

Environmental dimension of the EEP – EU ETS II.

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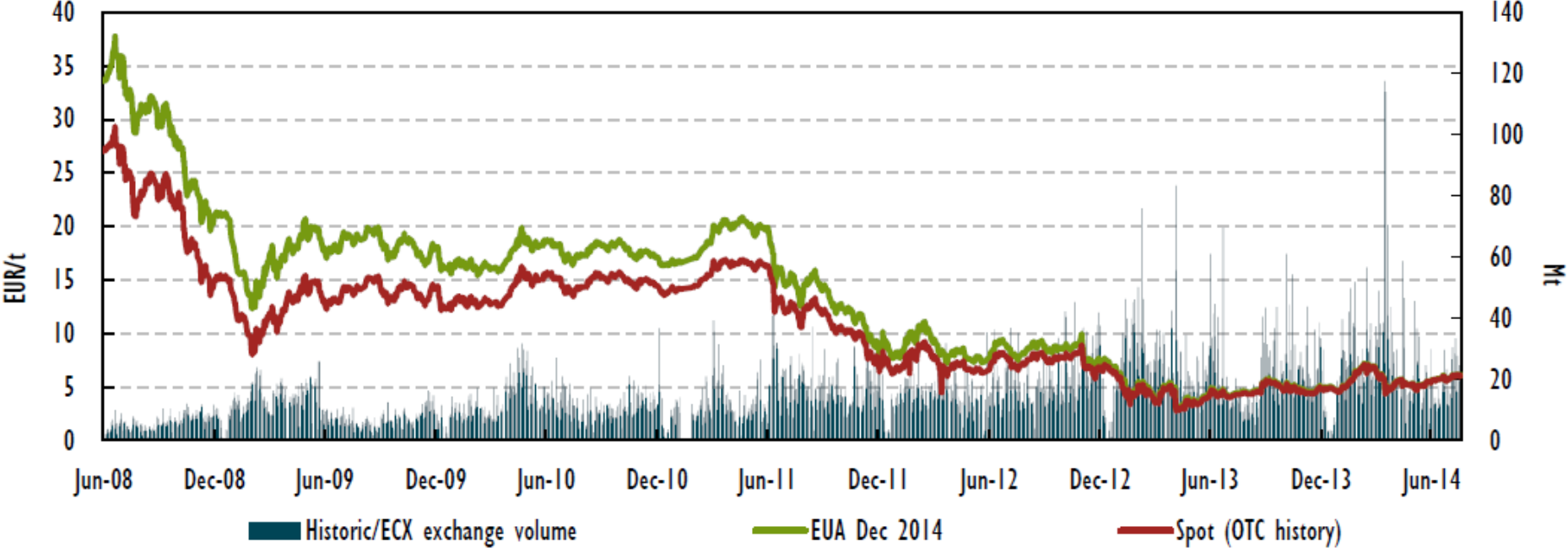
EU ETS: The second phase 2008 - 2012

- Iceland, Liechtenstein, and Norway joined the EU ETS.
- Aviation added, but only for EU flights.
- Nitrous oxide emissions from the production of nitric acid were included by several MSs.
- The proportion of free allocation fell to around 90%, with several countries auctioning the remaining 10%.
- The penalty for non-compliance was increased to €100/tCO₂.
- Banking allowances from phase II to phase III was allowed.

EU ETS: The second phase 2008 - 2012

- More stringent approach of EC – cuts of NAP (litigation at ECJ), but still decentralized cap-setting. Overall number of EUAs reduced by 6,5% for this period.
- Relatively stable (but low) price of allowances.
- Pressure to change the whole system.
- *„Nearly all 25 EU MS did not meet the 30 June 2006 deadline for the submission of the second phase NAPs (only Estonia was on time). Preinfringement letters were sent by the EC to 14 MS, namely Austria, Belgium, Cyprus, the Czech Republic, Denmark, Finland, Hungary, Latvia, Malta, the Netherlands, Portugal, Slovenia, Slovakia and Sweden.“*

Historic evolution of volumes and spot prices for emission allowances under EU ETS

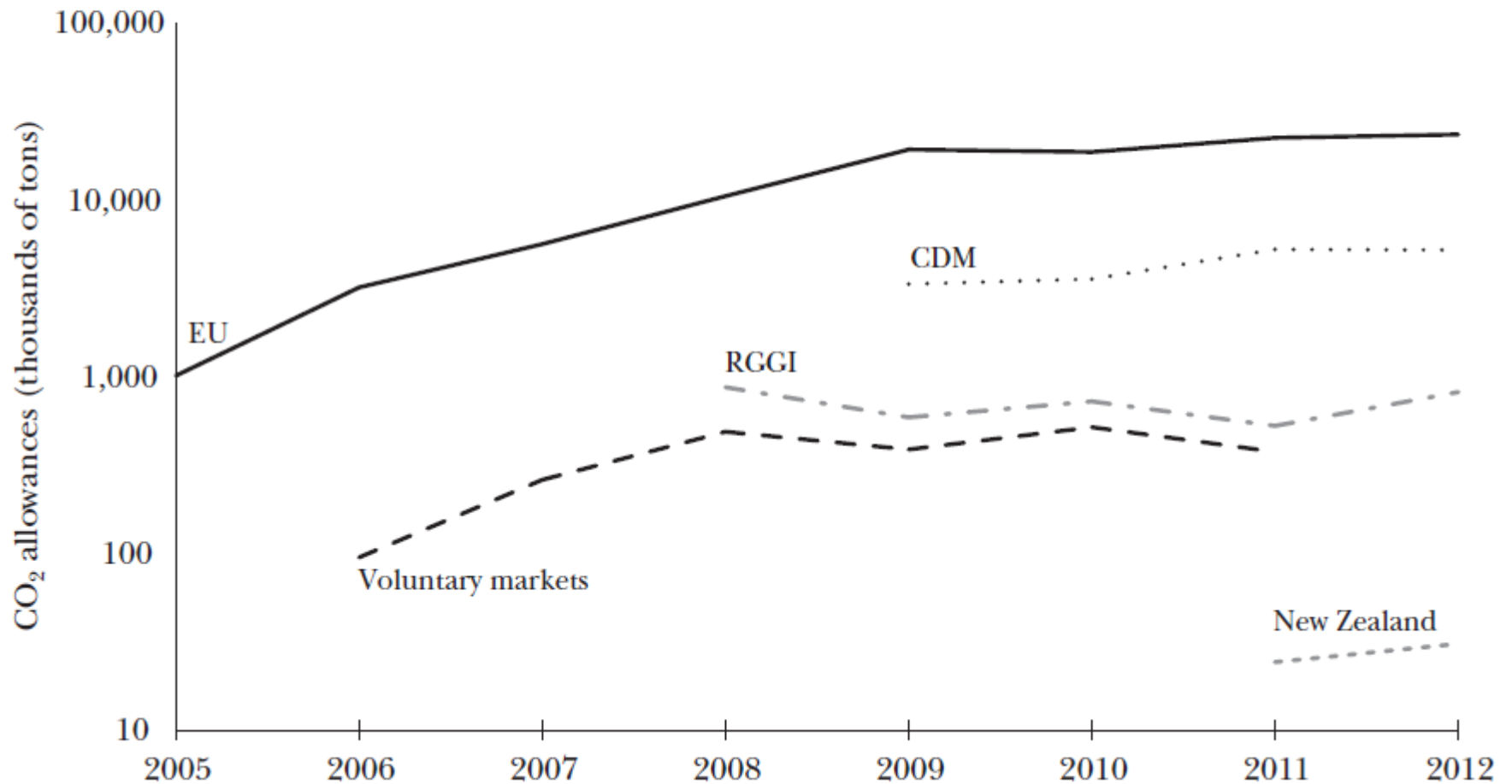


EU ETS: The second phase 2008 - 2012

- Between 2008 – 2012 the CO₂ price declined from around €20 MtCO₂ to around €8 MtCO₂.
 - The reduction of energy demand due to the financial and economic crisis starting in 2008.
 - Inflow of international credits (Certified Emission Reduction CER of CDM and others).
 - Impact of other EU policies such as RES and energy efficiency policy.
 - Rising prices of fuels.
 - The design of the EU ETS doesn't allow the adjustment of supply of EUA in reaction to the changes in demand.
- Since the banking is allowed between the second and third trading period = surplus of 2-2,5 bn EUA.

Volume of CO₂ Allowance Trades

(daily average)



EU ETS: The third phase 2013 - 2020

- Changes introduced by Energy and climate package 2009.
- EU-wide emission cap to replace NAPs. A linear reduction factor of -1,74 %/y applied.
- Auctioning of permits as a default method. More than 40 % of EUAs to be auctioned in the first year of 3rd period with progressively rising shares each year.
 - End of free permits to the power sector. In other sector the progressive transition to the auctioning.
- 300 million EUA in the New Entrants Reserve to fund innovative RES technologies and CCS.
- An expanded list of restrictions on the use of credits from the CDM.

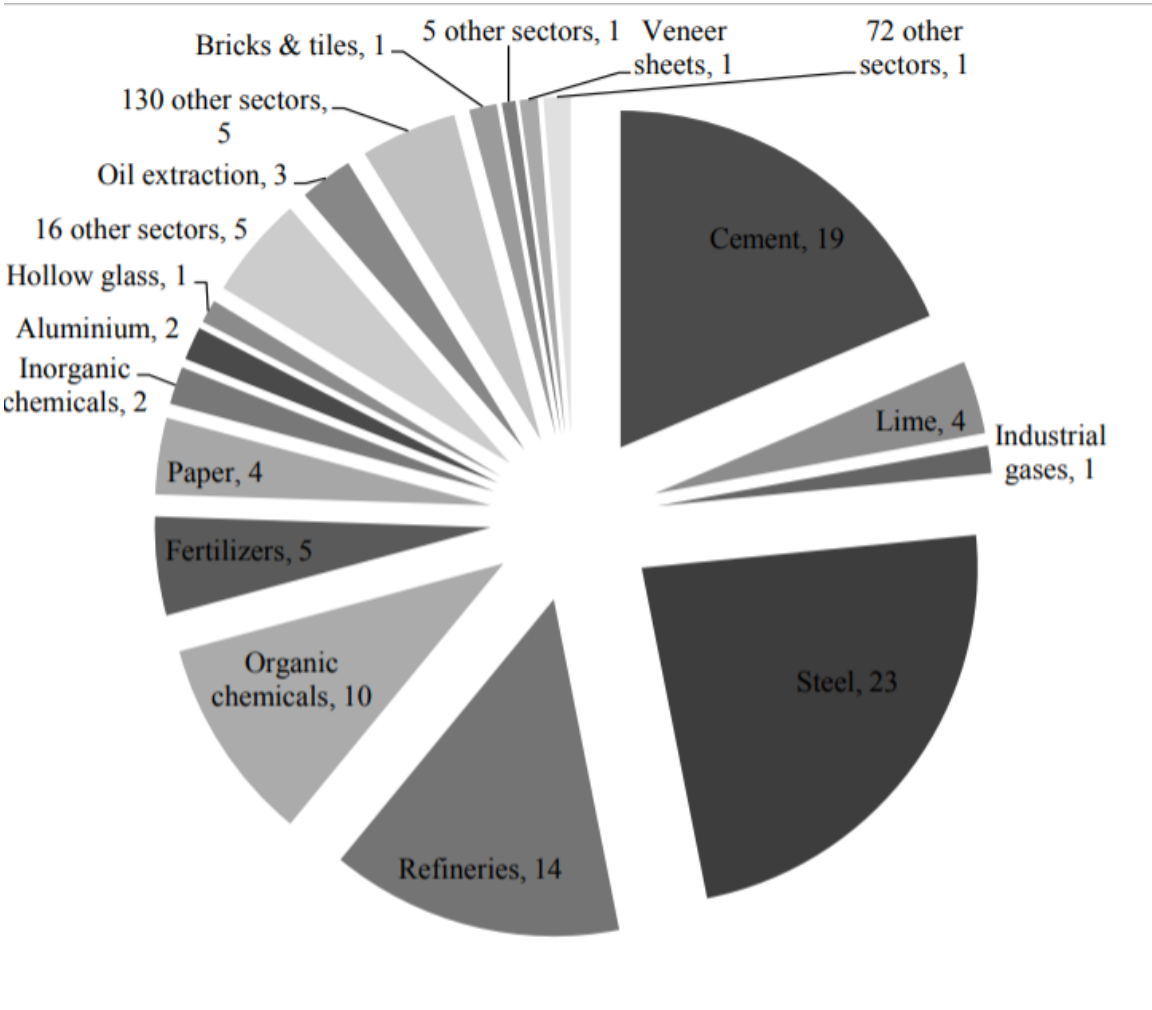
EU ETS: The third phase 2013 - 2020

- The establishment of EU-wide harmonized rules and performance benchmarks for the free allocation of allowances.
- CCS installations, production of petrochemicals, ammonia, non-ferrous and ferrous metals, gypsum, aluminium, nitric etc. added.
- International aviation – requirements for extra-EU flights operating from or to non-EU countries suspended temporarily.
- Distribution of auction revenues (88% to MS, 10 to MS with low per capita income and 2% to MS that had achieved a 20% emission reduction in their Kyoto protocol base by 2005).
- At least half of revenues to combat climate change.

Exeptions and derogations

- Countries, producing more than 60% of their electricity from coal or poorly interconnected to European grids could provide up to half of the allowances in energy sector freely.
 - Bulgaria, Cyprus, Czech Republic, Estonia, Hungary, Lithuania, Poland and Romania
- A risk of carbon leakage.
 - Process industries may get part or, if subject to carbon leakage, all of their EUA for free at the level of harmonized industry best practice practice.
 - Carbon leakage list to be published every 5 years (2009, 2014).

Share of free allocation (%) based on carbon leakage list 2015 - 2019



6,6 bn EUAs given out for free in the period 2013-2020.

Surplus of allowances

- At the end of 2nd period 900 mil. EUAs.
 - + selling of the left-over allowances in national phase 2
 - + new entrant reserves.
 - + early auctioning to meet sector hedging demand.
 - + the forward selling of phase 3 allowances to generate funds for the NER300 program.
- In the third period surplus increased to (estimated) 2 – 2,2bn.
- Backloading: delaying the auctioning of emission allowances intended to be allocated in 2014-2016 until 2019-2020 (now directly to MSR).
- Market Stability Reserve (from 2019) – to address the surplus of EUAs (more than 822 million of EUA in circulation) by automatically adjusting the supply of EUAs to be auctioned.

Revision for the phase 4 (2021-2030)

- Reflects the EU's 2030 Climate and Energy Policy Framework from 2014 (40% reduction in GHGs, 27% share of RES, 27% EE aim).
- In 2015-2016 preparation of the revision of the EU ETS for its fourth phase (2021-2030), aiming at aligning the cap with the EU's 2030 target of at least 40% reduction.
- The overall number of EUAs to decline at an annual rate of 2,2% from 2021.
- Better targeted allocation of free allowances:
 - Update of benchmarks to reflect the technological progress
 - More targeted carbon leakage classification
 - Free allocation better aligned with production levels.
 - Innovation fund – support for innovative technologies
 - Modernisation fund – to boost energy efficiency of power sector in 10 lower income MS (free allowances still available in these countries).

EU ETS – Assessment

+ it works at a technical level. It is the first and the largest international scheme for trading allowances. 31 countries (EU28+Iceland, Liechtenstein, Norway). Central pillar of the EU's climate change policy. More than 11 000 installations, 45% of the EU's GHG emissions.

+It has a modest (but limited) effect on carbon emissions. Emission stayed within the cap.

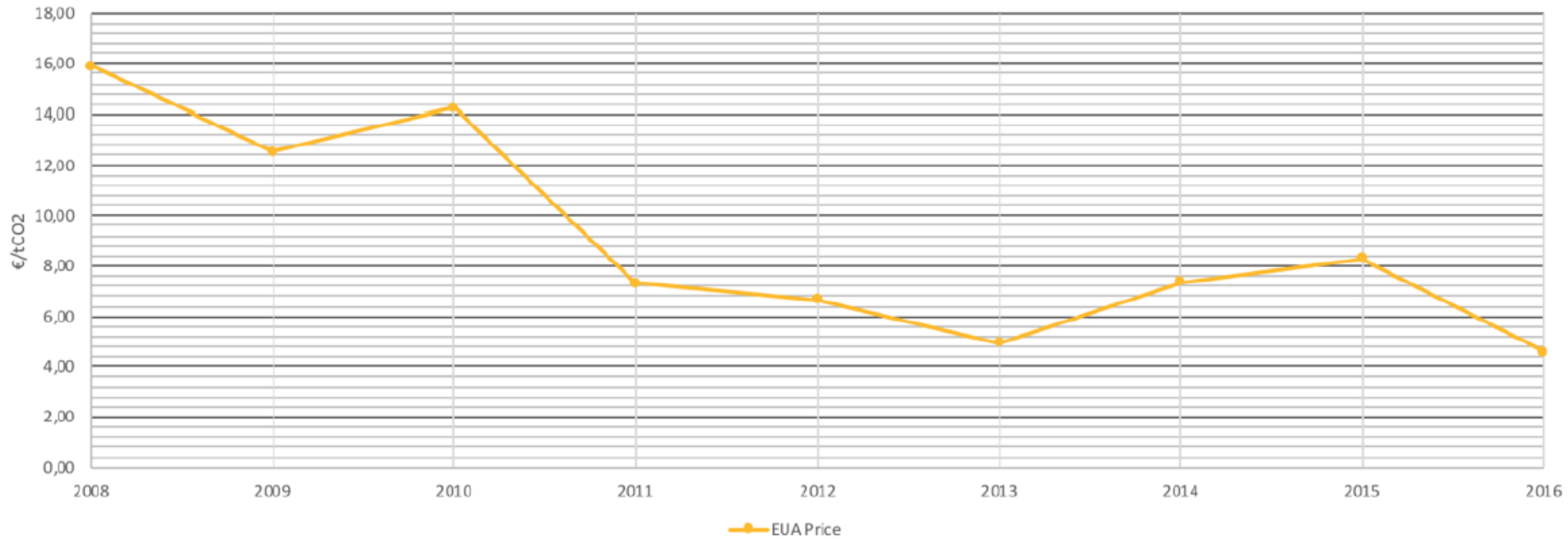
+It generates some revenue to promote climate change objectives.

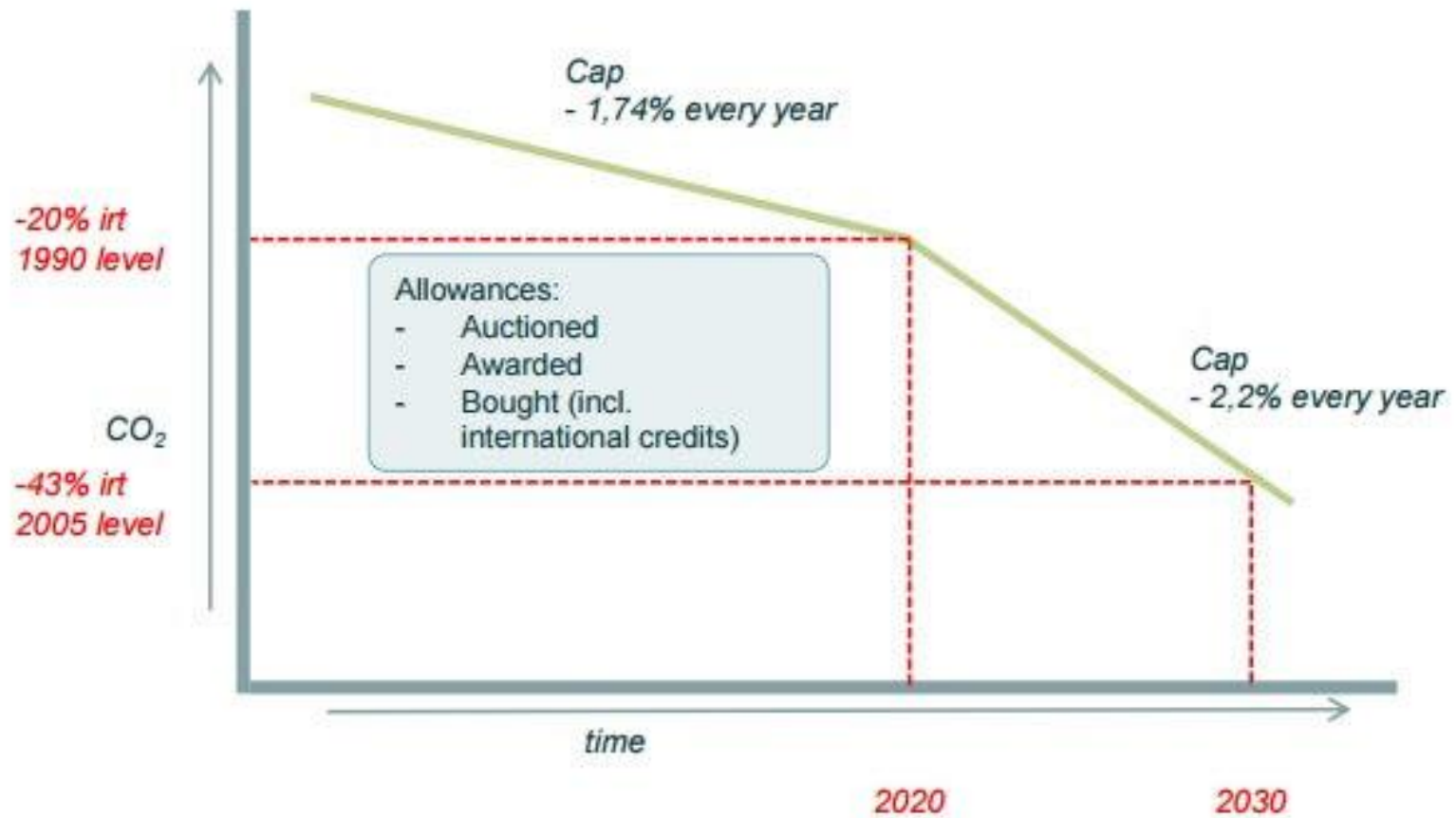
EU ETS – Assessment

- Low prices of EUA
- Tensions with other instruments - International Emissions Trading Association analysis estimated that between 2008 and 2020 the EED had been responsible for an EUAs surplus of approximately 515 MtCO₂, while the RED had accounted for a reduction in EUA demand of approximately 210 MtCO₂.
- Perception of competitiveness problems.
- Lack of credibility.

= high price is necessary for profitability of low carbon technologies (CCS, nuclear, renewables)

Evaluation of EUA prices





Environmental (climate) dimension of EEP

- Climate change – EU aims to develop a low-carbon economy.
- Measures primarily to reduce GHG emissions
 - EU ETS – covers 40% of EU emissions.
 - individual targets of MS for the non-EU ETS sectors (housing, agriculture, transport, waste) – cover 60% of EU emissions.
 - CCS.
- Measures to transform the energy sectors
 - RES
 - Energy Efficiency
 - Research and development, new technologies

A shared effort
between sectors and MS

GHG Target:
-20% compared to 1990

-14% compared to 2005

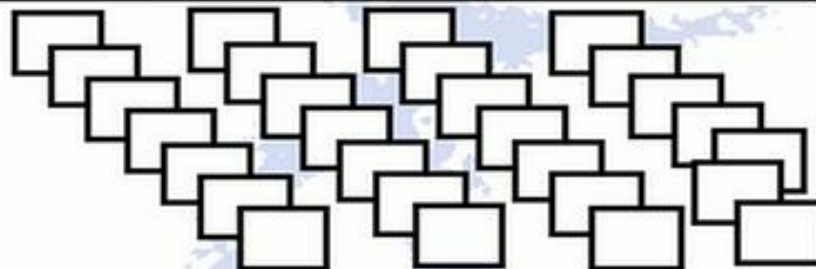
EU ETS

**-21% compared
to 2005**

ESD sectors

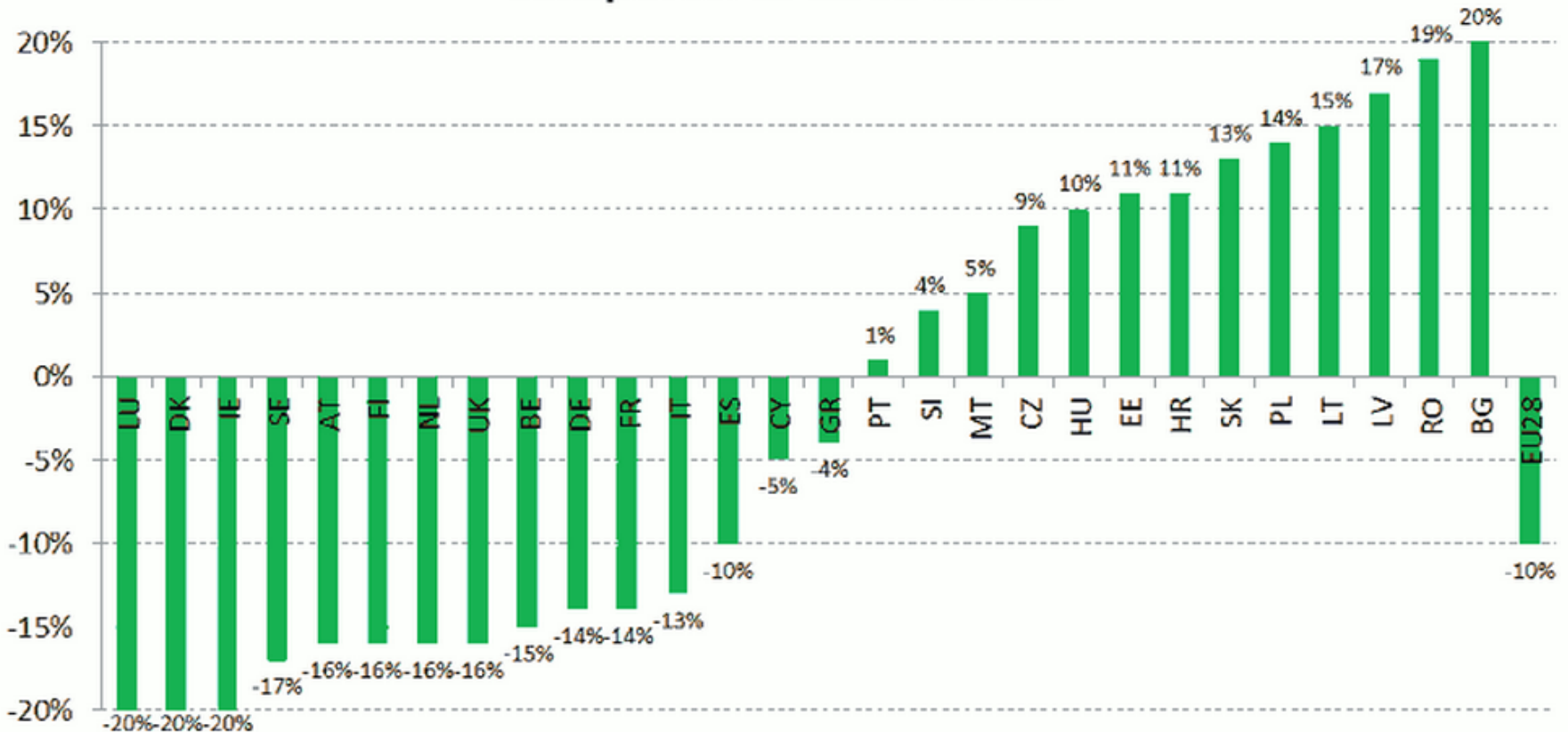
-10% compared to 2005

28 Member State targets, ranging from -20% to +20%



Individual targets of MS

Member State greenhouse gas emission limits in 2020 compared to 2005 levels



Non-EU ETS emissions (Effort Sharing Decision)

- 20% target is divided between a) a 21% target compared to 2005 for EU ETS emissions and b) a 10% target compared to 2005 for the non-ETS emissions.
- The later goal is split into national sub-targets.
 - Traffic management, low-GHG transport, biofuels, urban planning, improved energy performance standards for public building, labeling system, eco design...
- To support it some measures at the EU level – emission standards for vehicles, fuel quality directive...

EU achievements

- In 2015 EU emissions 22% below the 1990 level.
- MS projections indicate emissions being 24% lower in 2020 than in 1990 (20% target overachieved).
- Decreasing emissions trend in MSs, with the exception of Cyprus, Spain, Malta, Portugal, Ireland, Austria.
- Real GDP increased by nearly 50% between 1990 and 2015, emissions decreased by 22%.

Emission obligations of the EU

- Kyoto Protocol – EU15 to reduce its GHG emissions by 8% compared to base year (1990, 1995) during the first commitment period 2008 – 2012. Estimates of 16,3% without LULUCF.
- EU supports the Doha Amendment extending the KP from 2013 to 2020.
- Energy and climate package 2009 - A 20% reduction in EU greenhouse gas emissions from 1990 levels by 2020.
- Roadmap for competitive low carbon economy 2011 – up to 80% reduction to 2050 compared to 1990.
- 2030 Climate and energy framework – 40% by 2030 compared to 1990.

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