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**COMMISSION STAFF WORKING DOCUMENT**

**EXECUTIVE SUMMARY OF THE IMPACT ASSESSMENT**

*Accompanying the document*

**Commission Regulation (EU) No .../. of XXX**

**amending Regulation (EU) No 1031/2010 in particular to determine the volumes of greenhouse gas emission allowances to be auctioned in 2013-2020**

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## EXECUTIVE SUMMARY OF THE IMPACT ASSESSMENT

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#### Commission Regulation (EU) No .../. of XXX

#### amending Regulation (EU) No 1031/2010 in particular to determine the volumes of greenhouse gas emission allowances to be auctioned in 2013-2020

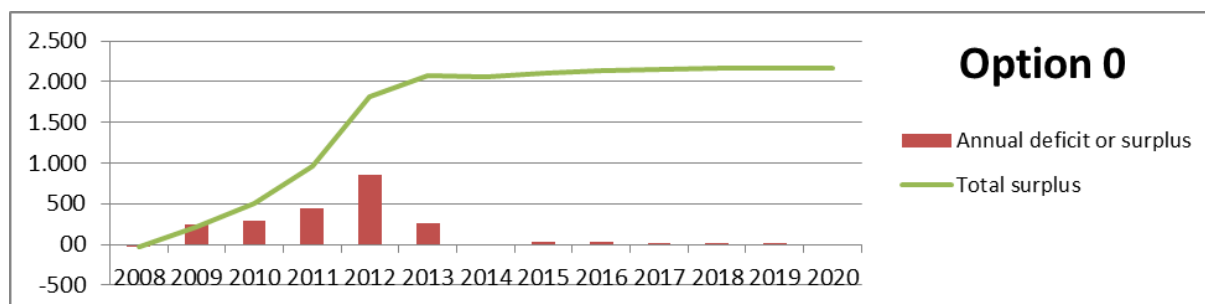
### 1. PROBLEM DEFINITION

The EU Emissions Trading System (EU ETS) has produced since its start an EU-wide carbon price signal that drives daily operational and strategic investment decisions delivering emission reductions across parts of the EU economy that are responsible for half the EU's greenhouse gas (GHG) emissions. However, it suffers from a surplus of almost 1 billion allowances at the end of 2011<sup>1</sup>. This surplus is expected to continue to grow.

The aim of this proportionate impact assessment is not to address the problems related to the build-up of the structural surplus by the end of phase 3. The impact assessment rather looks at the problem related to exceptionally rapid build-up in the next 2 years during the transition from phase 2 into phase 3. This surplus has been building up due to allocation levels in the National Allocation Plans higher than the emission levels in the EU ETS, but will see an in particular rapid increase in the transition from phase 2 into phase 3 due to a number of regulatory provisions specific to the transition, including a large inflow of international credits for compliance purposes at the end of phase 2 given that certain type of credits cannot be used for compliance from phase 3 onwards.

Figure 1 provides an illustration of this build-up.

**Figure 1: Example of a possible profile of annual deficit or surplus and surplus development in the current situation (no action – option 0).**



This may result in temporary downward pressures and a carbon signal not in line with mid to long term market fundamentals, as such also depressing auctioning revenue unduly. Even a temporary downward pressure and increased volatility in prices in the transition from phase 2

<sup>1</sup> Surplus is defined as the difference between the cumulative amount of allowances available for compliance at the end of a given year, and the cumulative amount of allowances effectively used for compliance with the emissions up to that given year.

<sup>3</sup> It should be noted that analysts typically project nominal price expectation, whereas model projections as those used in existing assessments by the Commission use real prices.

to phase 3 due to regulatory provisions may actually have negative long term effects if it led to suboptimal investment decisions and carbon lock-in.

## 2. OBJECTIVE

The specific objective is to ensure the orderly functioning of the European carbon market, in turn ensuring that short term exceptional developments do not unduly affect the ability of the EU ETS to deliver cost-effective outcomes, including over the longer term. The operational objective is to adapt the EU ETS auction timetable to counter-act the rapid short-term increase of supply of allowances due merely to regulatory features associated with the transition from phase 2 into phase 3, leading to a more stable supply and demand balance over phase 3.

## 3. OPTIONS

The Auctioning Regulation provides for annual auction volumes calculated as the difference between the EU ETS cap and the amount of allowances handed out for free each year.

In order to address the particularly large imbalances in the transition to phase 3, this proportionate impact assessment evaluates alternative time profiles that back-load a part of allowances to be auctioned early in phase 3 towards the end of phase 3. Table 1 below represents 6 options for such a change in the auction time profile compared to the current time profile (option 0).

**Table 1: Options for back-loading (all figures in million allowances)**

		2013	2014	2015	2016	2017	2018	2019	2020	2013-2020
No change	Option 0	0	0	0	0	0	0	0	0	0
Large Change	Option 1	-550	-400	-250	0	0	400	400	400	0
	Option 2	-550	-400	-250	0	0	0	0	1.200	0
Medium Change	Option 3	-400	-300	-200	0	0	300	300	300	0
	Option 4	-400	-300	-200	0	0	0	0	900	0
Small Change	Option 5	-200	-150	-50	0	0	133	133	134	0
	Option 6	-200	-150	-50	0	0	0	0	400	0

Options with a higher amount of backloading were not considered given that they can only be considered meaningfully in connection with structural measures.

## 4. ANALYSING THE IMPACT OF DIFFERENT OPTIONS

### 4.1. Market balance and potential impacts on price developments

Assessing the magnitude of the price impacts of backloading over phase 3 cannot be made with certainty. Price impacts will depend on a number of uncertainties, such as the willingness of surplus holders to bring them to the market, the impact of the drop in hedging beyond auctioned volumes from 2013 onwards and the extent to which the market already has taken backloading into account. Taking this into account, this assessment focuses on three elements to assess potential price impacts:

- Existing assessments by the Commission: The 2010 assessment by the Commission<sup>2</sup> projected prices in case 1.4 billion allowances would be permanently withdrawn out of the ETS over phase 3, and concluded it would increase prices to € 30 (2008 prices)

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<sup>2</sup> It should be noted that analysts typically project nominal price expectation, whereas model projections as those used in existing assessments by the Commission use real prices.

by 2020. It can be assumed that any back-loading would lead the carbon price well below the levels modelled for such a permanent withdrawal, which would change the total quantity of allowances.

- Qualitative analysis that focuses on how changes in the auction time profiles impact the potential annual deficit or surplus and how they influence the speed of the build-up of the surplus: It concludes that the impact of backloading of 1200 million allowances (options 1 and 2) is likely to provide strong temporary support to the price signal in 2013-2015, but also downward pressure by 2020 compared to option 0. If not followed by structural measures addressing the surplus in a sustainable manner, the effect might simply be to have first upward prices followed by downward prices later on. Backloading 900 million allowances (options 3 and 4), is likely to provide for temporary support to the price signal in 2013-2015 compared to prices at present, but also to more limited downward pressure by 2020 compared to options 1 and 2. Backloading 400 million allowances (options 5 and 6) is likely to provide for only very limited temporary support to the price signal in 2013-2015. Under these two options, the continued increase in the surplus in 2013 together with hedging demand beyond auctioning expected to drop in 2013, may actually result at first in a price decrease in 2013 compared to current prices, also because the market has already to a certain extent incorporated the expected effects of backloading.
- A review of recent carbon price forecasts by a number of private sector market analysts<sup>3</sup>: Analysts seem to agree that the current auction time profile will result in a sustained weak price signal for the early part of the period, with average price projections for 2013 at around €5 in 2013 and around €5.4 over the period 2013-2015, thus a significant decrease compared to prices today. Regarding the impact of backloading, the projections differ. However, for the backloading options with shifts from 400 to 1200 million allowances, most analysts seem to agree about limited increases in 2013 with prices between €6 to €13. The analysts' price range gets broader for the later years. Options with a large change shifting the auctioning of 1200 million allowances backwards, see maximum prices in 2013-2015 between €14 to €20.

#### **4.2. Auctioning revenue**

One of the recommendations of the European Semester<sup>4</sup> points out that pursuing structural reforms, such as shifting taxation away from labour, will enable Member States to get ready for longer term challenges. According to a recent report by the International Monetary Fund, carbon pricing has the potential to contribute to meeting fiscal consolidation challenges and, more generally, to building more efficient and fairer national revenue and spending systems<sup>5</sup>.

Options 1 to 6 would reduce the number of allowances that would be auctioned in the period 2013-2015. Nevertheless, back-loading is expected to lead to an increase in auctioning revenue due to an increase in the carbon price. According to the analysts' assessments the 2013-2015 period, the corresponding price increases would go on average beyond the

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<sup>1</sup> Surplus is defined as the difference between the cumulative amount of allowances available for compliance at the end of a given year, and the cumulative amount of allowances effectively used for compliance with the emissions up to that given year.

<sup>3</sup> It should be noted that analysts typically project nominal price expectation, whereas model projections as those used in existing assessments by the Commission use real prices.

<sup>4</sup> COM(2012) 299 final

<sup>5</sup> IMF, Fiscal Policy to Mitigate Climate Change, 2012

minimum levels necessary for back-loading to be budget neutral compared to their price projections for a situation with the current auction timetable without backloading (option 0).

#### **4.3. Impact of backloading on investment decisions**

A strong imbalance for the early part of the period can increase uncertainty and negatively affect low carbon investments, paradoxically increasing the need for public support in the short run for instance to meet the 20% renewables target, at times when many support schemes actually are under strain from limited budget resources. Options 1 and 2 are expected to lead to the highest benefit in this respect.

#### **4.4. Relationship with national climate policies in Member States**

The EU ETS is designed to promote a cost-effective reduction of GHG emissions across the EU by means of a single carbon price signal and harmonised rules. Under option 0, the EU runs a risk of Member States adopting national climate or energy policies directly affecting investment and operational decisions within their national jurisdictions, as a weak EU ETS does not pull its full weight – and this at a time where, as regards the climate action and energy, most stakeholders agree on the need for a more coherent and European level approach. The risk of such fragmentation is expected to be more modest in case of for instance backloading options 3 and 4 which are likely to bring more stability.

#### **4.5. EU competitiveness considerations**

The impacts of back-loading are expected to remain well below the carbon price levels projected by past analysis. It only impacts the distribution of the effects over time, potentially increasing costs early on but at the same time potentially decreasing them later on for those companies that need to acquire allowances on the market. Given the continued free allocation to industries deemed to be exposed to global competition in phase 3 and the existing large surplus of freely allocated allowances in phase 2 for these sectors as a whole, some will certainly be net sellers into the EU ETS over phase 3. For these companies backloading would actually result in the opposite effect, with revenues of potential net sales increasing early on, and decreasing later on. On the basis of the magnitude of phase 2 surplus and the working estimate for a range of phase 3 free allocation to industry, it can be expected that in aggregate the industrial sectors remain holders of a large surplus in the first years of phase 3 when backloading would increase carbon prices.

For airlines, there should also be no significant competitiveness concerns compared to carriers from other countries given that a central principle of the law is that all carriers are treated equally in the EU ETS.

Concerning the cost relating to CO<sub>2</sub> emissions passed on electricity prices (indirect cost), with top end assumptions, i.e. full cost pass through, and an average CO<sub>2</sub> emissions factor from power production in the EU in 2007 of 0.465 tCO<sub>2</sub>/MWh<sup>6</sup>, a 1€ price increase in the carbon price would translate into an increase in the electricity price of around € 0.465/MWh.

#### **4.6. Social impacts**

Emissions trading can have social impacts in many ways; directly thorough the carbon price signal and changes in production and consequently labour markets and indirectly through impacts through electricity and energy expensed and the use of auctioning revenue. The

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<sup>6</sup> Impact assessment accompanying the Commission Decision determining a list of sectors and subsectors which are deemed to be exposed to a significant risk of carbon leakage pursuant to Article 10a (13) of Directive 2003/87/EC.

assessment of the impacts on competitiveness is also valid for the impacts on the employment in these industries.

Any increase in auctioning revenue in the coming years can be recycled. Numerous assessments by the Commission have indicated that if used efficiently, the recycling of auctioning revenue can actually spur economic growth and employment. The ETS Directive also explicitly refers to the use of auctioning revenues for the purpose of financial support in order to address social impacts in lower and middle income households.

#### **4.7. Transitional free allocation for modernisation of electricity production**

As already indicated in the Staff Working Document on the functioning of the carbon market, backloading will affect the remaining amount of auction rights early in phase 3 in those Member States that opt to use transitional free allocation for the modernisation of electricity generation (Article 10c of the EU ETS Directive).