Glass Alliance Europe

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Glass industries must have long-lasting protection against risk of carbon leakage

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The EU glass industries are facing high energy costs, the world's strictest environmental and climate regulations and have been severely impacted by the economic crisis.
While competitiveness is high on the agenda, the carbon leakage list assessment creates uncertainty in both doing business in Europe and attracting the much needed future investments to create jobs and welfare.

Glass Alliance Europe calls on decision-makers to maintain the glass industry on the list of sectors exposed to the risks of carbon leakage and keep the manufacture of glass in Europe. Leakage is already taking place at the actual carbon price levels. Investments are evaluated against expected carbon prices in the time frame of 2020 and beyond. The EU ETS should therefore be carbon leakage resistant to at least a price level of € 30,-/EUA[1] as prescribed in the framework of the EU ETS Directive.

Until such time as a global climate agreement can be found and similar Emissions Trading Schemes are set up outside Europe, protection against risks of carbon leakage is essential for glass industries to continue manufacturing added-value, preserving its competitiveness during the transition to a low carbon economy, investing in the EU and providing jobs in Europe.

Definition: Carbon leakage is the term often used to describe the situation that may occur if, for reasons of costs related to climate policies, businesses were to transfer production to other countries with laxer constraints on greenhouse gas emissions[2].

Before the end of 2014, the European Commission will present a revised list of industries deemed to be exposed to carbon leakage, according to the EU Emissions Trading Scheme (ETS) Directive. Glass industries, which have been identified as exposed to risks of carbon leakage back in 2009, are concerned that the revision of this list with new parameters may result in the loss of free allowances which would be detrimental to the investment capability of the industry **(investment leakage)** and jobs **(jobs leakage)**.

Therefore we urgently call for a revision of the list under the same calculation rules as those used in 2009 and keep manufacturing in Europe. Political trade-offs disconnected from industries' realities must not be allowed to take precedence in the methodology. It is a political decision whether to revise the list according to different criteria from those used to establish the first list. Moreover, changing the list in the middle of Phase III provides legal uncertainty and a disincentive for investment.

[1] 1 allowance (EUA) equals 1 tonne of CO2 or its equivalent
[2] http://ec.europa.eu/clima/policies/ets/cap/leakage/index_en.htm

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In today's context of an ongoing decline of the production based Industries in Europe [as emphasised by Commissioner Tajani] , Glass Alliance Europe calls on European decision-makers to recognise the high risks of further lowering glass industries' global competitiveness in Europe by changing again the calculation base of the carbon leakage list. We, the Alliance therefore strongly ask European decision-makers to keep all glass sectors in the list to be adopted in 2014.

- ✓ **There is strong evidence that carbon leakage** is already occurring in the glass industries.
- ✓ The economic **environment has worsened,** negatively impacting the glass industries in recent years.
- ✓ **The EU ETS affects glass industries' abilities to** make the necessary investments **to stay competitive. (investment leakage)**
- ✓ **Europe's heritage, technological leadership, manufacturing operations and thousands of jobs in glass industries are endangered** if glass industries are excluded from the carbon leakage list. **(jobs leakage)**
- ✓ **Glass products are strategic for the future of Europe** and these should be developed and produced in Europe.
- ✓ **Glass industries are part of whole value chains (including R&D, glass recycling, building industry, car industry, food and drinks industry, optical devices, wind mills,…) which are at stake if glass manufacturing is forced to leave Europe.**

Maintaining a vibrant glass industry in Europe should be a strategic priority to support economic activity in many sectors, safeguard industrial jobs, avoid importing products with embedded carbon from outside the EU[3] and ensure recycling and a truly competitive resource efficient low carbon economy in Europe.

In the following pages we answer five key questions in relation to this issue:

1. **Is there any evidence of risks of carbon leakage in the glass industries?**
2. **Have circumstances improved since 2009 when the first carbon leakage list was agreed?**
3. **Is there really a carbon leakage issue for glass industries at the currently low price of carbon?**
4. **What are the risks if glass industries are not on the carbon leakage list?**
5. **Is local glass manufacturing so important for the future of Europe?**

About Glass Alliance Europe

Glass Alliance Europe (GAE) represents Europe's glass industries. **The EU is the largest glass producer in the world.** It employs 183,000 people in tableware, flat glass, packaging, fibres and special glass industries. Glass industries operate facilities in nearly all EU Member States of the EU with Germany being the EU's biggest producer, closely followed by France, Italy, Spain and the UK.

http://www.glassallianceeurope.eu/

[3] A UK House of Commons report provides evidence that EU territorial CO_2 emissions decrease, while consumption based CO_2 emissions increase, showing that EU goods are more and more produced outside the EU (Energy and Climate Change Committee. Consumption-based Emission Reporting. Twelfth report of session 2010 – 2012. Volume 1).

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Questions and Answers

1. Is there any evidence of risks of carbon leakage in the glass industries?

Yes. **There are already early tangible signs of carbon leakage** in the glass industries. In the last three years, no new glass plant has been built in Europe while there have been many new glass industries commissioned around the borders of Europe with a declared special interest to supply Europe. In the flat glass sector, while 12 EU float plants had to be shut down in the last 2 years, 17 new plants are being built or have been announced along Europe's borders in regions where there is no CO_2 cap[4]. For container glass, not a single new factory was built in Europe, but there are 13 new production units announced along Europe's borders[5]. The Glass Fibre sector suffered equally. From a total of 9 EU producers, four ceased production totally, or closed plants or restructured[6].

Beneath the detailed calculation rules to determine risks of carbon leakage, carbon leakage is fundamentally dependent on two factors: the carbon intensity of the production process and the exposure to international competition.

Glass melting is an energy intensive activity whose share of energy costs in production costs can reach 30% (and in some cases up to 50%). It therefore generates CO_2 emissions in proportion to its energy use but also via the de-carbonisation of raw materials during the melting process. In the first carbon leakage list all glass industries were therefore found to have a carbon intensity higher than 5%.

Glass industries are also exposed to international competition and in fact, comparing 2005 to 2012, imports of glass products to Europe have increased by almost 25% while production has decreased by over 6%[7] . This unequivocally demonstrates that EU industries are losing out and that non-EU products' market share is increasing.

Regardless of the calculation rules ultimately used by the European Commission in its assessment, business realities show that the risk of carbon leakage exists in glass industries and has increased over the last years.

[4] Glass for Europe
[5] FEVE
[6] Glass Fibre Europe
[7] Glass Alliance Europe statistics 2005 compared to 2012

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2. Have circumstances improved since 2009 when the first list of sectors exposed to carbon leakage was agreed?

No. In 2009, when all glass sectors were included in the list of sectors exposed to risks of carbon leakage, there were hopes for a global climate change agreement and for other similar ETS schemes to develop. In 2014, when the list will be reviewed there is **no such global agreement or even any similar ETS scheme operating in any country or region in the world.** This means that the risk of carbon leakage in Phase III is higher than imagined when the Directive was written and the first list drawn up.

Confidence in the stability of the EU ETS scheme has also been largely eroded since 2009. The EU ETS implementation rules have led to a drastic reduction of allowances allocated to industries exposed to risks of carbon leakage. Only 5% of glass installations will receive the allowances they need for free. Last August 2013, the Commission further reduced that free allocation by 11.5% through the "Cross-sectoral correction factor". So even the best glass installation in Europe will now have to buy allowances on the carbon market. On top of these extra costs, numerous uncertainties surround the future of the ETS (discussions on market interventions, the late communication of allocations to industries, the structural reforms of the ETS, discussions on a new target for 2020, etc.). **This dramatically deteriorates the investment climate in Europe to the benefit of investments in companies and plants outside the EU (Investment leakage).**

Additionally, the basics of glass making have not changed. Although the industry has invested in upgrading the energy-efficiency of its manufacturing operations, glass remains an energy-intensive sector, whose **additional potential for cost-effective energy savings measures is extremely limited**, i.e. 5 to 10% by 2030 compared to the 2005 baseline, according to experts of Fraunhofer ISI[8]. At the same time, exposure to external trade has increased, as highlighted above.

[8] http://www.isi.fraunhofer.de/isi-media/docs/e/de/publikationen/BMU_Policy_Paper_20121022.pdf

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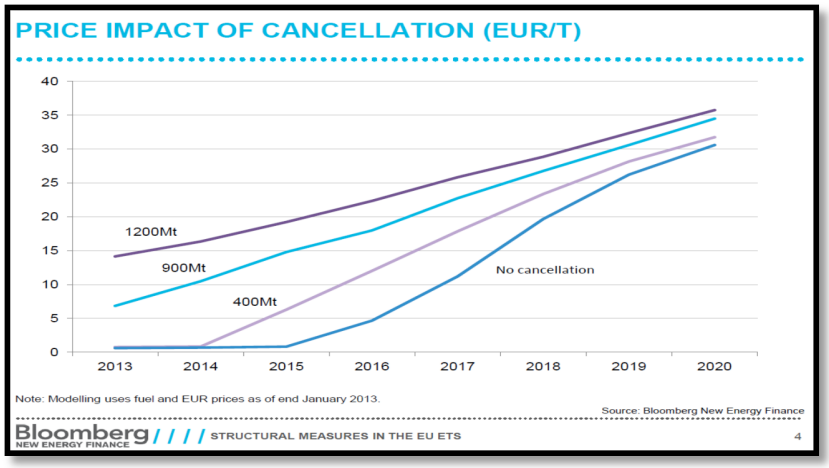
3. Is there really a carbon leakage issue for glass industries at the currently low price of carbon?

Yes. Regardless of the price of CO_2, it must be stressed that **buying millions of allowances is a cost not borne by any competitor in the world**. The costs directly attributable to the EU ETS grow alongside the price of carbon. Even if the price of carbon is currently low, **the decision on the carbon leakage list for the period 2015-2020 must be future-proof as** most analysts (see graphic) predict that the CO_2 price will rapidly increase once the economy starts growing again. As a consequence, today's early signs of carbon leakage could materialize on a much larger scale, if glass industries are not protected from carbon leakage.



Graphic 1: Bloomberg forecast regarding CO_2 prices with or without back-loading of allowances.

Whatever scenario considered, the glass industry will help meet the industry cap to reduce CO_2 emissions by 21% based on 2005 levels. According to the European Environment Agency, EU ETS CO_2 emissions decreased by 12.3% between 2005 and 2012. Economists at the French Research and Investment Institute CDC Climat, acknowledge that sectors including glass reduced CO_2 emissions since 2005 not only because of the economic crisis but mainly because of energy intensity improvements and renewable energy deployments[9]**. These investments in green improvements will also have to move outside the EU if the glass industry disappears (Investment leakage).**

CO_2 costs come on top of other costs. One must bear in mind that EU **glass industries have to absorb other environmental costs not borne by outside EU competitors and that they face higher energy prices**. The European Industry cannot continue to absorb costs over costs and remain competitive. Such additional costs and those linked to buying CO_2 allowances erode the European industry's profitability and divert money from capital investments in energy-efficiency improvements of plants, which could otherwise benefit the whole EU economy.

[9] Source: CDC Climat "Based on a "business-as-usual" scenario, we estimate that around 1.1 Gt CO_2 were avoided between 2005 and 2011: around 30% of the reduction was the result of a fall in manufacturing output, while around 60% of the reduction was caused by the development of renewable energy and the improvement of the energy intensity." http://www.cdcclimat.com/Climate-Brief-no32-One-billion.html

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4. What are the risks if glass industries are not on the carbon leakage list?

The extra costs that glass industries would have to bear in case they are excluded from the carbon leakage list are considerable. By way of illustration, in the event that the container glass is no longer exposed to risks of carbon leakage, **the cost of purchasing CO_2 allowances for this subsector alone for the period 2013-2020 is estimated to be about EUR 1 billion, which, if production holds steady, is equivalent to the container glass industry's estimated investments over a two year period for plant and machinery renewal in Europe.**

Considering how glass industries are already going through difficult times due to the economic crisis and are struggling to remain competitive in today's environment, **this would seriously jeopardize the profitability of many companies and manufacturing sites**. Because glass industries are capital intensive and have long investment cycles (up to 18 years), carbon leakage starts when investments stop, and not only when there are plant closures. It would ultimately mean the slow decline of Europe's heritage, technical leadership, manufacturing operations and the dislocation to other countries of tens of thousands of jobs in glass making **(Jobs leakage)**.

Not including glass industries on the list of industries at risk of carbon leakage would also be in complete contradiction with many of the other policy objectives the EU has set for itself. Not only, would such a decision go against the EU objectives of job creation, building an innovation union and of re-industrialising Europe's economy (*where the Commission seeks to reverse the declining role of industry in Europe from its current level of around 16% of GDP to as much as 20% by 2020*[10]) but it would also seriously jeopardize objectives linked to resource efficiency. Without a strong glass production system throughout Europe, today's reality of a high recycling rate of glass containers would be endangered. In the same way, the transition to a low carbon economy would only profit extra-EU based glass manufacturers, which would be in a favourable position to provide Europe with the energy-efficient products it will need.

[10] COM(2012) 582 final - A Stronger European Industry for Growth and Economic Recovery

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5. Is local glass manufacturing so important for the future of Europe?

Yes. Glass is part of important value chains. In the event that glass making is no longer competitive in Europe**, it is likely to negatively affect Europe's trade deficits**. Indeed, glass products will have to be imported because European consumers and brands will continue demanding it and EU policies, themselves, will sustain demand for these products. Some examples include:

- ✓ Upmarket packaging material that Europe's luxury and high-end brands need to show off their products, which are massively exported, such as perfumes, spirits,…. Glass is a durable inert packaging material that protects contents for a very long time. It is one of the only packaging products today that is widely reusable, refillable and 100% recyclable.
- ✓ Glass products in buildings, which help reduce energy consumption and CO_2 emissions, such as state of the art insulating glass units for windows and facades that provide both a positive energy balance and a huge amount of CO_2 savings in buildings.
- ✓ Glass fibres which are used to reinforce plastics in a wide variety of applications, for example to make lighter less fuel-hungry cars or to design wind turbines with very long rotor-blades to generate renewable electricity.
- ✓ Glass tableware, glass home furnishings, etc. which contribute to Europe's cultural heritage, luxury goods industry and brand value.
- ✓ All special glass applications and promising technologies like switchable glass (changes windows from clear and opaque states using liquid crystal technology), media glass, transparent solar glass, etc.

Beyond imports of glass products themselves, this would also impact on many industries, which use glass. As described above, the glass industry provides thousands of applications and services to Europe's successful and exporting industries: cars, energy products, food and drinks, perfumery, cosmetics, construction, high tech industries.

European glass is produced in a sustainable way and to some of the highest standards in the world: energy efficiency is high, environmental requirements for industry are strict, recycling rates are very high. Europe has the innovative and technological leadership in glass-making.

Maintaining a vibrant glass industry in Europe should therefore be a strategic priority for Europe to support economic activity in many sectors, safeguard industrial jobs, avoid importing products with embedded carbon from outside the EU and ensure recycling and a truly competitive resource efficient low carbon economy in Europe.