

Der Klimagoldesel 2013



Carbon Fatcat Companies in Germany

About us

BUND (Friends of the Earth Germany) is working in nature conservation and environmental protection. We are a non-profit, non-partisan, grassroots NGO with more than 480,000 members and supporters. Please visit our website at www.bund.net

Sandbag is the climate change NGO campaigning for environmentally effective carbon markets. Our offices are based in London and in Brussels. Please visit our website at www.sandbag.org.uk

This report updates and expands research we conducted in *Der Klimagoldesel* published in November 2011. We include an updated appraisal of the performance of the EU ETS; a revised top ten list of Germany's most oversupplied companies and we also investigate how far these companies' surpluses, Phase 3 allocations and offset entitlements are likely to protect them from any rises in the market price of carbon.

This report is available in both English and German on our websites.

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Introduction

The central pillar of Europe's climate policy framework – the EU Emissions Trading Scheme – is failing Germany and failing Europe. So far, the scheme is failing to cap emissions below business-as-usual levels, failing to provide clean companies with a competitive advantage, and failing to provide a clear investment signal. It is also failing to deliver governments the revenues they expected from it.

These problems could be fixed just by reducing the supply of carbon allowances in the scheme, but powerful industrial lobbies are obstructing this, claiming that ETS compliance costs already threaten their international competitiveness and that any increase in the carbon price would exacerbate this. These concerns have been dramatically overstated.

In the report which follows we show how, far from being an added cost to German manufacturers, the ETS has been a “cash cow” providing large surpluses of free carbon allowances that they were able to sell as a revenue stream, or retain to protect them from future compliance costs under the scheme. We profile ten companies operating in Germany who, taken together, have been afforded opportunities to profit by as much as €1.2 billion from being in the scheme to date.

The oversupply of allowances in the EU ETS has seen the carbon price tumble below €5/tCO₂ when it was expected to reach €30/tCO₂ by 2020, but many manufacturer's will face little or no exposure to even this miniscule carbon price because of:

- huge supplies of surplus free allowances banked forward from Phase 2;
- free Phase 3 allowances that were based on pre-recession production benchmarks¹;
- additional Phase 3 free allowances based on a carbon leakage assessment that used a €30/tCO₂ carbon price;
- pre-recession offsetting entitlements that are now disproportionate with their emissions; and
- offset prices which have become vanishingly small (less than 50 cents)

For the ten companies we profile in this report, these extensive protections will shield them from buying allowances for 99.8% of their emissions over 2008-2020. Furthermore, these protections will persist even if the supply of allowances in the wider market is reduced, and the European carbon price restored.

Sandbag and BUND therefore call on German policymakers to ignore the special and unjustified pleading from some very vocal industrial sectors; to support imminent votes to withhold allowances from the EU ETS; and to call for structural measures which permanently reduce the supply of carbon allowances in the scheme and pave the way for a more ambitious 2020 EU climate target.

¹ The production benchmarks used to determine free allowances in Phase 3 were determined using production baselines from 2005-2008 unless output was higher for 2009-2010. See Article 9 of the [Benchmarking Decision 2011/278/EU](https://eur-lex.europa.eu/eli/dir/2011/278/eu)

The current state of the EU ETS

The EU Emissions Trading Scheme (ETS) was an innovative policy tool adopted by Europe to reduce its greenhouse gas emissions in a cost-effective manner. Policymakers set a limit on the volume of emissions permitted over a certain period, create tradable allowances corresponding to that budget, require polluters to surrender these allowances against their pollution, and then allow the market to uncover the cheapest forms of abatement to meet that emissions budget.

So long as policymakers set the caps below business-as-usual emissions, the ETS will create a scarcity of allowances and drive the necessary abatement at optimal cost. **But for seven out of the last eight years of trading, the supply of allowances has exceeded demand.** Meanwhile, EU policymakers have been unable to alter the policy to maintain the level of ambition necessary to incentivise and reward low carbon investment. In the first trading period, this oversupply was largely a symptom of government timidity combined with inadequate emissions data, but in the second period, it was the drop in emissions caused by the recession and overoptimistic growth assumptions that were principally to blame.

Figure 1: The price of allowances in the EU ETS 2005-2011 (€/tCO₂)

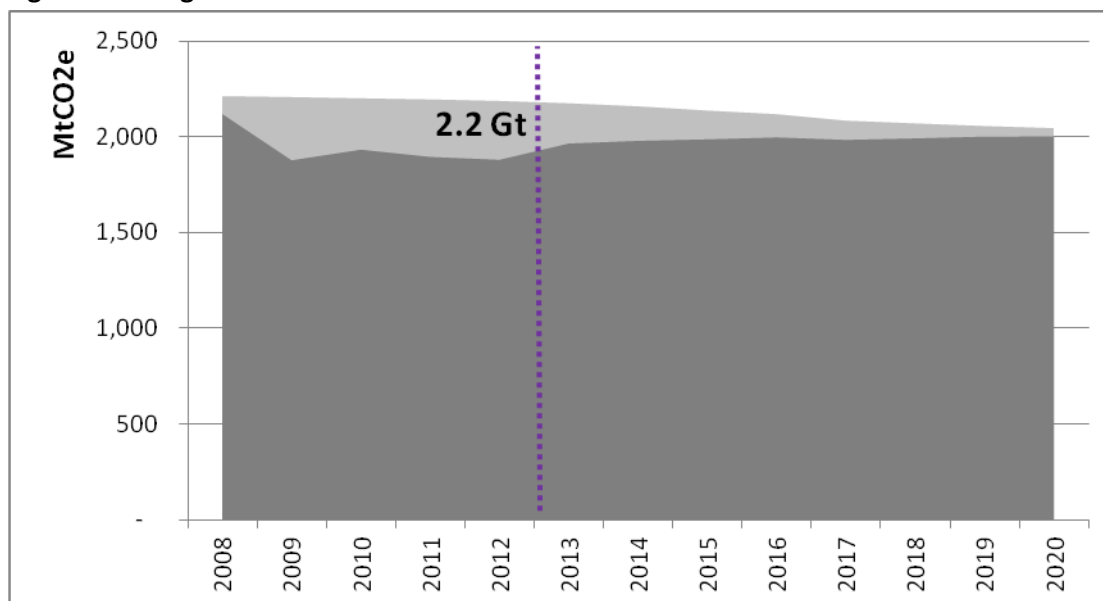


While the oversupply of allowances in Phase 1 (2005-2007) was a contained disaster, excess Phase 2 (2008-2012) allowances can be banked forward to future phases, allowing the oversupply to spill over into Phase 3 (2013-2020) and beyond. Despite the price crash in Phase 1, the ETS legislation still contains no formal provision to correct for an oversupply of allowances except to set the cap of the following trading period at a lower level. Regrettably, by the time the recession had undermined the Phase 2 cap, the supply of allowances for the next eight year trading period had already been established against obsolete and grossly inflated projections for business-as-usual emissions.

In the Figure 2 below, we contrast Deutsche Bank's 2008 forecasts of business-as-usual ETS emissions (light grey) before the recession hit with verified emissions and new forecasts from 2012

(dark grey).² This shows that the expected volume of emissions over 2008-2020 is down some 2.2 billion tonnes from where it was when the Phase 3 caps were set, reducing anticipated demand for allowances by the corresponding volume.

Figure 2: Changed ETS baseline emissions forecasts since 2008



(Source: Deutsche Bank, EUTL and Sandbag calculations)

This reduction in demand has created a glut in the supply of European carbon allowances that will be further compounded by a flood of 1.6 billion unneeded international offset credits entering the scheme: offsets that were made available under obsolete expectations about the demand of European allowances. By the European Commission's assessment³, the cumulative surplus of allowances across the ETS is likely to reach 2 billion in 2013 and continue undiminished until after 2020. This surplus could even be substantially higher if economic recovery becomes decoupled from carbon emissions. Sustained oversupply at these levels would signify a lost decade for low-carbon investment in Europe. As this report goes to press, the forecast of prolonged oversupply has reduced the carbon price below €5 for the first time since 2007. Back then, the price collapsed because the window for using Phase 1 allowances was rapidly closing, but now, when allowances can be banked forward indefinitely, the low price signifies a deeper loss of confidence in the scheme's capacity to deliver a meaningful scarcity of allowances.

It is against this backdrop of aggravated oversupply that recent proposals to "fix the EU ETS" are being debated. The European Commission is currently consulting on "structural measures" to achieve this on a permanent basis, e.g. by cancelling a significant volume of Phase 3 allowances; but as a stopgap measure the Commission has proposed withholding some of the allowances due to be auctioned in the first years of Phase 3 to the last years of the phase, arguing that "we must not flood a market that is already oversupplied."⁴

While the Commission felt this 'backloading' of Phase 3 auctions was within its powers, it took the precaution of initiating a formal review of the relevant paragraph of the ETS Directive in order to discourage future legal challenges. The success or failure of this stopgap measure has become widely perceived as an acid test for the political will to reform the EU ETS on a more permanent basis, and

² Figures derived by comparing Deutsche Bank's 2008 report "It takes CO₂ to Contango" (2008) against verified 2008-2011 emissions in CITL, 2012 emissions forecasts in "ETS Reform Should Not Be Set Aside (2012)" and 2013-2020 Phase 2 scope emissions forecasts in "Scoping the Phase 3 cap" (2012).

³ http://ec.europa.eu/clima/policies/ets/reform/docs/com_2012_652_en.pdf

⁴ http://ec.europa.eu/clima/news/articles/news_2012111401_en.htm

the manufacturing lobbies resisting ETS reform have marshalled themselves aggressively to win this proxy debate.

The positioning of Germany policymakers is key to the success or failure of the backloading proposal and of any ensuing structural reforms: Germany has the single highest voting-weight in both the Climate Change Committee⁵ and the European Council; it has the largest number of MEPs of any state in the European Parliament; and it has immense negotiating powers outside of the formal EU institutions. At the same time, Germany's manufacturing sector is one of the largest and most politically influential in Europe.

But as this report goes to press, it remains unclear whether the German government will come out in support of backloading and also, in just a few days time, the votes of German MEPs will be critical in deciding whether the proposal passes a key hurdle in the European Parliament's Environment Committee.

The success of Germany's domestic climate goals closely depend on the success of the EU Emissions Trading Scheme: Germany's goal to reduce its greenhouse emissions 40% below 1990 levels by 2020 can only succeed if it increases the emissions reductions it makes in those sectors covered by the ETS. Non-traded sectors such as agriculture have considerably lower mitigation potential and could not deliver the necessary complementary reductions.

But reaching this target will be a pyrrhic victory for Germany if its additional mitigation efforts serve only to weaken the obligations of other Member States under the ETS. It is therefore essential that the overall cap be tightened to prevent other EU member states from "free-riding" on German emissions reductions.

Finally, a reduction in the supply of allowances and a stronger carbon price will help favour gas generation over coal plants and will generate the government revenues needed for the Climate and Energy Fund supporting Germany's *Energiewende* (Energy Transformation). It is therefore imperative that German policymakers support the backloading proposal and prepare to support structural reforms to Phase 3.

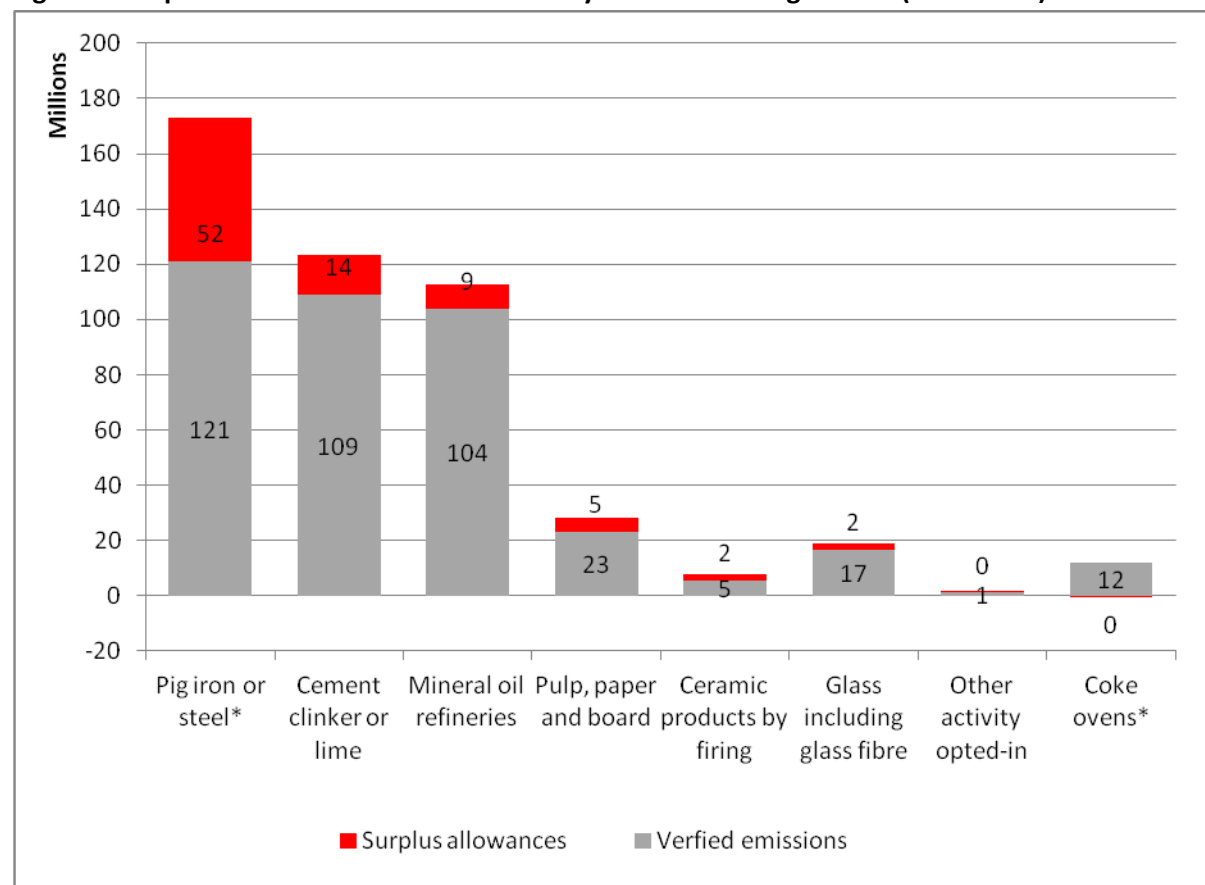
⁵ The Climate Change Committee is a European a technical body that approves and implements EU climate legislation

German installations in the EU ETS

Manufacturing – direct ETS compensations

Like many Member States, Germany was extremely generous in awarding its manufacturing sectors free allowances to cover most of their compliance needs. It did this in order to facilitate their adjustment to the scheme and shelter them against any competitiveness threats the carbon price might cause. These free allocations might have been overly generous even under the most favourable economic conditions, but with the advent of the financial crisis, they proved grossly inflated: as of 2011, Germany had awarded its manufacturing sectors **85 million** more allowances than were needed to cover their emissions, a volume equivalent to the annual emissions of Austria⁶. As we see in Figure 3, these surpluses have mostly accrued to the German steel sector.

Figure 3: Surplus carbon allowances in Germany's manufacturing sectors (2008-2011)



(*Surpluses have been adjusted for known waste gas transfers. Source EEA and Sandbag)

These surpluses, which are expected to grow even larger in 2012, have protected German manufacturing sectors from paying any compliance costs to date. For many companies, some of these spare allowances have been sold to assist with cash-flow and to help them through the recession⁷. Any allowances which haven't been sold will help buffer them against their compliance obligations in Phase 3 (2013-2020); and in some cases will buffer companies against any ETS compliance costs until after 2020.⁸

⁶ Austria's emissions were 84.59Mt in 2010 according to the UN data (see <http://unfccc.int/di/FlexibleQueries>)

⁷ This process has been assisted by surrendering inexpensive offsets, selling on free allowances and pocketing the difference between the EUA and offset price. See company section below for more details.

⁸ See companies section below.

Even without this buffer of Phase 2 surpluses, German manufacturers face lower Phase 3 compliance obligations than expected because, following the recession, their output is lower than they anticipated while their free Phase 3 allowances have been set with reference to peak production years.

Furthermore, additional free allowances have been awarded to a vast number of industrial sectors, based on an exaggerated assessment of their exposure to carbon leakage. Recent analysis by the London School of Economics estimates that the EU carbon leakage list overcompensates European industry to the tune of €6.7 billion annually, and that free allowances could be reduced under more targeted criteria, thereby increasing government revenues without harming output or jobs.⁹ Research by CPI and Climate Strategies also found that companies required to purchase their allowances were more likely to proactively invest in clean technologies than if they received allowances for free.¹⁰

Between these free allowances and the additional protections afforded by cheap offsets, manufacturer's face extremely limited exposure to an EUA price which, at below €5/tonne, is around six times lower than it was expected to be.

Manufacturing – indirect ETS compensations

While Germany finds itself in a position where it has overcompensated industry for its direct compliance costs, it risks pouring good money after bad by further compensating them for the indirect ETS costs they incur through electricity prices.¹¹ The government expects to pay €350 million to protect companies against their indirect ETS costs in 2013, and the chief beneficiaries of this will be the same industries that have benefitted most from surplus allowances.

These compensations for indirect ETS costs are just one part of a wider package of climate policy subsidies and exemptions that energy-intensive companies receive in Germany. These were estimated to be worth €9 billion in 2011 and add up to €11 billion in 2013.¹² Given that these companies are paying far lower electricity rates than other consumers (6 €cents/KWhr or less, households in contrast pay 28 €cents/KWhr), the necessity for many of these exemptions remains questionable.

In summary, while the economic turbulence in Europe has adversely affected German manufacturers in recent years, this has had little to do with German climate policy. For many companies, selling spare ETS allowances has even been a key source of cash flow that helped them to survive these economic difficulties, as we shall explore in more detail below.

⁹ LSE CEP Discussion Paper No 1150 (06/ 2012): Industry compensation under relocation risk: a firm-level analysis of the EU Emissions Trading Scheme.

¹⁰ CPI/ Climate Strategies (01/2011): Climate Change, Investment and Carbon Markets and Prices Evidence from Manager Interviews.

¹¹ In the UK, Sandbag has recommended the British government withhold compensations to energy intensive users until they have paid for indirect carbon equivalent to any (unmerited) Phase 2 surplus EUAs . This recommendation has been taken up by the Parliament's Environmental Audit Select Committee (see: <http://www.guardian.co.uk/environment/2013/jan/04/mps-compensate-heavy-industry-carbon>). Similar proposals in Germany have been blocked by the Economics Ministry (see: <http://www.bmwi.de/BMWi/Redaktion/PDF/S-T/strompreiskompensation-hintergrundpapier,property=pdf,bereich=bmwi2012,sprache=de,rwb=true.pdf>)

¹² FÖS/ IZES for Greenpeace (06/2012): Strom- und Energiekosten der Industrie.

Electricity and combustion sectors

As all of Germany's Phase 2 ETS allowances were created from allowances in Germany's Kyoto Protocol budget, there was a limit on how many could be issued without putting impossible abatement requirements on the non-traded sectors of the German economy. Consequently, Germany's generosity to manufacturers had to be bought by giving fewer free allowances to power suppliers – a sector relatively shielded from foreign competition. Over 2008-2011, the shortfalls in the German combustion sector (of which electricity is the major component) came to **310 million** allowances.¹³

Table 1: Breakdown of German net ETS position (2008-2011)

Sector	2008	2009	2010	2011	Sum 2008-2011
Manufacturing EUA surplus*	11,302,894	32,491,677	20,847,296	20,399,776	85,041,643
Electricity EUA shortfall*	-95,350,920	-69,188,285	-75,301,513	-70,095,075	-309,935,793
German EUA auctions	41,005,000	41,125,000	41,142,500	40,675,500	163,948,000
German net position	-42,970,967	4,534,356	-13,222,388	-8,934,464	-60,593,463
Source: European Environment Agency, EUTL and Sandbag calculations					
*Figures have been adjusted for known waste gas transfers (see Appendix)					

Electricity windfalls and cross-subsidies to industry

Electricity companies were obliged to cover these shortfalls by buying offset credits and by purchasing carbon allowances from the market, costs which were then passed-through to electricity consumers. Ironically, many of the allowances purchased will have come from oversupplied German manufacturers who, as noted above, will be compensated when the cost of these allowances is passed back through to them. Furthermore, as electricity suppliers have also been able to pass-through the "opportunity costs" for the allowances the German government awarded them for free, they have made windfalls estimated to reach €38 billion over 2005-2012¹⁴. This arrangement finds German householders taking the brunt of ETS costs through their electricity bills and paying for carbon allowances the German government originally gave away for free on their behalf.

Amongst other things, electricity suppliers were able to funnel these ETS windfalls into the construction of new power stations, many of them coal plants. In 2006/7 some 40 new projects for coal-fired power stations were planned in Germany. As of today ten of these are already built or are under construction, eventually committing Germany to 70 million tonnes of additional CO₂ emissions every year.¹⁵

¹³ Electricity companies could also meet these shortfalls by buying allowances at auction and by purchasing offset credits.

¹⁴ Öko-Institut (2011): Zusatzserträge von ausgewählten deutschen Unternehmen und Branchen im Rahmen des EU-Emissionshandelssystems

¹⁵ Many of the projects originally planned have since been stopped either because of local protests, legal challenges or economic considerations. See: BUND list of planned and built coal power stations: http://www.bund.net/fileadmin/bundnet/pdfs/klima_und_energie/121123_bund_klima_energie_kokw_verfahrensstand_liste.pdf

A weak CO₂ price fails to support gas over coal generation

From 2013, the power sector will be obliged to purchase all of its allowances from the market, putting an end to their windfall profits and dramatically increasing their shortfalls. But despite the huge EUA shortfalls power companies can expect in Phase 3, the European carbon price remains too weak to make gas competitive with coal. As Germany seeks to wean itself off nuclear power, there is a real danger that this capacity gap will be met by burning more coal.

Not only would this energy shift be bad news for Germany's mitigation efforts, it is also bad news for the *Energiewende* (Energy Transformation) as a whole: the transition to renewable energy in Germany requires some highly flexible, highly efficient energy sources like gas to help balance out the intermittency of wind and solar. Baseload energy sources like coal are poorly-suited to this task and produce roughly twice as much carbon pollution per unit of electricity.

As gas is pushed to the margin by low coal prices and a weak carbon price, Germany's growing renewable energy capacity increasingly covers peak electricity demand, further squeezing gas (the 'classical' peak load plant) out of the market. These developments have substantially contributed to a dive in E.ON's share value by 16% in 2012 as a by-product of its large gas portfolio, while coal-intensive RWE has seen its share value grow by 17% over the same timeframe.¹⁶

A minimum carbon price of €25/tCO₂ is needed to initiate a shift in the merit order in favor of gas and thus help to ease the energy transition. This carbon price would also help the ETS to finance the Climate and Energy Fund to the level the government originally planned. The drop in the carbon price has seen the revenues expected to the Climate and Energy Fund fall by around €2.5 billion a year.¹⁷ Unless the ETS price rises, the government will have to find alternative means of financing the measures in the *Energiewende* – no easy task in a period of enormous fiscal constraint as the government seeks to reduce the deficit.

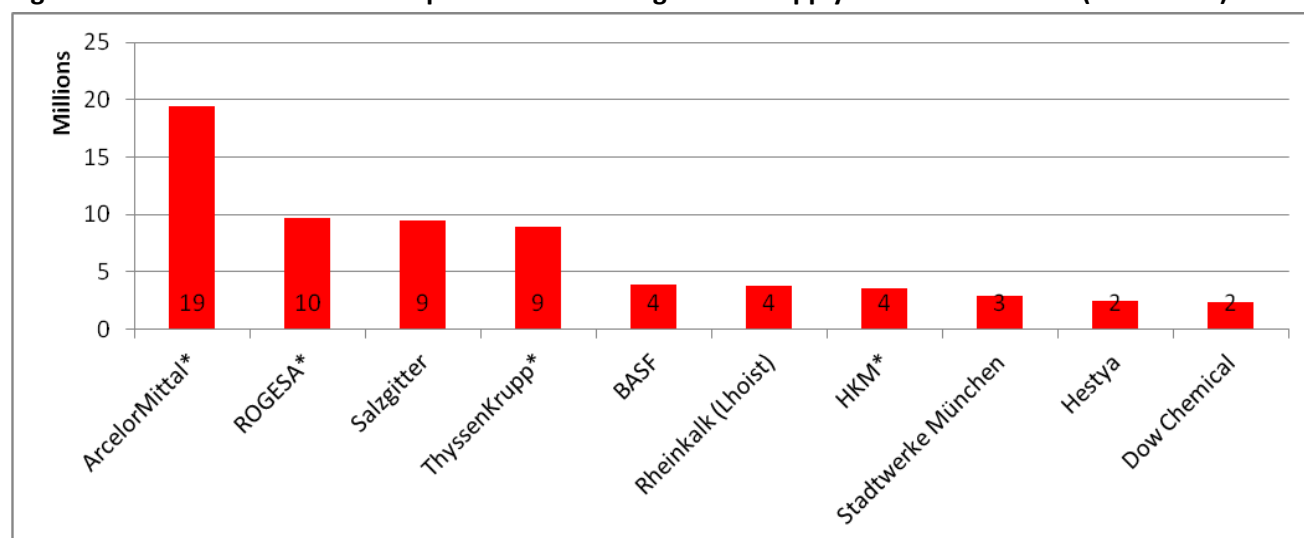
¹⁶ <http://www.bloomberg.com/news/2012-12-07/eon-loses-as-rwe-s-coal-plants-win-germany-s-green-shift-energy.html> E.ON's stranded nuclear assets are also likely to be implicated.

¹⁷ The government planned for the ETS to finance the Climate Fund at a carbon price of €17/tCO₂, amounting to €3.3 billion a year from 2013. This was later revised to €10/tCO₂ and €2 billion in annual revenues. At current price trends even €800 million in annual revenues looks optimistic.

Germany's carbon fatcat companies

In the table below we represent Germany's ten most oversupplied companies in the EU ETS. The companies are presented in order of their cumulative surpluses of carbon allowances as of 2011, the latest year for which data has been released. Emissions have also been given for reference.

Figure 4 and Table 2: German companies with the largest oversupply of free allowances (2008-2011)



Rank	Company	Surplus for 2008-11*	Emissions for 2008-11	Free allowances as % of emissions*	Rank in last report (and change)
1	ArcelorMittal	19,440,195	18,037,399	208%	1
2	ROGESA	9,715,560	17,553,323	155%	3† (↑1)
3	Salzgitter	9,442,356	28,902,024	133%	2 (↓1)
4	ThyssenKrupp	8,967,829	62,502,246	114%	4
5	BASF	3,863,408	21,593,299	118%	7 (↑2)
6	Rheinkalk (Lhoist)	3,817,020	12,488,192	131%	6
7	HKM	3,673,549	17,175,952	120%	5 (↓2)
8	Stadtwerke München	2,900,217	13,338,789	122%	8
9	Hestya	2,460,483	1,738,073	242%	New
10	Dow Chemical	2,343,310	7,657,877	131%	10
	Total for top ten	66,623,927	200,987,174	133%	

Source: EUTL and Sandbag Company Database

* Surpluses and free allowances have been adjusted for known waste gases transfers (see Appendix)

† In the November 2011 report, ROGESA was treated as a subsidiary of Dillinger Hütte

These ten companies accrued surpluses of **66.6 million** carbon allowances over 2008-2011. Controlling for Stadtwerke München, a power company, the other nine companies account for 48% of Germany's manufacturing emissions¹⁸. Note that two companies here: ArcelorMittal and Hestya received more than double the allowances they needed to cover their emissions for the period, even after accounting for known waste gas transfers.

¹⁸ These nine companies account for 187.6Mt emissions over 2008-2011 compared with 391.1Mt for all German ETS manufacturing installations (CITL sectors 2-9). As these manufacturing companies also own some CITL 1 installations for industrial combustion processes, this is not a strictly like-for like comparison, but even if we filter out all CITL 1 emissions this leaves 7 of these companies responsible for 134.6Mt or 34% of manufacturing emissions in the EU ETS.

We see most of the same companies featured here that we encountered in our *Klimagoldesel* report from November 2011 with a few positions reshuffled. ArcelorMittal stays unequivocally first with surpluses twice as large as any other company, but Salzgitter has overtaken ROGESA for second place, and BASF has moved up from seventh to fifth position, swapping places with HKM. Hestya, a newcomer to the list, displaces Trianel in ninth place.

A fourth year of data sees surpluses up 38% from the **48.1 million** allowances we last reported. The “carbon fatcats” list remains dominated by steelmakers (ArcelorMittal, ROGESA, Salzgitter, ThyssenKrupp, HKM), but also features two chemical companies (BASF, Dow), one lime company (Rheinkalk), and one refinery (Hestya). Notably, three of the companies featured (ROGESA, HKM, Hestya) own just one ETS installation.

All of the companies featured were contacted to corroborate and comment on the data we have obtained about them. Of these, ArcelorMittal, Salzgitter, Rheinkalk, Stadtwerke München, HKM and Hestya declined to comment. ThyssenKrupp, BASF and Dow responded swiftly to confirm the figures we had presented them. A spokesperson for Dillinger Hütte (which manages ROGESA) declined to corroborate our figures, but attributed ROGESA’s surplus to lowered steel production during the crisis years of 2008-2010. Only BASF explicitly attributed its surplus to low-carbon investment, noting that they had invested in highly efficient co-generation plant to meet their electricity heat and steam requirements.

Fatter fatcats? – superfluous offsets

Despite being oversupplied, all of these companies have further expanded their surpluses by surrendering offsets into the scheme instead of using their abundant free allowances for compliance.

Table 3: Historic revenue potential for surpluses and arbitrated offsets over 2008-2011

Company	Offsets surrendered 2008-2011 ¹⁹	Average value added by swapping offsets for EUAs	Surplus for 2008-2011 ²⁰	Average value if sold ²¹	Combined revenue potential over 2008-2011 ²²
ArcelorMittal	4,327,103	€ 12,552,652	19,440,195	€ 301,323,023	€ 313,875,675
ROGESA	4,929,235	€ 19,484,379	9,715,560	€ 150,591,180	€ 170,075,559
Salzgitter	8,289,705	€ 28,975,251	9,442,356	€ 146,356,518	€ 175,331,769
ThyssenKrupp	12,743,816	€ 50,830,072	8,967,829	€ 139,001,350	€ 189,831,422
BASF	2,468,999	€ 11,838,995	3,863,408	€ 59,882,824	€ 71,721,819
Rheinkalk (Lhoist)	366,854	€ 1,027,191	3,817,020	€ 59,163,810	€ 60,191,001
HKM	4,711,000	€ 18,866,800	3,673,549	€ 56,940,010	€ 75,806,810
Stadtwerke München	1,461,072	€ 4,091,002	2,900,217	€ 44,953,364	€ 49,044,365
Hestya	498,653	€ 2,293,815	2,460,483	€ 38,137,487	€ 40,431,302
Dow Chemical	2,077,547	€ 6,924,231	2,343,310	€ 36,321,305	€ 43,245,536
Total	41,873,984	€ 156,884,388	66,623,927	€ 1,032,670,869	€ 1,189,555,257

While it is possible that these offsets are being surrendered to help facilitate future compliance, they also represent an opportunity to profit from the scheme: offsets have generally traded a few Euros below the EUA price, meaning that companies can surrender offsets instead of EUAs and sell their

¹⁹ Combined CERs and ERUs

²⁰ Adjusted for waste gases where information has been found or provided.

²¹ Combined CERs and ERUs

²² Assuming 2008-2011 average EUA price of €15.50, average CER-EUA spread of €2.80 and average ERU-EUA spread of €5. Prices taken from average closing prices as listed in www.bluenext.eu (website now closed)

free allowances on at a profit. As we will see in the next section, this “arbitraging” of offsets should be particularly attractive to ArcelorMittal, Salzgitter and Hestya who will have more allowances than they need all the way across Phase 3. In Table 3 we show the surpluses accrued and the offsets surrendered over 2008-2011 and show the average value of these across that period.

Together, these companies have already effectively gained €157 million from the enterprising use of offsets and been afforded the possibility of profiting by a further €1 billion from the sale of surpluses EUAs. In total these 10 companies have potentially added €1.2 billion of value to their accounts from being included the EU ETS. Where these surplus allowances, swollen by substituted offsets, have not already been sold on for a profit, they can be banked towards future compliance in Phase 3 or beyond.

In the future the arbitrage opportunities will increase as the price of international offsets has crashed and is currently trading at less than €0.50 /tonne. This is unlikely to change since the maximum demand for offsets in the EU ETS is fixed²³ and the global offsetting market is vastly over-supplied. Though it is never mentioned by industry, one of the advantages of the backloading proposal is that it would increase their revenue potential from substituting offsets for EUAs by increasing the difference between the two prices.

Phase 3 allowances: fatcats forever?

As we have seen, insofar as companies have been in surplus over 2008-11, they cannot realistically claim to have been competitively damaged by the scheme to date and may have even been competitively assisted by it. When challenged on this, companies are inclined to change their argument and invoke future compliance costs as the real competitiveness and carbon leakage threat.

To test this argument, we explored the cumulative shortfall of free allowances that each of these ten companies could expect by 2020 under a simplified but optimistic growth scenario, and assuming all spare allowances had been kept for compliance rather than sold.

For each company we assumed that from 2013 every single installation in its current fleet returned to its highest recorded emissions since the ETS commenced in 2005. We then calculated how each company would fare against its Phase 3 allocations²⁴. Installations in each company’s fleet were kept constant unless we were advised of ownership changes.

Whilst there is a great deal of variance between these individual companies, taken together they will only have to pay compliance costs for 11% of their emissions across 2008-2020 under these optimistic growth assumptions, but, in addition, their offset entitlements will protect them against the EU carbon price for all but 0.2% of their emissions (see Table 4).

²³ At around 1.6 billion tonnes of CO₂e. The legal limit on offset volume will remain if backloading is approved.

²⁴ As laid out for each of their installations in the draft Phase 3 allocations (NIMs) Germany submitted to the European Commission.

Table 4: Companies' estimated EUA shortfalls by 2020

Company	Cumulative EUA shortfalls over 2008-2020 ²⁵	Cumulative emissions over 2008-2020	Shortfalls as a % of emissions	Offset budget ²⁶	Shortfalls after offsets as a % of emissions
ArcelorMittal	NA (37,698,955 surplus)	72,876,717	NA (52% surplus)	12,367,322	NA (69% surplus)
ROGESA	-37,010,509	68,867,743	54%	7,961,804	42%
Salzgitter	NA (580,686 surplus)	103,231,401	NA (1% surplus)	10,592,612	NA (11% surplus)
ThyssenKrupp	-29,577,141	227,897,122	13%	23,041,398	3%
BASF	-16,927,527	76,671,895	22%	7,001,962	13%
Rheinkalk (Lhoist)	-4,544,702	46,723,674	10%	4,474,331	0%
HKM	-10,566,149	60,084,716	18%	9,555,844	2%
Stadtwerke München	-22,409,315	47,058,910	48%	4,465,275	38%
Hestya	NA (1,345,016 surplus)	10,259,572	NA (13% surplus)	1,154,603	NA (24% surplus)
Dow Chemical	-3,192,767	27,054,599	12%	2,822,892	1%
Total	-84,603,454	740,726,347	11%	83,438,042	0.2%

With existing free allowances and abundant cheap offsets extensively protecting the majority of these companies, none of them should be arguing against an increase to the carbon price, since they, more than any other companies in the scheme, will stand to benefit from such an increase.

The risk of lobbying against reforms

There is great resistance from many ETS participants towards reforms aimed at addressing the over-supply in the market, but this lobbying strategy could backfire. By obstructing ETS reform when the scheme is in such dire condition, they risk precipitating its total demise. Manufacturers therefore risk being policed by less flexible and potentially more expensive “command-and-control” climate policies, and much more fragmented ones implemented on a national basis. Alternative measures to support the low carbon price have already been introduced in the UK, Holland and Belgium. These national measures are useful for the meeting of domestic goals – including securing investment in low carbon infrastructure – but they are non-additional and have the unwelcome effect of distorting competition across Europe, increasing the administrative burden for companies that operating across different EU countries. As Climate Commissioner Hedegaard put it in a recent statement:

"The alternative to a well-functioning carbon market is hardly that the EU member states will make it cost nothing to pollute [...] the alternative is a re-nationalization of climate tools, meaning a future patchwork of up to 27 different systems and taxes, instead of one market creating a level playing field internally in Europe."²⁷

The current phase of trading includes free allocation according to low-carbon technology benchmarks (instead of “grandfathering”: assigning allowances based on historic emissions). As such, it is designed to reward and encourage those companies investing in improved carbon intensity and efficiency. If the ETS is lost it is likely that these incentives and rewards will also be lost. Sadly it is often the case that those that stand to gain from a policy change are less vocal than those who ideologically oppose environmental regulations.

²⁵ For all current ETS installations assuming that, from 2013, each returns to its highest emissions level on record since 2005 (as do any waste gas recipients).

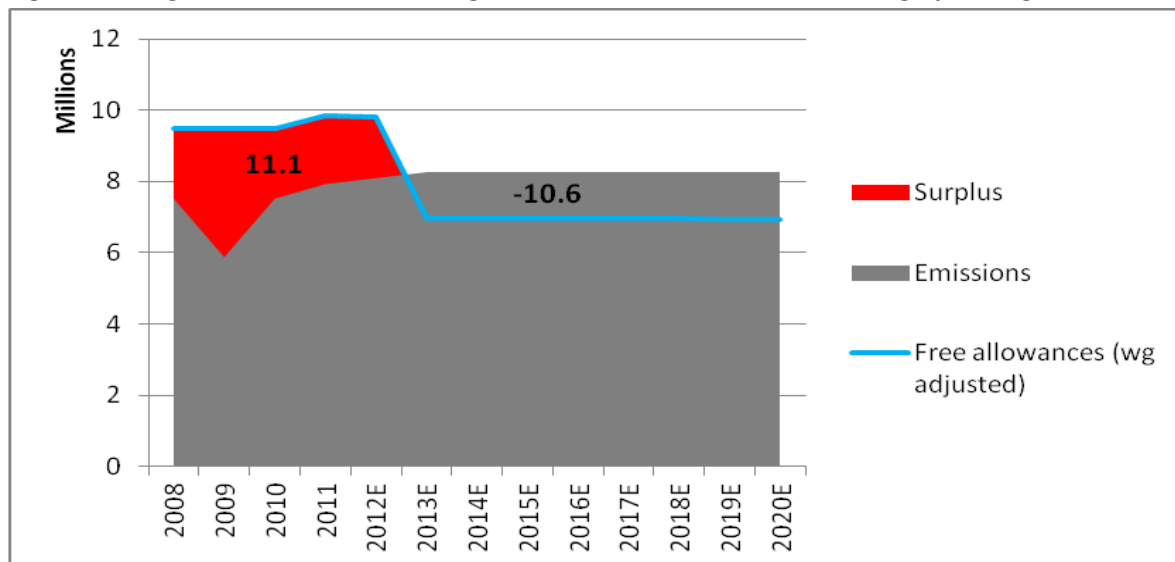
²⁶ Germany has entitled its ETS participant installations to use offsets equivalent to 22% of their Phase 2 allocation.

²⁷ <http://www.reuters.com/article/2013/01/24/us-eu-carbon-hedegaard-idUSBRE90N0N320130124>

While trade associations like Business Europe, Eurofer and Europaia continue to lobby aggressively against any supply-reform of the ETS²⁸, they are not necessarily representing the best interests of some of their members by doing so. By our calculations ArcelorMittal, Salzgitter and Hestya will hold a surplus of allowances out to 2020 or even beyond.

For Salzgitter, our high Phase 3 emissions scenario gives them an annual shortfall of 1.3 million allowances from 2013, but with 11.1 million surplus allowances accrued over Phase 2, they will have more than enough allowances to last through the eight-year phase.

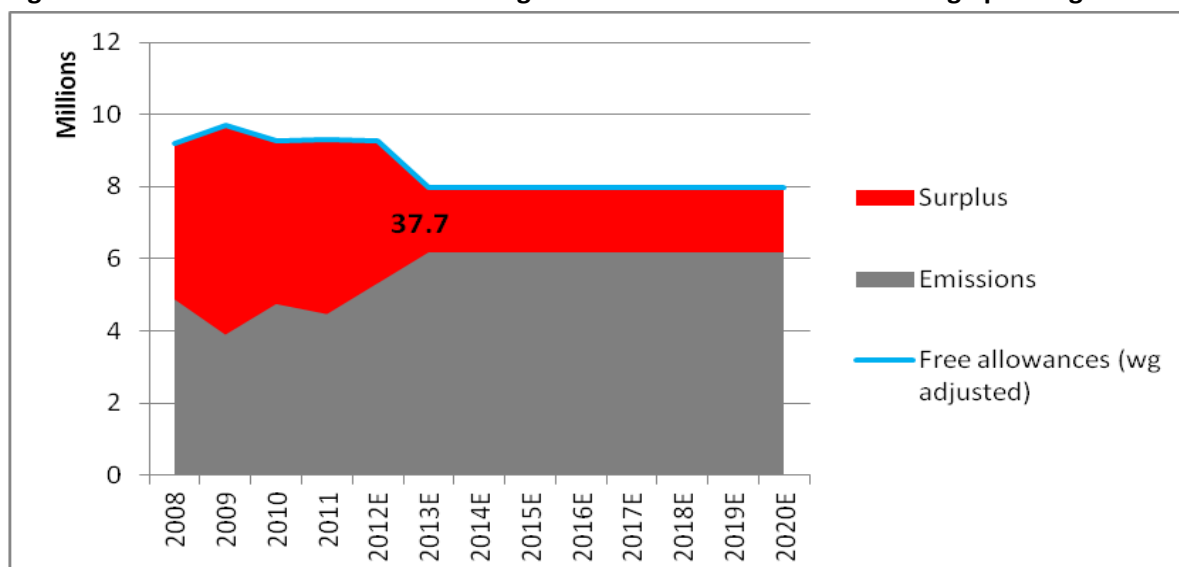
Figure 5: Salzgitter forecast for existing German ETS installations assuming optimal growth



(Source: EUTL, Draft NIMs, Sandbag company database)

The results for ArcelorMittal are even more dramatic: despite assuming Phase 3 emissions grow 38% above 2011 levels, their benchmarked free allowances are still so plentiful that they will continue to grow their surpluses every year, accumulating 37.7 million allowances by 2020, half as much again as needed to cover their emissions.

Figure 6: ArcelorMittal forecast for existing German ETS installations assuming optimal growth



(Source: EUTL, Draft NIMs, Sandbag company database)

²⁸ See for example: <http://www.businesseurope.eu/Content/Default.asp?PageID=568&DocID=31200> and <http://www.cembureau.be/sites/default/files/documents/AEII%20Position%20on%20the%20Commission%20proposal%20to%20back-load%20EU%20ETS%20allowances.pdf>

For ArcelorMittal, Salzgitter, and Hestya – and for other companies in a similar position where most or all of their Phase 3 emissions are covered, it would make much more sense strategically for them to support supply-side reforms to the Phase 3 cap which would increase the value of the EUAs they could sell into the market for a higher profit. These companies could then reinvest these profits into abatement technologies that could protect them from compliance costs under future phases of the scheme (e.g. Phase 4 and beyond)

Because its surpluses are due to continue growing across Phase 3, and it still has opportunities to surrender cheap offsets, this strategy should be attractive to ArcelorMittal even if it has already sold most of its historic surpluses for cashflow during the recession. The attraction of this strategy to other companies will depend on the extent to which they had already leveraged their spare EUAs for profit. To the extent that they have, we can confidently say that they have received their reward.

Table 5: Additional revenues accruing to select companies under an increased carbon price

Company	Average revenues if all 2008-2011 EUAs already sold ²⁹	Projected surpluses for 2012-2020	Offset budget remaining	New revenues at €5/EUA ³⁰	New revenues at €30/EUA ³¹	Potential revenues at €30 EUA if no allowances yet sold ³²
ArcelorMittal	€ 313,875,675	18,258,760	8,040,219	€ 127,474,781	€ 784,949,233	€ 1,443,252,199
Salzgitter	€ 175,331,769	-8,861,671	2,302,907	-€ 33,945,270	-€ 197,914,354	€ 231,912,264
Hestya	€ 40,431,302	-1,115,468	655,950	-€ 2,625,563	-€ 14,113,503	€ 68,817,277

²⁹ Includes swapped offsets. This calculation uses a 2008-2011 average EUA price of €15.50, an average CER-EUA spread of €2.80 and an average ERU-EUA spread of €5. Prices taken from average closing prices as listed in www.blunext.eu (website now closed)

³⁰ Assuming CER price of €0.50 (and CER-EUA spread of €4.50)

³¹ Assuming CER price of €0.50 (and CER-EUA spread of €29.50)

³² Assuming an average 2008-2011 CER price of €12.70 (and CER-EUA spread of €17.30), an average 2008-2011, ERU price of €11.50 (and ERU-EUA spread of €18.50) and assuming all remaining offsets are priced at €0.50 (with a spread of €29.50).

Conclusions and recommendations

In light of our research, Sandbag and BUND make the following series of recommendations to German policymakers.

1) Vote to support the European Commission's "backloading" proposal

As an urgent priority, we advise German policymakers to come out in support of the Commission proposal to defer the auctioning of allowances from the start of Phase 3. The support of the German government and of German MEPs will be crucial if this proposal is to be successfully voted through the European Parliament, the European Council and the Climate Change Committee.

If implemented successfully, the backloading proposal will correct for a temporary surge in supply that is an unintended artefact of earlier regulation (a "frontloading" of 150 million allowances from Phase 3 auctions to meet power sector hedging requirements, the early auction of 300 million Phase 3 New Entrants Reserve allowances, and the spike in offsets caused by the ban on industrial gas offsets). More importantly, this will provide a signal to market participants that there is political will to make the much-needed structural fixes to scheme.

2) Support structural measures to permanently reduce the supply of ETS allowances

In parallel to the backloading proposal, the European Commission has initiated a formal consultation on structural measures to repair the EU ETS on a more permanent basis. We encourage Germany policymakers to seek the following reforms:

- **Change the European Union's 2020 climate target to at least 30% below 1990 levels**

Emissions data from the European Environment Agency shows that, when ETS offsets are accounted for, the EU has already achieved its current 20% climate target nine years ahead of schedule³³. This implies a almost a decade of inaction on climate change from Europe just when it seeks internationally binding commitments from emerging economies as part of a new 2015 climate agreement.

- **Cancel 2.2 billion allowances from the Phase 3 ETS cap**

Our research finds that policymakers expected business-as-usual emissions to be 2.2 billion tonnes higher over 2008-2020 when they established the cap to control them. We therefore recommend policymakers revise the cap down by the same quantity in order to ensure the same levels of mitigation are delivered by the policy as originally envisaged. Removing 2.2 billion tonnes is also commensurate with raising Europe's economy wide climate targets.

- **Introduce responsive mechanisms that restrict the supply of allowances and offsets following exogenous drops in demand**

The chief problems currently afflicting the EU ETS are a consequence of its unresponsiveness to massive drops in demand. This has left the scheme drowning in excess allowances and offsets which, at the moment, can only be remedied through protracted political debate and legislative change. We encourage policymakers to seek new price and supply mechanisms which can reduce the supply of allowances and offsets more rapidly to preserve mitigation incentives in the event of future economic shocks.

³³ <http://www.sandbag.org.uk/blog/2012/nov/1/two-more-nails-20-coffin>)

If Germany does not support these and similar measures, the EU ETS will remain a toothless tiger that fails to drive any meaningful mitigation in Europe out until at least 2020 and fails to assist Germany to meet its national climate targets. Without such measures in place, Germany should look to adopt backstop policies, such as CO₂ or Efficiency Standards in order to discourage the building of new coal plants and improve the carbon intensity of the merit order for existing plants.

Policymakers should ignore the special pleading of a few vocal manufacturing companies and industries who are extensively protected against ETS costs by free allowances and cheap offsets. Furthermore, many of these allowances were awarded on the basis of carbon leakage fears that have proved exaggerated in light of new research and new circumstances. Policymakers should therefore closely reassess the sectors entitled to additional free allowances when the carbon leakage list comes up for review, especially if low prices persist.

So far, many companies have used the ETS as a cash-cow to help them in times of economic difficulty. It is time they embraced and adapted to a functioning ETS, or prepare to face a more cumbersome, more fragmented climate policy framework.

Appendix: Waste gas transfers

After initially identifying a shortlist of the most oversupplied companies using the EU Transaction Log and Sandbag's company database (which assigns companies to ETS installations), we double check our information on installation ownership with these companies and ask them to identify any waste gas transfers we have not accounted for that would mitigate their surpluses.

Steel facilities produce combustible greenhouse gases as a by-product of industrial processes. Instead of being flared, or released directly into the atmosphere, these gases can be redirected to nearby combustion facilities where they can be burnt to generate energy, avoiding significant greenhouse gas emissions. Under the EU ETS Directive, it is the waste gas producer, rather than the combustion installation, that receives the allowances for these gases; however, they are obliged to pass them forward to the combustion installation at no cost.

In most cases, commercial sensitivity has prevented companies from giving us precise information about the scale of allowances transferred. Instead they have typically identified the installations that receive their waste gases and advised us to use any EUA shortfalls these installations face as a proxy for the waste gases and EUAs they receive.

This is the methodology we have applied within this report using waste gas donors and recipients that have been identified by the companies, and additional installations we have identified through our own research.

We note, however, that this methodology is likely to produce a systematic bias which exaggerates the scale of allowances transferred and therefore underestimates the surpluses each company holds. This is because combustion installations generally face a shortfall of allowances independently of whether or not they are waste gas recipients. This bias has been confirmed in the rare cases where companies have been able to share precise figures with us.

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