

Cap and trade design: Experience gained with the EU ETS

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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° Celsius (3.6° 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 “downstream” cap-and-trade system for major emitting industries that is part of a comprehensive policy mix
 - Despite partial coverage it is the largest cap-and-trade scheme ever implemented
- ★ Initially, 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 (€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 phase
 - Allocations to be in line with reducing emissions and on path to Kyoto reductions
 - Allowances mostly allocated for free (auctioning limited to 5%)
 - Robust emissions monitoring and verification, efficient electronic registry system
 - Sound market development

- ★ 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

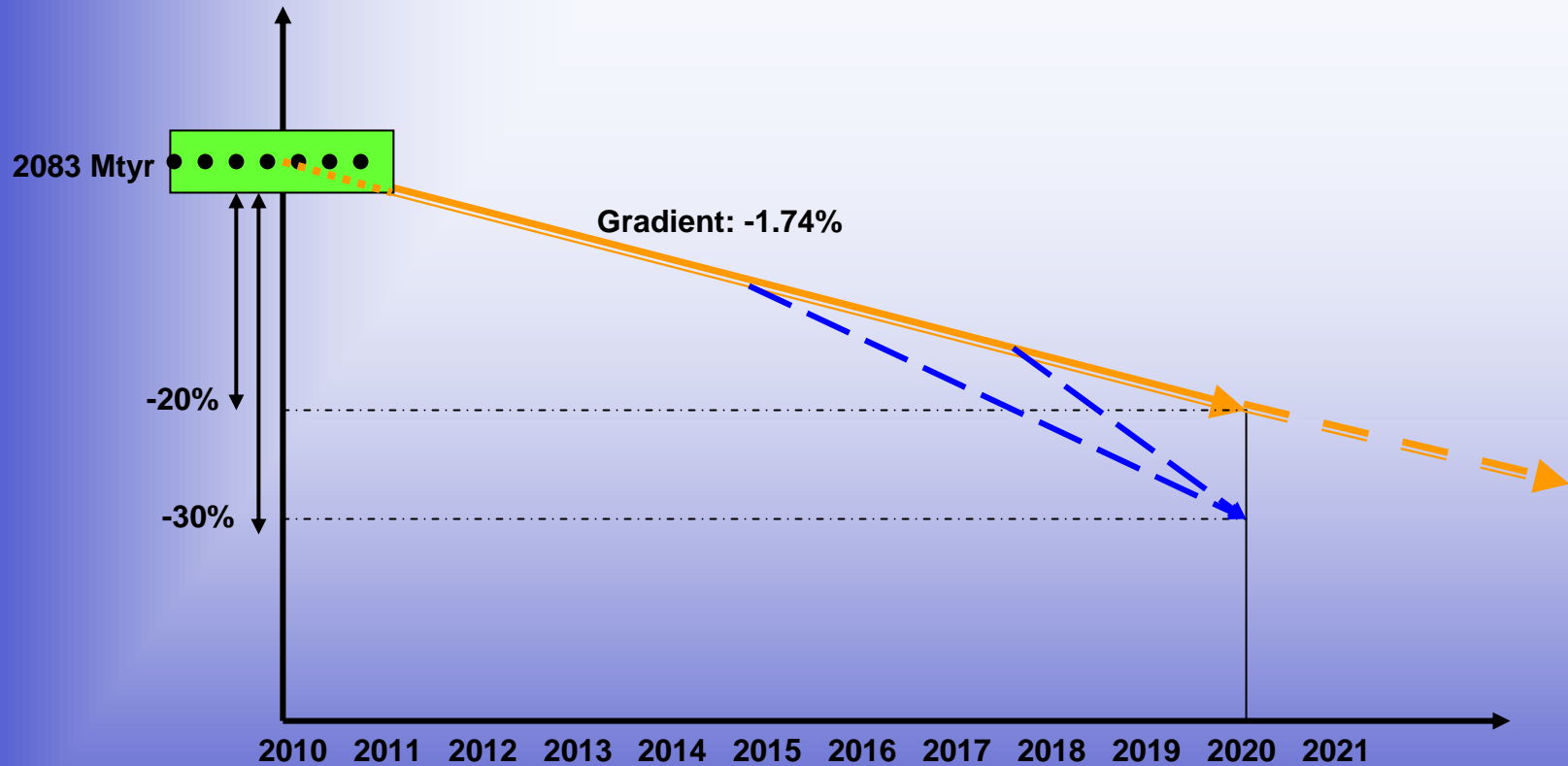
Objectives of 2006 EU ETS review

- ★ To ensure a cost-effective contribution of the EU ETS to achieving the 20% GHG reduction for 2020, and a 30% reduction if an international climate agreement is reached
- ★ 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

- ★ EU-wide (multi-year) cap set up-front in primary legislation rather than as a result of a nationally-driven process
- ★ Ensures environmental target
 - Less administration (27 MS NAPs, 27 COM decisions...)
- ★ Annual cap 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 emitting close to half of EU-wide CO₂ emissions
- ★ 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
- ★ Partial 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

Scope under EU ETS revision

- ★ Widened ‘opt-in’ and possibility of Community-level projects
- ★ Potential “opt-out” of small emitters, if equivalent emission reduction measures in place (e.g. tax)
- ★ Ability to link to any other mandatory emissions trading system capping absolute emissions, whether or not Party to Kyoto, as well as sub-federal and regional systems
- ★ Companies have certainty for continued use of JI/CDM credits, and increased levels confirmed once international agreement is concluded

Lessons learnt from EU ETS

- ★ Keep overall objective in mind of tackling global 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 absolute emission reductions
- ★ Keep emissions trading simple
 - Let the market develop without interference (no safety valve/ price cap)
 - Use private sector for verification
 - cover only those installations/gases at the outset where sufficiently accurate monitoring is feasible, extend later in line with technical progress on monitoring
- ★ No need to re-invent the wheel
 - Use of verified data as basis for any free allocation
 - EU's revised monitoring and reporting guidelines
 - Sound electronic registry software in place for emissions trading
 - EU ETS review and aviation law show EU's practical experience on design

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