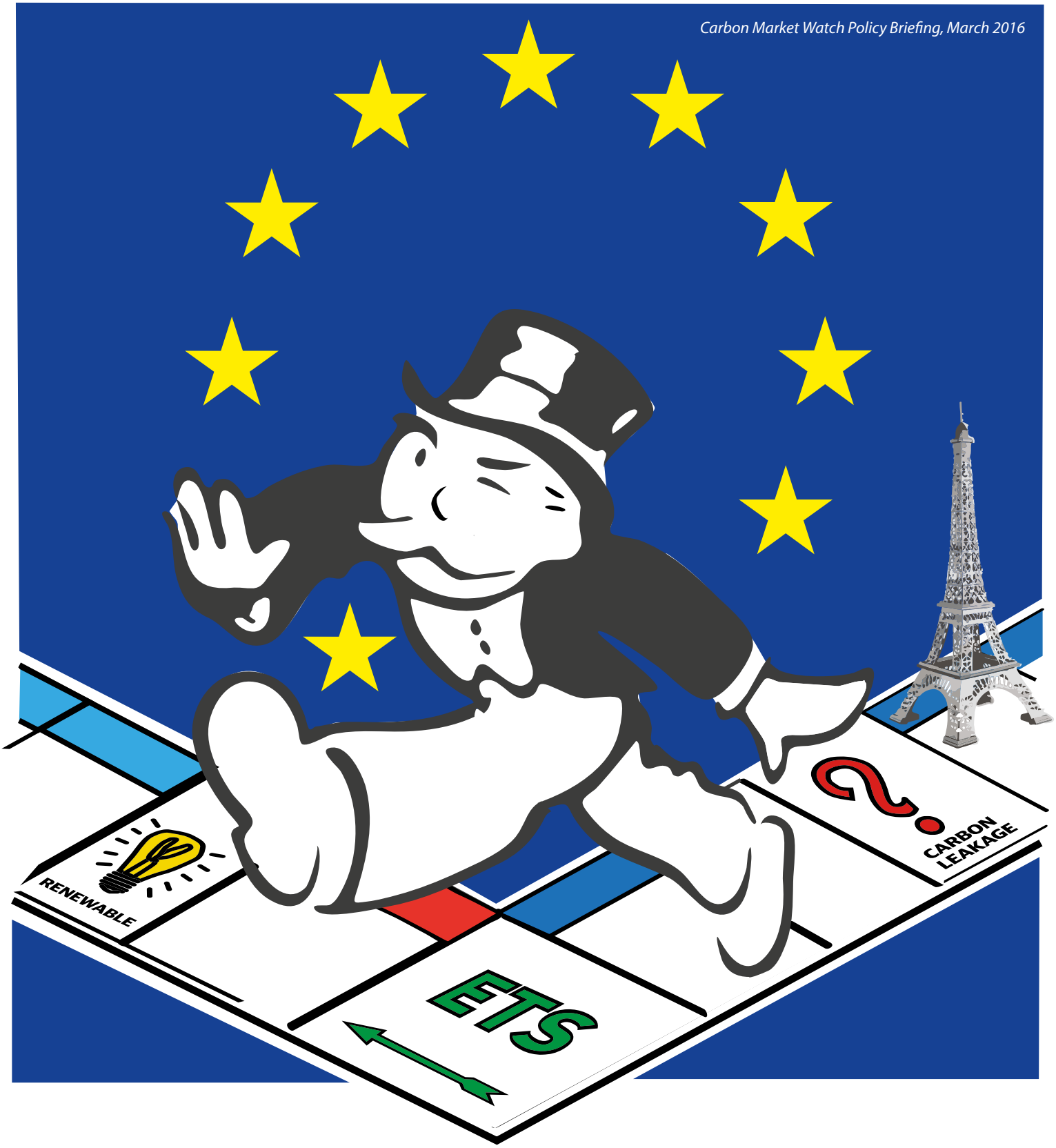
Industry windfall profits from Europe's carbon market

HOW ENERGY-INTENSIVE COMPANIES CASHED IN ON THEIR POLLUTION AT TAXPAYERS' EXPENSE

Carbon Market Watch Policy Briefing, March 2016



Executive summary

This policy brief interprets the findings of a new study by CE Delft[1] that shows how energy-intensive companies in 19 European countries have massively profited from their pollution because they are deemed to be at risk of "carbon leakage". "Carbon leakage" refers to a hypothetical situation where companies transfer production to countries with weaker climate policies in order to lower their costs. Under the current EU Emissions Trading System (EU ETS) rules, industrial companies that are believed to be at risk of "carbon leakage" are awarded free pollution permits.

There are at least four problems related to the current system:

1. **Free allocation has resulted in significant windfall profits for corporations**. Windfall profits occur when industrial companies are over-subsidised for their pollution. This can happen from receiving too many free emission allowances that can be sold for a profit in the market, from using international offsets and from making consumers pay for non-existent carbon costs. **Energy-intensive companies made over €24 billion** from the EU ETS during 2008-2014[2]. Most profits were made in Germany, the United Kingdom, Spain, France and Italy.

2. **European taxpayers are picking up the bill as governments forego income and lose out on revenues from auctioning these pollution permits**. As a result of free allocation, less money is available for investments in the climate friendly transition of the European economy. In the 2008-2014 period, governments have given out 11 billion free pollution permits and have thereby **missed out on at least €137 billion in auctioning revenues[3]**.

3. Without an urgent change of the rules**, emission reductions of industry will stall over the next 15 years**. Giving away free emission allowances reduces the incentive of companies to produce more efficiently or to invest in breakthrough technologies that reduce CO_2.

4. **The Paris agreement will level the playing field across the global economy after 2020**. When relocation destinations have similar climate policies to the EU ETS, there will be no "carbon leakage" risks. Studies have furthermore not been able to find evidence for "carbon leakage".

The ongoing legislative process to revise the EU ETS rules for the post-2020 period provides an important opportunity to revise the current "carbon leakage" rules. The lessons learned so far are important to ensure that further windfall profits at the expense of taxpayers are avoided and, instead of subsidising pollution, European governments will invest in innovations that lead to low-carbon societies.

Key recommendations

- **Phase out the free allocation of pollution permits** by gradually increasing the share of allowances to be auctioned from the current 57% to 100% in the future.
- Introduce a tiered "carbon leakage" approach and **target free allowances only to those that really need it**. The left-over free allowances should be cancelled or auctioned for innovation support.
- **Annually reduce the amount of free allowances that an installation receives** (the benchmark) in line with the overall decarbonisation pathway of the EU ETS.
- **Invest more auctioning revenues in climate friendly innovation and support the frontrunners that want to invest in breakthrough technologies.**

1. CE Delft (2016), Calculation of additional profits of sectors and firms from the EU ETS see here

2. All the information on windfall profits is taken from the CE Delft report (2016), Calculation of additional profits from the EU ETS, see here. These calculations show how much money companies and sectors were able to make from the EU ETS in theory, the actual profits could differ depending on the company strategies.

3. Based on information provided by CE Delft (2016), using average annual carbon prices. See here

"Carbon leakage" – the threat of relocation due to the EU ETS

The EU Emissions Trading System (EU ETS) covers the EU's greenhouse gas emissions (GHG) from the industry and power sector which amount to just over 40% of the EU's total GHG emissions. After each year, companies participating in the system must surrender enough allowances to cover all of their emissions.

Since 2013, power companies are obliged to buy all of their CO_2allowances at auction. However, manufacturing industries are granted preferential treatment in the form of receiving CO_2 allowances for free because they are considered to be at risk of "carbon leakage". "Carbon leakage" refers to a hypothetical situation where companies transfer production to countries with weaker climate change policies to lower their production costs.

What are windfall profits?

The current EU ETS rules hand out free emission allowances to industrial companies deemed at risk of "carbon leakage". The emission allowances that are given away for free represent subsidies, since governments forego income and lose out on revenues from auctioning these pollution permits. Windfall profits occur when industrial companies are over-subsidised for their pollution. This can for example happen when too many free emissions allowances are given away that can be sold for a profit in the market.

Heavy industry made over €24 billion windfall profits

Some corporations have used the EU ETS to increase their cash flows by using "carbon leakage" as an argument to receive pollution subsidies from governments. **Heavy industry in 19 European countries made over €24 billion in windfall profits from the EU ETS** during 2008-2014 in the following ways[4]:

1. **Windfall profits from surplus: €8.1 billion.** Industries have received more emission allowances for free than they actually need, and are able to sell their surplus for a profit in the market.

2. **Windfall profits from offsets: €0.6 billion.** The price for international offsets is much lower than the price for emission allowances. Industries have bought international offsets to comply with their targets, and are able to sell their remaining free allowances for a profit on the market.

3. **Windfall profits from cost-pass through: €15.3 billion.** Industries have generated profits by letting their customers pay the price for freely obtained emission allowances.

The sectors that have profited most from the EU ETS in the period 2008-2014 are the iron and steel, cement, refineries and petrochemicals sectors. Within these sectors, the cement sector was able to generate the most money by receiving too many free allowances and selling this surplus for profits on the market.

Sector	Windfall profits from surplus	Windfall profits from offsets	Windfall profits from min. cost-pass through	Total windfall profits
Iron and steel	€1,044 million	€235 million	€6,716 million	**€8.0 billion**
Cement	€2,649 million	€146 million	€1,915 million	**€4.7 billion**
Refineries	€170 million	€83 million	€4,178 million	**€4.4 billion**
Petrochemicals	€780 million	€41 million	€815 million	**€1.6 billion**

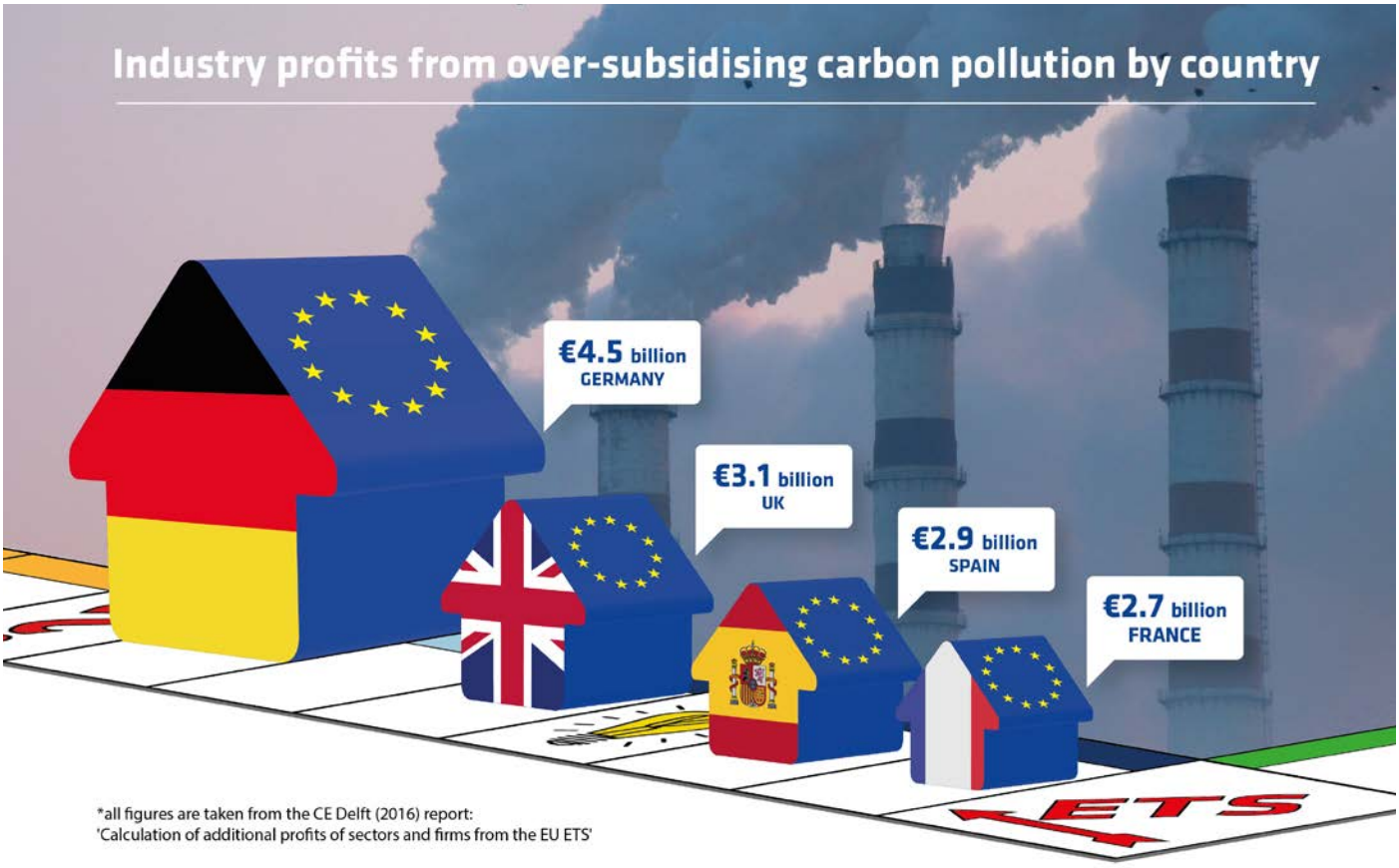
4. CE Delft (2016), Calculation of additional profits from the EU ETS, see here. For (1) the windfall profits are calculated for the whole industry sector, while for (2) and (3) only the 15 most polluting sectors are taken into account. In addition, the windfall profits from offsets (2) are only calculated for the period up to 2012.

Windfall profits vary from country to country

The windfall profits that European corporations made from the EU ETS differ considerably between countries. Most gains from the EU ETS were made in Germany (€4.5 billion), the United Kingdom (€3.1 billion), Spain (€2.9 billion), France (€2.7 billion) and Italy (€2.3 billion). These differences largely correlate with the amount of greenhouse gas emissions in these countries in the 2008-2014 period.

Spain made the most windfall profits from their surplus amounting to over €1.6 billion. The Spanish industry received over 130 million more allowances than it actually needed. In Sweden, industry received a third more emission allowances than justified by their actual emissions.

The largest windfall profit category has been the passing through of non-existent carbon costs on to customers. In Germany, industry gained over €3 billion from this windfall profit category while industry in the United Kingdom obtained over €2 billion



Member State	Windfall profits from surplus	Windfall profits from offsets	Windfall profits from min. cost-pass through	Total windfall profits
Austria	-€226 million	€14 million	€641 million	**€429 million**
Belgium	€698 million	€23 million	€711 million	**€1,432 million**
Czech Republic	€194 million	€15 million	€463 million	**€673 million**
Denmark	€110 million	€3 million	€124 million	**€237 million**
Finland	€114 million	€7 million	€360 million	**€481 million**
France	€818 million	€112 million	€1,780 million	**€2,710 million**

Germany	€1,121 million	€187 million	€3,191 million	**€4,500 million**
Greece	€359 million	€20 million	€300 million	**€679 million**
Hungary	€54 million	€4 million	€151 million	**€210 million**
Ireland	€163 million	€1 million	€48 million	**€212 million**
Italy	€519 million	€53 million	€1,743 million	**€2,315 million**
Netherlands	€236 million	€27 million	€819 million	**€1,082 million**
Poland	€266 million	€20 million	€738 million	**€1,025 million**
Portugal	€227 million	€7 million	€211 million	**€446 million**
Slovakia	€341 million	€13 million	€468 million	**€823 million**
Slovenia	€15 million	€1 million	€22 million	**€38 million**
Spain	€1,672 million	€49 million	€1,167 million	**€2,888 million**
Sweden	€388 million	€15 million	€326 million	**€729 million**
United Kingdom	€1,010 million	€58 million	€2,035 million	**€3,104 million**

The Paris agreement levels the global playing field

So far, no evidence has been found for production displacement due to the EU ETS. In 2013, a study done for the European Commission concluded: "***We found no evidence for any "carbon leakage"*** *– according to the ETS Directive, defined as production relocation due to the ETS – in the past two ETS periods*"[5]. Energy intensive companies themselves have reported to their shareholders that the competitiveness risks of the EU ETS are not an issue for them (see letter to Barroso here, 2014).

When relocation destinations have similar climate policies to the EU ETS, there are no "carbon leakage" risks. In light of the Paris agreement, 188 countries have already submitted their climate commitments, accounting for over 95% of global emissions. This demonstrates universal participation and levels the playing field across the global economy. Many other countries will also set a domestic carbon price; China is expected to introduce emissions trading and South Africa will introduce a carbon tax from 2017.

Moreover, a recent academic paper published by the London School of Economics[6] finds that the prospects of EU companies moving their production abroad due to more ambitious climate policies is 'extremely limited'. A ten-fold increase in the carbon price would, according to the researchers, only marginally affect imports and exports, even with the phase-out of free emission allowances and 100% auctioning.

"Carbon leakage" rules stall emission reductions over the next 15 years

Industrial companies receive their allowances to emit CO_2 for free and are therefore hardly exposed to the carbon price. As a result of the overgenerous hand-out of free emission allowances and the low carbon price, European companies are currently not receiving a sufficient price signal to produce more efficiently or invest in breakthrough technologies that reduce CO_2. A wide range of technological options to reduce emissions in these carbon-intensive sectors are available that remain unexploited. At the same time, the free allocation of carbon allowances fails to reward frontrunner companies that have chosen to shift their production towards more carbon efficient options. Consequently, the industrial emissions are not projected to go down from now until 2030 according to the European Environment Agency[7].

5. Ecorys (2013), Carbon leakage evidence project, see here

6. LSE (2015), Asymmetric industrial energy prices and international trade, see here

7. EEA (2015), Trends and projections in the EU ETS in 2015, see here

Free allowances – less money to invest in the low-carbon transition

Giving free emission allowances to industry reduces the amount of allowances that governments can auction, and reduces the auctioning revenues that could be mobilised by governments. Consequently, free allocation means that less money is available for investments in the low-carbon transition of the European economy.

Between 2008 and 2014, almost 11 billion allowances were given out for free in the 19 European countries with an equivalent value of €137 billion. **These governments therefore lost out on €137 billion in auctioning revenues.**

In the same period, **about €6.4 billion revenues were generated from auctioning allowances**.[8]

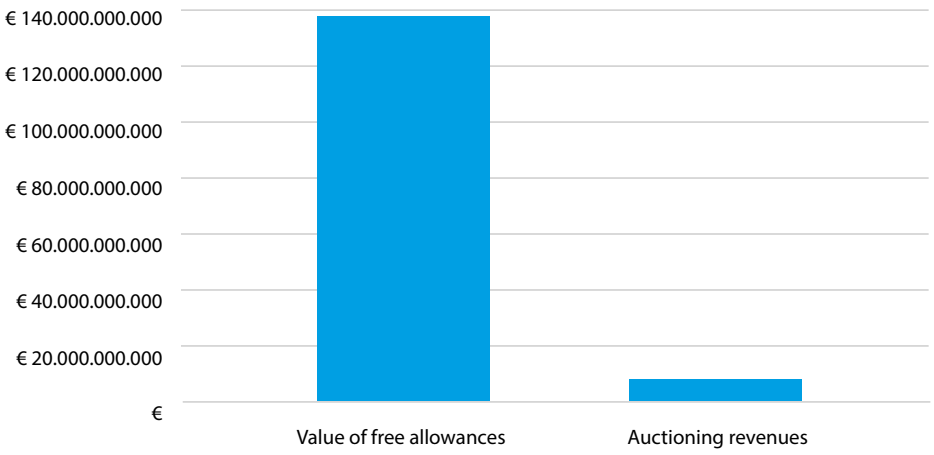


Figure 1 Value of free allowances vs auctioning revenues (2008-2014)

Unsubstantiated "carbon leakage" claims by heavy industry

In the past years, industry lobbyists have made several unsubstantiated claims about the impact of the EU ETS on their competitiveness. Certain corporations have made profits worth hundreds of millions of euros from the EU's climate policies, while still claiming that the EU ETS is impacting their competitiveness.

Claim by ArcelorMittal: "EU energy and climate policy is punishing the steel sector and other energy-intensive industries, which is having a profound impact on our competitiveness" (2014)[9].
Fact: The steel company has made **more than €400 million** from the EU ETS in the last 5 years according to its own annual reports.

Claim by Lafarge: "Unequal carbon pricing place[s] the EU manufacturing sector in general – and the cement sector in particular – at risk of carbon leakage" (2013)[10].
Fact: The cement company has made **€485 million** from the EU ETS in the years 2010 to 2014 according to its own annual reports.

In the ongoing legislative process to revise the EU ETS rules for the 2021-2030 period, corporate lobbyists are again claiming that the EU ETS will put the viability of their industries at risk. As shown above, similar claims were made in the past and these turned out to be false. Recent studies furthermore show that these claims are again very likely to be unsubstantiated.

Claim by EUROFER: "The current EU ETS proposal [is] an existential threat. [It] puts the viability of the steel industry – including its most efficient producers- at risk" (2015)[11].
Fact: The steel sector will be able to make **€13 billion** from the EU ETS in the 2021-2030 period by letting their customers pay for their (non-existent) carbon costs according to analysis by the European Commission[12].

Claim by CEMBUREAU: "[..] the current EU ETS [..] will de-industrialise Europe before it decarbonizes European manufacturing" (2015)[13].
Fact: The cement sector will be able to make over **€3 billion** from the EU ETS in the 2021-2030 period by letting their customers pay for their (non-existent) carbon costs according to analysis by the European Commission[14].

8. Data taken from the European Commission climate action progress reports from 2014 and 2015
9. FT (20 Jan 2014), "Rewrite energy policy and re-industrialise Europe" see here
10. Lafarge answer to the public consultation on the 2030 climate and energy framework (2013), see here
11. EUROFER (2015), "Current EU ETS proposal 'an existential threat', says European steel industry" see here
12. EC (2015), SWD(2015) 135, table 24, Baseline B scenario, last column (with lowest cost-pass through rates) see here
13. CEMBUREAU (2015), CEMBUREAU comment on the EU ETS review, see here
14. EC (2015), SWD(2015) 135, table 24, Baseline B scenario, last column (with lowest cost-pass through rates) see here

Conclusions and recommendations

The current EU ETS rules related to the free allocation of emission allowances have been detrimental to the climate and taxpayers. The emission allowances that are given away for free represent pollution subsidies as governments forego income and lose out on revenues from auctioning these pollution permits. A new study by CE Delft commissioned by Carbon Market Watch shows that corporations in Europe have made over €24 billion in windfall profits at the expense of taxpayers and consumers. Worse still, the current rules could stall industry's emissions reductions over the next 15 years.

Despite concerns that the current rules have not had the desired effects, the proposal to revise the EU ETS rules for the post-2020 period continues with the EU-wide hand-out of around 6.3 billion free pollution permits. This represents a pollution subsidy of €160 billion to heavy industry and could lead to even more windfall profits for heavy emitters in the future[15].

The ongoing legislative process for the next ETS trading round from 2021-2030 provides an important opportunity to revisit the rules under which industrial sectors are able to receive free pollution permits. To avoid windfall profits and drive innovation, Carbon Market Watch makes the following recommendations:

Avoid over-subsidising polluters:

- **Target free pollution permits only to those that really need it.** Introduce a tiered approach based on the "carbon leakage" risks of each industrial sector. Sectors that are not on the "carbon leakage" list (and hence not at risk of "carbon leakage") should not receive any free pollution permits after 2020. Any left-over free allowances should be cancelled or auctioned for innovation support.

- **Annually reduce the amount of free allowances that an installation receives** (the *benchmark*) in line with the overall decarbonisation pathway of the EU ETS.

- **Do not give free emission allowances for the share of carbon costs that companies can pass on to customers.**

Deliver investments in the climate friendly transition of the European economy:

- **Phase out the free allocation of pollution permits** by gradually increasing the share of allowances to be auctioned from 57% in 2021 to 100% in the future. Auctioning is the most cost-efficient, simplest, fairest, and most transparent way to allocate allowances, fully reflecting the polluter-pays principle. **The revenues from auctioning allowances can be reinvested in further domestic and international decarbonisation.**

- **Increase the innovation fund and spend more money on breakthrough technologies**. The revenues of the fund can be used to support the energy and industry frontrunners that want to invest in innovative low-carbon technologies in Europe.

15. See table 24 of SWD (2015) 135 here, showing that the steel, cement, refineries and chemical sectors will be able to make almost €20 billion from the EU ETS in the post-2020 period from making their customers pay for non-existent carbon costs. An average carbon price of €25/tCO2 in the 2021-2030 period is assumed.

This project action has received funding from the European Commission through a LIFE grant. The content of this section reflects only the author's view. The Commission is not responsible for any use that may be made of the information it contains.

Contact information:

Femke de Jong, EU Policy Director

femke.dejong@carbonmarketwatch.org