

Cap and trade design: Experience gained with the EU ETS

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USCPA - 28th February 2008

Why was the EU ETS set up?

- ★ The cornerstone of the EU's market-based strategy to reduce greenhouse gas (GHG) emissions cost-effectively
- ★ The main driver for the global carbon market involving 168 countries and transactions valued at some €18 billion (\$24 billion) in 2006
- ★ An essential structural element for long-term global strategies to avoid dangerous climate change

Targets for emission reductions

- ★ European objective is for global temperature increase not to exceed 2^o Celsius (3.6^o Fahrenheit) above pre-industrial levels
- ★ This requires industrialised countries to reduce GHG emissions by 30% below 1990 levels by 2020, domestically or through emissions trading mechanisms, increasing to 60-80% reductions by 2050

EU ETS design fundamentals

- ★ Simple cap-and-trade system for major emitting industries
- ★ 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 pilot phase

- Effective emissions monitoring and verification
- Efficient electronic registry system
- Sound market development
- Allowances mostly allocated for free (auctioning limited to 5%)
- Allocations to be in line with reducing emissions and on path to Kyoto reductions
- However, insufficiently ambitious levels of reductions due to poor initial quality data and over-allocation in some Members States/ sectors

★ 2008-12: Aligned with Kyoto Protocol's first commitment period

- Allocations to be in line with reducing emissions and achieving Kyoto reductions
- However, a number of NAPs proposed over-allocating and Commission was obliged to cut allocations, in some cases significantly
- Auctioning possible up to 10%
- Extension of EU ETS taking place to other GHG via 'opt-in'
- Linking taking place with Norway and other Kyoto ratifiers
- Harmonised inclusion of climate change impacts from aviation

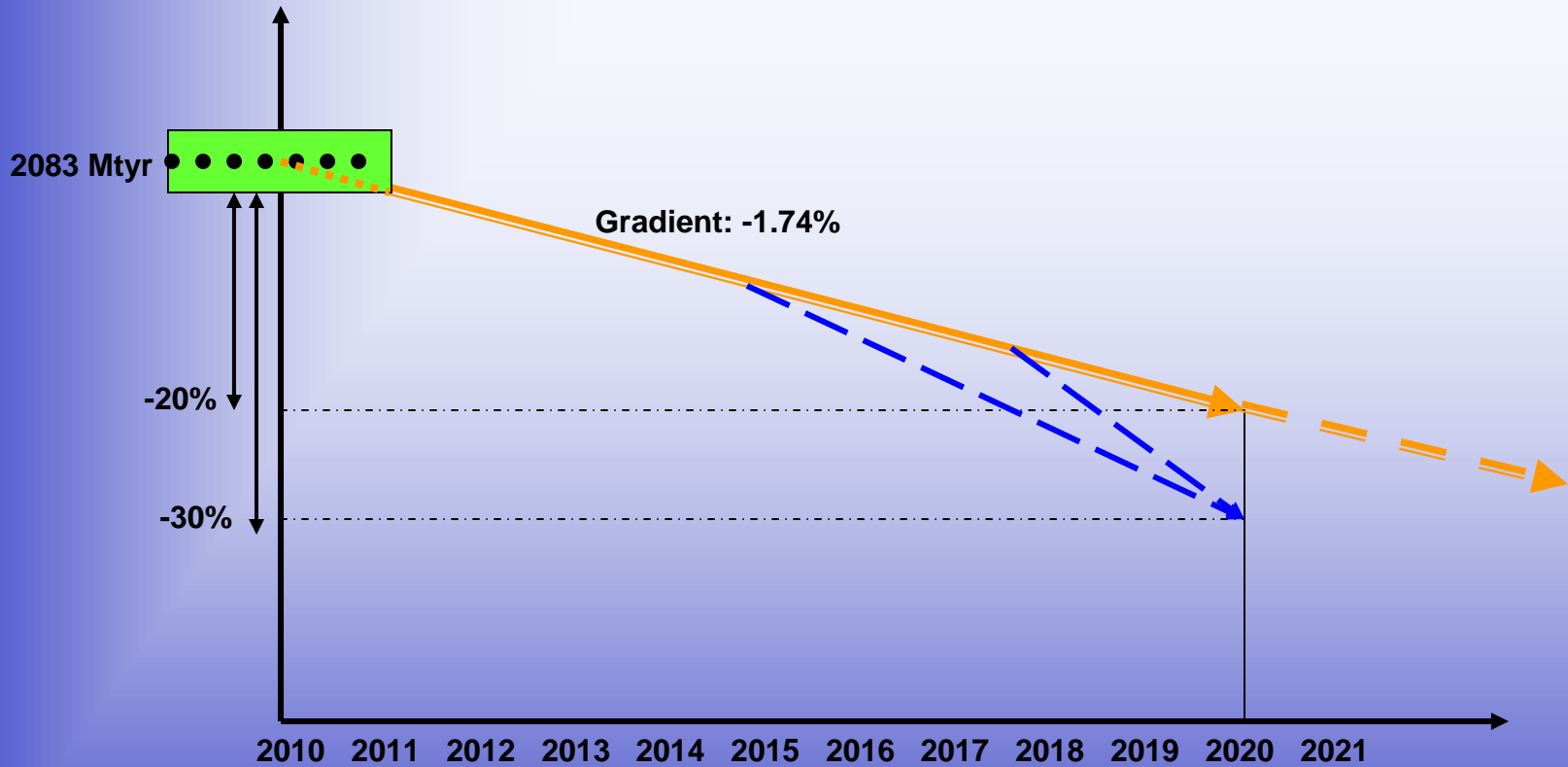
Objectives of 2006 EU ETS review

- ★ **To ensure a cost-effective contribution of the EU ETS to achieving the 20% GHG reduction for 2020, and to a 30% reduction reached in an international climate agreement**
- ★ **To improve the EU ETS based on experience so far**
- ★ **To enhance predictability and certainty for long-term emission reduction investments**
- ★ **To contribute to developing the international carbon market and encouraging action globally**

Targets and timetables

- ★ Single EU-wide cap to be agreed in co-decision rather than 27 caps proposed by Member States
 - Ensures environmental target
 - Less administration (27 MS NAPs, 27 COM decisions...)
- ★ Annual caps with linear decrease
 - Predictable trend-line to 2020 and beyond
 - CO₂ allowances available in 2020: 1720 Mt = -21% compared to 2005 EU ETS emissions
 - Cap-figures to be adjusted (opt-ins, new sectors, EEA countries)
- ★ When international agreement concluded
 - cap and linear factor automatically adjusted

Targets and timetables



- ★ Focussed on large sources of direct emissions of CO₂
 - Power generation and other large combustion installations
 - Refineries, Iron and Steel production, Cement
 - Lime, Glass, Ceramics, Pulp and paper
- ★ Over 10,000 installations responsible for over 2 billion tonnes CO₂/ year across the EU
- ★ Opt-in, including of other GHGs
- ★ Transitional opt-out where equivalent measures in place
- ★ Harmonised extension to aviation proposed in 2006
- ★ Coverage of reductions in 3rd countries via JI/ CDM

Scope under EU ETS revision

- ★ **Extension to new large industrial emitters: e.g. certain chemical sectors and aluminium**
- ★ **Extension to other GHGs: nitrous oxide, perfluorocarbons**
- ★ **Harmonised coverage of CCS installations**
- ★ **Aviation to be included in line with final agreement between European Parliament and Council**
- ★ **Leads to new abatement opportunities, lower overall costs, and higher efficiency**

Allocation principles

- ★ Basic principle for allocation is auctioning:
 - **Eliminates windfall profits**
 - **Simplest and most transparent allocation system**
- ★ Full auctioning for power sector
- ★ Partial free allocation to industry as a transitional measure
 - **Harmonised allocation rules, based on efficient production processes and techniques**
 - **To phased out by 2020 for “normal industry”, except for industries particularly vulnerable to international competition as determined by analysis by 2010 - possibly higher levels (up to 100%) of free allocation**
- ★ European Commission to report on potential carbon leakage by 2011 and make a proposal, if appropriate:
 - **To review free allocation levels and/or**
 - **To introduce system to neutralise distortive effects**

International aspects: JI, CDM, linking

- ★ Credits from Joint Implementation and Clean Development Mechanism projects can be used for compliance under certain conditions
- ★ When an international agreement is reached, substantial additional use of credits will be allowed automatically, in order to meet a stricter reduction target
 - From countries which have ratified the agreement
 - Important incentives for global climate agreement
- ★ Possible to link EU ETS not only to other national emission trading systems, but also to sub-federal and regional systems

Flanking legislation on carbon capture and storage

- ★ Enables CCS by providing legal framework to
 - Manage environmental risk
 - Remove barriers in existing legislation

- ★ Provisions for ensuring environmental integrity through the life-cycle of the plant (site selection up to post closure)

- ★ Greenhouse gases captured and stored will be considered not emitted under the ETS:
 - CCS can already be opted in for Phase II (2008-2012)
 - CCS explicitly included for Phase III (2013-2020)

- ★ Communication on promotion of demonstration plants