



**FEE Alert  
Emissions Trading**

**January 2005**



**FEE**

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## 1. OVERVIEW

This 'FEE Alert' provides information on the European Union Greenhouse Gas Emissions Trading Scheme (EU ETS), which commences operation on 1 January 2005. In addition to this overview, sections of this Alert explain emissions regulation and trading, accounting implications and auditing aspects. The final section includes an essential glossary and gives details of useful sources of further information.

The EU ETS, which has been established by an EC Directive<sup>1</sup>, is a mandatory 'cap and trade' scheme. Installations<sup>2</sup> covered by the scheme are allowed to emit greenhouse gases (GHG) only if they have a permit under which they are required to monitor and report emissions. The permit is accompanied by emissions allowances, which are restricted and so place an upper limit (cap) on each year's allowed emissions, denominated in tonnes of carbon dioxide. An operator has to surrender, each year, allowances equal to an installation's physical emissions. If an installation keeps below its cap, it may sell surplus allowances (or 'bank' them to use in the next year). If an installation physically exceeds its cap, it must purchase emissions allowances equal to the shortfall. Others may also trade in emissions allowances.

The EU ETS is a major part of the EU strategy to comply with an element of the United Nations' climate change strategy, the Kyoto Protocol, which first addresses GHG reductions during the period 2008 to 2012. The first period of the EU ETS is 2005 to 2007. It is intended to prepare EU companies for a second period that coincides with the commencement of Kyoto. During the first period, of the greenhouse gases only carbon dioxide is included in the scheme, not all industries are covered and penalties are lower.

By the operation of the EU ETS and other measures, Member States aim to achieve a collective reduction of 8% in the emissions of GHG from the combustion of fossil fuels and certain industrial processes within the period 2008 to 2012 compared with 1990 emissions levels. The EU scheme covers 12,000 – 15,000 installations, such as: energy production; refineries; cement, glass, and ceramics production facilities; and the pulp and paper industries. Up to 45% of EU GHG emissions are covered.

There are provisions to link the EU ETS to other national or regional schemes (when available) and to other mechanisms, agreed in Kyoto, through which GHG reductions could be made. The other mechanisms (such as 'Joint Implementation' and 'Clean Development Mechanism') are not dealt with in this Alert in detail.

This FEE Alert considers the financial reporting and auditing issues arising from GHG emission trading relating only to financial statements. These issues arise primarily from the legal requirements and the need to account for emissions allowances and the liability to surrender that arises as emissions are made. For many installations, environmental regulatory compliance is necessary for continued operation and the need to obtain a permit to emit GHG is just a further instance of this. Because of the financial effects, it is not just a matter for a company's technical experts. A company's finance personnel and its auditors are initially faced with an increased likelihood of error due to lack of familiarity with the scheme and, for auditors, the need to work with third party verifiers that are engaged by the company to report on annual emissions data supplied to government. In addition a recently published accounting interpretation<sup>3</sup>, emphasising the need to establish fair value of emissions

<sup>1</sup> Directive 2003/87/EC establishing a scheme for GHG emission allowance trading within the Community and amending Council Directive 96/61/EC.

<sup>2</sup> 'Installation' is the technical term (explained in section 5.1 *Glossary*) for the emitting plant or facility. A company may operate more than one installation.

<sup>3</sup> IFRIC Interpretation 3 – Emission Rights

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trading allowances in an immature market, may highlight recognition and measurement issues that have not previously arisen.

Voluntary reporting of greenhouse gas emissions is an important component of many environmental and sustainability reports but lies outside the scope of this 'Alert'.

Comments on the paper will be welcome and should be submitted to FEE Secretariat (Corinne\_Soubies@fee.be).

## 2. EMISSIONS TRADING

This section explains more about the operation of the EU ETS at EU, Member State and company level. Although this Alert may refer to a company, the allocation of allowances is by reference to 'installations'. An 'operator' (generally a company) will have one or more installations. These terms are defined in the Directive that established the scheme, as set out in Section 5.1 *Glossary* of this Alert.

Installations covered by the scheme are allowed to emit greenhouse gases (GHG) only if they have a permit under which they are required to monitor and report emissions. The permit is issued by a government agency (a 'competent authority') if it is satisfied that the operator of the installation is capable of properly monitoring and reporting emissions. The permit has conditions attached. The operator must comply with its monitoring and reporting requirements and accept an obligation to surrender, in respect of each year, emissions allowances equal to its verified total emissions.

Annual emission allowances (each for one tonne of carbon dioxide emissions) are initially allocated by government to operators with permits but are limited in accordance with a National Allocation Plan (NAP) such that, with other policies and measures, government achieves its national target to reduce CO<sub>2</sub> emissions. Subsequently, allowances may be bought and sold by anyone either by contract or through markets. All allowances are shown in a public registry.

A third party 'verifier' is appointed to report each year on the accuracy of the emissions data. In some Member States, the appointment is made by the operator; in others, a government agency performs the verification. Where the Member State requires it, the verifier will also verify the data relating to the 'base year' against which allocations, and in effect GHG emissions reductions, will be assessed.

In respect of each scheme year, the operator must surrender to government (and have cancelled) emissions allowances equal to its verified emissions. If the actual emissions fall below the level of allowances allocated for the year, the operator may sell surplus allowances (or 'bank' them to use in the next year). If an installation physically exceeds its allowances, it must purchase emissions allowances equal to the excess. Others may also trade in emissions allowances.

Emission trading allowances may also arise from other Kyoto mechanisms: Joint Implementation (JI) and the Clean Development Mechanism (CDM). In JI, an industrialized country 'co-finances' a GHG reduction project in another country that participates in the Kyoto Protocol and has its own reduction target under the Protocol, by giving a grant to an investor in a GHG-friendly new installation in that country. In return the 'co-financing' industrialized country receives emission rights to a certain level from abroad. CDM is comparable to JI, but the most important difference is that the government of the investing country does not have its own reduction target under the protocol (these are generally the developing countries).

### *2.1. European Commission control*

In addition to its part in establishing and amending EU legislation, the European Commission (EC) takes an active role in the EU ETS: providing control over its operation, establishing central guidance and facilitating the sharing of information. This promotes fairness between Member States.

Each Member State is required to draw up National Allocation Plans (NAPs) for 2005 to 2007 (Period 1) and for 2008 to 2012 (Period 2) which, when approved by the EC, form the basis for allocation of allowances. The EC approves the NAPs of Member States only if they are in compliance with the criteria laid down in the Directive.

An EC Regulation controls the establishment and maintenance of registries for allowances. Member States are required to establish and maintain a registry (singly or together with one or more other Member States) in order to ensure the accurate accounting of the issue, holding, transfer and cancellation of allowances. The registry is required to be accessible to the public and to contain separate accounts for any persons holding allowances. Accounts may be designated for trading or compliance (i.e. to receive allowances for eventual cancellation to discharge emissions permit obligations). Although not an EC requirement, the software used to operate registries in several Member States is similar as it has been provided by a supplier that provided systems for a voluntary emissions trading scheme in the United Kingdom.

The EC designates a Central Administrator to maintain an independent transaction log recording the issue, transfer and cancellation of allowances. The log incorporates an automated check on each transaction to ensure that there are no irregularities. If irregularities are identified, Member States are contacted to resolve them.

EC guidelines for monitoring and reporting emissions are based on the principles set out in Annex IV of the Directive. These, in effect, standardise the conditions with which emissions permits are issued.

Under the Directive, the EC is given power to approve applications from Member States for:

- Installation pooling (an arrangement whereby, for a specific activity, several operators may appoint a trustee to control their combined allowances)
- Temporary exclusion of installations (until 31 December 2007), if the EC is satisfied that the emissions reductions under alternative arrangements will be at least as much as under the EU ETS
- Additional allowances for installations affected by *force majeure*.

The EC requires information from Member States and publishes an annual report on the EU ETS. It also organises an exchange of information between the competent authorities of the Member States.

The EC establishes formal links with countries listed in Annex B to the Kyoto Protocol (that have ratified it) and draws up any necessary provisions to provide for the mutual recognition of allowances. Member States are required to allow transfer of allowances within the EU and elsewhere, where there is mutual recognition of allowances.

## ***2.2. Member State implementation***

As well as initially implementing the Directive in national law, and interacting with the EC as set out above, Member States have to establish an appropriate infrastructure for the operation of the scheme and for trading of allowances.

The Member State establishes a 'competent authority', which assesses applications for emissions permits for installations. The competent authority has to be satisfied that the operator of the installation is capable of monitoring and reporting emissions. A permit may cover one or more installations of an operator on the same site. The permit sets out the obligation to surrender allowances equal to the verified total emissions of each installation as well as the monitoring and reporting requirements. If appropriate, the competent authority updates permits for changes in the installation or of the identity of its operator.



Member States are required to decide upon the total quantity of allowances and their allocation to the operator of each installation, taking into account the need to provide access to allowances for new entrants. At least 95% of the allowances must be allocated free of charge for Period 1 and at least 90% free of charge for Period 2.

Allowances are valid only for the period in respect of which they are issued. The competent authority is required to cancel allowances that are still held four months after the end of the period to which they relate. Member States are required to replace such allowances except in respect of Period 1 (for which replacement is permitted but not required).

The emissions reports must be verified within three months of the year end, or the operator's ability to make further transfers of allowances is suspended. Member States are required to ensure that, by 30 April each year at the latest, the operator of each installation surrenders allowances equal to the total verified emissions from that installation during the preceding calendar year, and that these are subsequently cancelled. Failure to surrender sufficient allowances incurs a penalty of €40 (Period 1) or €100 (Period 2) for each tonne of carbon dioxide equivalent. The names of operators suffering such penalties are to be published. Payment of the excess emissions penalty does 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.

To ensure that verifiers are competent, some Member States have established an accreditation process, operated through a national agency and co-ordinated at EU level, with mutual recognition of verifiers between Member States. Some Member States may make provision for verifiers and financial statement auditors to work together to mitigate the costs of assurance.

From 2008, subject to approval by the EC, Member States may apply trading of emissions allowances to installations below the capacity limits and to activities, installations and greenhouse gases that are not listed in Annex I to the Directive.

### ***2.3. Company (operator) actions***

A company will face demands on its strategy, internal control, reporting and accounting in respect of the need to limit its emissions and to monitor and report actual emissions. In making the internal risk assessment the company has to define a policy on how to address these risks and opportunities for trading. As set out in Section 3 *Financial Reporting*, an emitting company may face difficulties in measuring assets and liabilities and the effects on the profit and loss account. In addition, the possibility of emissions trading introduces further risks.

A company is subject to the laws and regulations through which the relevant Member State implements the Directive. To obtain a permit for emissions, a company will apply to the competent authority providing a description of an installation and its activities and how it plans to monitor and report emissions.

In some Member States, an external verifier will be appointed by the company to report on the existing level of emissions. This 'baseline' data verification requirement may be less stringent than that for annual purposes because it recognised that it is a difficult historical exercise. The baseline data (adjusted for subsequent events if necessary) is used to help determine the allocation of emissions allowances in accordance with the NAP.

Where a company reports interim results or has an accounting year end that does not coincide with the end of an EU ETS year (31 December) it will be particularly important to monitor actual emissions (usually on a monthly basis) and consider the likely position at the scheme year end. The emissions

data plays a large part in determining the provision for emissions and the release to the profit and loss account of the award of allowances accounted for as a government grant.

An accredited verifier or government body will report whether an installation's annual emissions report has in fact been drawn up in accordance with the arrangements made in the monitoring protocol and hence whether the Member State's competent authorities may accept it.

#### ***2.4. Verifier involvement***

The verifier reports on the actual emissions in each scheme year. Where a Member State requires, the verifier also reports on the baseline emissions. Verifiers typically are separate from the financial statement auditors and are typically organisations that have been involved in providing certification of environmental management systems. They employ qualified engineers who are familiar with the technical issues of emissions measurement. Some Member States are making provision for verifiers and financial statement auditors to work together to mitigate the overall costs of assurance. Depending on national legislation, it is possible for an accountant to qualify as an accredited verifier.

The verifier will be required to report to the competent authority in each Member State that the installation's emissions report has been compiled in accordance with the rules of the scheme and that the emissions data is not materially misstated. Although arrangements may differ between Member States, verifiers will normally only be able to act if they are accredited by an appropriate Member State agency, which will maintain a public record of such accreditations. There is co-ordination at EU level that promotes consistency between the way verifiers are accredited – with a view to achieving consistency in verification work. The competence requirements for verifiers are still being defined. The International Emissions Trading Association (IETA) has been asked by the EC to take a lead in developing a harmonised approach to verification and accreditation of verifiers.

### 3. FINANCIAL REPORTING

This section considers accounting issues arising from participation in the EU ETS. Although the section refers to International Financial Reporting Standards (IFRS) issued by the International Accounting Standards Board (IASB) similar issues may arise under national accounting frameworks.

Companies subject to EU ETS requirements account for the transactions but their disclosure in the financial statements (and related material – such as a directors' report) is influenced by their materiality. For some companies, such as power generators, their 'licence to operate' and a major part of their operations may be involved. For other companies, emissions and trading may be a minor aspect of their operations. The fair value of emissions allowances is an important factor in determining financial significance. Within the natural boundaries of the market (€nil to €40 (Period 1)) initial indications have been that a relatively wide price band may exist (€7 to €15) with the higher limit at perhaps twice the lower. Even if initial indications are that GHG disclosures are not material they may become so in the future.

#### 3.1. Financial reporting framework

The IASB International Financial Reporting Interpretations Committee (IFRIC) develops authoritative interpretations of existing IFRS. On 2 December 2004, IFRIC released an Interpretation - IFRIC 3 *Emission Rights*. It applies only to participants in a scheme that is operating. This Interpretation is not yet adopted for use in the European Union under the Regulation (EC) No 1606/2002 on the application of international accounting standards, nor has the European Financial Reporting Advisory Group (EFRAG) submitted its endorsement advice.

The Interpretation specifies that:

- Rights (allowances) are intangible assets that should be recognised in the financial statements in accordance with IAS 38 Intangible Assets
- When allowances are issued to a participant by government (or government agency) for less than their fair value, the difference between the amount paid (if any) and their fair value is a government grant that is accounted for in accordance IAS 20 Accounting for Government Grants and Disclosure of Government Assistance
- As a participant produces emissions, it recognises a provision for its obligation to deliver allowances in accordance with IAS 37 Provisions, Contingent Liabilities and Contingent Assets.

The Interpretation does not extend to the penalty that would be payable if a company failed to deliver sufficient allowances. IFRIC decided that the penalty should be treated separately from the obligation to deliver sufficient allowances and that there was no need for specific guidance, because it would be within the scope of IAS 37.

During development of the Interpretation, it was proposed that amortisation of allowances would not be permitted. This decision was reversed, but it was stressed that if allowances were traded in an active market (as defined in IAS 38) there should be no amortisation.

Another area of debate at IFRIC was whether a gross or net presentation was appropriate for emissions rights and the associated liability. IAS 1 Presentation of Financial Statements prohibits offsetting unless required or permitted by a standard or an Interpretation (IAS 1.32). IFRIC decided against the net presentation, as a company need not surrender all its allowances and various strategies might be used to comply with the scheme.

### *Possible changes in accounting standards*

Changes in applicable standards may occur before Period 2 of the EU ETS, as IAS 20 is to be reviewed and possibly amended by IASB. If IAS 20 were amended to require the recognition of government grants as income when granted, then deferred income would be eliminated. This would lead to an even greater mismatch between income and expenditure.

IFRIC was clearly uncomfortable with the 'mixed measurement model' that results from the different valuation and recognition rules for assets and liabilities under existing standards. IFRIC has announced that it will encourage IASB to amend IAS 38 'as soon as possible' to permit allowances traded in an active market to be measured at fair value, with changes in value recognised in profit or loss. This would, however, require a satisfactory way of distinguishing allowances from other intangible assets.

Also EFRAG formulated serious concerns to IFRIC in its reaction on D1, the draft interpretation on emission rights, concerning the mismatch of the measurement of emission rights at historical cost and the measurement of the liability at the present market price is creating an inappropriate accounting result. FEE fully shared this position.

### **3.2. Accounting for allowances (assets)**

Allowances, whether allocated by government or purchased, meet the definition of intangible assets and are accounted for in accordance with IAS 38 Intangible Assets.

Allowances that are purchased are initially recorded at cost.

In accordance with the IFRIC Interpretation, allowances that are issued for less than fair value (allocated by government) are initially recorded at fair value. The difference between the amount paid (if any) and fair value is treated as a government grant and within the scope of IAS 20.

Although the amount initially recorded is the fair value, the allowances are thereafter either recorded at cost (less any accumulated impairment losses) or as per the revaluation model at a revalued amount being its fair value at the date of revaluation with changes in value recognised in equity in accordance with IAS 38. The alternative treatment is available only if allowances are traded in an active market.

An active market requires that the traded items are homogeneous, that willing buyers and sellers can normally be found at any time, and that prices are available to the public. At the time of initial allocation under the EU ETS, there may not be an active market, but developments thereafter may give rise to one.

Allowances are individually identifiable through reference numbers. This allows the appropriate carrying amount of each allowance to be eliminated on surrender or disposal. The method of operation of the national allowance registry is such that the oldest allowances are retired first. Where a company has few allowance-related transactions, the adoption of a simplified accounting system for allowances may produce similar outcomes.

Where allowances are held at the balance sheet date, it is likely that they will be classified as current assets. Where intended for trading, this will always be the case. Where held to settle a compliance account, the same treatment is likely because retirements from a compliance account are on an oldest-first basis.

### ***3.3. Accounting for government grants***

The difference between the amount paid (if any) and fair value of allowances allocated by government is treated as a government grant and accounted for under IAS 20.

The grant is initially recognised in the balance sheet as deferred income. It is recognised subsequently as income on a systematic basis over the period for which the allowances are allocated, regardless of whether the allowances are held or sold. As an example of a systematic basis, the IFRIC Interpretation uses the proportion of actual emissions to estimated total emissions. This should be the preferred approach, as it matches the way in which the provision for the liability to surrender is made.

### ***3.4. Accounting for liability to surrender***

As emissions occur, a provision for the obligation to deliver allowances is recognised in accordance with IAS 37. There is no obligation to make a provision at the start of the compliance period or when allowances are received.

The liability is measured at the best estimate of the expenditure required to settle the present obligation (based on past emissions) at the balance sheet date. This will usually be the present market price of the number of allowances required to cover emissions made up to the balance sheet date.

### ***3.5. Accounting for penalties***

Any penalty should be treated separately from the obligation to deliver sufficient allowances and accounted for in accordance with IAS 37. In practice, companies are likely to be able to surrender allowances purchased at a lower price than the penalty that would otherwise be payable. This would be covered by the provision created in respect of the liability to surrender.

### ***3.6. The determination of fair value***

Accounting for emission rights under the EU ETS requires consideration of whether an active market in allowances exists and whether fair value can be determined at relevant times. This depends on the facts at the time. Although there is no option under the Interpretation for allowances to be initially recognised at nil (or a nominal amount) there may be insufficient market evidence to support a specific fair value. Companies may be forced to adopt other ways of assessing fair value between the natural limits of an allowance's value (i.e. between nil and the value of the penalty if not avoided).

## 4. AUDITING

### 4.1. Overview

For convenience, this section refers to an EU company that is an operator of one installation with greenhouse gas emissions. The effect on the financial statements of its participation in the EU ETS is assumed to be material.

International Standards on Auditing (ISA) require the auditor to obtain a general understanding of the legal and regulatory framework applicable to the company and the industry, and how the company is complying with that framework. Many of the industries affected by the EU ETS are already subject to environmental regulation and those dealing with the technical aspects of emissions measurement and reporting will have relevant experience. This may not always be so for the finance function. Where it is relevant and material, the auditor will obtain sufficient appropriate audit evidence about compliance with the requirements of the EU ETS.

The auditor will, in particular, be concerned to obtain sufficient appropriate evidence that:

- The company complies with the national requirements implementing the scheme (as failure to do so may prevent it trading)
- Appropriate systems are put in place and are operating properly to measure or calculate emissions and record and process information
- Measurement and disclosures in the financial statements are in accordance with IFRS, IFRIC or the national financial reporting framework.

### 4.2. Risks considerations

As discussed in section 3 *Financial Reporting*, the company's assessment of the fair value of emissions allowances may be difficult and complex. This is likely to be a key factor in the financial reporting and hence of considerable importance to the auditor when applying ISA 545 Auditing Fair Value Measurements and Disclosures.

The auditor will also place emphasis on the annual verification of emissions reports to the national competent authority. Such reports are a necessary part of compliance and the work of the verifier may also provide audit evidence.

In the first year of the EU scheme, or for a new entrant thereafter, there may be an increased possibility of error (or indeed fraud) because of lack of familiarity with its operation. This may affect the company, the auditor, the verifier and third parties:

- Systems development will not have benefited from feedback during operation, or experience in comparable organisations
- The assessment of fair value may be hampered by undeveloped, illiquid markets, in which only a small proportion of total allowances is traded
- Auditors may initially lack specialist expertise in emissions measurement or other technical aspects

- Verifiers may be more familiar with systems-based certification work under ISO standards and may initially lack assurance expertise in relation to reported information
- The reliability of evidence, such as the accuracy of a national allowance registry, may not have been subject to the test of time. Moreover, the operation of national law may be uncertain and insufficient time may have elapsed for courts to have considered and resolved disputes.

The auditor will need to consider clarifying the respective responsibilities of the company, the verifier and the auditor in a letter of engagement and may seek written representations from management concerning their judgements in relation to the scheme.

The company's participation in the EU ETS will most affect the main elements of the audit that are relevant to ISA 300 (Revised) Planning an Audit of Financial Statements, ISA 315 Understanding the Entity and Its Environment and Assessing the Risks of Material Misstatement, ISA 330 The Auditor's Procedures in Response to Assessed Risks, and ISA 500 (Revised) Audit Evidence.

The application of the following ISA may also be significantly affected by emission trading risks:

- ISA 250 Consideration of Laws and Regulations in an Audit of Financial Statements
- ISA 545 Auditing Fair Value Measurements and Disclosures
- ISA 600-699 Using the Work of Others (series).

### ***4.3. Consideration of laws and regulations***

The permits required under the EU ETS are necessary for an installation to operate. The auditor should inquire of management and inspect the permit and perform procedures to help identify instances of failure to comply with conditions laid down in the permit.

The surrender or trading of emissions rights is subject to regulation and the rules of the registry. The most important requirement is for the company to have its emissions verified so that the annual surrender of emissions rights can proceed.

### ***4.4. Fair value***

The determination of fair value by management is important, both at the time of recognition of allowances granted and for the measurement of the provision necessary for emissions during the year. In both cases the auditor's assessment of the risk of material misstatement will take into account the newness of the EU ETS, which will potentially affect the experience of the persons determining the fair value measurements, the effectiveness of controls and methods and the reliability of data – particularly market data before markets become established.

The acceptance by the national authority of verified emissions returns may be relied upon to some extent when assessing emissions relevant to the provision. Nevertheless, in respect of current emissions, which the conditions of the permit will likely require monitored on a monthly basis, the auditor needs to obtain sufficient appropriate evidence to support related financial statement assertions. This may involve working in co-operation with the verifiers or the auditor alone performing further procedures.

#### ***4.5. Using the work of verifiers***

The verifier is concerned to establish the accuracy of the annual emissions. It is unlikely that the auditor will be able to rely wholly on the annual work of the verifier. The auditor may have to consider shorter periods (for example in relation to half-year reports) or deal with an accounting year spanning two EU ETS scheme years. Where that is necessary for the purpose of reporting on the financial statements, the auditor will either request the company to ask the verifier to do further work, or directly carry out further procedures. To do so, auditors will work with multi-disciplinary teams including the necessary technical expertise.

National law and regulation will set out the extent to which auditors may perform all or part of the verification work necessary under the EU ETS. In some cases, the verifier is allowed to make use of the work of the auditor. In other cases, the auditor recognises that the work of the verifier is different in scope and objective to that of the auditor and this may limit its usefulness for audit purposes.

Early and effective liaison between the company and its verifier and auditor is important to ensure that verification and necessary assurance for audit purposes are achieved in the most efficient and effective way. The auditor will be particularly concerned to ensure that the work of the verifier is available to the auditor and that communication and work takes place at appropriate times.

Where the auditor intends to rely on their work, evidence of the verifier's competence and objectivity may be obtained in part from the fact that verifiers are required to be accredited by a national accreditation agency in accordance with standards common throughout the EU. The auditor should assess the appropriateness of the verifier's work as audit evidence. This will involve assessment of whether the substance of the verifier's findings is properly reflected in the financial statements or supports the financial statement assertions.

Management and auditors should be aware that experience of management system certification or EMAS verification may not necessarily constitute suitable experience for GHG verification. The verification protocols are, however, developed at EU level and verifiers should be able to demonstrate that they are working properly in accordance with them.



## 5. GLOSSARY AND SOURCES OF FURTHER INFORMATION

### 5.1. Glossary

‘**Greenhouse gases**’ means the gases listed in Annex II of the Directive: carbon dioxide (CO<sub>2</sub>), methane (CH<sub>4</sub>), nitrous oxide (N<sub>2</sub>O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulphur hexafluoride (SF<sub>6</sub>). Annex I to the Directive refers only to carbon dioxide.

‘**Installation**’ means a stationary technical unit where one or more activities listed in Annex I of the Directive are carried out and also any other directly associated activities that have a technical connection with the activities carried out on that site and that could have an effect on emissions and pollution. Installations or parts of installations used for research, development and testing of new products and processes are excluded from the scope of the Directive.

Annex I lists the following activities with threshold values (generally production capacities or outputs) as certain smaller activities are excluded. Where one operator carries out several activities falling under the same subheading in the same installation or on the same site, however, the capacities of such activities are added together.

*Energy activities:*

- *Combustion installations with a rated thermal input exceeding 20 MW (except hazardous or municipal waste installations)*
- *Mineral oil refineries*
- *Coke ovens*

*Production and processing of ferrous metals:*

- *Metal ore (including sulphide ore) roasting or sintering installations*
- *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*

*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*
- *Installations for the manufacture of glass including glass fibre with a melting capacity exceeding 20 tonnes per day*
- *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 cubic metres and with a setting density per kiln exceeding 300 kg per cubic meter*

*Other activities – Industrial plants for the production of:*

- (a) *Pulp from timber or other fibrous materials*
- (b) *Paper and board with a production capacity exceeding 20 tonnes per day*

‘**Operator**’ means any natural or legal person (e.g. a company) 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.

## 5.2. Sources of further information

**Council Directive 2003/87/EC** of 13 October 2003 establishing a scheme for greenhouse gas emissions allowance trading within the Community and amending Council Directive 96/61/EC.  
[http://europa.eu.int/eur-lex/pri/en/oj/dat/2003/l\\_275/l\\_27520031025en00320046.pdf](http://europa.eu.int/eur-lex/pri/en/oj/dat/2003/l_275/l_27520031025en00320046.pdf)

### OVERVIEW

#### **United Nations Framework Convention on Climate Change**

A comprehensive overview of climate change and the global response with a glossary and a set of downloadable guides. Includes comprehensive coverage of the Convention, the Kyoto Protocol, Joint Implementation, the Clean Development Mechanism and emissions trading.  
<http://unfccc.int>

#### **EMISSIONS TRADING (AND OTHER KYOTO MECHANISMS)**

#### **Centre for European Policy Studies – Emissions Trading**

Includes Task Force reports on carbon trading and business consequences.  
[http://www.ceps.be/Article.php?article\\_id=27](http://www.ceps.be/Article.php?article_id=27)

#### **European Commission Environment Portal**

[http://europa.eu.int/comm/environment/index\\_en.htm](http://europa.eu.int/comm/environment/index_en.htm)

#### **The European Union Greenhouse Gas Emissions Trading Scheme**

<http://europa.eu.int/comm/environment/climat/emission.htm>

#### **National Allocation Plans**

and

**Commission Decision of 29 January 2004** establishing guidelines for the monitoring and reporting of greenhouse gas emissions pursuant to Directive 2003/87/EC of the European Parliament and of the Council.

[http://europa.eu.int/comm/environment/climat/emission/implementation\\_en.htm](http://europa.eu.int/comm/environment/climat/emission/implementation_en.htm)

**Council Directive 2003/87/EC** of 13 October 2003 establishing a scheme for greenhouse gas emissions allowance trading within the Community and amending Council Directive 96/61/EC.

[http://europa.eu.int/eur-lex/pri/en/oj/dat/2003/l\\_275/l\\_27520031025en00320046.pdf](http://europa.eu.int/eur-lex/pri/en/oj/dat/2003/l_275/l_27520031025en00320046.pdf)

**‘Burden sharing’ – Council Decision 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 there under (2002/358/CE). This document has as an Annex the text of the Kyoto Protocol.

[http://europa.eu.int/eur-lex/pri/en/oj/dat/2002/l\\_130/l\\_13020020515en00010020.pdf](http://europa.eu.int/eur-lex/pri/en/oj/dat/2002/l_130/l_13020020515en00010020.pdf)

Access may also be obtained to **EU ‘Consolidated Legislation’**. This is a non-official version of the legislation prepared for ease of reference, each consolidated text contains a list of all legal documents taken into account for its construction.

<http://europa.eu.int/eur-lex/en/information/help/help-consleg.html>

For example, **Council Directive 96/61/EC** of 24 September 1996 concerning integrated pollution prevention and control, as amended by Directive 2003/87/EC.

[http://europa.eu.int/eur-lex/en/consleg/main/1996/en\\_1996L0061\\_index.html](http://europa.eu.int/eur-lex/en/consleg/main/1996/en_1996L0061_index.html)

#### *OTHER KYOTO MECHANISMS*

**Council Directive 2004/101/EC of 27 October 2004 amending the 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**

[http://europa.eu.int/eur-lex/lex/LexUriServ/site/en/oj/2004/l\\_338/l\\_33820041113en00180023.pdf](http://europa.eu.int/eur-lex/lex/LexUriServ/site/en/oj/2004/l_338/l_33820041113en00180023.pdf)

#### **Informative websites:**

[http://www.cdmcapacity.org/more\\_information/index.html](http://www.cdmcapacity.org/more_information/index.html)

<http://www.worldenergy.org/wec-geis/global/downloads/asia/cdmprimer.pdf>

#### **Kyoto Protocol and EU GHG trading: Linking the Two Systems**

A market assessment.

[http://www.evomarkets.com/ghg/assets/EvoBrief\\_July\\_25\\_2003\\_Kyoto\\_EU\\_ETS\\_Linkage.pdf](http://www.evomarkets.com/ghg/assets/EvoBrief_July_25_2003_Kyoto_EU_ETS_Linkage.pdf)

#### **On Carbon Prices and Volumes in the Evolving 'Kyoto Market'**

A paper included in 'Greenhouse Gas Emissions Trading and Project-based Mechanisms, OECD 2004 (downloadable price EUR20) – abstract viewable at

<http://www.oecd.org/dataoecd/38/8/32181359.pdf>

#### **Linking project-based mechanisms with domestic greenhouse gas emissions trading schemes OECD 2004**

<http://www.oecd.org/env/co/>

#### *FINANCIAL REPORTING*

#### **International Accounting Standards Board**

<http://www.iasb.org>

#### **IFRIC 3 Emission Rights**

<http://www.iasb.org>

#### *AUDITING*

#### **International Auditing and Assurance Standards Board**

Full text of International Standards on Auditing and related pronouncements.

<http://www.ifac.org/IAASB/>

#### **Information relevant to verification**

<http://www.european-accreditation.org>

<http://europa.eu.int/comm/environment/emas/>

<http://www.iso.ch>

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