

Policy Briefing

EU ambition at Copenhagen:
'hot air' means we can aim higher



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About Sandbag and this briefing

Sandbag is a UK based not-for-profit campaigning organisation dedicated to achieving real action to tackle climate change and focused on the issue of emissions trading. Our aim is educate and inform civil society about emissions trading policy, to scrutinise how it is working on the ground and to lobby for improvements. In doing this we seek to involve civil society more in the operation and future development of emissions trading.

From our work to date we have identified that the effectiveness of the EU Emissions Trading Scheme has been significantly weakened by over-allocation and the effect of the recent recession. Since emissions trading at a company level, under the EU ETS, and a country level, under Kyoto, are linked, weaknesses in one impact on the other.

In order to secure a more robust company level emissions trading scheme we need a robust international framework in the post 2012 period. The effectiveness or otherwise of domestic EU policies such as the EU ETS also effect the levels of ambition we are able to take on in international agreements. It is therefore imperative that we understand how these two issues inter-relate.

This briefing draws on our previous report 'EU ETS S.O.S' published in July 2009. It builds on the finding that large volumes of spare emissions allowances may potentially be banked for future use and considers the implications of this for future EU targets at an international level.

We also explore the methodology the EU used to derive its own targets and look at the effect of comparing countries' targets against different baseline years.

We would very much welcome hearing the views of others on this subject. Please email us on info@sandbag.org.uk. For more information please visit our website: sandbag.org.uk

Executive Summary

This briefing explores three aspects of the EU's current climate change targets:

- the degree of spare permits or 'hot air' that will be available for use in the next commitment period - we focus on permits issued to companies covered by the current phase of the EU Emissions Trading Scheme;
- the appropriateness of the target setting formula the EU developed for itself in advance of the Copenhagen negotiations;
- the effect of comparing Annex 1 country targets against different baseline years.

We find that the EU's targets currently *appear* considerably more ambitious than they are. This is due to a combination factors:

- the large volumes of hidden 'hot air' arising in the EU ETS, as a result of overly generous allocations to industry combined with the effect of the recession, that will make targets in the next commitment period easier to achieve,
- the use of a target-setting formula that focuses on emission reductions in the period 1990 – 2005, which had little to do with climate policies, and that ignores the much more significant contribution the EU has made to the total historic stock of emissions in the atmosphere¹,
- the convenient choice of a 1990 baseline which benefits the EU while disadvantaging other countries.

We conclude that to address these points the EU must reassess its current position and agree a more appropriate target.

Europe should now move to a unilateral reduction target of 30% by 2020 against a 1990 baseline and prepare for a target of 40% in the event of a deal being reached in the Copenhagen negotiations. This target should also be expressed against a 2005 baseline and clear statement made about the level of effort the EU is proposing to undertake domestically rather than through the use of international emissions reduction credits.

¹ Over the period 1900-2004 European countries were responsible for approximately 30% of total anthropogenic emissions to the atmosphere Source: World Resources Institute (<http://www.wri.org>)

Introduction

Background

The European Union has, over a number of years, claimed to be leading the world in reducing harmful Greenhouse Gas ('GHG') emissions. It has introduced a range of policies to try to curb emissions but these have been slow to start and dedicated climate and energy policies have delivered few emissions savings to date. This is evident not only from the emissions record so far, but also from the continued unbroken link between emissions and economic growth or decline. Investment in energy infrastructure also appears not to have deviated significantly from 'Business As Usual', with many more coal fired power stations being proposed in Europe. Caps have been implemented on 50% of emissions. However, they have been set too leniently leading to large surpluses in emissions permits and low prices.

More investment is now being made into renewable electricity but this is still too insignificant on its own to achieve a significant reduction in all energy related emissions. The harder tasks of reducing emissions from coal fired power stations and industrial plant and decarbonising our transport and heating systems has yet to begin in earnest. As a result, emissions in recent years were more or less static until, however, we entered an economic recession.

A new context

The recession has succeeded where policies have failed and emissions in Europe are now declining. Reductions due to a reversal in economic growth trends were not anticipated and emissions in key sectors are now well below the caps that were set in the EU Emissions Trading Scheme. This unexpected outcome is generating surplus permits or 'hot air' that can be banked for future use.

This is important not only in the context of EU policy but also in relation to future international agreements on climate change. This short briefing sets out a range of considerations that must be borne in mind when considering the equivalence of effort between EU targets and other country targets being proposed for the Copenhagen negotiations.

Quantifying Ambition: what the numbers really mean

The EU's opening offer of an unconditional reduction of 20% relative to 1990 by 2020, and a conditional target of 30% reduction by 2020 relative to 1990, may **appear** ambitious but this is largely due to the accounting rules the EU has chosen to adopt in describing its ambition. The reality of the offer can be more easily assessed when the levels of effort required to meet these targets are more clearly articulated.

When assessing the EU targets and comparing their equivalence to targets offered by other countries, the following factors need to be borne in mind:

- The EU benefited from economy wide changes during the 1990's that were unrelated to a desire to reduce emissions, these reductions do not constitute 'early action' to tackle climate change;
- The more recent economic downturn, makes more ambitious emission reduction targets possible by 2020;
- The implementation of the EU Emissions Trading Scheme ('EU ETS') has resulted in industrial 'hot air' that will be carried forward from the 2008-2012 commitment period into any post-Kyoto global agreement, making it easier to meet targets.
- The EU proposes to make full use of international trading of allowances from outside the EU, making the targets for domestic action roughly half the overall target.

When considered in this context, the EU's conditional offer of a 30% reduction by 2020 is in reality only a **10% reduction in domestic emissions from current levels**. By 2010 we will have already achieved a 10% cut against 1990 and half of the remaining effort to meet the 20% target is likely to be met through purchasing of permits from overseas, giving a domestic reduction of only 10% over a decade.

In addition, 700 million permits could be carried forward and set against this target from the EU emissions trading scheme².

In order to more clearly understand these issues the following table quantifies the volume of emissions savings that must be generated to meet different targets in 2020.

It is worth noting that the volume of emissions reductions that must be achieved over the period 2012-20 are dramatically reduced when the effect of the potential banked 'hot air' in the EU ETS is taken into account.

² See Sandbag report: 'EU ETS S.O.S: Why the flagship policy needs rescuing' for more details of the source of this surplus.

Quantifying Ambition continued

Table 1: Summary of reductions required under different EU targets³

EU 27	20% reduction target (ktonnes)	30% reduction target (ktonnes)	40% reduction target (ktonnes)
Emissions in 1990 (incl LULUCF)	5,163,100	5,163,100	5,163,100
Emissions in 2006 (incl LULUCF)	4,633,700	4,633,700	4,633,700
Emissions in 2020 (incl LULUCF)	4,130,480	3,614,170	3,097,860
Distance to target compared to 2006	503,220	1,019,530	1,535,840
Cummulative reductions 2013 – 2020 (based on linear reduction to target compared to 2006 emissions)[1]	3,000,000	6,100,000	9,200,000
Domestic effort (minus access to CERs @ 50%)	1,500,000	3,050,000	4,550,000
Est. surplus EUAs banked from current phase [2]	700,000	700,000	700,000
Banked permits as % of total demand	23%	11.5%	7%
Banked permits as a % of domestic effort	46%	23%	15%

[1] The calculation of cumulative effort is based on an assumed straight line trajectory from 2006 emission levels to targets in 2020. The cumulative effort required to remain within this emissions trajectory is calculated against current (ie 2006) levels.

In reality the cumulative effort required from now to 2020 is likely to be less than this since emissions fell between 2006 and 2008.

[2] This is based on our calculations of surplus EUAs being banked from over-allocated companies in the current phase combined with the release of New Entrant Reserve permits into the market. See our report “EU ETS: S.O.S”⁴ for more details.

³ Source data: Total GHGs incl LULUCF, in T CO2 Eq, which is the base level analysed by the UNFCCC Secretariat and released on 06 June 2009

⁴ http://sandbag.org.uk/files/sandbag.org.uk/Sandbag_ETS_SOS_Report_0.pdf

Hot air at the negotiating table: how Europe's trading scheme gives it an unfair advantage

The EU has expressed concern over the considerable volumes of surplus emissions permits, issued to Russia and the Ukraine under the Kyoto Protocol (AAUs), that could be carried forward for use in the post-2012 regime. The EU's policy is that this carryover of unused permits should be taken into account when future targets are set, to ensure targets represent genuine efforts to reduce emissions⁵. However, the introduction of the EU-ETS combined with the recent recession has meant that the EU is itself generating large volumes of hot air.

Based on current levels of emissions compared to allocations of permits circa 700m excess permits circulating in the period 2008-2012 could be banked and carried forward by EU-ETS participants. In addition over 1 billion permits could be imported from CDM projects to be used for compliance or swapped for EUAs.

The European Commission and Member States can still control the banking of AAUs from emissions outside the emissions trading scheme and choose to cancel them. This is the Commission's preferred policy. However, AAUs converted into EUAs have been handed to the private sector through the ETS and participants enjoy unlimited, indefinite banking.

The effect of the hot air being carried forward in the traded sector will be to make the meeting of the EU's future targets far easier. As things stand, if the industrial surpluses in 2008 are repeated and high levels of overseas permits are brought into the EU, then up to 1.6 bn permits could be sitting in company balance sheets at the start of the next period of international trading.

As no other Annex 1 country has yet implemented a private sector trading scheme based on AAUs, the EU is in the unique situation of arriving at the negotiating table with surplus of permits it can do little about, other than taking on new targets to compensate.

As Table 1 on page 5 shows – banked 'hot air' could be used to meet around half (46%) of the domestic effort needed to reach a reduction target of 20% compared to 1990 levels.

Even with a target of a 40% reduction against 1990 levels by 2020, banked EUAs could still account for 7% of the total cumulative effort required to meet that target.

The easiest way to compensate for this portion of the hot air is to take on more appropriate targets – either by adjusting the baseline against which future targets are set (ie a 30% reduction against current levels) or by increasing the overall level of the targets.

We recommend that the EU adopts a revised unilateral commitment of a 30% reduction from 1990 levels by 2020 and prepares for increasing this target to 40% in the event of a global deal being reached in Copenhagen. We also recommend that this target is expressed in relation to a 2005 baseline and a clear statement is made about the level of effort that will be achieved domestically rather than through purchasing of international emissions credits.

⁵ Reference: European Commission Communication: 'Towards a comprehensive climate change agreement in Copenhagen' (January 2009)

False credit for 'Early Action': emissions reductions unrelated climate policies give an unfair advantage

EU proposes a conditional 30% reduction across its Member States as a fair contribution towards the collective effort required by all countries. In determining burden sharing across Developed Countries the EU used its own formula which took into account GDP per capita, emissions per unit of GDP, population growth and emissions reductions between 1990 and 2005.

In terms of accounting for historic responsibility, this approach ignores responsibility for total cumulative emissions over time (the real cause of climate change) but focuses on 1990 – 2005. During this time the EU, unlike most other Annex 1 countries, was able to show reductions. These reductions, however, were not due to dedicated actions to decouple the economy from emissions – rather to one off actions and un-related and unconscious economic effects:

- **Germany:** Economic restructuring after the German reunification
- **UK:** Liberalising Energy Markets, Dash for Gas, N2O emission reduction measures in relation to Adipic Acid production⁶
- **France:** Large reductions in N2O emissions from Adipic Acid production
- **Poland and other accession countries:** decline of Eastern block economies

Given that the UNFCCC was not in force until March 1994, and the Kyoto Protocol was not adopted until December 1997, the majority of 'Early Action' is clearly unrelated to deliberate emission reduction strategies. The fact that emissions across the EU-27 are essentially stable from 2000 to 2007 emphasises this point.

In order to more fairly calculate the level of emissions reductions the EU should be required to use a different formula that takes into account cumulative historic contribution to the stock of emissions in the atmosphere, rather than rewarding 'early action' between 1990 and 2000 which unduly biases targets in favour of the EU.

Table 2: Breakdown of emissions reductions in EU over time

Reduction by Period based on 1990 Base	% 1990 - 1995	% 1995 - 2000	% 2000 - 2007	Total
Germany	-10.7%	-6.3%	-4.3%	-21.3%
United Kingdom	-7.7%	-4.9%	-4.8%	-17.4%
Poland	-2.8%	-12.4%	+2.2%	-13.0%
Other Member States	+14.9%	20.8%	6.8%	+42.5%
EU - 27	-6.3%	-2.9%	-0.1%	-9.3%
EU - 15	-2.5%	-0.4%	-1.4%	-4.3%

⁶ In answer to a Parliamentary Question the UK admitted that only 15% of its emissions reductions were due to policy. Source: House of Commons Official Report (Hansard). 13 July 2009. Volume 496 No. 110 36W

Comparability of effort: how the 1990 baseline distorts the picture

Even without taking into account the previous two points made above – that EU targets must be adjusted to account for banked hot air, and a fairer formula is needed to calculate how targets should be shared – it is still the case that the EU’s target relative to other countries is not particularly ambitious.

This is clear when targets are adjusted so that they may be compared against different baseline years since the use of only a 1990 baseline suits certain countries (where there has been a short sharp period of economic decline), but disadvantages others.

For example, the table below, which allows targets to be compared against different baseline years illustrates that:

- The EU reduction target of 20% cut by 2020 is actually less than the **USA** target when compared using a 2000 or 2005 base year.
- Following the recent election of the Democratic Party of **Japan** the Japanese target has been increased to a 25% reduction on 1990 levels by 2020, conditional on a binding global agreement. No minimum unconditional target has been announced. It is also not clear as to whether the focus will remain on domestic action rather than the significant traded effort implied in the EU/USA/Australia positions. Regardless the proposal is more ambitious than the EU on any base year other than 1990. This is especially challenging for Japan since its economy is already much more carbon efficient than the EU (0.24kg CO₂ per \$GDP vs 0.43kg).
- The maximum **Australian** target (while heavily conditional and likely to met through significant traded effort) is more ambitious than the EU and USA against a 2000 or 2005 base year.
- A 1990 baseline allows **Russia** and the **Ukraine** high growth targets leading to the likely continuation of ‘hot air’ in the system.

Table 3: Comparison of targets (recalculated against various base years and including LULUCF)

	Target relative to 1990 (min)	Target relative to 1990 (max)	Target relative to 1995 (min)	Target relative to 1995 (max)	Target relative to 2000 (min)	Target relative to 2000 (max)	Target relative to 2005 (min)	Target relative to 2005 (max)
EU - 27	-20%	-30%	-14%	-25%	-11%	-22%	-13%	-24%
Australia	-3%	-24%	6%	-17%	-5%	-25%	-10%	-29%
Canada	24%	24%	-25%	-25%	-3%	-3%	-17%	-17%
Japan	-25%	-25%	-29%	-29%	-30%	-30%	-30%	-30%
Russia	-10%	-15%	55%	47%	32%	25%	38%	31%
Ukraine	-20%	-20%	48%	48%	99%	99%	73%	73%
USA	-4%	-4%	-9%	-9%	-18%	-18%	-17%	-17%

Policy recommendations and conclusions

In this briefing we have **not** focused on arguments relating to the latest science and the evident need for all countries to respond appropriately – and we have only touched briefly on issues relating to the appropriateness, or otherwise, of using ‘off-setting mechanisms’ to meet targets.

We have instead focused on important additional considerations that must be taken into account when considering the adequacy of EU ambition:

- The effect of banked hot air,
- The unfair target sharing formula adopted by the EU, and
- The distorting effect of a 1990 baseline.

We believe, when these issues are properly considered, the perception that current EU targets are more challenging than those of other countries is shown to be false. The EU targets lack ambition. This is because:

- under a 20% reduction target relative to 1990, nearly half of the cumulative effort to meet that target can potentially be met using banked EUA allowances;
- the EU has used its own formula for calculating how targets should be shared between developed countries – this ignores historic responsibility and focuses instead on dubious ‘early action’ between 1990 and 2000;
- the use of different baseline years obscures the fact that in reality none of the current developed country targets are consistently more ambitious than any others.

Lack of leadership from the EU on the issue of targets is particularly unhelpful in negotiations given the EU's very clear historic responsibility for the problem of climate change and its relative ability to afford to pay for mitigation solutions. Targets in their current form serve to undermine chances of achieving an international agreement at Copenhagen. EU negotiators must enter the negotiations with a mandate to move beyond the conditional targets they have stated to date.

Policy Recommendations:

We call upon the European Commission, European Parliament and the Council of Ministers to recognise these important issues, to recalibrate the calculations underpinning their decisions, and to commit to more ambitious targets as part of a successful global deal to tackle climate change.

The EU heads of state and government should:

- make a clear statement about the need to adjust targets to take banked AAUs in the form of EUAs into account;
- commit now to a unilateral reduction of 30% by 2020 against a 1990 baseline and adopt an aspirational target of a 40% reduction against the same time period;
- also express these targets against a 2005 baseline and make clear the anticipated balance between domestic action and use of overseas credits to meet targets.