



# “Case for EU industry fleeing climate regime up in smoke”

CAN-Europe’s submission to the public consultation in preparation of an analytical report on the impact of the international climate negotiations on the situation of energy intensive sectors

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## About Climate Action Network Europe

*Established in 1987, Climate Action Network Europe (CAN-Europe) is recognised as Europe's leading network working on climate and energy issues. With 129 member organisations in 25 European countries, CAN-Europe unites to work to prevent dangerous climate change and promote sustainable energy and environment policy in Europe. CAN-Europe is part of CAN-International a worldwide network of more than 500 Non-Governmental Organisations (NGOs) working to promote government, private sector and individual action to limit human-induced climate change to ecologically sustainable levels. CAN is based on trust, openness and democracy.*

*The vision of CAN is a world striving actively towards and achieving the protection of the global climate in a manner that promotes equity and social justice between peoples, sustainable development of all communities, and protection of the global environment. CAN unites to work towards this vision.*

*CAN's mission is to support and empower civil society organisations to influence the design and development of an effective global strategy to reduce greenhouse gas emissions and ensure its implementation at international, national and local levels in the promotion of equity and sustainable development.*

*Since the inception of the EU Emissions Trading System in 2001, CAN-Europe has been an active stakeholder in the political negotiations leading to this directive and its reviews as well as the actual implementation of this greenhouse gas emission trading system in the EU.*

*CAN-Europe is committed to fight for an adequate and effective EU Emissions Trading System consistent with its main goal of avoiding dangerous climate change.*

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## **1. Introduction**

This paper is the European NGOs' written contribution to the European Commission's *public consultation in preparation of an analytical report on the impact of the international climate negotiations on the situation of energy intensive sectors*.

Loss of competitiveness and so called "carbon leakage" have often been used as arguments to avoid stronger and more adequate climate action by the European Union, such as the implementation of a 30% reduction target by 2020. However, convincing scientific evidence offering clear proof of carbon leakage, related to the implementation of the EU Emissions Trading System (ETS), is still missing.

Climate Action Network Europe has frequently pointed out that the "carbon leakage" provisions in the reviewed EU ETS directive do not reflect adequate and peer reviewed science. They were, in fact, the result of an intensely political process.

Now, new economic research points out that the criteria for the assessment of carbon leakage and in particular their application in the 2009 comitology decision "identifying a list of sectors deemed exposed to significant risk of carbon leakage" are deeply flawed. This strengthens the fact that the scientific case for carbon leakage because of the EU ETS, at this time, is weak if not non-existent.

The time has come to take the carbon leakage issue out of politics and the hands of a few, but very powerful, special interest groups.

We therefore, ask the European Commission to use the latest economic research and empirical data and use them for a new and independent "carbon leakage" assessment. If major deficiencies in the assessment are confirmed, a new carbon leakage decision and/or a specific amendment of the EU ETS directive will be required.

## 2. CAN-Europe's key observations and recommendations

### 2.1 Key indicators and new economic factors

Since the adoption of the 2009 comitology decision on carbon leakage new economic research has become available pointing to deficiencies in the methodology used in that decision and in the EU ETS directive. There also are new economic and emission data from 2008 and 2009 which were not taken into account in the impact assessment going with the 2008 EU ETS review proposal and the 2009 carbon leakage decision.

New economic research shows that:

- the 2009 Carbon Leakage Decision is based on a criterion, i.e. trade intensity, which might very well be wrongly implemented to assess the risk of carbon leakage;
- the application of the other criterion, the potential price increment, is based on incorrect assumptions including the level of auctioning and the projected carbon price;

Recent economic and emission data point out:

- huge (financial) windfalls for the manufacturing sector in the period 2008-2012 due to an EAU surplus glut;
- more potential windfall-profits for some manufacturing sectors if part of the carbon price is passed through in the period 2008-2012 and beyond, for which there is increasing evidence.

Our main conclusion is that the scientific case for carbon leakage under the current EU Emissions Trading System is weak if not non-existent.

CAN-Europe asks the European Commission, based on the evidence mentioned above to redo the carbon leakage assessment and amend the 2009 Decision accordingly.

CAN-Europe recommends that the European Commission uses econometric tools to assess potential carbon price pass through in the manufacturing sector as part of a new and better assessment for the risk of carbon leakage.

To mitigate the above concerns immediately, CAN-Europe advises the European Commission to exclude trade with countries such as Norway, Iceland that are part of the EU-ETS and – once they have adopted an ETS – also trade with the United States of America, Japan and South-Korea from the trade intensity calculations before the start of the next trading period.

### 2.2 The Copenhagen Accord and actions in third countries

The lack of scientific evidence for carbon leakage, as pointed out above, does make the question of the impact of the Copenhagen UNFCCC summit on carbon leakage more or less superfluous. However, there are some interesting observations to make with regard to the comparability of efforts among parties to the UNFCCC and climate action in non-EU countries.

In terms of comparability of effort, there is new research which points out that the EU's target(s) are less stringent than other developed countries' pledges under the Copenhagen Accord. According to den Elzen et al., under a "comparable effort scenario" for stabilisation at 450 ppm the EU receives a 35% target by 2020 compared to 1990. Right now the European reduction target, as implemented in the EU's post 2012 climate legislation, only stands at -20% by 2020 compared to 1990.

Another underexposed observation is the fact that China increased its export taxes for goods such as steel, aluminium in 2008 and decided to abolish the export VAT repayment for cement<sup>1</sup>. If one would convert the exported taxes for these products according to their embedded carbon, the high end of this converted Chinese export tax would be equivalent to 40 EUR/t CO<sub>2</sub>. This is far higher than the current and projected 2020 EUA price. CAN-Europe advises the European Commission to use this information to adjust the trade intensity calculations of the relevant sectors (with China) accordingly.

CAN-Europe asks the European Commission, to (re)do the analysis on efficiency of production in third countries (as required by the EU ETS directive) and to use the outcome of the European Benchmarking research as relevant input. In particular a comparison between the average of the 10% most GHG-efficient installations in Europe, worldwide and between different important economic regions can be a valuable exercise.

### **2.3 Alternative measures**

Free allocation can, in fact, precipitate the closure of installations in the EU. Therefore, CAN-Europe urges the commission to adopt stringent closure rules which avoid gaming with free allowances. To avoid another EAU surplus glut as the one we face in the period 2008-2012, allowances (intended to go to an installation for which the greenhouse gas permit is withdrawn or suspended), have to be cancelled.

Innovation and investments in innovative techniques and technologies will be the most solid and long term answer against an increased risk of carbon leakage. Therefore the EU needs a dramatic increase in research, development and deployment of financing, projects and programmes in the coming years.

CAN-Europe sees two direct initiatives, which could achieve this goal and can be implemented in the short term:

- the introduction of the strongest possible benchmarks as part of the decision on harmonised allocation rules;
- the use of auctioning revenues and/or surplus allowances to subsidise the development and deployment CAPEX of the above mentioned state of the art technologies.

If significant climate action remains absent in the United States of America, the European Commission should explore the opportunities and problems related to the practical implementation of the "import inclusion measure" and its potential impacts.

Expanding the EU climate change legislation to include (international) shipping makes sense with the goal to make a carbon price visible for part of the production outside the EU. We urge the Commission to present a legislative proposal on CO<sub>2</sub> and (international) shipping before the end of this year.

CAN-Europe recommends that the European Commission takes a look at the negative effect of possible production subsidies under the CDM in its work on the development of a list of quality criteria on the use of external credits. Low hanging fruit type projects such as HFC23 and N<sub>2</sub>O reduction have to become ineligible for use under the EU ETS.

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<sup>1</sup> "Tackling Leakage in a World of Unequal Carbon Prices", 2009, Climate Strategies <http://www.climatestrategies.org/our-reports/category/32/153.html>

### 3. Consultation questions

**3.1. In your opinion, how have key indicators of the risk of carbon leakage (such as exposure to international trade, carbon prices etc.) for the EU energy intensive industry changed since the adoption of the climate change and energy package implementing the EU's unilateral 20% emission reduction target at the end of 2008?**

#### **a. The dramatic over-estimation of the additional costs incurred by the EU ETS**

The reviewed EU ETS directive's article 10a contains two quantitative parameters (the additional costs induced by the implementation of this directive and the trade intensity with third countries) used for the identification of sectors deemed to be having a significant risk of carbon leakage.

In December 2009 the European Commission adopted a decision identifying those sectors, using the above mentioned parameters. When calculating the additional costs induced by the implementation of the reviewed EU ETS a default auctioning level of 70% in the period 2013-2020 was used. This is equivalent to stating that (non power sector) installations under the EU ETS would only receive 30% of the allowances for free. Early indications with regard to the implementation of community wide allocation measures and benchmarks show that the 70% auctioning value is a huge over-estimation. The strongest possible draft benchmarks for the most important EU ETS sectors (e.g. steel, cement) do not fall below 70% of the current EU average benchmark values. It is entirely possible that those draft results will be watered down in the upcoming political process. Together with a broad flexibility in choosing the production base-years (which is being considered at the moment) this might lead to a free allocation level higher than 70% (equivalent to auctioning less than 30% of the allowances). This leads to the conclusion that the Decision identifying a list of sectors deemed to be exposed to a significant risk of carbon leakage is based on a wrong "additional cost" assessment.

In addition, the carbon price estimate used to calculate the additional costs incurred by the implementation of the reviewed EU ETS directive seemed to be overestimated. The decision used a carbon price of 30 EUR/tonne CO<sub>2</sub>. This price level is based on the 2007 impact assessment accompanying the proposal for amending the EU ETS. In 2008, 2009 and most likely also 2010, the emissions under the EU ETS have been much lower than projected. One of the reasons for this is the global economic recession. This will lead to a significantly lower demand for EUA's before and beyond (e.g. through banking of EAUs) 2012. According to the International Energy Agency's World Energy Outlook 2009 (IEA WEO 2009 p. 182) around 500 Mtonnes CO<sub>2</sub> will be banked from phase II of the EU ETS to phase III. This banking option together with the allowed use of CDM credits could be such, according to the IEA, that the domestic emission levels of sectors under the EU ETS by 2020 would be the same as 2008 levels. In addition, the influence of the Renewable Energy Directive has not properly been taken into account in the estimation of the costs of EU ETS. The Renewable Energy Strategy will alone already reduce an estimated 72% of the domestic reductions needed to comply with EU ETS according to one study<sup>2</sup>. This has not been taken into account in the cost estimates.

Again, the over-estimation of the carbon price in the 2009 Carbon Leakage decision will have led to an over-estimation of the "additional cost" parameter. Therefore we believe that the 30 EUR/tonne 2007 price estimate needs to be reassessed.

The two above points, on their own, are sufficient to trigger a new carbon leakage assessment and amend the decision accordingly.

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<sup>2</sup>"The impact of the Renewable Energy Sources Directive (RES) on the European Emission Trading Scheme (EU-ETS)", Stichting Natuur en Milieu, December 2009.

## **b. Trade intensity criterium was wrongly used for measuring the risk of carbon leakage**

A recent policy brief<sup>3</sup> by researchers with the Centre for Economic Performance at the London School of Economics, the Grantham Institute and the Economics Department at the Carlos III university in Madrid, points to an even more disturbing problem with the criteria used for assessing the risk of Carbon Leakage. The 2009 Carbon Leakage Decision shows that the “trade intensity (> 30 %)” criterium is the one which excludes most of the sectors (identified) from auctioning. Based on in depth-interviews with around 800 managers in manufacturing plants and accompanying economic analyses the authors conclude that the current application of the trade intensity criterium is questionable:

*“[...] The trade intensity measure misses an important aspect that determines this vulnerability, namely its factor specificity. The more strongly a firm benefits from factors that are specific to the EU such as the particular skills of the local workforce, agglomeration economies, the stability of institutions etc., the more unlikely it is to re-locate production abroad in response to EU climate change policy. The European Commission should therefore either completely discard this criterion or replace it with a criterion that more accurately reflects a sector's vulnerability to carbon leakage; an alternative criterion that is more easily amenable to objective measurement could be the share of competition from outside the EU which we find to be strongly correlated with the downsizing risk score. [...]”*

*Despite good intentions and many design improvements there is the concern that even the third phase of the EU ETS is once more hijacked by the interest of the industry lobby at the expense of European tax-payers. However, there is still a window of opportunity for European governments to improve the design of the EU ETS significantly while raising additional income on the order of €7 billion annually. Rather than providing an unspecific subsidy for industry this money could be used to finance investments and R&D that is crucial for the transition to a low emission economy. It could equally be used to mitigate the regressive effects on lower income groups of higher carbon prices. Finally it could help to balance the strained post crisis government budgets.”*

Seeing the importance of the trade intensity parameter in identification of the sectors deemed to be exposed to a significant risk of carbon leakage in the 2009 Decision, the above research warrants a serious independent review of that criterion used under the current EU ETS directive. Ignoring this message will undermine the political credibility of European Climate Change legislation within a global context. In particular, the claim that the overwhelming majority of EU manufacturing sectors are exposed to carbon leakage under the EU ETS does not appear to survive scientific scrutiny.

To mitigate the above concerns CAN-Europe advises the European Commission to exclude trade with countries such as Norway, Iceland that are part of the EU-ETS and – once they have adopted an ETS – also trade with the United States of America, Japan and Korea from the trade intensity calculations before the start of the next trading period. This can be done in the annual review of the list of sectors which are part of the 2009 Decision<sup>4</sup>.

## **c. Huge windfalls in phase II of the EU ETS have an impact on phase III**

Phase II (2008-2012) and phase III (2013-2020) of the EU ETS are directly connected through the possibility for operators to carry over a surplus of EU allowances between 2012 and 2013. The opportunity to bank this surplus will be of important relevance to the EU manufacturing sector. The significant fall in emissions as from 2007 in those sectors has generated an EUA glut for the European manufacturing sector. Of course, the economic recession is an important driving force behind the lower production and emission output of those sectors. However, the systemic generous allocation for the manufacturing sector in the 2008-2012 National Allocation Plans of

<sup>3</sup> “Still time to reclaim the European Emissions Trading System for the European tax payer”, 2010, Ralf Martin, Mirabelle Muûls and Ulrich J. Wagner, Centre for Economic Performance at the London School of Economics, the Grantham Institute at Imperial College London and the Department of Economics at the Carlos III University in Madrid.

<sup>4</sup> Art 10a paragraph 13, One can state that also the “deletion of a sector or sub-sector” can be added in the annual review.

many member states (compensated by an under-allocation for the power sector) is a serious driving force behind the huge EAU surplus.

The extent of that surplus for the manufacturing industry became visible after the 2008 verified emissions were reported to the Community Independent Transaction Log. The UK based NGO Sandbag together with Carbon Market Data analysed how big this surplus is at company level in the EU<sup>5</sup>. The top ten companies with an EUA surplus share between them 35 million surplus EUA permits in 2008 was equivalent to the annual emissions of Latvia and Lithuania. These allowances are worth an estimated €500 million at current carbon prices. Looking ahead to 2012 those installations will share an estimated 230 million surplus EUA permits worth €3.2 billion. Below we present some more specific results from this analysis. Furthermore, preliminary emission data from 2009 show an even bigger surplus compared to 2008.

The 2009 Carbon Leakage Decision did not take into account the 2008-2012 EAU glut for the manufacturing sector and the possibility to bank these EUAs. It speaks for itself that this surplus will have a major effect on the actual costs incurred due to the EU ETS in the period 2008-2020.

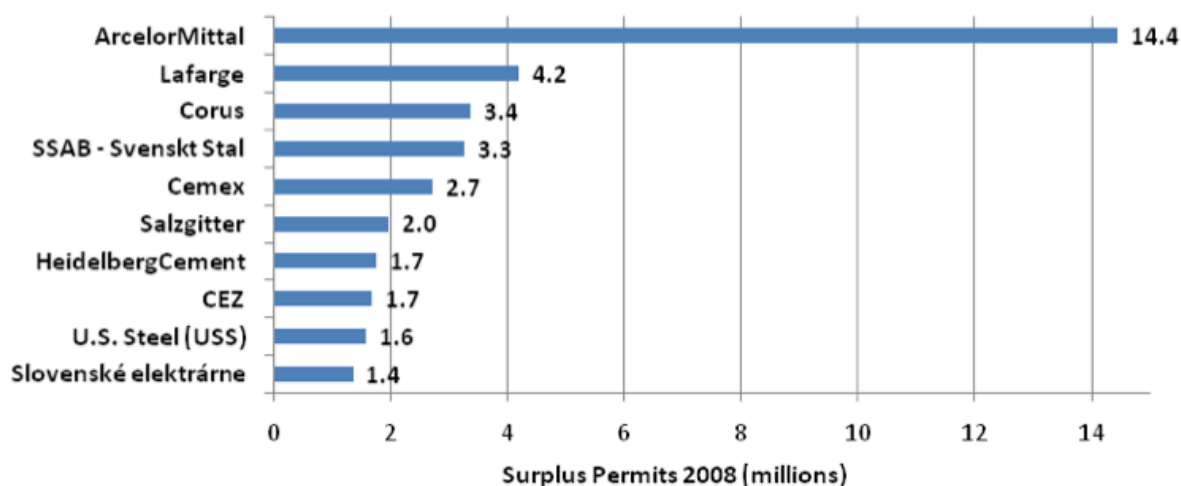
We deem this new information of such importance and relevance that an immediate reassessment on carbon leakage and a review of the 2009 Decision is necessary.

<b>Company</b>	<b>Estimated Surplus EUAs (2008-2012)</b>	<b>Asset Value (€)</b>
ArcelorMittal	99,801,132	1,397,215,847
Corus	26,965,777	377,520,882
Lafarge	23,507,560	329,105,840
SSAB - Svenskt Stal	17,818,541	249,459,580
Cemex	14,669,057	205,366,804
Salzgitter	12,636,864	176,916,099
US Steel	11,281,904	157,946,658
Heidelberg Cement	10,905,197	152,672,755

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<sup>5</sup> "The carbon rich list: the companies profiting from the EU Emissions Trading System", 2010, Sandbag, [www.sandbag.org.uk](http://www.sandbag.org.uk)





Sources: Sandbag 2010, [www.sandbag.org.uk](http://www.sandbag.org.uk) and Pointcarbon

#### d. Potential carbon price pass-through as a counter-indication for risk of carbon leakage

If companies in the manufacturing sector are able to pass through (part of) the carbon price in the products which are sold, this is another important source of windfall profits. It could, also, be seen as a counter-indicator towards the risk for carbon leakage. A company which can pass through (part of) the carbon price will not be at a high risk of carbon leakage. This argument is even stronger for the period 2005-2012 during which most of the companies in the manufacturing sector have more than enough allowances to cover their emissions. Observing such behaviour in the period 2005-2012 would be a very strong counter-indicator for carbon leakage. Passing through the carbon price right now would, for those sectors, generate another windfall profit on top of the one mentioned above.

To back-up the above analysis we refer to new research by Climate Strategies which estimates that the cement sector in the EU will pass through between 33-90% of the opportunity cost (depending on location). This might lead to an additional windfall profit of 10-20bn EUR over the period 2013-2020<sup>6</sup>. Forthcoming research from CE Delft<sup>7</sup> also shows that in the refineries, iron and steel and chemical sectors part of the costs of EU ETS have been passed through during Phase 1 and 2 of EU ETS. Hence, not only electricity producers seem to have passed through the costs of their freely obtained allowances during Phase 1 and 2 of EU ETS, but other energy-intensive sectors as well.

Right now there should be enough empirical data (2005-2009) to assess this behaviour in more detail with econometric tools. We strongly advise the European Commission to use those tools and data as part of a new and better assessment for the risk of carbon leakage.

<sup>6</sup> 'Climate change and the cement sector' by G.Cook, Climate Strategies, 2009

<sup>7</sup> "Cost pass through and windfall profits in EU ETS: an econometric analysis for products from the refineries, iron and steel and chemical sectors". CE Delft, 2010 (forthcoming).

### 3.2. Do you think that the outcome of Copenhagen, including the Copenhagen Accord and its pledges by relevant competitors of European energy-intensive industry, will translate into additional greenhouse gas emission reductions sufficient to review the list of sectors deemed to be exposed to a significant risk of carbon leakage? If so, how and why?

#### a. The relevance of this question/issue can be disputed

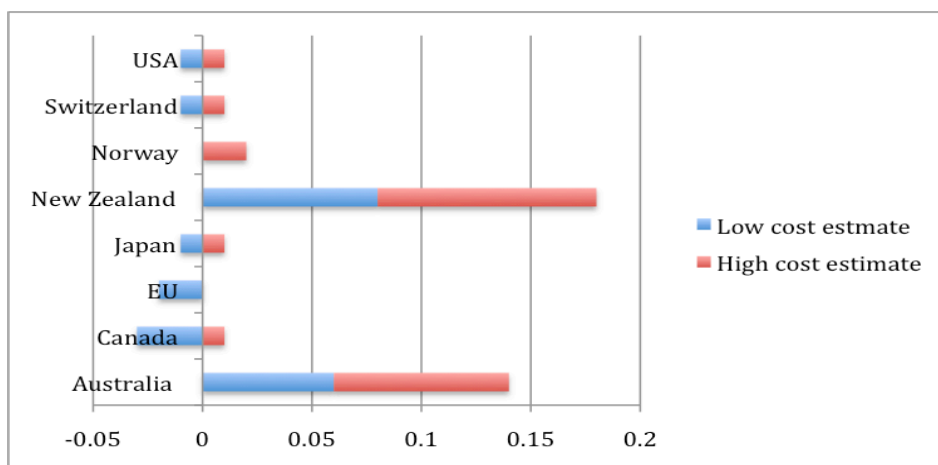
First of all we repeat that the economic issues pointed out under 3.1. show that the current scientific case for carbon leakage because of the EU ETS is weak if not non-existent. The 2009 Carbon Leakage decision is based on criteria which might be incorrectly implemented "proxies". The application of one of those criteria (i.e. the potential price increment) is based on wrong (and dramatically changed) assumptions. Furthermore there will be huge windfalls for the manufacturing sector in 2008-2012 due to an EAU surplus glut. There might even be more windfall profits if part of the carbon price was/is passed through in the period 2008-2012 and beyond.

#### b. The Copenhagen Accord, comparability, (new) macro-economics and co-benefits

It is too early to assess the complete and specific impact of the Copenhagen Accord on additional emission reductions in countries outside the EU. While the Accord is a non-legally binding text which only provides for reduction or mitigation pledges by parties to the UNFCCC, more ambitious climate action in third countries is being prepared compared to the state of play in 2009. Japan has become more seriously committed to stronger climate action and legislation with the start of the implementation of a -25% reduction target. In the U.S. the Senate is on the verge of being presented with a proposal which will cap US emissions, economy wide. It is possible that before the end of this year, such measures will become part of US federal legislation. China has committed itself to an economy wide greenhouse gas intensity based goal. It has also taken the first steps of implementing this commitment.

In terms of comparability of effort, the EU's target(s) are less stringent than other developed countries' pledges. According to den Elzen et al., under a "comparable effort scenario"<sup>8</sup> for stabilisation at 450 ppm the EU receives a 35% target by 2020 compared to 1990.<sup>9</sup> The costs of countries' maximum pledges are shown below.

Figure: costs of maximum pledges as % of 2020 GDP (adapted from IIASA 2009)

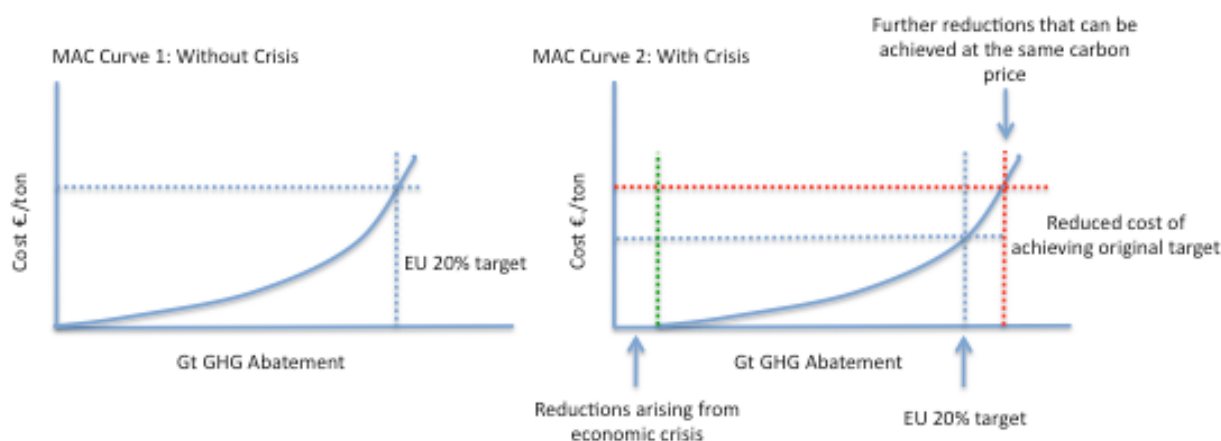


<sup>8</sup> With an aggregate target of 30% by 2020 for developed countries, and a 16% deviation from BAU by 2020 for developed countries (19% including REDD and LULUCF). This is consistent with a 450 ppm scenario. The target is derived from the average of 6 different measures of comparability of effort: equal baseline reductions, equal marginal abatement costs, equal costs (excluding IET and CDM), equal costs (including IET and CDM), converging per capita emissions, triptych (based on (1) converging criteria for meeting certain technological standards or targets at the sector level, and on (2) accounting for structural differences).

<sup>9</sup> Michael den Elzen et al. (2009), "Pledges and Actions: A Scenario Analysis of Mitigation Costs and Carbon Market Impacts for Developed and Developing Countries", the Netherlands Environmental Assessment Agency, pp. 51.

As a result of the economic crisis and the use of off-sets, the minimal action needed to reach a 20% cut, achieving emissions reduction goals is likely to be significantly cheaper than originally modelled. Starting from lower projected emissions due to the economic crisis, fewer units of positive cost abatement are required to reach a given target, and hence overall costs are lower. This is represented schematically below.

Figure: Effects of the Economic Crisis on Marginal Abatement Costs<sup>10</sup>



The cost of achieving a 30% pledge is thus estimated to be €104 billion cheaper *than the original 20% pledge*.<sup>11</sup> This is also reflected in the results of a number of recent cost studies, a number of which are represented in the table below.

Table: costs of Achieving a 30% Reduction Target for the EU

Study	Cost (GDP) in 2020	Key assumptions
The Climate Group	+1.3 percent (i.e. beneficial impact on the economy due to increased clean investment and efficiency savings)	EU achieves unilateral 30 percent target. Minimal action by other major economies
IIASA	0.00 to +0.02 percent (i.e. beneficial impact)	EU achieves 30 percent as part of a global deal. Based on ambitious estimates of current A1 pledges. Without CDM/REDD credits.
New Energy Finance	ETS costs €203bn lower than reported in February 2008.	

Strong mitigation policies are likely to have significant co-benefits, in terms of decreased expenditure on fuels, increased energy security, increased revenues from low carbon technologies, and new jobs. Some of these are detailed in the table below.

<sup>10</sup> Cf. presentation by International Institute for Applied Systems Analysis, "The Impact of the Economic Crisis on GHG Mitigation Potentials and Costs in Annex I Countries", Barcelona Climate Talks, 03.11.2009. Available at: [http://regserver.unfccc.int/seors/attachments/get\\_attachment?code=YKPEJBI0878ZLLJXXIAAF7P3Q6Z6O25Y](http://regserver.unfccc.int/seors/attachments/get_attachment?code=YKPEJBI0878ZLLJXXIAAF7P3Q6Z6O25Y)

<sup>11</sup> Cf. E3G (2009), "30 Percent and Beyond: Strengthening EU Leadership on Climate Change", E3G Briefing Note, pp. 3.

Table: benefits of Mitigation Policies for the EU

Study	Benefits
<i>The World Energy Outlook 2009:</i> 20% reduction in energy-related CO <sub>2</sub> emissions by 2020 (relative to 2007) to meet 450 Scenario.	Annual oil and gas bill reduced by more than \$90 billion in 2020 and \$240 billion by 2030, compared to the reference scenario.  Reduced gas demand by 7% in 2020 and 18% in 2030, compared to the reference scenario.
<i>The Climate Group 2009</i>	A net increase of 1.1 million jobs by 2020.
<i>International Institute for Sustainable Development and International Relations 2009:</i> 450 ppm scenario	Carbon constraints in the EU would increase demand for heavy materials and open new global markets for more efficient solutions such as low carbon steel.
<i>Potsdam Institute for Climate Change Research</i>	If the EU reduces by 30% by 2020 it will see benefits, even if other countries in the world delay own policies.

### c. China imposes an export tax on key manufacturing goods

Under point b above we compared the European climate policy with other industrialised nations. A reduction target based comparison with China is not possible because China's commitment under the Copenhagen Accord is a forward looking intensity based target. However there is a more direct way to compare part of Europe's and China's manufacturing sector with regard to carbon pricing. In 2008 China decided to increase its export taxes for goods such as steel, aluminium. It also decided to abolish the export VAT repayment for cement<sup>12</sup>. The main reason for doing this, was the protection of economic growth by making sure important goods stayed in China for domestic use.

If one would converted the exported taxes for these products according to their embedded carbon one gets the equivalent of a carbon tax for those goods. The high end of this converted tax is equivalent to 40 EUR/t CO<sub>2</sub>. This is far higher than the current and projected 2020 EUA price. Furthermore this tax applies from the first to the last tonne and not as under the EU ETS for carbon leakage sectors for the part of allowances which need to be purchased (i.e. probably far lower than 30% of the emission of carbon leakage sectors).

Table: Chinese export tax and carbon equivalent, source *Climate Strategies, 2009*

Product	Chinese export tax (%) or cancellation export VAT repayment	Chinese export tax (or VAT) converted into embedded CO <sub>2</sub> price (EUR/t CO <sub>2</sub> )
Steel	25%	30-40 EUR/t CO <sub>2</sub>
Aluminium	up to 15%	18-26 EUR/t CO <sub>2</sub>
Cement	Cancellation of export VAT repayment	2.5-3.5 EUR/t CO <sub>2</sub>

If we also look at the current AAU-surplus which represents an enormous financial value (see point 3.1(c)) for the EU manufacturing sector one can come to the conclusion that the current EU ETS is in fact a gigantic state aid for those sectors.

We advise the European Commission to further look into the above mentioned research and use the results to adjust the trade intensity calculations of the relevant sectors accordingly.

<sup>12</sup> "Tackling Leakage in a World of Unequal Carbon Prices", 2009, Climate Strategies <http://www.climatestrategies.org/our-reports/category/32/153.html>

#### **d. A better assessment of the efficiency of installations in third countries**

NGOs repeat their disappointment that the comparison with the greenhouse gas efficiency of installations in third countries was not carried out to the full extent in the 2009 Decision.

We urge the European Commission, to still (re)do this analysis and to use the outcome of the European Benchmarking research as relevant input. In particular a comparison of the average of the 10% most GHG-efficient installations in Europe, worldwide and for different important economic regions can be a valuable exercise.

#### **3.3. In your view, what would be a compelling new general economic or other factor which would require a change of the level of free allocation to sectors deemed to be exposed to a significant risk of carbon leakage?**

**For the answers to this question we refer to our remarks under point 3.1. a and c**

#### **3.4. Do you consider free allocation of allowances as sufficient measure to address the risk of carbon leakage, or do you see a need for alternative or additional measures?**

##### **a. Free allocation is not a good measure because it might enhance carbon leakage**

The behaviour of some companies under the EU ETS has shown that the rules with regard to free allocation can precipitate a planned closure (or significant downsizing) of an installation<sup>13</sup>. Free allowances represent a significant financial asset for companies. The current rules with regard to free allocation and closures might give companies an incentive to lower production in a plant at a far earlier stage than originally planned. The company can hence cash in its surplus allowances and e.g. use the revenue for CAPEX in new installations outside the EU. If all allowances would be auctioned instead of handed out for free the above problem would not occur.

CAN-Europe urges the commission to adopt stringent closure rules which avoid gaming with free allowances. This means that in case of a closure or a dramatic lower production output in an installation, the greenhouse gas permit needs to be withdrawn or suspended. To avoid another EAU surplus glut as the one we face in the period 2008-2012, allowances (intended to go to an installation for which the greenhouse gas permit is withdrawn or suspended), have to be cancelled.

Forthcoming research by CE Delft<sup>14</sup> also shows that free allocation is not a good method for tackling carbon leakage. Using data for certain products from the refineries, iron and steel and chemical sector, and applying econometric methods the researchers show that for Phase 1 and 2 from EU ETS, the opportunity costs of freely obtained allowances have most likely been passed through in the price for the majority of products from these sectors. This implies that free allocation does not do what it was intended for: keeping prices of EU producers unaffected so that a fair competition with non-EU suppliers would be guaranteed. The research shows that EU producers do raise their prices to reflect the opportunity costs of the EUAs so that windfall profits are being made.

##### **b. Innovation is the only adequate and long term answer to an increased risk of carbon leakage**

Innovation and investments in innovative techniques and technologies will be the most solid and long term answer against an increased risk of carbon leakage. There is increasing evidence that within most of the energy intensive sectors under the EU ETS, technologies exist which are already used or close to being applied, with significantly lower GHG-emissions. Examples of this

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<sup>13</sup> "EUA loophole could net Corus €300 million", pointcarbon, 11 December 2009

<sup>14</sup> "Cost pass through and windfall profits in EU ETS: an econometric analysis for products from the refineries, iron and steel and chemical sectors". CE Delft, 2010 (forthcoming).

are direct reduction of iron ore and the use of natural gas (instead of coal/cokes) for steel production or the use of substitutes for clinker in cement production. Right now, such techniques (though in pilot phase) can reduce over 50% of greenhouse gas emissions compared to common production methods in the EU. It speaks for itself that the application of such major reduction techniques will make the production of those goods less sensitive to a carbon price and as such to potential carbon leakage.

CAN-Europe sees these advanced innovative techniques of today as the mainstream production method in the coming decades. We have only about 30-40 years to replace the current manufacturing production plants with those techniques. Therefore we need a dramatic step-up in EU research, development and deployment financing, projects and programmes in the next years.

CAN Europe sees two direct initiatives which could achieve this goal and be implemented in the short term with a so called "carrot and stick" approach:

- the introduction of the strongest possible benchmarks as part of the decision on harmonised allocation rules. This is necessary to give companies an incentive to invest in the most efficient technologies as a way to avoid the purchase of allowances;
- the use of auctioning revenues and/or surplus allowances to subsidise the development and deployment CAPEX of the above mentioned state of the art technologies.

#### **c. The inclusion in the Community scheme of importers of products which are produced by the sectors or sub-sectors deemed to be exposed to carbon leakage**

We repeat that according to our observations under 3.1., 3.2. and 3.3. it is quite obvious that the scientific case for carbon leakage under the EU ETS is, at least, weak. In point 3.4.(a) above we showed that free allocation might even be an inappropriate and counterproductive measure. Therefore our prime conclusion is that free allocation needs to be replaced by auctioning in the shortest possible term.

However (and regardless of the occurrence of carbon leakage), the measure identified in article 10b of the EU ETS directive which aims to include importers of EU ETS covered products under the EU ETS, can be further explored. In particular if significant climate action remains absent in the United States of America, this measure might be a second best option towards bringing part of the non-EU emissions under a climate regime. The European Union has already taken a similar step by including international aviation operators' emissions (from and to the EU) in the EU ETS. Of course a global and comprehensive climate agreement followed up by strong domestic action and legislation is still the prime goal to be achieved.

We ask the European Commission to explore the problems and opportunities related to the practical implementation of the import inclusion measure and its potential impacts.

#### **d. Inclusion of international shipping in the EU ETS or EU climate policy**

Very similar to the reasoning mentioned under point 3.4.(c), expanding the EU climate legislation to include (international) shipping makes sense with the goal to make a carbon price visible for part of the production outside the EU.

For international shipping there is also, more importantly, the imperative to finally become part of climate targets and legislation. The International Maritime Organisation has ignored to take action with regard to greenhouse gas emissions from shipping for too long.

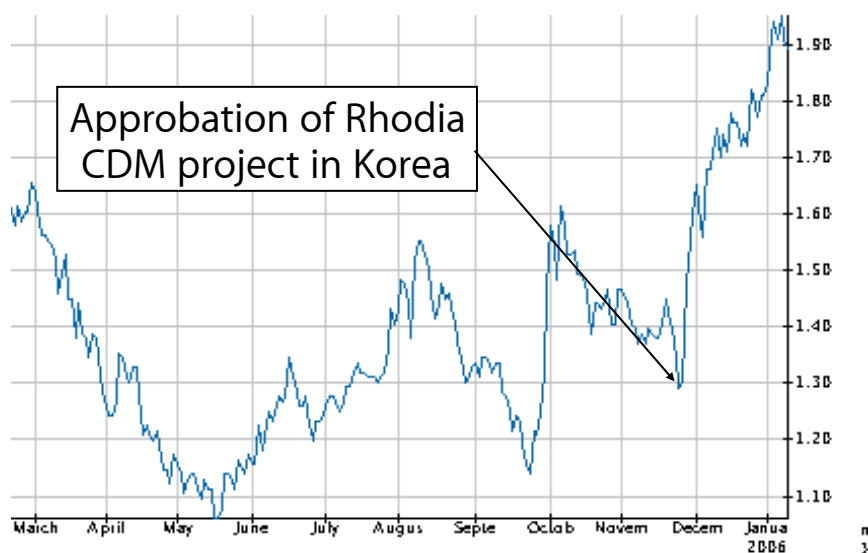
We urge the Commission to present a legislative proposal on CO<sub>2</sub> and (international) shipping before the end of this year.

### e. Ineligibility of HFC23 and N<sub>2</sub>O reduction credits under the CDM

There might be an example of potential carbon leakage related to the carbon markets, but **outside of** the EU ETS. Under the CDM projects related to the destruction of non-CO<sub>2</sub> (e.g. HFC23, N<sub>2</sub>O, ...) greenhouse gases in the chemical sector are very lucrative. Most of those projects can reduce these emissions dramatically at a very low cost. At the same time the Certified Emission Reductions (CERs) generated are being sold at market price (partially determined by demand out of the EU ETS) which can be 10-times higher (or more). The profits to be generated through these types of CDM activities in some cases outweigh the normal profits generated by the production and sales of chemicals. In fact, the CDM might become a sort of production subsidising instrument for these projects. If that is the case, there will be a clear distortion of competition with sites that are not doing CDM-projects. Furthermore, these types of projects and the money they generate are the driving force behind delayed and weaker climate legislation (e.g. on HFC23 reduction) in China and India.

To take an example<sup>15</sup>, the French chemical company Rhodia owns several nitric acid plants which emit N<sub>2</sub>O, a greenhouse gas whose abatement, per ton of CO<sub>2</sub>-equivalent, is much cheaper than the CO<sub>2</sub> price on the ETS markets. On 28 November 2005, a CDM project aiming at destroying N<sub>2</sub>O in a Rhodia plant in South Korea was approved by the CDM Executive Board. As shown in Figure 2, the Rhodia stock jumped just after this decision, showing that in this case, the CDM protected competitiveness by being able to increase profits (outside the EU)<sup>16</sup>.

However, the amount of CERs generated is proportional to the output of the plant, providing an incentive to increase the utilisation of the plant, which economic value for Rhodia is now not only to produce nitric acid, but also CERs. Hence, when the economic downturn occurred at the end of 2008, the CDM created an incentive to maintain the production level in plants generating CERs, hence to reduce production further in other plants, including those located in the EU<sup>17</sup>. Hence, at least in this case, the CDM protected competitiveness as ability to earn but reduced competitiveness as ability to sell.



<sup>15</sup> Climate Change Policies, Competitiveness and Leakage, Philippe Quirion (CIRED) [quirion@centre-cired.fr](mailto:quirion@centre-cired.fr), [www.centre-cired.fr/perso/quirion](http://www.centre-cired.fr/perso/quirion) International workshop on climate policies, Complutense Institute of Foreign Studies (ICEI) Madrid, 18 and 19 February 2010

<sup>16</sup> Point Carbon, "Chemical company Rhodia sees shares gain on CDM decision", 5 December 2005, [www.pointcarbon.com](http://www.pointcarbon.com)

<sup>17</sup> "Provisional estimates by PCI Nylon forecast operating rates for the last three months of 2008 will fall by between 30 and 50 per cent in the US and Europe compared with the first nine months of the year. Meanwhile, factories in Asia and Brazil, four of which will earn carbon credits, will keep production rates of above 80 per cent of capacity." Andrew Allan, "Carbon credits linked to product dumping", *Point Carbon*, 20 Nov 2008.

*Figure: Rhodia stock value, March 2005 – January 2006*

We recommend that the European Commission takes the above mentioned concerns into account in its development of a list of quality criteria on the use of external credits for compliance in the post 2012 EU ETS. Low hanging fruit type projects such as the ones mentioned above (HFC23 and N<sub>2</sub>O reduction) have to become ineligible for use under the EU ETS.



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