

Moving beyond a -20% greenhouse gas target: Costs, benefits and policy options

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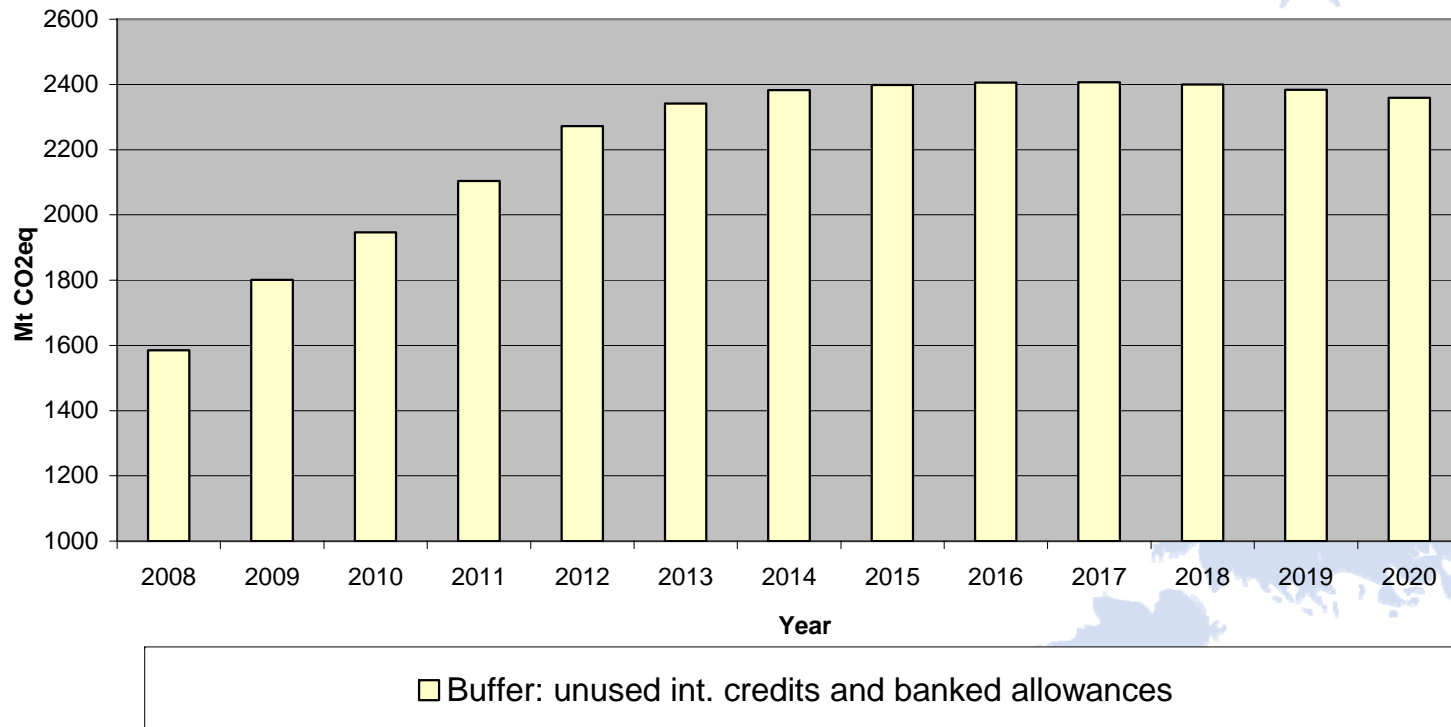
- Economic crisis has changed the context
 - Not only important short term drop in GDP, but also still lower GDP in 2020 as projected two years ago
- ETS has worked as expected during the crisis
 - Carbon prices fell early 2009 from €25 to €8 and then slightly recovered to €12-15
 - Puts less strain on firms in difficult economic times
 - extended time horizon via EU-wide cap declining to 2020 and beyond stabilises carbon price

- EU greenhouse gas emissions are decreasing
 - -7% compared to 1990 in 2005,
 - -10% in 2008 and
 - -14% in 2009 (preliminary estimate)
- EU -20% target by 2020: Gap is narrowing
 - Updated baseline projection: -14% in 2020
 - including implemented policy measures (e.g. ETS, CO2 and cars), but not RES and non-ETS targets
- 2050 time horizon on the agenda: European Council -80-95% target in line with 2°C

Cost impacts Climate and Energy package

- Full implementation package (-20% GHG and 20% renewables target) can be achieved at less costs than previously estimated
- Specific factors that influence costs in the EU Emission Trading System (ETS):
 - Economic crisis results in lower emissions
 - Higher than expected fuel prices increase efficiency
 - Significant amount of banking in the ETS period 2008-2012 impacts ETS prices also later on

Buffer of unused allowances and credits



Cost impacts Climate and Energy package

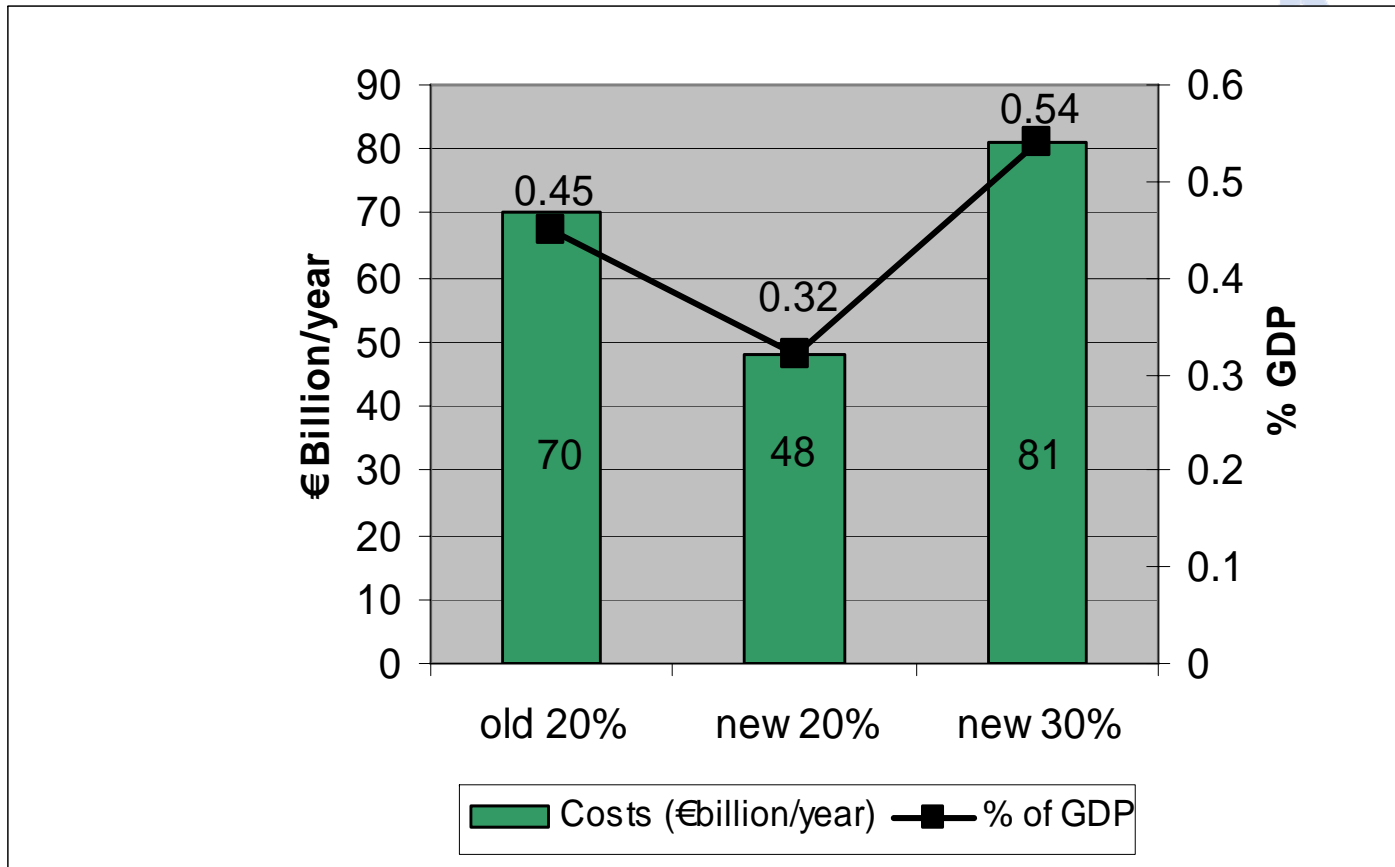
- 2008 projections for 2020:
 - ETS price estimate = € 30 / allowance (2005 prices)
 - ETS GHG emissions = -13% below 2005

- 2010 projections for 2020:
 - ETS price estimate = € 16.5 / allowance (2008 prices)
 - ETS GHG emissions = -19 % below 2005

- ETS drives innovation less
 - Full implementation package sees achievement renewables target but this is driven less through carbon price
 - Carbon price cannot drive CCS deployment

Cost of the 30% target

- Extra cost of 30% target has fallen, too

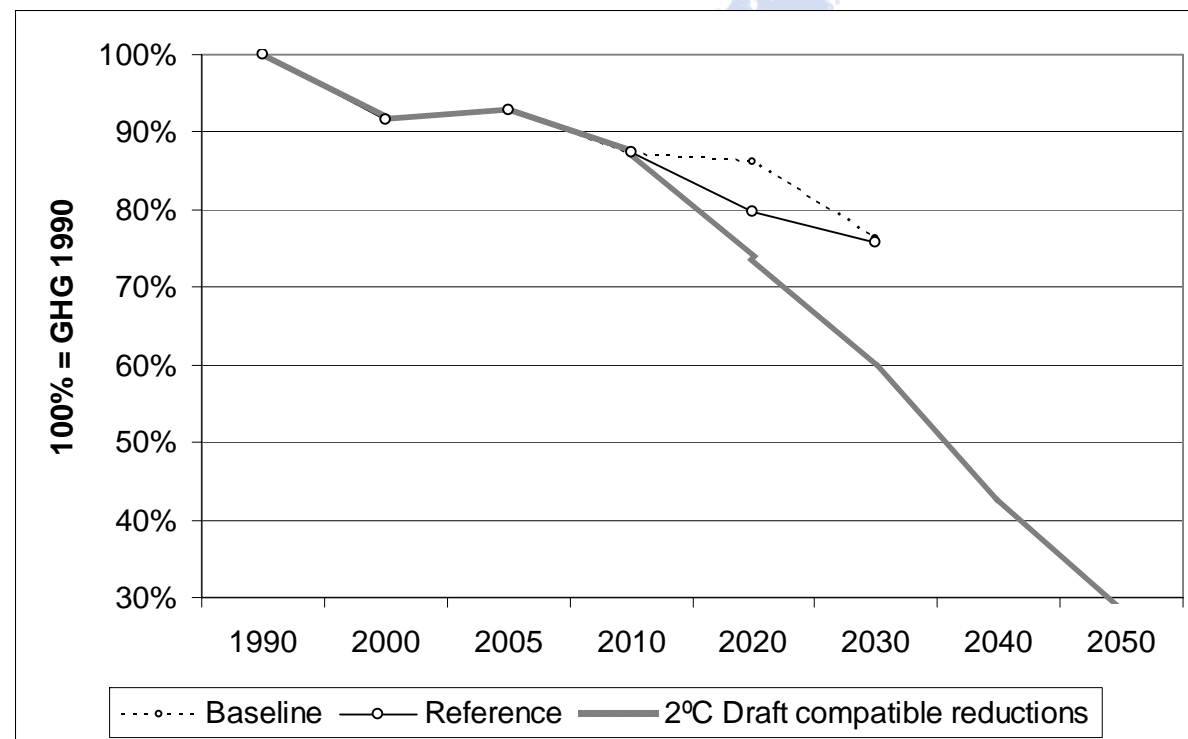


Benefits of a move to -30%

- Restores incentive to innovate and strengthens EU position in low carbon technologies
- Improves energy security (e.g. reduces imports of oil and gas by €40 billion in 2020),
- Reduces air pollution, cuts control costs by €3 billion/year and delivers health benefits (up to €8 billion/year)

EU GHG emissions in a longer term perspective

- A -30% target would smoothen EU path to 2050 goals, i.e. cuts by 80-95% compared to 1990



Sources: PRIMES, POLES

- European Council has defined conditionality and decides if and when a move is appropriate
- The EU should
 - prepare for a move to 30% and be ready to act
 - continue to encourage other countries
- Cost-effective split between ETS and non-ETS for -30% largely the same as for -20%
 - ETS: from 21% to 34% below 2005 emissions
 - Non-ETS sectors: from 10% to 16%

Options in the Non ETS:

- Technological options (e.g. product standards, energy efficiency measure)
- Energy Taxes in the non-ETS on products or fuels
- Cohesion funds, alternative to AAUs which would undermine the environmental integrity carbon market (post 2012)
- Common Agricultural Policy can give incentives for more sustainable practices, also for LULUCF activities
- Improve environmental integrity CDM & sectoral crediting
- maritime emission if no progress internationally
- Credits from REDD to partially fulfil reinforced targets

Options in the ETS: Auctioning fewer allowances

- Tighten ETS target by “setting aside” a share of the allowances foreseen for auctioning
- A 15% reduction over the period 2013-2020 = 1.4 billion allowances – could be sufficient
- Reinforces innovation incentives by expected effects on carbon price

Other ETS related options

- Innovation accelerator: Rewarding fast movers that invest in top performing technology
 - Use of ETS benchmarking system for identification
- Using EU policies to drive emission reductions (energy efficiency, standards, cohesion funds)
 - Demand side measures help to reduce cost in ETS
- Sectoral crediting to partly replace CDM
 - e.g. power sector advanced developed countries
 - could be linked to a multiplier for the use of conventional CDM credits

- Copenhagen Accord does not warrant any changes...
 - ... but all options – including border measures – remain on the table
- Despite reduced risk agreed measures remain justified
 - focus on implementation of these measures in the climate and energy package

Conclusions and outlook

- Move from 20 to 30 % is a political decision for EU leaders when timing and conditions are right
- Commission analysis provides input for fact-based debate on the way forward
ec.europa.eu/environment/climat/climate_action.htm
- International context post-Copenhagen: need to strengthen pledges and to make them more transparent and operational
- Commission prepares low carbon economy and energy roadmap 2050 and scenarios for 2030