POSITION

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Choosing between stagnation and change – Why the EU must now raise its 2020 climate target

Summary

In the context of the upcoming negotiations on quantified emission limitation or reduction objectives (QELROs) for the 2013 to 2020 period under the Kyoto Protocol, a multi-dimensional debate is pending at EU level over the amount of the emission allowances that will remain unused up to the end of 2012 and over their use. This debate will ultimately concentrate on the question whether the current EU climate target of a 20% reduction by 2020 compared to 1990 levels is still adequate in view of current framework conditions.

If EU27 adheres to its current unilateral climate target of 20% less than 1990 emission levels by 2020, it would send out a weak signal both to the international community and to the actors involved. Doing so would, in fact, be tantamount to a step back and call the credibility of the EU's climate change mitigation efforts into question, for even the EU's own projections show that this would remove any incentive for continuing those efforts. Raising the EU 2020 climate target is therefore crucial, with regard to both, efforts within the EU and vis-à-vis the international community. That is why EU27 must now raise its 2020 climate target to a reduction of 30% by 2020 compared to 1990.

1 Introduction

At the UN Climate Change Conference in Durban at the end of November 2011, the international community adopted decisions on the future international climate policy. Politically significant, it was decided to abandon the current division of the international community into developed and developing countries and to negotiate by 2015 a universal climate protection treaty for all states and to implement it by 2020 at the latest. It was due, among other things, to the developed countries' commitment to continue the Kyoto Protocol after 2012 – a central demand of developing countries – that the pledges of some countries to participate in this process could be won. In 2012, the Parties will negotiate legally binding quantified emission limitation or reduction objectives (QELROs) for greenhouse gases in developed countries in the second commitment period of the Kyoto Protocol from 1 January 2013.

With the Climate and Energy Package, the 27 EU Member States have pledged internally[1] to reduce their greenhouse gas (GHG) emissions by 20% by 2020 compared to 1990. They intend to achieve this by becoming more energy-efficient, stepping up the use of renewable energies and continuing the EU-wide emissions trading scheme. In addition, the EU has announced that as its contribution to a comprehensive climate change agreement it would reduce its GHG

[1] cf. Decision No. 406/2009/EC of the European Parliament and of the Council of 23 April 2009 and Directive 2003/87/EC of 13.10.2003 (emissions trading Directive) as amended by Directive 2009/29/EC of 23.04.2009o

emissions by 30%[2] compared to 1990, provided that other developed countries commit themselves to comparable emission reductions and advanced developing countries commit themselves to contributing adequately. According to its communications, the European Commission has not considered this more ambitious objective to derive automatically from the Durban agreements. Nevertheless, by May 2012 the Parties – including the EU - must submit their reduction objectives for the next commitment period from 2013.

In the context of the upcoming negotiations on QELROs for the period from 2013 to 2020 (or 2017, when the period should end has yet to be agreed as well) under the Kyoto Protocol, a multi-dimensional debate is pending at EU level over the amount of emission allowances that will remain unused up to the end of 2012 and over their use[3]. This debate concerns issues relating to international arrangements under the UN Framework Convention on Climate Change and its Kyoto Protocol as well as issues relating to current European legislation, in particular the EU emissions trading scheme in effect since 2005 and future effort-sharing within Europe from 2013 (see footnote 3).

The debate will focus on the question whether the current EU climate target of a 20% reduction by 2020 compared to 1990 levels can still be regarded as ambitious and therefore, as adequate in view of considerable amounts of excess emission allowances. However, overall, it has to be taken into account in this debate that the achievability and size of the EU's 2020 reduction target does not depend solely on whether excess international emission allowances are carried over to the next commitment period, but also on the duration of the second commitment period of the Kyoto Protocol, which has not yet been fixed, the recognition of early climate change mitigation efforts of Parties and the recognition of credits from climate protection projects.

Based on historical and today's greenhouse gas emissions, adherence to a 20% reduction target for 2020 would mean that EU 27 would not need to make any further efforts. It would even allow it to slightly increase its emissions by 2020 compared to emissions in 2009 and 2010[4]. This situation has arisen not just because of climate change mitigation measures in EU27, but is due in large part to an over-allocation of emission allowances in Eastern Europe and the recent economic and financial crisis. In the non-ETS sector, the EU has regulated the non-transferrability of allowances from the first to the second commitment period under the Kyoto Protocol and has therefore defused the "hot air" issue for these sectors. In the emissions trading sector, "banking" – meaning the possibility to carry over allowances from one trading period to the next – is an integral component and a useful principle to allow industry to plan its climate change mitigation measures for the longer term (cf. footnote 1). Therefore, a new, adequate EU climate target is the first-choice option to reduce excess allowances in this sector. The

[2] using credits from flexible mechanisms and from the land use, land-use change and forestry sector

[3] This does not concern issues relating to the duration of the 2nd commitment period, emissions trajectories (e.g. linear, stepwise) up to 2020 and the starting point of projections up to 2020. Also confer UNFCCC (2011)

[4] Based on annual emission ceilings in the 2013 to 2020 period

proposals, currently under discussion, of setting aside a part (about 1.4 billion emission allowances) of the emissions trading budget for the third trading period are only acceptable if it is laid down clearly that the set-aside allowances cannot be reactivated.

2 Excess emission allowances in the period from 2008 to 2012

According to preliminary data for 2010, GHG emissions of EU27 (27 Member States) are about 15%, or 850 million tonnes of carbon dioxide equivalents (CO2eq), below the level in 1990 [5, 6] (EEA, 2011). Figure 1 shows that emissions have been well below the EU emission ceiling under the Kyoto Protocol since 2008.

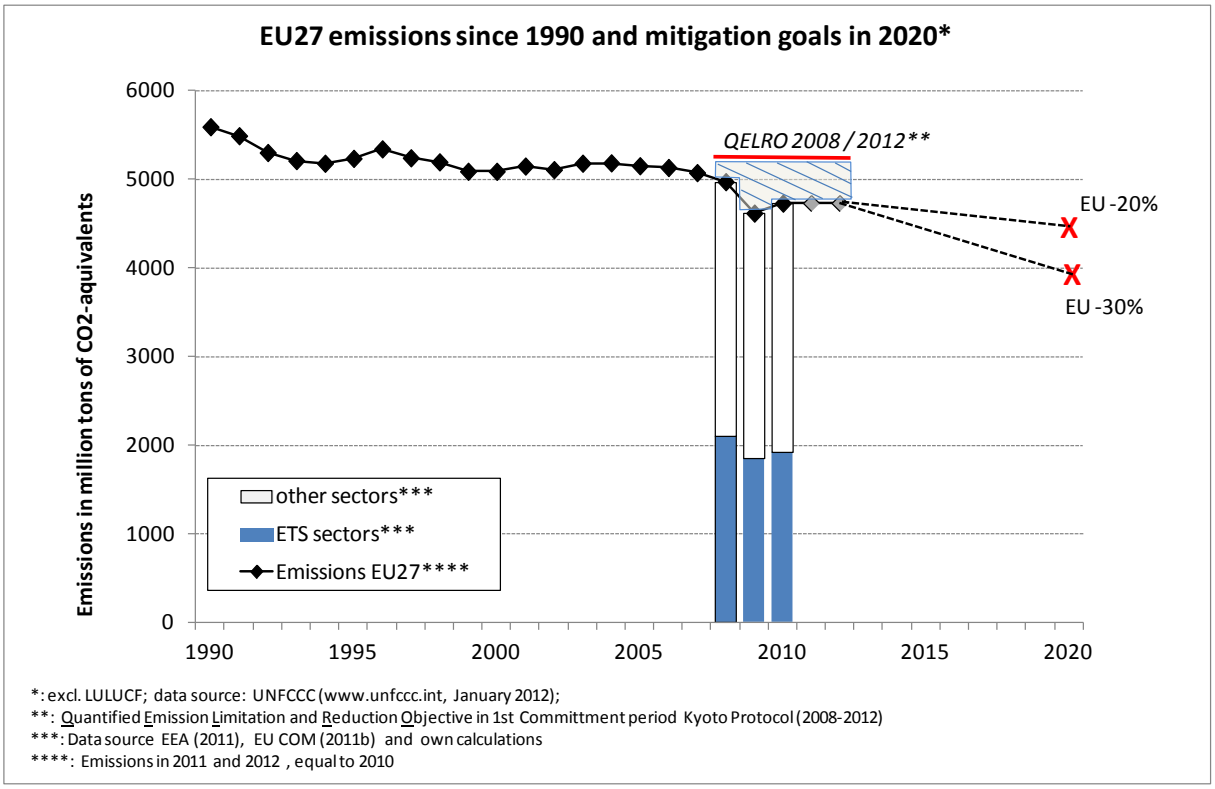

Figure 1: GHG emissions of EU27 since 1990 and EU mitigation goals by 2020 ***(shaded: surplus emission allowances)***

This means that the EU states have used significantly fewer emission allowances than agreed for the first, 2008-2012, commitment period under the Kyoto Protocol. This is due, firstly, to emission-reducing EU policies and measures, but also to financial and economic crises during

[5] UNFCCC reporting, base year 1990, not including credits and debits from the land use, land-use change and forestry (LULUCF) sector

[6] The European Commission expects average annual emissions of 4,737 million tonnes of CO2eq for the 2008 to 2012 period given existing policies and measures (*with-measures scenario*). This is 1,030 million tonnes of CO2eq, or almost 18%, less than the EU Member States' emission level in the base year (5,767 million t CO2eq) (EU COM, 2011a; EU-COM, 2011b).

this period and the decline in industrial sites in Eastern Europe. For the entire first commitment period, the overachievement of the Kyoto Protocol is estimated to amount to around 3 billion emission allowances (cf. Table 1). This surplus results from emission reductions in both the EU-ETS sector and the sectors not covered by emissions trading. The European Environment Agency currently assumes that excess emission allowances in the EU ETS had reached a figure of 500 million by the end of 2010 [7] (Table 1) (EEA 2011).

Table 1: Estimate of surplus emission allowances (in million emission allowances[8]) in the period from 2008 to 2012

	Annual average 2008-2010	**Total 2008-2010**	**Estimate 2008-2012**
EU-ETS[9]	168	502	1028
Other sectors	477	1431	2111
Total	642	1933	3139

Since summer 2011, when information on this surplus surfaced in the market, prices for allowances have dropped markedly, at times to below 7 euros per allowance, blocking additional investment in climate protection efforts. In addition, this development puts at risk the necessary financing of state climate protection policies, since auctioning revenues are smaller than envisaged. Over the 2008 to 2012 period, the surplus in the EU-ETS is expected to amount to as much as around 1 billion emission allowances.

Under the rules of the 2009 EU Climate and Energy Package (see above), these excess emission allowances from the EU ETS in the 2008-2012 period may be carried over into the third EU emissions trading period. In addition, EU ETS companies may carry over into the third trading period a limited amount of credits from climate protection projects (Joint Implementation, JI) and the Clean Development Mechanism (CDM). According to the provisions of the Emissions Trading Directive, the exact amount of these extended use options depends partly on the actual development of emissions and partly on EU legislative procedures provided for in the Emissions Trading Directive. We estimate that further amounts will be of the order of up to 350 million credits by the end of the second trading period. We assume that operators will have mostly utilized these options by 2020. If they do so at a rate of 80 to 100%, this would amount to 1.3 to 1.7 billion used credits in EU emission trading in the period from 2008 to 2020 on the basis of transnational climate protection projects.

[7] This surplus results from the sum of assigned emission rights (Assigned Amount Units = AAU) and emission allowances obtained from CDM/JI projects (Emission Reduction Unit = ERU from Joint Implementation and Certified Emission Reduction = CER from CDM projects) in the amount of almost 300 million, which were used by installation operators in surrendering annually, as required, a quantity of allowances equivalent to actual emissions

[8] Values rounded

[9] Including credits from CDM/JI projects

In contrast to the carry-over possibilities in the EU ETS, for the other sectors the EU has already largely excluded such possibilities in a legally binding way in its *Effort Sharing Decision*[10] [11]. The surplus in the non-ETS sector, which cannot be carried over, came to 1.4 billion by the end 2010 and may add up to around 2.1 billion emission allowances for the entire first commitment period (Table 1).

At UN level, no decision has as yet been made in the negotiations for a second commitment period of the Kyoto Protocol on how to deal with excess emission allowances. However, under the current Kyoto Protokoll[12], excess amounts may be carried over to a subsequent period. If the international community opted against including the possibility to carry over excess allowances in the regime for the second commitment period of the Kyoto Protocol starting 2013, any carry-overs made in the EU ETS sector would, mathematically speaking, have to occur at the expense of additional reductions in the non-ETC sectors. The avoidance of such a situation, and the implications described in the section below, are strong arguments for reducing the EU ETS emissions budget by 1.4 billion emission allowances as already suggested by the Commission and others[13].

3 Implications of the annual emission ceilings in the EU from 2013

With the 2009 Climate and Energy Package (see above) the EU made a unilateral commitment to reduce emissions by 20% by 2020 compared to 1990 emissions. Following on from this, the European Commission has proposed annual total allowed emissions in the ETS and non-ETS sectors (EU-COM 2012b) (cf. Figure 2).

[10] Excluding aviation and maritime shipping

[11] Also cf. EU COM (2012b) p.9: [...] „The package does not allow for any such “banking” for sectors outside the ETS” [...]

[12] Art. 3 (13) of the Kyoto Protocol

[13] Cf. EU-COM (2011)

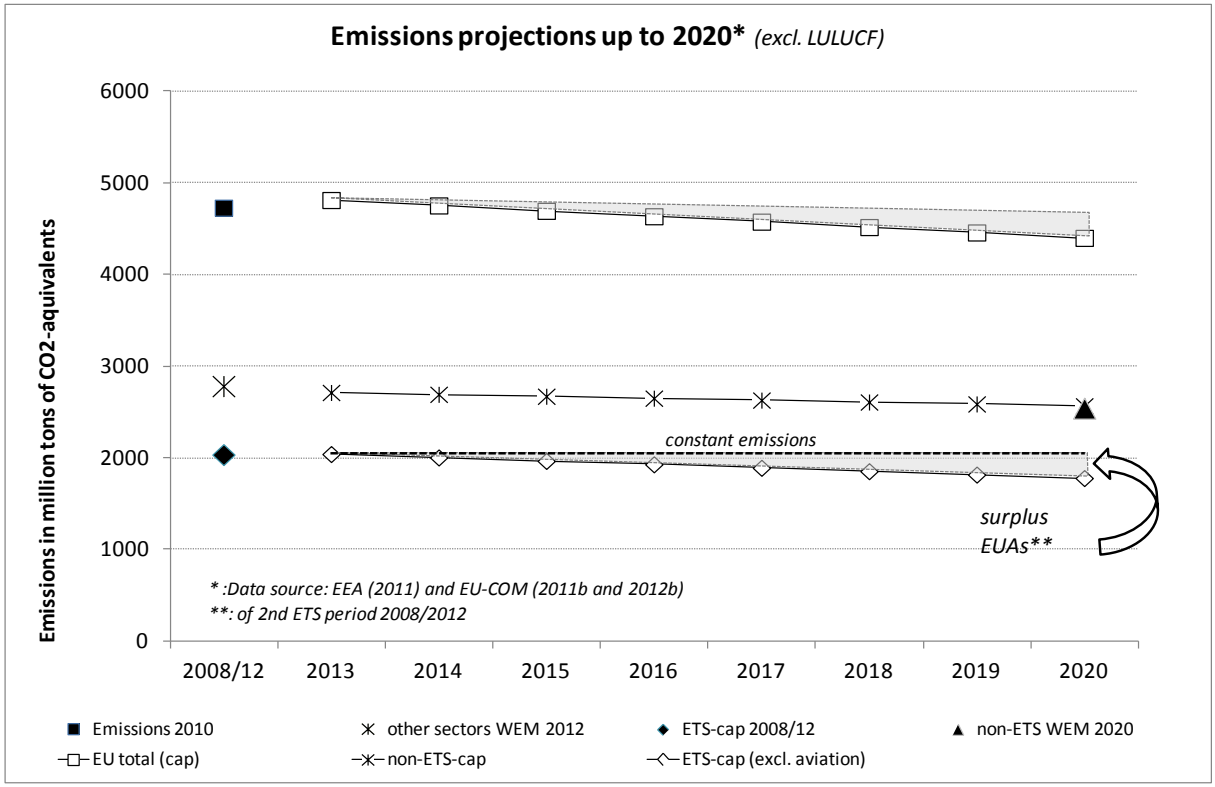

Figure 2: Emission projections up to 2020 in EU27, EU-ETS, and non-ETS (WEM: with existing measures scenario[14]) in the 20% mitigation case ***(grey shadowed:expected emissions on top of EU cap which could be covered by surplus emission allowances (EUAs) carried over from 2nd EU-ETS period)***

Given the currently observable emissions development (-15% below base year), and against the backdrop of measures already adopted, EU27 can probably safely achieve the self-set 20% reduction target by 2020 (see Figure 2). The difference between the emission reductions achieved so far and the envisaged average necessary emission reduction in the period from 2013 to 2020 currently amounts to less than 150 million emission allowances[15].

With the annual reduction of the EU emissions trading budget of 1.74% planned for the third emissions trading period, the 2020 target can be comfortably achieved without additional efforts by using existing surplus emission allowances (see grey shaded area in Figure 2) – even when assuming for the sake of simplification that emissions will remain constant in these sectors at 2 billion tonnes of CO2eq (see dotted line in Figure 2). If emissions decreased further until 2020 – e.g. as a result of energy efficiency improvements in the EU – the surplus emission rights would remain in the system in constant amounts. In these circumstances, it is unlikely that an effective price signal for investment in low-carbon technologies will develop any time soon. This also means that significantly fewer funds will be available to finance national and international climate change mitigation efforts.

[14] Cf. EU COM (2011b)

[15] Cf. EU-COM (2012b)

In the sectors not covered by emissions trading, the EU27 Member States will achieve the necessary reduction by 2012, according to European Commission projections (EU-COM 2011a). Also, it is expected that the emission reduction set so far for 2020 can be achieved with existing measures (EEA, 2011). The needed additional reduction in 2020 is around 200 million emission allowances compared to current emissions. Furthermore, first calculations show that the non-ETS sectors in EU27 could deliver the contribution they would need to make to an EU-wide 30% reduction by 2020[16] with additional measures. This corresponds to a further reduction of GHG emissions by about 80 million in 2020.

4 Conclusion

If EU27 adheres to its current unilateral climate target of 20% below 1990 emission levels by 2020, there will not in fact be any substantial further decrease in GHG emissions until 2020 compared to current levels. EU27 would in that case not only send a disastrous message to the international community as regards its medium- and long-term ambitions in climate change mitigation, but – as shown by current EU projections and some own forecasts – it would also leave the actors concerned without incentive to continue to invest in climate protection efforts. EU27 would thus also miss out on major economic opportunities, for example those brought by taking early action to initiate the steps needed to move towards a low-carbon economy.

The preceding sections show that the EU needs to adjust its climate target for 2020 in order to demonstrate its leading role and credibility both internally and to the international community. EU27 should therefore now raise its 2020 climate target to 30% and thus make a major contribution to credible international climate change mitigation efforts. In its Energy Roadmap 2050 of 2009, the European Commission suggested to EU Member States that some 1.4 billion emission allowances from the auctioning budget for the third trading period (EU COM 2011) should be set aside. In addition, in December 2011, the European Parliament's Environment Committee proposed reducing the number of auctioned allowances, likewise by 1.4 billion EUA, as the contribution of ETS to a 30% reduction [17] In its follow-up study published on 1 February 2012, the European Commission (EU COM 2012a) showed that such a measure could be implemented at very low costs under existing framework conditions. In the context of the negotiations on quantified emission limitation or reduction objectives in a second commitment period under the Kyoto Protocol, the EU should signal to the international community that it is prepared to take on ambitious climate protection commitments by raising its climate target to a 30% reduction by 2020.

[16] Including use of credits from LULUCF, flexible mechanisms and international emissions trading

[17] Cf. Committee of the European Parliament on Environment, Public Health and Food Safety (2012), pp. 56-57

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