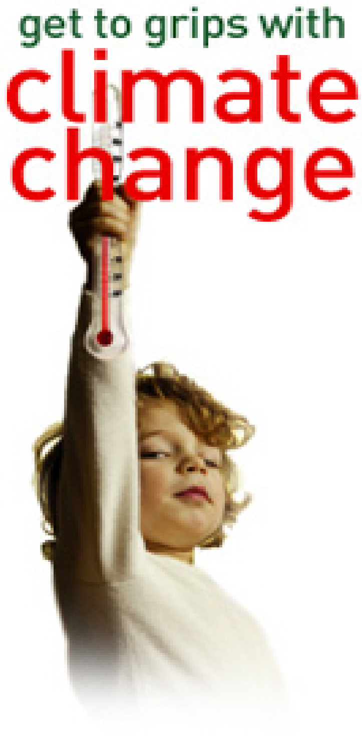

The EU emissions trading system

Checkpoint year 2 and outlook for Phase II

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The EU ETS in a nutshell

- Applicable since 1 January 2005, for 27 EU countries
- Permit requirement for CO2
- Mandatory caps on absolute emissions from around 10,000 large energy-intensive installations across EU
- Covers around 2 billion tonnes of CO_2 emissions, half of EU's total CO_2 emissions
- Simple cost-effective approach to reducing emissions, with single market for trading allowances
- Linking foreseen with other emissions trading systems
- Credits from emission-reducing projects in 168 countries useable by companies for meeting objective

Why is the EU ETS important?

- Market-based instrument that allows cost-effective environmental policy - no market intervention ! Market can choose options.
- Environmental effectiveness and minimum costs are two core building blocks for any long-term, climate policy
- The EU ETS creates a commercial driver to take a new technology and make it more effective and cheaper
- Currently it is involving 168 countries and traded volume of EU allowances valued at €14.6 billion ($18.8 billion) in 2006
- Cornerstone of Europe's strategy to implement Kyoto as well as a major structural element for the post-2012 climate strategy
- EU Heads of State have confirmed need to limit global temperature increase to 2º Celsius above pre-industrial levels
- GHG emissions reduction required: by 30% below 1990 levels by 2020, domestically or through emissions trading mechanisms, increasing to 60-80% reductions by 2050
- World's largest ETS: nucleus of international carbon market

EU ETS design fundamentals

- Simple cap-and-trade system for major emitting industries
  - combustion/ energy, oil refining, coke production, pulp and paper, lime, cement, iron and steel, ceramics, glass
- Initial allocation largely devolved to Member States, with Commission assessment of national allocation plans against agreed common criteria:
  - consistency with actual and projected emissions, consistency with potential to reduce emissions, not more allowances than needed, on track to achieve emission reduction commitments, not unfairly discriminating
  - transparency, comments by the public
- Monitoring rules for direct emissions, independent verification
- Robust penalties to ensure compliance (€40/ €100 + shortfall)
- Electronic registry system to record holdings of allowances
- Market development driven by the private sector

Stages of development of EU ETS

- 2005-7: Start-up period
  - Allowances mostly allocated for free (auctioning limited to 5%)
  - Robust emissions monitoring and verification
  - Efficient electronic registry system
  - Sound market development
  - However, insufficiently ambitious levels for emission reductions

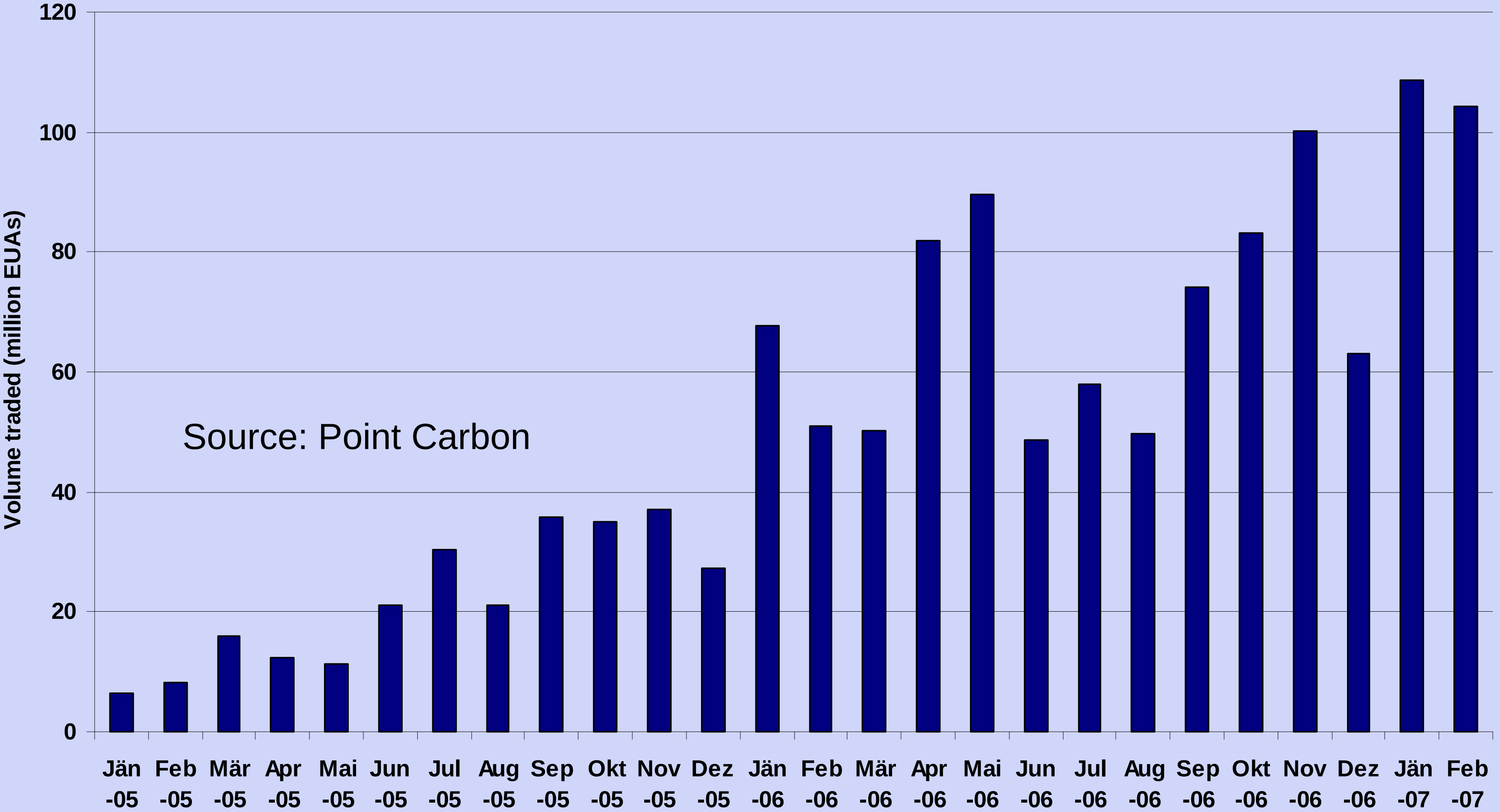
- 2008-12: First commitment period of Kyoto Protocol
  - Auctioning possible up to 10%
  - Commission approval given to 19 plans up until 16/4/2007
  - Extension of EU ETS taking place to other GHG via ‘opt-in’
  - Linking to Norway and other Kyoto ratifiers
  - Harmonised inclusion of climate change impacts from aviation

- Post-2012: subsequent five-year periods
  - No limits set on auctioning, common criteria continue to apply
  - Legislative review underway: *Building a global carbon market*
  - Aim: *Limiting Global Climate Change to 2 °C (3.6 ° Fahrenheit)*

EU ETS - the wider context

- Europe on track to meet its commitments under Kyoto Protocol, through EU ETS, other domestic policies, use of JI and CDM
- EU countries investing upwards of €2.7 billion ($3.5 billion) in emission reducing projects, Joint Implementation (JI) and Clean Development Mechanism (CDM), to achieve national GHG reduction commitments
- EU ETS providing expected market for JI and CDM of up to 1.3 billion tonnes over 2008-12, in addition to government demand
- Developing countries involved in the carbon market: over 450 projects registered, with many more in pipeline.
- Emission reductions being made globally and cost-effectively

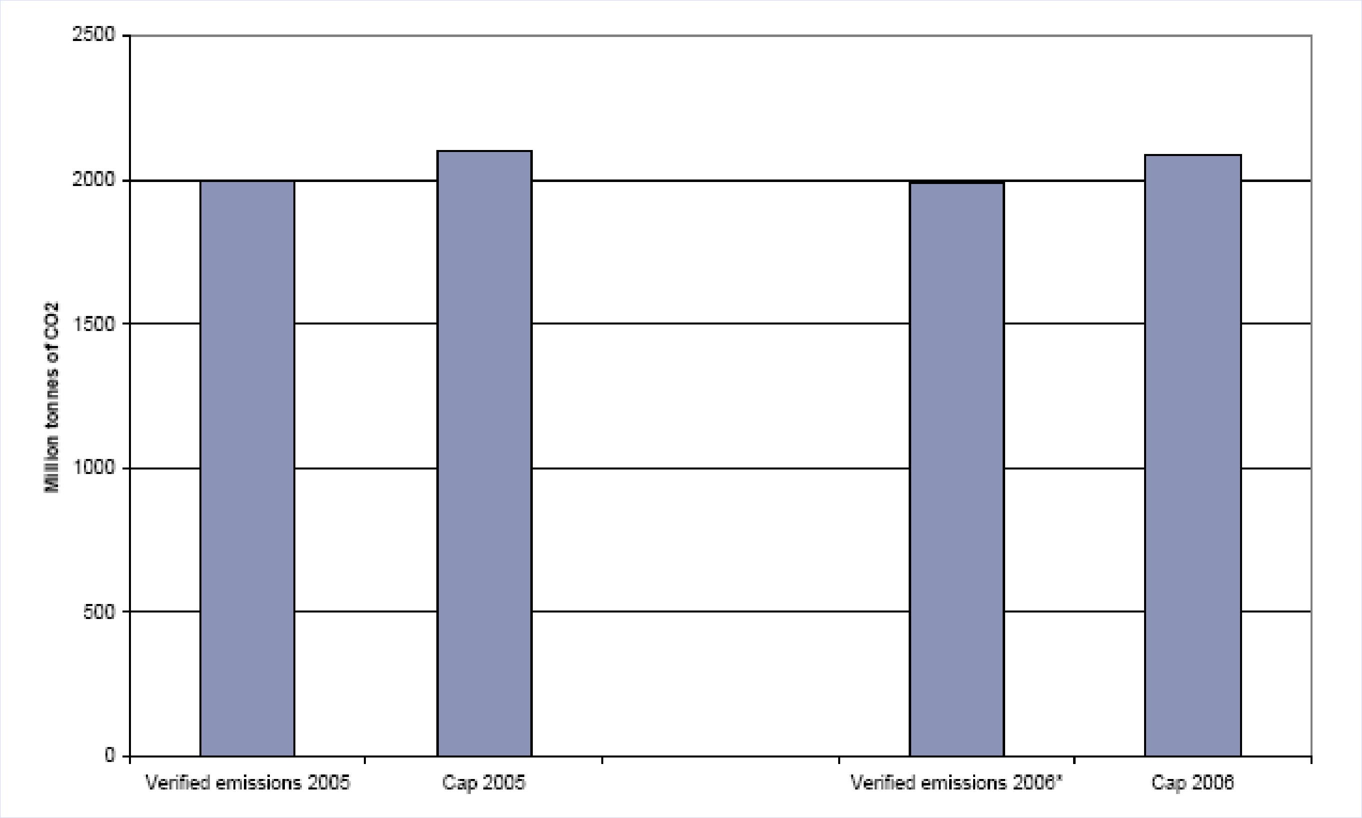
Volume of allowances traded



EU ETS Price Development

Compliance information

- In 2006: Some 8,980 installations, accounting for more than 99% of allowances allocated, complied with reporting 2005 emissions before the deadline.



Allocation of allowances

- 2005-7: Start-up period
  - Allowances mostly allocated for free (auctioning limited to 5%)
  - Allocation by Member States largely on the basis of grandfathering
  - Commission assessment against common criteria resulted in overall reductions in allocation of over 95 million tonnes / year
- 2008-12: First commitment period of Kyoto Protocol
  - Auctioning possible up to 10%
  - 27 National Allocation Plans submitted to Commission. Greater use of benchmarking and auctioning
  - Commission assessing consistency with overall 2005 verified emissions, potential to reduce emissions, on track to achieve emission reduction commitments, not unfairly discriminating, supplementarity
  - Conditional approval given to 10 plans in November 2006
  - Equal treatment being given to all Member States

Overview: Allocation of Allowances

- **<u>19 plans assessed to date:</u>**

Progress so far:

- ✓ 2005 verified emissions: **1672.54 mio tonnes***
- ✓ Proposed cap (2008-2012): **1821.54 mio tonnes**
- ✓ Cap allowed (2008-2012): **1650.75 mio tonnes**
- ✓ Emissions from additional combustion installations included: **53.13 mio tonnes**

- ✓ Scarcity (extended scope): **6.16%****

* not included: 30 million tonnes from UK

** (2005 verified emissions + UK extra) – (Cap allowed 2008-2012 – emissions from additional installations)

Criteria for **NAP ASSESSMENT**

- There are **12 criteria** **(listed in the Emissions Trading Directive)**

- Plan must comply with all mandatory criteria and elements, and optional ones applied in the individual case
- Two documents on Guidance by the Commission by criterion with linkages to other criteria

- Commission guidance can and does not change the legal character of these criteria

… but illustrates the scope of how they should be implemented …

… and it contains some recommendations

CRITERIA I to XII of the ANNEX III to the ET-Directive

	Comments	
(1) Kyoto commitments		
(2) Assessments of emissions development	Crucial for determination of total quantity of allowances (=cap)	•c.1: PAMs •c.1: Govmt purchase of JI/CDM •c.1, 2 and 3: Formula
(3) Potential to reduce emissions		
(4) Consistency with other legislation	insignificant	•c. 4 is practically not used
(5) Non-discrimination between companies or sectors	Competition (undue favouring of certain companies)	•C5: COMP provides input in ISC
(6) New entrants	Companies entering	
(7) Early action	Action before start of trading phase	•Used frequently in standard manner
(8) Clean technology	e.g. CHP	
(9) Involvement of the public	Procedural, practically insignificant	
(10) List of installations	Very important	•C10: Ex-post adjustments; completeness of list: installations and intended allocations to each
(11) Competition from outside the Union	Insignificant	
(12) Limit for use of CDM/JI credits	important	•C12: Supplementarity of operators‘s use of JI/CDM

Criterion 1: on track with Kyoto commitments

General rule: allocation may not be more than is necessary than likely to be needed. (“*likely to be needed*” is forward looking)

- *strict application* understood as criteria with a mandatory character
- Allocate no more than what the most constraining of the criteria yields
- The determinant criterion may be different in each Member State – **<u>Individual approach</u>**

Criterion 1: on track with Kyoto commitments

Most important for EU 15: it has to add up NOW!

1. Take most recent proportion of covered emissions in relation to total emissions as the starting point
2. Substantiate major deviations from this proportion
3. Take a holistic view (trends and policies in non-covered activities, should be substantiated)
4. Also: substantiate any use of Kyoto mechanisms

If unsubstantiated: take ETS proportion and deduct this share from ETS sector

Criterion 2: assessments

- Allocation Proposal of each Member State must be consistent with the most recent data as set out in progress report (important for new Member States which are on track with Kyoto Protocol)

- For phase II : 2005 verified emissions data as starting point for Cap (scaled with GDP and carbon intensity)

- Criteria is fulfilled, if total quantity is no more than would be necessary taking into account actual and projected emissions

Criterion 5: Non-discrimination

- MS in allocation must not discriminate in such a way as to favour certain undertakings or activities

- Unfair advantage would be obtained by over-allocation (beyond forecasted need in the absence of any – further – effort to limit emissions)

- **State aid** – normal rules apply (covers at least absence of 10% auctioning)

Only applicable within a Member State !

Criterion 12: Operators‘ use of JI/CDM

- Commission needs to take quantitative view despite absence of guidance at UN or EU level

- Methodology developed for **NAP2**:
  - every MS gets 10% minimum operator use, even if 50 % government use of Kyoto rights foresee.
  - otherwise formula based on effort with respect to Kyoto target (50 % of effort is seen as supplementary)

To what extent will the second trading period be different?

There will be fewer allowances in the market.

We will capitalise on the valuable experience from the first trading period.

There will be more auctioning.

The market will increasingly mature.

Governments will do much better in handling market-sensitive data.

The first trading schemes paralleling the EU ETS will emerge (e.g. RGGI in 2009)

The emerging shape of the second phase and EU-wide cap

- First period annual average allocation (incl. reserves and auctioning) for approved phase 2 NAPs amounts to 1784 Mt
- Verified emissions in 2005 for approved phase 2 NAPs amount to 1676 Mt
- Proposed second period annual average allocation (incl. reserves and auctioning) for approved phase 2 NAPs amounted to 1791 Mt
- Allowed second period annual average allocation (incl. reserves and auctioning) for approved phase 2 NAPs amounts to 1624 Mt
- Shortage in relation 2005 verified emissions amounts to ~104 Mt

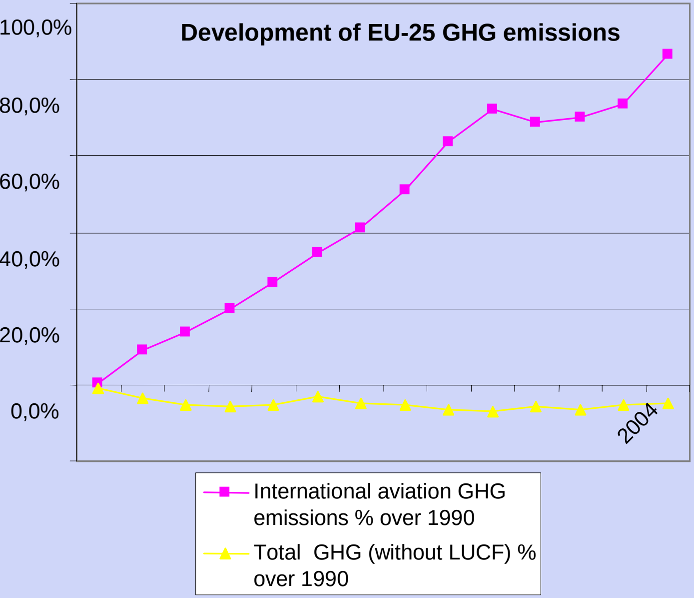
N.B.: In phase 2 additional emissions / installations of over 52 Mt are covered.

http://ec.europa.eu/environment/climat/2nd_phase_ep.htm

A trend towards auctioning

- In the 1st trading period Denmark, Ireland, Hungary and Lithuania decide to auction allowances
- So far only a few million allowances have been auctioned by Ireland, Hungary and Lithuania – very limited experience
- The 2nd trading period will see more auctioning: UK (7 %), Netherlands (>4 %), Ireland, Hungary, Lithuania, Austria, Belgium, Poland, Germany (?) … – growing experience
- Several Member States will auction left-overs from new entrant reserves in 1st and 2nd trading period
- RGGI rules foresee a minimum of 25 % to be auctioned and several states (incl. New York) consider 100 % auctioning

Aviation's climate change impact



- Fast growing climate change impact
- ICAO endorsement of inclusion in regional emissions trading systems
- Economic efficiency from reductions within sector or elsewhere globally
- Homogenous sector enabling use of benchmarking from outset
- Coverage in EU ETS not to overlap with flights included in other emissions trading systems or equivalent measures

Aviation emissions

European Commission proposal, Dec 06:

- Scheme would apply to CO2 emissions only
- Scheme would cover intra-EU flights in 2011 and would be expanded to all flights arriving in or departing from the EU from 2012
- Where a third country puts in place measures to reduce the climate change impact of aviation, the scheme will not apply to flights arriving from that country.
- Small percentage of allowances will be auctioned in 2011-12 (expected to be around 3%). Auctioning in later periods to be determined via EU ETS review.
- All other allowances to be allocated for free on basis of a benchmark
- Aircraft operators can buy allowances from other sectors and use e.g. CERs from CDM up to a harmonised limit

Integration internationally

- Article 25 of Directive already provides for linking agreements with emissions trading systems in all industrialised countries that have ratified Kyoto Protocol

- Linking expected with Norway, Iceland and Liechtenstein in 2008 though EEA (European Economic Area) Agreement

- Companies able to directly use JI and CDM credits from 168 countries
  - Qualititative safeguards: no temporary credits from sink projects or nuclear, no double-counting of emission reductions from projects within Europe
  - Quantitative safeguards: to ensure supplementarity to domestic action

- Main driver for the global carbon market

- EU ETS review to consider linking with mandatory emission trading systems that cap absolute emissions at **regional level**, and in countries **not** listed in Annex B to the Kyoto Protocol

Lessons to be learnt from EU ETS

- Keep overall objective in mind of tackling <u>global</u> climate change
  - Emissions trading systems should link up for maximum global effectiveness
  - Consideration should be given to ensure compatibility of systems
  - Significant reductions in emissions are needed through mandatory legislative action
  - Focus should be on direct, <u>absolute</u> emissions from across the economy
- Keep emissions trading simple
  - Let the market develop <u>without interference (no safety valve/ price cap)</u>
  - Use private sector for verification
- No need to re-invent the wheel
  - Use of verified data as robust basis for any free allocation (key)
  - EU's revised monitoring and reporting guidelines
  - Sound electronic registry software in place for emissions trading
  - EU ETS review Communication / Aviation proposal indicate EU's practical experience on design parameters

More info on EU climate policy: http://europa.eu.int/comm/environment/climat/home_en.htm

Background literature on EU ETS: http://www.claeys-casteels.com