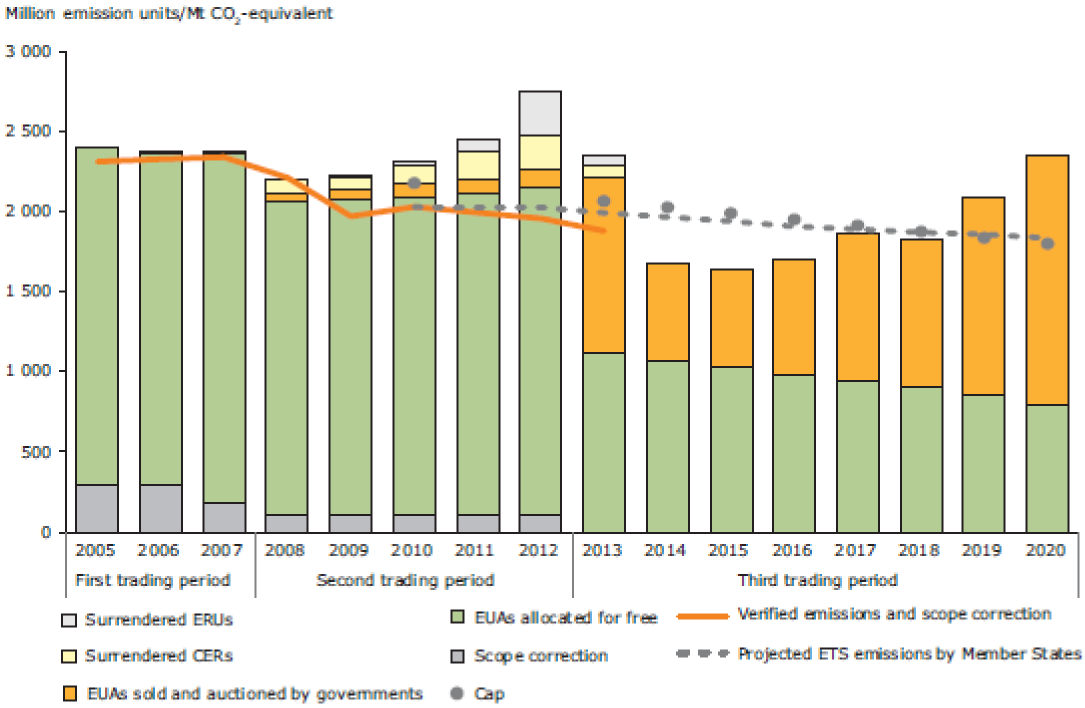
Is Europe's new climate target a walk in the park?

Today the European Environment Agency reports that the EU has achieved emissions cuts of 19.3% in 2013 relative to 1990 levels. But according to our analysis, the Environment Agency drastically underestimates how fast emissions will fall over the rest of the decade. We predict that EU emissions could fall as much as 29% below 1990 levels by 2020, driven by aggressively declining emissions in the EU Emissions Trading Scheme. Unless bold new policies are adopted, spare carbon allowances accumulating as a result of this fall in emissions will seriously undermine the new climate target agreed by EU leaders last Thursday.

Earlier today the European Environment Agency released its latest report on Europe's annual progress towards its climate change targets. The new report calculates that Europe's emissions were 19.3% below 1990 levels in 2013[1] against a 2020 target to cut emissions by 20%. They go on to project that emissions will fall by only 2% over the rest of the decade, despite observed reductions of 2% over the previous year alone.

Figure 4.3 Stationary EU ETS emissions, cap and available credits, 2005–2020



Source: EEA, 2014e and 2014f; Table 3.2.

The Member State projections used by the Environment Agency, however, are already obsolete, failing to fall anywhere near as rapidly as observed emissions. This is particularly true for emissions covered by the EU Emissions Trading Scheme. In Figure 4.3, taken from the new report, actual emissions (shown as an orange line) consistently fall below projected emissions since 2010 (shown as a grey dotted line). In fact projected emissions do not fall to actual 2013 levels until 2018 or 2019.

[1] Including international aviation, which is how progress towards the 2020 climate target is measured. Without international aviation, emissions are 20.7% below 1990 levels, but this is not the scope of any target. See p.19 Approximated EU GHG inventory for 2013. http://www.eea.europa.eu/publications/approximated-eu-ghg-inventory-2013

Sandbag has recently published an emissions forecast for the traded sector which expects far more aggressive emissions reductions to take place once current and planned policies are implemented, assuming stringent application of planned energy efficiency measures.[2] Keeping the EEA's forecasts for the non-traded sectors of the economy but applying these steeper emissions reductions in the traded sector, **Sandbag finds that EU emissions will fall around 8% further than the EEA expects relative to 1990 levels. This implies EU28 emissions will fall to around 29% below 1990 levels by 2020.**

This over-delivery of the 2020 target will allow billions of spare allowances to accumulate in the carbon budgets which enforce Europe's climate targets, and most of these can be banked forward to weaken the new greenhouse gas targets in the 2030 package. These surpluses are not just the result of energy and environmental policy, but also the result of a deep recession, weak ambition in the 2020 targets and poor regulation on the use of international offset credits.

The Environment Agency, citing the European Commission, estimates that by 2020, some 2.5 billion allowances will have accumulated in the EU Emissions Trading Scheme, which can carry over allowances into the 2030 package. Sandbag expects as many as 4.5 billion to accumulate within the system.

Applying a methodology developed by Ecofys[3], we calculate how much these surpluses could dilute the ambition of the 2030 target if they were carried over as a wedge of allowances sitting on top of the ESD and ETS carbon budgets currently proposed. **If all spare allowances were used by 2030 the new package would not legally prevent emissions from staying as high as -26% relative to 1990 levels in 2030, higher even than our emissions forecast for 2020.**

Table 1: How ETS surpluses in the 2020 package can compromise the 2030 target

Forecast	Surplus (Mt)	Annual increments of allowances (Mt)*	Additional carbon space in 2030 (Mt)	Diluting effect on 2030 target (relative to 1990 emissions) (%)**
Formula	A	B = A/55	C = B x 10	D = C/5,695
EEA (European Commission)	2,500	45.5	455	8%
Sandbag forecast	4,536	82.5	825	14%

Source: EEA, EU Transaction Log and Sandbag calculations.
We have translated the estimated surplus in 2020 into a "wedge" of allowances that sits on top of the proposed carbon budgets in the 2030 package. Methodology originally devised by Ecofys.
**The number of increments in the ten year wedge is equal to (1+2+3…+10) which equals 55.*
*** EU28 GHG emissions in 1990 were 5,695Mt, excluding LULUCF but including emissions for civil and international aviation (EEA GHG Data Viewer).*

There are a range of promising policies on the horizon which could prevent the 2030 package from being compromised in this way.

- A legislative proposal for a Market Stability Reserve, initiated by the Commission in January and endorsed by the Council on Thursday, could regulate the supply of allowances available in the EU ETS, keeping emissions on a tighter leash and leaving less room to undershoot the headline target. The stability reserve will be vastly more effective if it is implemented by 2017 and prevents backloaded allowances from flooding the market, as now supported by Germany, the UK and France.

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[2] Surplus Projection to 2020. *Sandbag* (October 2014) http://www.sandbag.org.uk/site_media/pdfs/reports/Briefing-2020surplusprojection.pdf
[3] Adjusted 2030 targets may revive the ETS and put EU emissions back on the 2°C track. *Ecofys* (July 2013) http://www.ecofys.com/en/news/adjusted-2030-targets-may-revive-the-ets-and-put-eu-emissions-back-on-the-2/

- A new provision in the European Council conclusions last Thursday allows certain Member States that are struggling to meet their 2020 targets in the Effort Sharing Decision to achieve these through a one-off cancellation of ETS allowances from their national accounts.

- In a similar vein, the Council has re-iterated that Member States struggling to reduce emission in the transport sector, can choose to transfer them across from the Effort Sharing Decision to the EU ETS, where they should soak up some of the bankable surpluses that are accumulating in the scheme.

- Finally, there is still potential for cancelling significant volumes of allowances form the EU ETS through a dedicated political decision, as was initially proposed in the European Commission's list of potential structural reforms to the EU ETS.[4] In their latest report Sandbag calculated that as many as 2.6 billion allowances would need to be cancelled from the EU ETS between now and 2030 to align the ETS with the cost-effective decarbonisation trajectory described in the European Commission's Low Carbon Roadmap published in 2011.[5]

The European Council concluded that a well-functioning and reformed carbon market will be the main European instrument to achieve the 40% target, but if new reforms fail to tackle the growing surpluses in the EU ETS, it will be the policy which undermines, rather than delivers that target. The first test of Europe's resolve will be to reach agreement on a robust Market Stability Reserve mechanism that starts by 2017 and which does not allow the oversupplied carbon market to be flooded anew with over a billion new allowances.

Sandbag is a London-based climate change NGO and think-tank campaigning for an effective carbon market. Visit our website at: www.sandbag.org.uk. For further information about this briefing contact:

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[4] The state of the European carbon market in 2012. *European Commission* (November 2012) http://ec.europa.eu/clima/policies/ets/reform/docs/com_2012_652_en.pdf

[5] Slaying the Dragon. *Sandbag* (October 2014) http://www.sandbag.org.uk/site_media/pdfs/reports/Sandbag-ETS2014-SlayingTheDragon.pdf