communication Technology (ICT) systems and related security systems or that have employees or assistants meeting the above professional and proficiency requirements.
- **10.2** Parties that have been excluded from the market are not allowed to participate therein, except in the case of exclusion referred to in Article 16 below.

Article 11

Emissions Trading Market Participation Application and Agreement

- **11.1** Parties wishing to participate in the Emissions Trading Market shall submit to GME the following documentation:
- a Market Participation Application having the format annexed hereto (Annex 1);
- b) a signed copy of the Market Participation Agreement having the format annexed hereto (Annex 2).

Article 12

Admission procedure

- **12.1** Within fifteen calendar days from the date of receipt of the Application, after checking the validity of the documentation referred to in Article 11 above, GME shall notify the applicant of the acceptance or rejection of the Application and the reasons therefor. The notification shall be sent by registered letter with return receipt, preceded by a fax copy thereof.
- **12.2** If the documentation is irregular or incomplete, GME shall notify the applicant of the requirements for submitting regular documentation or for completing the submitted documentation, as well as of the time limit within which the applicant is required to fulfil said requirements. The notification shall suspend the time period referred to in para. 12.1 above, which shall run again from the date of receipt of the regular or complete documentation by GME.
- **12.3** Upon admission, the applicant shall acquire the status of Market Participant.

Article 13 List of Emissions Trading Market Participants

- **13.1** Parties that have been admitted to the Emissions Trading Market, as set forth in Article 12 above, shall be entered into an appropriate "List of Emissions Trading Market Participants", to be created and held by GME in compliance with Legislative Decree no. 196 of 30 June 2003, as amended.
- **13.2** For each Market Participant, the List shall specify:
- a) Market Participant's identification code;
- b) full name, or registered name, place of residence and place of domicile (if different from place of residence), or registered office, taxpayer's number, VAT number, telephone number, fax number, e-mail address, contact person/s for communications, if any, and related addresses;
- c) Market Participant's status: admitted, active, suspended, exclusion application pending;
- d) Market Participant's bank details;
- e) Market Participant's taxation.
- **13.3** GME shall publish on its website the following data and information on Market Participants: full name or registered name, place of residence or registered office.
- **13.4** Market Participants may access their own data and information contained in the List of Emissions Trading Market Participants.

Article 14 Verifications

14.1 GME shall monitor and enforce compliance with the Rules and the Technical Rules in order to ensure the proper functioning of the Emissions Trading Market under criteria of neutrality, transparency, objectivity and competition between Market Participants. To this end, GME may require Market Participants to submit any data or document giving evidence of the transactions that they have made in the Emissions Trading Market and also convene them for a hearing.

Article 15 Notification obligations

15.1 Market Participants shall notify GME promptly and, in any case, within three working days, of the occurrence of any change in circumstances that may involve the loss or change of any of their qualifications for participation in the Emissions Trading Market or the change of the data and information referred to in Article 13, para. 13.2 above that the Market Participant has declared and that have



18.1 In the Emissions Trading Market, Market Participants buy and sell emission units, in accordance with the modalities indicated herein and in the Technical Rules.

18.2 GME shall not be the Market Participants' counterparty for transactions made in the Emissions Trading Market.

Article 19 Modalities of trading

- **19.1** Trading in the Emissions Trading Market shall take place on a continuous basis.
- **19.2** The days and hours of the Emissions Trading Market sessions shall be defined in the Technical Rules.
- **19.3** GME shall post the calendar of the sessions on its website.

Articolo 20

Information about the Emissions Trading Market

- **20.1** During each market session, for each reference period and type of emission units admitted to trading, GME shall communicate at least the following data and information to Market Participants:
- a) price and quantity of orders submitted into the market and not yet matched;
- b) price of last three transactions executed;
- c) minimum and maximum price;
- d) reference price of the session preceding the current session;
- e) volume traded.
- **20.2** At the end of each market session, for each reference period and type of emission units admitted to trading, GME shall communicate at least the following data and information:
- a) minimum and maximum price of transactions executed;
- b) reference price;
- c) volume traded.

Article 21 Entry of trading orders

- **21.1** GME shall organise an order book for each reference period and each type of emission units admitted to trading.
- **21.2** During the market session, Market Participants shall enter their trading orders into the order book, specifying the type, the reference period and the quantity of emission units to be traded and the related unit price.
- **21.3** The minimum tradable quantity shall be defined in the Technical Rules.

21.4	The trading orders (divided by buy and sell orders) shall give rise to lists, divided by type and reference period of the emission units admitted to trading and ranked by price and, in case of identical price, by time of entry. Buy orders shall be ranked by decreasing price, whereas sell orders shall be ranked by increasing price.
21.5	Orders with zero or negative price limit shall be rejected.
21.6	Buy or sell orders without price limit shall be accepted only if sell or buy orders with price limit, respectively, have been entered into the order book.
21.7	A buy or sell order submitted by a Market Participant shall be rejec- ted if the same Market Participant has already entered into the order book a sell or buy order, respectively, that would match such buy or sell order.
21.8	During a market session, Market Participants may withdraw their orders by cancelling them directly from the order book, if such orders have not yet been automatically matched in accordance with Article 23 below.
21.9	During a market session, Market Participants may change the orders that they have entered into order book, if such orders have not yet been automatically matched in their entirety, in accordance with Article 23 below. If the orders have been partially matched, the change shall only apply to the unexecuted part. Changed orders shall lose the time priority that they have acquired.
21.10	The trading orders that have not been matched in accordance with Article 23 below shall be automatically cancelled upon the close of the market session.
21.11	The modalities of entry of trading orders shall be defined in the Technical Rules.
Article 22 Validation of trading orders	
22.1	A buy order is valid, if its value is lower than or equal to the amount of the Market Participant's available deposit, as stated in Article 27, paras. 27.2, 27.3, 27.4 and 27.5 below.

22.2 If the value of the buy order that a Market Participant has submitted is greater than the amount of such Market Participant's available deposit, as stated in Article 27, paras. 27.2, 27.3, 27.4 and 27.5 below, such order shall be rejected.

- **22.3** A sell order is valid, if the number of emission units specified therein is lower than or equal to the number of the Market Participant's saleable emission units, as provided for in Article 28, para. 28.2 below.
- **22.4** If the value of the sell order that a Market Participant has submitted is greater than the number of such Market Participant's saleable emission units, as provided for in Article 28, para. 28.2 below, such order shall be rejected.

Article 23 Execution of transactions

- **23.1** During the market session, transactions shall take place through the matching of orders under the following criteria:
- a) buy order with price limit: it shall be matched with available sell orders at a price lower than or equal to the limit specified in the buy order and according to the priority order referred to in Article 21, para. 21.4 above;
- sell order with price limit: it shall be matched with available buy orders at prices equal to or higher than the limit specified in the sell order and according to the priority order referred to in Article 21, para. 21.4 above;
- c) buy order without price limit: it shall be matched with one or more sell orders available at the time of entry of the buy order, according to the priority order mentioned in Article 21, para. 21.4 above;
- d) sell order without price limit: it shall be matched with one or more buy orders available at the time of entry of the sell order, according to the priority order mentioned in Article 21, para. 21.4 above.
- **23.2** For each transaction executed through automatic matching, the price shall be equal to the price of the trading order having the highest time priority.
- **23.3** If a trading order with price limit is partially executed, the unexecuted part shall be resubmitted automatically with the price and time priority of the original order. If a trading order without price limit is partially executed, then the unexecuted part shall be cancelled.

Article 24

Recording of executed transactions

- **24.1** GME shall record the following data concerning the transactions executed in the Emissions Trading Market:
- a) transaction identification code;
- b) unit price;
- c) quantity;
- d) type;

- e) reference period; f) day and time of execution; identity of buying and selling Market Participants. g) Article 25 **Emergency conditions** 25.1 The following shall be deemed to be emergency conditions: a) GME is unable to connect to the Registry of APAT; b) GME is unable to receive the trading orders entered by Market Participants, according to the modalities referred to in Article 21 above, owing to malfunctions in its telecommunication systems; C) GME is unable - for whatever reason, including malfunctions of the Emissions Trading Market information system - to determine the results of a given market session: d) GME is unable - for whatever reason, including malfunctions of the Emissions Trading Market information system or its telecommunications systems - to notify Market Participants of the results of a given market session. 25.2 n the case covered by para. 25.1 a) above, GME shall notify Market Participants of the occurrence of the emergency conditions and, possibly, of the new time of opening of the market session, in accordance with the modalities specified in the Technical Rules. In case of particularly serious events, GME shall cancel the sitting, notifying Market Participants thereof according to the modalities defined in the Technical Rules. 25.3 In the case covered by para. 25.1 b) above, GME shall notify Market Participants of the occurrence of the emergency conditions and of the new time of close of the market session, in accordance with the
 - Participants of the occurrence of the emergency conditions and of the new time of close of the market session, in accordance with the modalities specified in the Technical Rules. In case of particularly serious events, if the conditions referred to in para. 25.1 b) persist within the new time of close of the market sitting, then GME shall cancel the sitting and notify Market Participants thereof according to the modalities defined in the Technical Rules.
 - **25.4** In the case covered by para. 25.1 c), GME shall suspend transactions in the Emissions Trading Market and notify Market Participants of the expected duration of the suspension, according to the modalities specified in the Technical Rules.
 - **25.5** The notification modalities to be adopted by GME in the cases referred to in para. 25.1 d) above shall be defined in the Technical Rules.
 - **25.6** GME shall not be liable for default due to malfunctioning of its information system, including the cases covered by para. 25.1 above, due to force majeure, fortuitous case or events due to actions of third parties or anyway beyond its control.

Article 26 Operation of the Emissions Trading Market information system

- **26.1** In case of technical failures of the Emissions Trading Market information system, GME may suspend, postpone or close in advance a given market session.
- **26.2** With a view to ensuring the good technical functioning, as well as the efficient use of the Emissions Trading Market information system and, in general, the proper operation of the market, GME may impose limits to submission, cancellation and change of trading orders and limit the number of connections of each Market Participant or of specific categories of Market Participants to the Emissions Trading Market information system.

Section IV GUARANTEES

Article 27 Guarantee for purchases

- **27.1** To submit buy orders into the Emissions Trading Market, each Market Participant shall within 17:30 of the working day preceding the opening of the market session post an initial interest-bearing cash deposit. The Market Participant shall transfer the deposit, with value date on the same day, to an appropriate account held by GME and notify GME of the amount thereof, according to the modalities specified in the Technical Rules.
- **27.2** The initial cash deposit, referred to in para. 27.1 above, shall be updated at the time of entry of a buy order:
- a) decreased by an amount equal to the product between the price specified in the order and the related quantity, on the assumption of orders with price limit, or
- b) decreased by an amount equal to the sum of the products between the prices of sell orders entered into the order book and the related quantities until reaching the quantity of the buy order, on the assumption of orders without price limit.
- **27.3** On the assumption of matching of a buy order with price limit, if the price at which the contract is concluded lies below the specified price limit, then GME shall up-adjust the amount of the available deposit committed under para. 27.2 a) above) by an amount equal to the product between the matched quantity and the difference between the specified price limit and the price at which the order has been matched.
- **27.4** Upon the matching of a sell order, the Market Participant's available deposit shall be up-adjusted by an amount equal to the product

between the price at which the order has been matched and the quantity for which the order has been matched.

- **27.5** On the assumption referred to in para. 27.2 a) above, if a buy order that has not yet been matched is cancelled, the available deposit shall be up-adjusted by an amount equal to the product between the price and the quantity specified in the cancelled order.
- 27.6 At the request of the Market Participant, the initial interest-bearing cash deposit, possibly increased or decreased as set forth in paras. 27.2, 27.3, 27.4 and 27.5 above, shall be refunded according to the modalities and within the time limits defined in the Technical Rules.
- **27.7** On a quarterly basis, GME shall pay the interest accrued on the Market Participant's available deposit. Such interest shall be computed on the basis of the interest rate that the bank in charge of treasury services grants to GME.

Article 28

Guarantee for sales

- **28.1** To submit sell orders into the Emissions Trading Market, each Market Participant shall within 17:30 of the working day preceding the opening of the market session transfer a quantity of saleable emission units to GME's holding account, notifying GME thereof according to the modalities and within the time limits indicated in the Technical Rules.
- **28.2** The maximum number of units saleable in the market shall be equal to the quantity of emission units referred to in para. 28.1 above, possibly updated as follows:
- a) upon entry of a sell order down-adjusted by a quantity of emission units equal to the quantity specified in the order;
- b) upon matching of a buy order up-adjusted by a quantity of emission units equal to the quantity that has been matched;
- c) upon cancellation of a sell order not yet matched up-adjusted by a quantity of emission units equal to the one specified in the order that has been cancelled.
- **28.3** At the end of each market session, the Market Participant may request that the quantity of its own emission units referred to in para. 28.1, as increased or decreased under para. 28.2 above, be transferred from GME's holding account to its own holding account, in accordance with the modalities and within the time limits established in the Technical Rules.

INVOICING AND SETTLEMENT OF PAYMENTS Within two hours from the end of each session and according to the modalities laid down in the Technical Rules, GME shall confirm the executed transactions to each Market Participant by notifying at least the following data: unit price;

C) day and time;

quantity;

d) type;

Article 29 Confirmations

29.1

a)

b)

- e) reference period;
- f) value of buy transactions;
- value of sell transactions; g)
- h) trading counterparties.

Article 30

Invoicing

30.1Selling Market Participants shall issue invoices to buying Market Participants.

Section V

Addendum rules

30.2 At the end of each market session, GME shall provide the selling Market Participants with the data required for issuing invoices to the buying Market Participants, according to the modalities defined in the Technical Rules.

Article 31

Settlement of transactions - selling Market Participants

31.1 The sell transactions concluded in the market shall be settled by increasing the selling Market Participant's available deposit by the value of such transactions.

Article 32

Settlement of transactions - buying Market Participants

32.1 The buy transactions concluded in the market shall be settled by decreasing the buying Market Participant's available deposit by the value of such transactions.

Section VI BILLING, INVOICING AND SETTLEMENT OF FEES

ARTICLE 33 Billing of fees

33.1 At the end of each session of the Emissions Trading Market, GME shall calculate fees that Market Participants owe to GME, in compliance with Article 7, para. 7.1 above, in respect of the traded emission units.

Article 34 Invoicing of fees

- **34.1** The period of and modalities for invoicing the fees due in respect of the emission units traded in the Emissions Trading Market shall be defined in the Technical Rules. GME shall issue invoices to each Market Participant for the fees due for transactions made in the Emissions Trading Market, as provided for in Article 7, para. 7.1 above.
- **34.2** The yearly fixed fee referred to in Article 7, para. 7.1 above shall be invoiced, for the first twelve months, as a single payment upon admission of the Market Participant to the market and, subsequently, every twelve months.

Article 35 Invoice contents

- **35.1** For each session of the Emissions Trading Market, the invoices referred to in Article 34, para. 34.1 above shall include at least the following data, where applicable:
- a) number of emission units pertaining to the transactions concluded;
- b) fees for emission units traded, as per Article 7, para. 7.1 above;
- c) taxation applied;
- d) total amount.

Article 36

Payment of fees

36.1 Based on the invoices received from GME under Article 34, paras. 34.1 and 34.2 above, Market Participants shall pay the amount of the fees due to the bank in charge of treasury services, according to the modalities and within the time limits established in the Technical Rules.

Section VII SANCTIONS/PENALTIES, COMPLAINTS AND DISPUTES

SUBSECTION I BREACHES AND SANCTIONS/PENALTIES

Article 37

Breaches of the Rules and of the Technical Rules

- **37.1** The following behaviours shall be considered as breaches of the Rules and of the Technical Rules:
- a) negligence, carelessness and unskilfulness in the use of systems of communication and of entry of trading orders;
- b) pretextual use of the complaints referred to in Subsection II of this Section;
- c) disclosure to third parties of confidential information related to the Market Participant or other Market Participants, in particular as regards the access codes to the market information system, any other data required for access to the market information system and the content of the trading orders submitted by other Market Participants to GME, unless such disclosure is mandated by laws, regulations or decisions by appropriate authorities;
- d) any unauthorised attempt to access restricted areas of the market information system;
- e) any use for fraudulent purposes of the systems of communication and of entry of trading orders;
- f) any other conduct contrary to the principles of ethics and good faith referred to in Article 3, para. 3.4 above.

Article 38 Sanctions/penalties

- **38.1** Where the breaches referred to in Article 37 above are ascertained, GME shall, respecting the principles of fairness and equal treatment and bearing in mind the seriousness of the breach and any previous breaches, impose the following penalties/sanctions on Market Participants according to the graduation referred to in Article 39 below:
- a) a private written notice of the breach;
- b) a public written notice of the breach;
- c) a financial penalty;
- d) the suspension of the Market Participant from the market;
- e) the exclusion of the Market Participant from the market.
- **38.2** In case of suspension or exclusion from the market, the Market Participant may be permitted, under the supervision of GME, to close any transactions still in progress, as well as any other transactions irrevocably connected to the same.

- Where a breach is identified, GME shall serve a notice to the 38.3 Market Participant involved. The notice shall include: a) a description of the alleged breach; la deadline of at least ten days for the Market Participant to submit b) documentation and any request for a hearing. 38.4 Where the Market participant requests a hearing or GME deems such hearing to be necessary, GME shall set the date and immediately inform the Market Participant thereof. Where the Market Participant does not appear at the hearing and the hearing is not postponed to another date for justified reasons, GME shall make a decision on the basis of the available evidence. 38.5 Based on the available evidence, GME shall impose a penalty/sanction or dismiss the case within thirty days from the notice specified in para. 38.3 above. 38.6 Where the breaches are such as to seriously threaten the proper operation of the market, GME shall, on a precautionary basis, suspend the Market Participant from the market for the period of time necessary to examine the case. 38.7 The penalties/sanctions and the reasons therefor or the decision to dismiss the case shall be communicated to the Market Participant involved. Article 39 **Graduation of sanctions/penalties** 39.1 Where the breaches are due to the fault of the Market Participant, GME may impose the following penalties/sanctions: a private written notice of the breach; a) b) a public written notice of the breach C) suspension from the market for a number of market sessions of a minimum of one and of a maximum of four. In case of recurrence of the breach, the Market Participant shall be suspended from the market for four market sessions. **39.2** Where the breaches mentioned in para. 39.1 above have caused disturbances to the proper functioning of the market, GME may impose the following penalties/sanctions: a) a public written notice of the breach;
 - b) suspension from the market for a minimum period of one month and a maximum period of one year. In case of recurrence of the breach, the Market Participant shall be suspended from the market for one year.
 - **39.3** Where the breaches are due to the intentional wrongdoing of the

Market Participant, GME may impose the following penalties/sanctions:

- a) suspension from the market for a minimum period of six months and a maximum period of eighteen months. In case of recurrence of the breach, the Market Participant shall be suspended from the market for eighteen months;
- b) exclusion from the market.
- **39.4** Where the breaches mentioned in para. 39.3 above have caused disturbances to the proper functioning of the market, GME may impose the following penalties/sanctions:
- a) suspension from the market for a minimum period of eighteen months and a maximum period of three years. In case of recurrence of the breach, the Market Participant shall be suspended from the market for three years;
- b) exclusion from the market.

Article 40

Suspension for non-fulfilment of notification obligations and non-payment of fees

- **40.1** In addition to the cases listed in Article 39 above, GME may suspend the Market Participant from the market in the following cases:
- a) where the Market Participant does not fulfil the notification obligation referred to in Article 15, para. 15.1 above. The suspension shall have effect until the date on which GME receives said notification;
- b) where the Market Participant fails to pay the fees specified in Article 7, para. 7.1 above, in accordance with the provisions of Article 36 above. The suspension shall have effect until the date on which the Market Participant fulfils such obligation.

Article 41 Publication of penalties/sanctions

41.1 GME shall publish the sanctions/penalties referred to in Article 38, para. 38.1 b], c], d] and e] above, by posting them on its website, ten days after serving the relevant notice to the Market Participant concerned, unless the case has been referred to the Court of Arbitration, as provided for in Article 44 below. In the latter case, GME shall make known the penalties/sanctions after receiving notice that the Court of Arbitration has confirmed said penalties/ sanctions.



- 44.1 A request for arbitration may be filed with the Court of Arbitration:
 a) against denial of admission to the market;
 b) arbitration and the market is Arbitration and the market is Arbitration.
- against the penalties/sanctions referred to in Article 38, para.
 38.1 above;

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- c) when the Market Participant does not accept the result of the verification of the complaints referred to in Article 43 above.
- **44.2** In addition to the cases referred to in para. 44.1 above, any other dispute arising between GME and Market Participants in connection with the interpretation and application of the Rules and of the Technical Rules shall be settled by the Court of Arbitration.
- **44.3** The Court of Arbitration shall be composed of three members: one appointed by GME, one appointed by the Market Participant and a third member, acting as President, appointed jointly by both parties or, in case of disagreement, by the President of the Court of Rome, under Article 810 of the Italian Civil Procedure Code.
- **44.4** The Court of Arbitration shall render its decisions in accordance with the applicable laws and the arbitration procedure shall be carried out in compliance with Article 806 and subsequent Articles of the Italian Civil Procedure Code.
- **44.5** The Court of Arbitration shall be based in Rome at the registered office of GME.

Section VIII FINAL PROVISIONS

Article 45 Awardees of contracts for the provision of services for the market

45.1 Awardees of contracts for services and/or supplies for the implementation of the market information system shall not be admitted to the market for a period of three years beginning on the date of operationalisation of the market.

Article 46 Entry into force

46.1 These Rules shall be published on GME's website and enter into force on the date of their publication.

TRADING MARKET EMISSIONS VADEMECUM OF GME'S