



GLASS FOR EUROPE  
Building, Automotive, Solar-Energy Glass

## Glass for Europe's contribution to the consultation on structural options to strengthen the EU Emissions Trading System

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Glass for Europe is a registered organisation on the European Commission's register of interest representatives under the ID number 15997912445-80.

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Glass for Europe is the trade association for Europe's manufacturers of flat glass. Flat glass is the material that goes into a variety of end products and primarily in windows and facades for **buildings**, windscreens and windows for **automotive and transport** as well as glass covers, connectors and mirrors for **solar energy** equipment. It is also used in smaller quantities for other applications such as furniture, appliances, electronics, etc.

Glass for Europe has four members: AGC Glass Europe, NSG Group, Saint-Gobain Glass and Sisecam Trakya Cam and works in association with Guardian. All together, these five companies represent 90% of Europe's flat glass production.

Glass products not only provide light, comfort, style, security and safety, they are also **essential to energy-efficient buildings, houses and transport**. Windows containing high-performance glass such as low-e insulating glass, which helps keep warmth in, and solar-control glass, which reflects unwanted heat away, help reduce energy consumption. Solar energy glass helps enhance the production of a renewable source of energy.



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As a supporter of a move towards a competitive low carbon economy, **Glass for Europe believes that it is highly important to ensure that the EU Emission Trading Scheme operates in the most optimal way to achieve the set CO<sub>2</sub> emission reduction objectives while safeguarding the competitiveness of EU-based industries.**

In that regard, Glass for Europe does not believe in the incompatibility of the two objectives since low carbon investments can be providers of competitive edges in energy intensive sectors where reducing energy costs is a permanent endeavour. At the same time, it must be recognised that acquiring CO<sub>2</sub> allowances represents a cost to manufacturing industries, costs that, regardless of the amount of allowances needed and the CO<sub>2</sub> prices, are not borne by most non-EU competitors.

Pursuing the two objectives of ensuring the competitiveness of EU-based industries and achieving the defined CO<sub>2</sub> emissions reduction objectives through a carbon market nevertheless requires the combination of carefully crafted mechanisms, which do not limit themselves to implementing an artificially defined CO<sub>2</sub> price.

### **Addressing the ‘CO<sub>2</sub> price imbalance’ of the EU ETS does not require irreversible solutions**

What is often described as ‘imbalances of the EU ETS’ are the low prices of carbon allowances. According to Glass for Europe, this situation is the result of two factors: first, the economic downturn, which has led to a reduction in production capacities in ETS-covered sectors and, second, the CO<sub>2</sub> savings measures undertaken by ETS-covered industries, which are acting to deliver on the 2020 greenhouse gas reduction target. Both factors combined to drag down overall demand for CO<sub>2</sub> allowances, thus affecting prices by way of market mechanisms.

The CO<sub>2</sub> price imbalance is for the most part not a ‘structural problem’ requiring structural reforms, but rather a temporary issue arising from today’s exceptional circumstances. As a consequence, Glass for Europe would like to call for great caution. CO<sub>2</sub> price forecasts have been repeatedly proven to be wrong over the recent years and the CO<sub>2</sub> price is even more unpredictable in exceptional circumstances. As a consequence, Glass for Europe believes that action in this field should not pursue irreversible effects beyond 2020, when the situation might have drastically changed and the CO<sub>2</sub> price may go back to reasonable levels.

Generally speaking, it is also important that EU policies are not based on static recession scenarios. Hopefully the recovery will arrive sooner rather than later and lead to manufacturing growth which will boost demand for CO<sub>2</sub> allowances and therefore drive prices upward.

Therefore the temporary issue that the European Commission is trying to address does not require structural reforms that would have irreversible consequences beyond the third trading period. Regardless of their eventual merits (see annex I), options a. c. d. and e. are not suited to addressing the current issue.

## Existing uncertainties to the EU ETS scheme need to be urgently raised

Glass for Europe takes note of the political will to address this ‘imbalance’, but firmly believes that, in case of a reform of the EU ETS scheme, it must be designed to dovetail with the EU objective to reindustrialise its economy, as stated in the recent Commission review of the 2020 flagship initiative on industrial policy.<sup>1</sup> In light of today’s economic realities, any reform needs to translate into a strengthening of the competitiveness of EU energy-intensive industries, which low carbon investments alone do not guarantee in the medium term.

This is all the more acute in the flat glass industry, which is currently facing an unprecedented competitiveness challenge, despite the efforts undertaken to reduce the energy and CO<sub>2</sub> impact of its manufacturing process and to bring innovative energy and CO<sub>2</sub> saving products on to the market.

Consequently, any intervention leading to a CO<sub>2</sub> price increase under phase III cannot be isolated from reflection on the industry’s ability to absorb extra costs while maintaining and strengthening its competitiveness<sup>2</sup>. This paramount competitiveness proofing is for the time being difficult for our industry to undertake due to three major uncertainties:

- ✓ a possible economic recovery,
- ✓ the level of the cross sectoral correction factor, under phase III
- ✓ the exposure to carbon leakage status of ETS covered sectors beyond 2015

Glass for Europe takes the view that the last two uncertainties must be raised by the European Commission ahead of any additional measure in order to reconcile a potential regulatory intervention, meant to lead to a CO<sub>2</sub> price increase, and the EU’s industrial competitiveness objective. It could be an option to decide on the appropriate measure to take in 2015 when uncertainties are clarified.

## Competitiveness safeguards are needed in case of interventions in phase III

A higher CO<sub>2</sub> price for the end of phase III of EU ETS would only be bearable by the flat glass industry if the adequate competitiveness safeguards were in place.

1. That industries exposed to international competition continue to benefit from effective and sustained protection against risks of carbon leakage.  
Indeed, an increase in CO<sub>2</sub> prices will *de facto* enhance the risks of carbon leakage and will generate more costs. In addition to being granted the status of an industry exposed to risks of carbon leakage, this would notably require that the option reform undertaken does not affect the level of free allowances received by exposed sectors. For this reason, options a. c. and d. (*if the caveat is not in place*) should be ruled out.

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<sup>1</sup> COM (2012) 582/3 - A Stronger European Industry for Growth and Economic Recovery.

<sup>2</sup> This does not mean that the competitiveness of the EU based flat glass industry is only affected by the cost of CO<sub>2</sub> allowances. Instead, cumulative effects are at stakes that include energy prices, access to raw materials and environmental requirements not borne by competitors that contribute to a non-level playing field between EU producers and their competitors. In this context, additional costs are acting as disincentives to EU production and can lead to the downsizing of European operations.



2. To foresee revision clauses in light of the specific effects of measures on ETS-covered sectors. As mentioned above, due to the fact that an economic recovery would most likely lead to a natural CO<sub>2</sub> price increase, any intervention meant to increase the CO<sub>2</sub> price should be reassessed in light of real conditions when it is implemented. This would allow the re-introduction of allowances if needed.

In that regard, none of the options envisaged foresee such a possibility, with the notable exception of the parallel Commission proposal for 'back loading of allowances', currently discussed in the European Parliament and the Council.

It must be noted that option f. could serve a purpose in that regard if it was to include a 'carbon ceiling' in addition to a floor price. Nevertheless, this option goes against the principle of a carbon market.

Under the present economic and regulatory circumstances, none of the options proposed by the European Commission is acceptable as they stand. All of them would need to be amended to guarantee adequate protection against future risks of carbon leakage associated to the measure and to foresee possible review clauses, depending on developments in the economic conditions.

As clarity on some of the above aspects will only be known by 2015, it would be wise to wait until this time before considering if fine-tuning is needed.

### Truly structural reforms to the EU ETS

Glass for Europe is willing to engage in debates about the future of the EU ETS beyond 2020. Nevertheless, such a debate should not be limited to a discussion on the CO<sub>2</sub> price and would need to address a number of other points including:

- ✓ The progress of international climate negotiations
- ✓ Tools to guarantee effective protection against carbon leakage in the future
- ✓ The displacement of CO<sub>2</sub> effectively consumed in Europe, but imported from outside EU borders.
- ✓ The real CO<sub>2</sub> savings potential in each of the sectors
- ✓ The potential inclusion of other sectors within the EU ETS – option d.
- ✓ Possible mechanisms to leverage the effects of economic cycles on the carbon market and avoid over allocation in times of crisis and under allocation in times of recession

In any case, it appears to Glass for Europe that this debate cannot be effectively engaged so long as the political decisions on a 2030 energy and climate package have not made further progress. It is Glass for Europe's view that the EU ETS will be a pivotal instrument to achieve the objectives of the 2030 package, hence the importance of defining these objectives ahead of any additional reform to a potential phase IV of the EU ETS scheme.

*Annex I: Analysis of the six options*

*Annex II: Background information on CO<sub>2</sub> emissions and energy efficiency improvements in the flat glass industry*

## **Annex I: Individual analysis of the six options**

### **Option a. Increasing the EU reduction target to 30% in 2020**

Glass for Europe does not feel that the conditions are right for the Commission to consider this option. Europe should seek an ambitious international climate agreement that represents a similar commitment from all parties and make sure it is properly implemented. It is feared that moving unilaterally towards a binding commitment to reduce CO<sub>2</sub> emissions from manufacturing would jeopardise the competitiveness of EU manufacturing industries and accelerate the de-industrialisation of the European economy.

In addition, changing the 20% target on reduction in EU greenhouse gas emissions so close to its deadline and at the beginning of the third trading period would result in additional uncertainty and unpredictability as regards the future objectives of the EU for 2030 and 2040. It would pre-empt the discussions on the 2030 energy and climate package.

Finally, taking this action without a comprehensive assessment of true emission reduction potential in each of the sectors would only widen the gap between political objectives and industrial realities. Glass manufacturing requires high temperatures for raw materials to melt into glass and significant amounts of energy, and consequently CO<sub>2</sub> emissions, will always be needed (see Annex II). Therefore, requirements set by public authorities must take into account the physical and technological constraints faced by different sectors. Requirements must be technologically feasible and economically achievable.

### **Option b. Retiring a number of allowances in phase III**

Glass for Europe believes that it is too early to decide on permanent retirement of allowances in phase III. The uncertainty and volatility of the market makes it increasingly difficult to predict future scenarios more than 3-4 years ahead. Therefore if such option is considered the way forward then it would be advisable to wait until 2015 before making the decision. This is preferable because by that time ETS-covered sectors will know whether or not they will benefit from the status of industries exposed to risks of carbon leakage, which would allow for competitiveness proofing, and Europe may enjoy better economic forecasts.

The Commission proposal on the “back loading” of allowances in phase III (currently under discussion in the Parliament), foresees the re-introduction of the allowances later on in the trading period. Glass for Europe considers this to be a more careful approach to this option, on that specific point.

If this option is considered later in 2015, the option of retiring allowances should not automatically provide for a re-introduction of allowances, but leave open that possibility in case the economy improves and pulls carbon prices upwards. This would provide an adjustment mechanism to use if and when industrial investors have to decide where to localise their manufacturing investments in response to increased European demand.

### **Option c. Early revision of the linear reduction factor**

Glass for Europe is opposed to an increase of the linear reduction factor. Setting a new factor would implicitly mean that a new CO<sub>2</sub> reduction objective is set for 2020, which would create the same problems and difficulties identified for option 1.

An early revision of the linear factor would also have an impact on periods beyond phase III. Therefore its revision should be foreseen in the context of a global assessment of the community

scheme for the post-2020 period. Lastly, this option would indirectly lead to a decrease of free CO<sub>2</sub> allowances for sectors exposed to risks of carbon leakage, which is to be avoided to maintain the competitiveness of EU-based industries.

#### **Option d. Extension of the scope of the EU ETS to other sectors**

Glass for Europe is not opposed to investigating this option, that is the inclusion of transport, agriculture and households in the scope of the EU ETS. However, the inclusion of additional sectors in the scheme should only occur if it does not affect the number of free allowances attributed to sectors at risk of carbon leakage currently in the scope of the EU ETS.

That being said, this option would be better assessed in the context of a global review of the energy and climate package 2030 to ensure coherence in energy-efficiency, renewables and climate policies. In any case, this would most likely require a long roll out period; therefore this must be investigated as part of a truly holistic and longer term reform of EU ETS.

#### **Option e. Limit access rules to international credits**

*A priori* Glass for Europe does not oppose this option. However, it feels that a further assessment needs to be envisaged in the context of broader review of the scheme for the period post 2020, together with other items.

It must be kept in mind that the use of international credits is already restricted. On average, each company can use these credits only for about 6% of its emissions therefore it is unclear whether or not these have major impacts on the carbon market.

#### **Option f: Discretionary price management mechanism**

Glass for Europe believes that this option deserves to be explored further, due to its complexity and impact on the market-based nature of the scheme.

If a price floor is to be envisaged to create greater certainty about the minimum carbon price, a price ceiling must also be considered to ensure price stability in the market with a given margin of fluctuation. Otherwise, the opposite situation to the one currently faced by the industry, that of a carbon price that is too high as a result of the economy recovery and/or intervention in the functioning of the ETS, could penalise industrial recovery and growth. A price floor should therefore go 'hand in hand' with a price ceiling in order to deliver a certain level of market predictability, give a better signal to investors and avoid compromising competitiveness and growth.

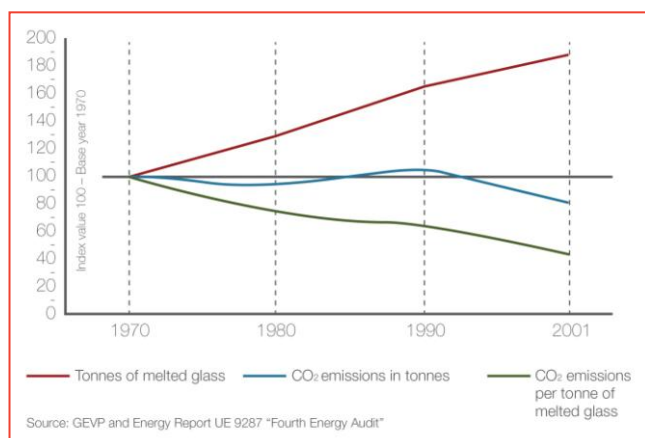
That being said, such a mechanism would mean abandoning the concept of a carbon market.

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## Annex II: CO<sub>2</sub> emissions and energy efficiency improvement in the flat glass industry

Flat glass manufacturing is an energy intensive process where energy accounts for the largest share of manufacturing costs. Indeed, glass furnaces need to be heated to temperatures up to 1600C° at which point raw materials melt to become glass. Therefore reducing energy consumption is both an economic imperative and a permanent endeavour pursued by all glass manufacturers in order to remain competitive in the market place.

### The flat glass industry has an excellent track record in reducing energy needs and CO<sub>2</sub> emissions.



Studies have shown that the flat glass industry has been able to reduce energy consumption per unit of production by 55% between 1970 and 2000, thereby doubling output with no overall increase in CO<sub>2</sub> emissions. However, as recognised by the European Economic and Social Committee<sup>3</sup>, there are physical limits to the reduction of CO<sub>2</sub> emissions in the glass industry and best available technologies are widespread in flat glass manufacturing.

Additionally, a significant part of the CO<sub>2</sub> emissions (+/-25%) released during glass manufacturing are process emissions, resulting from the carbon contained and released by raw materials during the melting process. This last source of CO<sub>2</sub> will never disappear.

### The dynamics of energy-efficiency investments in flat glass manufacturing

Flat glass production is a capital intensive, high volume, continuous production process, meaning that a float line operates 24 hours a day, 7 days a week for uninterrupted periods of 16 to 18 years. During this period, only very limited upgrades can be carried on producing installations so as to keep the furnace hot and therefore avoid wasting energy and CO<sub>2</sub>. Major energy efficiency improvements can only be undertaken when production is completely stopped and the installation entirely rebuilt, which requires waiting for the end of the 16 to 18 year production cycle. At that time, there is a natural incentive to apply best technologies in order to limit production costs for the next decades. This means *de facto* that the flat glass industry has very limited possibilities to influence its CO<sub>2</sub> footprint in a short term period. Any change to the EU ETS phase III will therefore be a challenge for the flat glass industry and will impact its competitiveness.

### CO<sub>2</sub> emission reduction potential in the sector

Against this background, the flat glass industry believes that it will be able to further reduce by 5% to 10% its CO<sub>2</sub> emissions per output unit by 2030, provided that ongoing research and development deliver the desired outcomes. Further reduction would require a major breakthrough in technology and in raw material use and/or the development of CCS and/or the CO<sub>2</sub>-free electrification of the economy.

<sup>3</sup> European Economic and Social Committee - Opinion on 'The competitiveness of the European glass and ceramics industry, with particular reference to the EU climate and energy package' – Official Journal of the EU C317/7 – 23 December 2009.