

International Offsets and the EU 2009

An update on the usage of compliance offsets in the EU Emissions Trading Scheme



About Sandbag

Sandbag is a UK based not-for-profit campaigning organisation dedicated to achieving real action to tackle climate change and focused on the issue of emissions trading. Our view is that if emissions trading can be implemented correctly, it has the potential to deliver the deep cuts in carbon emissions the world so badly needs to prevent the worst impacts of climate change.

Through producing rigorous but accessible analysis we aim to make emissions trading more transparent and understandable to a wider audience than those already involved in the market. In particular, we hope to shed light on the challenges the EU ETS faces in becoming a truly effective scheme for cutting emissions and to advocate the solutions that can help it to work better.

We are grateful to the European Climate Foundation for helping to fund this work.

About this report

The following report is based on a consolidated database of information about the use of certified emissions reductions (CERs), which were generated by clean development mechanism (CDM) projects, in the EU Emissions Trading System in 2009.

This report follows a similar format to Sandbag's *International Offsets and the EU* report, which linked for the first time the users of international offsets for compliance in the ETS, to the projects they had bought credits from in 2008.

The purpose of this updated report using data for 2009 is again to increase transparency and to stimulate and inform debate about the future of international offsetting in the ETS.

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Executive Summary

Offsetting is clearly being used very successfully by many of the participants in the EU trading system. It is serving to reduce prices of compliance and delivering substantial volumes of finance (circa €860 m per annum) to countries outside of Europe. We wish to use the information we present here to illustrate how the scheme is working. It is clear that contrary to the claims made by industry it would not be 'impossible'¹ for the EU to take on more ambitious climate targets since there is a readily available source of abatement accessible both within the EU and internationally via the offsetting market. In fact permits are so abundant that if the EU wishes to see a thriving market in abatement it should implement tighter caps on emissions and phase out industrial gas projects.

The 2009 data has reinforced many of the findings of our analysis of the 2008 data. There is consistency in the surrendering patterns and sources of CERs, including the dominance of CERs originating from industrial gas projects. Additionally this year we have looked more closely at the issue of competitive distortions and potential 'carbon leakage'. In addition to creating a price on pollution via the cap the ETS enables potentially competing sectors outside Europe to receive a subsidy in the form of CDM revenues. We have found evidence of European steel installations directly subsidising competitors in developing countries by buying and surrendering CERs originating from steel plants. This revelation surely serves to undermine the seriousness with which we should treat industry fears of carbon leakage.

Another aspect we have looked at in closer detail is the practice of sectors/companies who hold large surpluses of freely allocated EU permits swapping them for offsets which they then use to meet their caps, enabling them to bank or sell on at a profit the more valuable EU permits. Offsetting was intended to be supplemental to domestic action but clearly in these instances where more allowances have been granted than were needed to cover emissions, there is no incentive for domestic action, and offsetting is simply being used to generate revenue or store up supplies of permits for the future.

This practice though perfectly legal reduces the economic efficiency of the scheme since those with genuinely challenging targets (ie power sector) have to purchase permits to meet their caps and are therefore paying a premium to the industrial sectors for EUAs when they would otherwise have been able to buy the CERs themselves. This problem would be removed if the right to purchase offsets was granted according to where there is a genuine need to reduce emissions to meet caps, instead of as a flat percentage for all participants.

Since our last report the use of HFCs credits has come under increasing scrutiny particularly the issue of the perverse incentives the market may be creating. A group of countries, led by the US has made moves to regulate emissions of the powerful greenhouse gas HFC23 under the Montreal Protocol. However, this has been blocked by China and India who currently receive generous receipts under the CDM for the

¹ EUROFER, EU industry opposes proposal to increase EU climate change target unilaterally to -30%, Available at: <http://www.eurofer.org/index.php/eng/News-Publications/Press-Releases/EU-industry-opposes-proposal-to-increase-EU-climate-change-target-unilaterally-to-30> [Accessed: 22nd July 2010]

destruction of these gases. More recently NGOs have raised concerns (and proposed a new UN methodology) centred on new evidence that some plant with HFC projects may be gaming the system - maximising the production of the waste gas to gain a subsidy. In light of these developments we believe the EU should review the eligibility of these credits, which currently dominate the market, and move to phase out their use.

In summary our key findings for 2009 include:

- The top 10 European installations buying credits accounted for 21.4% of all compliance offsetting in 2009.
- The top 10 CDM projects, all of which are industrial gas projects, accounted for 66% of all CERs surrendered into the EU ETS in 2009.
- The biggest buying installation was Salzgitter's 'Glocke Salzgitter' steel plant, which offset 99.5% of its emissions in 2009 using CERs. 89% of these CERs used were from HFC and N2O projects².
- The biggest company buyer was Vattenfall which surrendered 6.7 million CERs - accounting for 8.6% of all CERs surrendered in 2009. 83% of these CERs originated from industrial gas projects.
- Companies with the largest surpluses of emissions permits are among some of the most active users of CERs for compliance. Swapping out CERs in order to bank freely allocated permits leaves companies with substantial windfall profit. For example Corus, who despite having a 9.6 million surplus of EUAs in 2009 still surrendered 666,000 offsets to meet its EU ETS compliance requirements.
- The biggest EU sectoral buyer was

combustion, which surrendered 74% of all CERs into the ETS in 2009.

- The EU is directly subsidising competitors, in 2009 2 million steel CERs were surrendered into the ETS, with an estimated value of over €22 million.
- In 2009 Salzgitter's Glocke Salzgitter steel works purchased 40,000 CERs from a waste gas CDM project in an Indian Steel Works.
- The vast majority of credits being used come from Chinese and Indian chemical factories. For example 84.3% of all CERs surrendered in 2009 were from 'HFC' and 'N2O' projects.
- 59% of all CERs surrendered in 2009 were HFC credits³.
- India remains the biggest source of credits from renewable projects, with over 1.6 million credits - 1.4 % of the total market - coming from biomass and renewable energy projects.
- Germany bought 33% of all CERs surrendered into the ETS in 2009. Of the 26 million credits it bought, 84.5% were from HFC and N2O projects.
- China originated 53% of all CERs surrendered into the ETS in 2009. Of the 41.3 million exported, 86% of these were HFC and N2O credits.

In the final section of this report we offer some observations arising from our analysis of the data and some views on the future development of offsetting policy in Europe.

We recommend that the EU should:

- **Take unilateral action to improve the quality of compliance credits being used in the EU ETS;**
- **Phase out HFCs from the EU ETS as**

² Interestingly, as well as the high % use of CERs, if the number of ERUs surrendered are also taken into account it shows that this installations surrendered more that it emitted in 2009.

³ See Annex I for a full breakdown of HFC usage.

soon as it is viable to do so;

- **Reduce competitive distortions in globally traded sectors by ruling out CDM projects in exposed sectors and instead seeking to agree international sectoral traded mechanisms;**

- **Carefully monitor offsetting levels to ensure they are supplemental to rather than a replacement for domestic action and set more ambitious targets to ensure more investment flows internally as well as overseas;**

- **Improve the distribution of countries hosting projects to minimise competitive**

distortions, to ensure least developed countries receive more investment and make issues of additionality easier to assess. Other tools such as discounting of CERs from highly developed countries or a positive list of projects might be beneficial.

In releasing this information and the associated interactive map we are seeking to provide a neutral platform for all interested stakeholders to explore the workings of the EU's international offsetting policy in more detail. We would like to invite anyone interested in helping us to further improve and develop this resource to get in touch.

How international offsetting works

In 2005 the European Union introduced legally binding caps on all large point sources of emissions in each of the 27 Member States. This created the EU Emissions Trading Scheme (ETS), now in its second phase. In this phase, running from 2008-2012, caps have been tightened and more companies must now either reduce their own carbon emissions or pay others for equivalent emissions reductions either here in Europe or overseas via approved carbon reduction projects. The EU scheme is linked to the international emissions trading mechanisms, established under the Kyoto Protocol, and companies are allowed to buy emissions credits generated in other developed countries (ERUs) or developing countries (CERs) to comply with their European caps.

The use of overseas credits generated from approved emissions savings projects is often referred to as 'offsetting'. It is intended to ensure that companies facing caps have access to reasonably priced emissions reductions. The amount of offsetting is limited, the precise level in this phase having been set by Member States in their National Allocation Plans⁴. According to the data we have used in 2009 EU ETS participants' surrendered 1.9 billion permits overall and used 78 million developing country credits (CERs) to comply with their caps, equivalent to 4.2% of their emissions in that year.

It is important to note that this report refers specifically to CERs surrendered. In 2009 credits from projects in other developed countries were also used for compliance with some 3 million joint implementation (JI)

emission reduction units (ERUs) being surrendered. This is a 99.2% increase in the number of ERUs surrendered compared to 2008. We will look at these offsets in more detail in a separate report to be published later this year.

Opinions differ

A range of opinions have been expressed about the use of overseas offsets within Europe's ETS. Proponents of the policy argue that it is economically rational for the EU to seek to address climate change at the lowest possible cost as it minimises any increase in the price of energy for consumers, therefore helping to prevent the policy from becoming unpopular. Lower costs, it is argued, also help to give decision-makers confidence in taking on tougher targets in the future. Some projects may also have wider environmental and/or social benefits. The influx of project development money into the developing world can also help to demonstrate low carbon technologies are commercially available and in doing so help to achieve technology transfer, increase employment, and promote sustainable development.

Those opposed to offsetting, however, point out that developing countries want technology transfer to take place in addition to action to reduce emissions in Europe since they believe richer countries have an obligation to 'lead the way' in terms of demonstrating how a high carbon economy can be transformed to a low carbon economy. The fact that the use of project credits, through the Linking Directive, allows European industries to carry on emitting

⁴See Annex for table summarising restrictions created by Member States.

mitigates against this goal. Questions have also been raised about the quality of the projects that have qualified for credits. In particular, recent work by NGOs CDM Watch and the EIA has raised serious concerns over the issuance of HFC credits. These concerns add to the pre-existing worry that many accredited industrial gas projects produce profits that are so out of scale with the investment required to implement them that they do not represent value for money and solve problems that would be better addressed using other tools, such as using existing international protocols or domestic regulation. There have also been concerns that projects are 'non-additional': they would have been enacted without European input and the emissions 'saved' are therefore not genuine.

Why we did this analysis

Sandbag started this analysis in 2009 when the data from the first year of Phase II of the ETS was made publicly available. Linking the installations in the EU ETS with the projects they bought offset credits from has brought the use of international offsets to life, as well as dramatically increasing the transparency of the system.

In providing this new combined dataset to the public we are seeking to provide information for all of those interested in the current and future workings of the carbon market, both its supporters and its critics.

Central to this process will be the continued development of our web-based interactive map, which illustrates the flow of investment from installations to overseas projects and the corresponding flow of certified emissions reductions (CER) credits from project to installations.

⁵ European Commission, Analysis of options to move beyond 20% greenhouse gas emission reductions and assessing the risk of carbon leakage, Available at: <http://ec.europa.eu/environment/climat/pdf/2010-05-26communication.pdf> [Accessed 25th May 2010]

⁶ European Commission, Analysis of options to move beyond 20% greenhouse gas emission reductions and assessing the risk of carbon leakage, Available at: <http://ec.europa.eu/environment/climat/pdf/2010-05-26communication.pdf> [Accessed 25th May 2010]

This report into the use of offsetting in 2009 highlights the key findings that can be derived from this combined data set. This includes, for example, the source and type of credits being used for compliance and the flow of CERs between countries, the number and type of CERs surrendered by different installations and companies, and the use of offsetting in different industrial sectors in the EU trading scheme. With the 2008 data already in hand, it can be compared to the 2009 position to see how the flow of CERs has changed.

Countering industry lobbying

By updating this report and continuing to bring the use of offsetting in the EU to life in this way we are also seeking to continue to counter some of the current industrial lobbying which maintains that an increased emissions target for Europe would be impossible to achieve.

There still remains a misconception about how achievable a 30% target would be. The ETS has a considerable over-supply of permits, in 2009 there was a 93 million surplus of permits allocated compared to emissions. These permits can be banked and used at a later date, allowing many installations to continue emitting as usual. On the 26th May the Commission released a communication analysing the options to move beyond a 20% greenhouse gas emission reduction⁵. Where the communication stopped short of recommending a unilateral move to a 30% target it highlighted the fact that 'the total cost of a 30% reduction, including the cost to go to 20%, is now estimated at €81 billion, or 0.54 of GDP.'⁶ This is considerably less than previous estimates. The report also highlighted other benefits of an increased

target such as increased energy security, establishing the EU as a global leader in green technology and a saving of 1.4 billion tonnes of carbon.

Nevertheless, the position of European industry is still reflected by the letter⁷ sent by the Alliance for a Competitive Industry (ACEI) on the 21st January 2010 to the President of the European Council, Commission and Parliament urging them stick to the 20% emissions reduction target. ACEI based this position on a number of issues, in particular claiming that the failure of an international agreement on a legally binding deal has meant that there is a great deal of uncertainty in the carbon market. Strong opposition also came from individual firm, ENEL, Italy's largest utility company, which defiantly announcing that "a 30 per cent reduction by 2020 would be physically impossible"⁸. More recently, in response to the Commission's communication, the European Confederation of Iron and Steel Industries' (EUROFER) director general, Gordon Moffat has said that it "is impossible for manufacturing industry to achieve a 30% [emissions reduction] target by 2020 without cuts in production and significant losses of jobs."⁹

Sandbag challenges these assertions for the following reasons:

- The recession has put Europe in a unique position in terms of emissions already saved and is an ideal opportunity to re-grow the economy in a sustainable way.
- The offsetting market is providing large

volumes of credits into the system substantially lowering the cost of compliance.

- Many companies in Europe have accrued large surpluses of emissions rights – this provides an opportunity to raise revenue through sale of spare permits – swapping more valuable EU allowances for cheaper offset credits provides a further source of revenue.
- As revealed in this report, suggestions by industry that they are vulnerable to international competition and carbon leakage are undermined by the fact that European companies are voluntarily providing funds to competing firms in the developing world via offsetting.

Speaking at the European Business Summit¹⁰ on the 30th June 2010, the European Energy Commissioner Günther Oettinger warned that the EU must not be "ideological" when discussing climate change targets, and remember to keep EU industry competitive. He went on to say that "we need to be honest, frank and courageous"¹¹ when entering into climate change discussions. Sandbag fully supports a frank discussion, in particular concerning the contradictions between what industry says and what industries does. Industry is outspoken in its views on the potential move to 30% and the effects it will have on EU competitiveness. However, the debate around carbon leakage is severely undermined by the revelation that EU industry is directly subsidising its competitors by purchasing CERs from them.

⁷ ACEI, Available at: http://www.cembureau.be/sites/default/files/documents/2010-01-21_ACEI_open_letter_on_-30%25_climate_change_objective.pdf, [Accessed 24th June 2010]

⁸ Financial Times, EU companies hit by emissions cut plan, 13th December 2009, Available at: <http://www.ft.com/cms/s/0/a9bbfec8-e819-11de-8a02-00144feab49a.html>

⁹ EUROFER, EU industry opposes proposal to increase EU climate change target unilaterally to -30%, Available at: <http://www.eurofer.org/index.php/eng/News-Publications/Press-Releases/EU-industry-opposes-proposal-to-increase-EU-climate-change-target-unilaterally-to-30> [Accessed: 22nd July 2010]

¹⁰ European Business Summit, Available at: <http://www.ebsummit.eu>

¹¹ MLEX, EC's Oettinger warns against 'ideological' 30pc emissions target, Available at: <http://info.mlex.com/services/mlex-e3.aspx> [Accessed: 1st July 2010]

Can industry fears about carbon leakage really be so great if they are subsidising competitors through the CDM?

Potential for Reform

The EU's emissions trading scheme is currently the single largest driving force in the international carbon market and even in the absence of a continuing international Kyoto-style agreement the EU has the power to act to ensure that access to offsets continues¹²; providing companies facing caps with a continuing supply of lower-cost options. This fact is often overlooked in the debate about how ambitious the EU's climate targets should now be. Offsetting policy, like the ETS as a whole, should, however, be subject to periodic reviews to ensure it is keeping pace with external circumstances.

The debate about the quality of CDM credits has intensified over the last year with for example the CDM Executive Board ruling a number of Chinese wind farm projects non-additional after China reduced the level of its feed-in tariffs. Ostensibly this was to comply with the CDMs requirement that projects demonstrate that an investment case cannot be made without the additional source of funding the CDM provides. More recently a revised methodology that would slash the volume of emissions received by industrial HFC gas projects was put forward. The proposed change was justified on the basis of new evidence that appeared to suggest many such projects were manipulating production volumes to maximise the subsidy they received – in effect producing pollution to take advantage of the subsidy as the primary product, not as an unavoidable by-product. This perverse incentive of providing large returns for an avoidable waste gas also appears to be holding back efforts by the US, Canada and Mexico to regulate these emissions via the Montreal Protocol with China and India opposing such a move.

The EU's recent communication on the move to 30% acknowledged this fact and suggested a number of measures to reform the use of offsetting in the EU ETS. It discussed:

- the application of revised quality criteria, extending the existing limits that apply to credits from nuclear, land use land use change and forestry (LULUCF) and large hydro schemes to other categories of projects.
- the potential to discount some types of offsets so that instead of one credit being equivalent to one tonne of emissions an exchange rate is applied i.e. 1:5.
- the need to consider whether projects in competing sectors and countries should be eligible for use in the ETS due to concerns over impacts on competitiveness as Europe's targets increase over time.

We strongly support the Commission in raising these proposals and would encourage early publication of specific policy recommendations to improve the effectiveness of international offsetting in the EU ETS.

Future development

We hope that our new resource linking EU installations to the project credits they purchase will develop over time. We invite stakeholders in the EU's offsetting policy to help us add further information to the maps and reports. We would particularly like to hear from companies and groups with information about particular CDM projects and from those interested in monitoring the actions of the buying installations and companies.

¹² As set out in Article 11a para 5 of the ETS Directive

About this report

Data sources

Data used in this report is taken from the UNFCCC¹³ and the EU community independent transaction log (CITL)¹⁴ websites. Data is made available at installation, sector and country level. Through our own research we have also added some company level information for the biggest buyers of offsets.

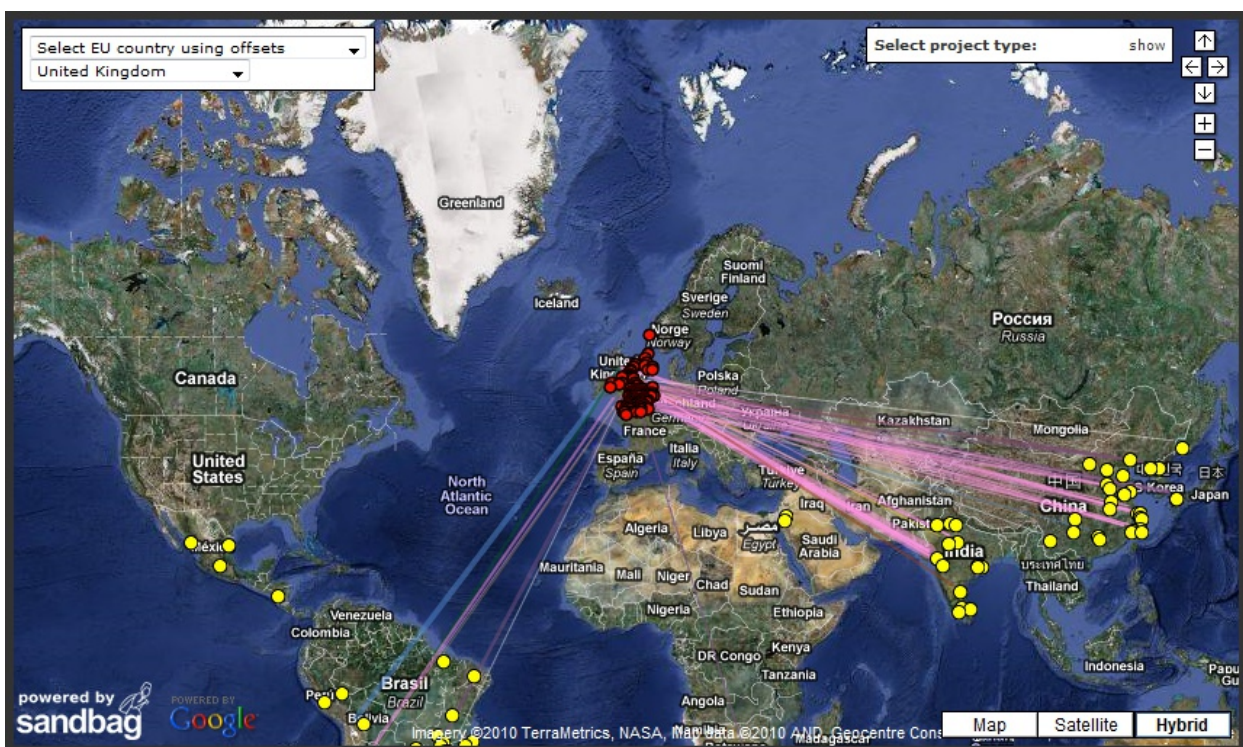
As part of the reporting process of the UN, Clean Development Mechanism (CDM) projects are required to submit a substantial amount of documentation about their projects. This includes the project design documents and the verification reports which are freely available on the UNFCCC website. Likewise, all installations participating in the

EU ETS are required to submit information about what type of permits they are using to comply with their caps, which is made available via the CITL.

Where these websites contain detailed information regarding CDM projects and the number of allowances surrendered by installation, this information, as far as we know, has not been brought together in a publicly available form. Sandbag has undertaken its own research aggregating the 2009 information from both sites to form this new unique consolidated data set.

Project Categorisation

In order to make information about project types more user friendly, Sandbag has









¹³ UNFCCC, Available at: <http://www.unfccc.int>


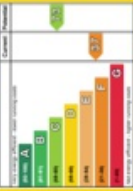





¹⁴ European Commission, Available at: <http://ec.europa.eu/environment/ets/>

modified the standard UN CDM methodology types. For the most part we have used the UNFCCC methodology types as a means of categorising projects. Nevertheless, some of the UNFCCC sectoral scopes are at times too technical to be clear to the layperson, and at the highest level they group a wide range of project types together that could be usefully disaggregated. To make the scope more accessible and digestible to the layperson, Sandbag has attributed each scope with a Sandbag descriptor. For the purpose of ensuring clarity in project type, Sandbag has gone one step further in sub categorizing sectoral scope one 'Energy industries (renewable - / non renewable sources)', to provide a higher level of differentiation between project types.

The tables on the next few pages show the scopes as set out by the UNFCCC including their designated number. Additional to this is the Sandbag descriptor, sub categories and number of CERs that have been surrendered from each sector. To maximise clarity and transparency an illustrative picture, and a short description have also been included.

This report complements the launch of the updated Sandbag international offsetting map - www.sandbag.org.uk/offsetmap - illustrating how CERs are being used in the emissions trading scheme.

| UNFCCC Sectoral Scope | Scope Description | Sandbag Descriptor | Sub category | CERs | Picture | Explanation |
|-----------------------|---|----------------------------------|--------------------------|-----------|---|--|
| 1 | Energy industries (renewable - / non renewable sources) | Energy industry - fuel switching | Biomass | 1,007,969 |  | Biomass projects use plant based materials and residues – such as wood chips, rice husks, bagasse and sawdust - for the effective generation of electricity. |
| 1 | Energy industries (renewable - / non renewable sources) | Energy industry - renewables | Small Hydro | 789,885 |  | Hydro power refers the harnessing of energy through the interception of water flows. Small hydro projects are classified as those projects which generate less than 20MW of power. |
| 1 | Energy industries (renewable - / non renewable sources) | Energy industry - renewables | Large Hydro | 1,595,384 |  | Hydro power refers the harnessing of energy through the interception of water flows. Large hydro projects are classified as those projects which generate more than 20MW of power. |
| 1 | Energy industries (renewable - / non renewable sources) | Energy industry - renewables | Renewable | 2,043,199 |  | Renewable energy is the generation of electricity from sources that are naturally replenished, e.g. by harnessing wind, sun or tidal movements. |
| 1 | Energy industries (renewable - / non renewable sources) | Energy industry | Waste Gases (flue gases) | 2,805,594 |  | The objective of these project is to capture waste gasses from industrial processes such as steel-making and to utilise them in a new combined cycle power plant (CCPP) specifically designed to generate electricity. |
| 1 | Energy industries (renewable - / non renewable sources) | Energy industry | Fuel Switch | 209,493 |  | Fuel switch projects involve changing from one carbon intensive fuel type to another less carbon intensive type – such as from oil to natural gas. |
| 2 | Energy distribution | Energy distribution | na | 0 | | |

| | | | | | | |
|---|---------------------------|-------------------------------------|----|------------|---|---|
| 3 | Energy demand | Industrial Energy Efficiency | na | 495,349 |   | The main purpose of this project is to achieve energy efficiency improvements through the reduction of steam consumption in boilers, thereby considerably reducing the fuel consumption. |
| 4 | Manufacturing industries | Manufacturing Energy Efficiency | | 253,706 |  | These projects focus on reducing emissions from manufacturing – such as the reduction of clinker* content in cement manufacturing which reduces direct onsite emissions and offsite emissions. |
| 5 | Chemical industries | Destruction of Industrial Gas (N2O) | na | 19,522,526 |  | N2O is produced as a by-product of the manufacture of Adipic acid which is used primarily as the main constituent of nylon. These projects consist of the installation of a dedicated facility to convert at high temperatures the nitrous oxide into nitrogen. |
| 6 | Construction | Construction | na | 0 | | |
| 7 | Transport | Transport | na | 1,441 |  | These projects reduce emissions through using vehicles/transport systems that emit less greenhouse gases. |
| 8 | Mining/mineral production | Utilization of coal mine methane | na | 1,130,609 |  | The purpose of these projects is to capture and utilize coal mine methane. Typically project extract methane directly from coal mines to be burnt to generate power. |
| 9 | Metal production | Metal production | na | 31,818 |  | These projects improve the electrical energy efficiency of metal production. |

| | | | | | | |
|--------------------|--|--|----|-------------------|--|---|
| 10 | Fugitive emissions from fuels (solid, oil and gas) | Gas Recovery and Utilization (Flaring) | na | 92,432 |  | The purpose of these projects is to recover and utilise gases produced as a by-product of oil production activities which would have otherwise been flared. |
| 11 | Fugitive emissions from production and consumption of halocarbons and sulphur hexafluoride | Destruction of Industrial Gas (HFC) | na | 46,354,160 |  | HFC23, a powerful greenhouse gas, is generated as a by-product in the production of HFC22 (commonly used in air conditioning / refrigeration units). Projects ensure the thermal destruction of HFC23. |
| 12 | Solvents use | Solvents | na | 0 | | |
| 13 | Waste handling and disposal | Landfill Gas | na | 1,361,420 |  | The purpose of these projects is to capture and burn methane produced from landfill sites. |
| 15 | Agriculture | Agriculture | na | 578,526 |  | These projects will mitigate emissions by developing a more effective animal waste management system. Including through the capture of methane from agriculture waste which can then be burnt to produce heat and/or power. |
| Grand Total | | | | 78,273,511 | | |

What the 2009 data tells us

Combining CDM project data with data about those participating in the EU emissions trading scheme (ETS) enables us to look at a number of different aspects of international offsetting. Below we list some key findings from 2009 looking at the data from an installation, company, sector and country level analysis.

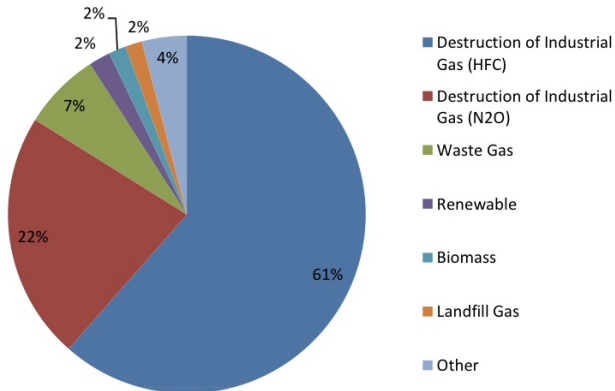
Offsetting in 2009 compared with 2008

In 2009, 78 million CERs were surrendered into the ETS, down 4% on the 2008 figure of 82million. Project types have remained largely the same with credits from industrial gas projects still

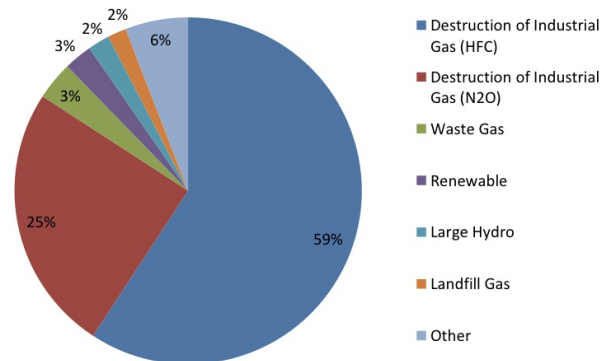
dominating the market. Some small shifts can however be seen, such as the increased use of CERs from large hydro projects which made up 2% of all CERs surrendered in 2009. There has been the inclusion of a new project type, transport, although only a small number of CERs from this project type have been surrendered into the ETS.

The pie charts below give a quick snapshot of how things have changed from 2008 to 2009 in terms of both CER project type and country origin. China increased its dominance of the market with its share growing from 43% in 2008

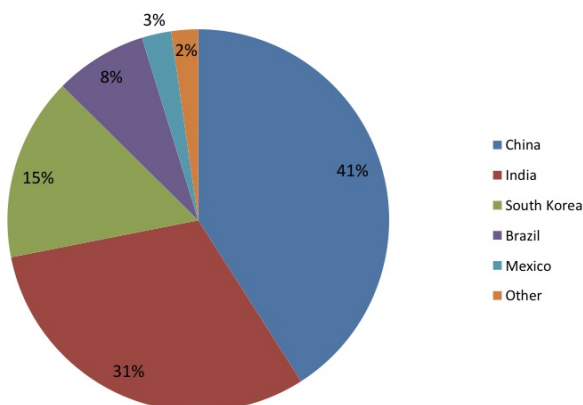
Project types 2008



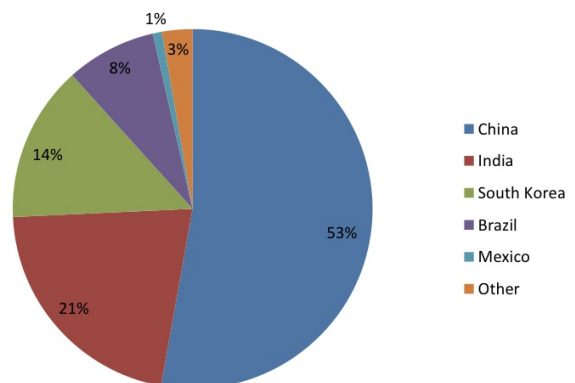
Project types 2009



Host countries 2008



Host countries 2009



to 53% in 2009. There has been an increase in the number of host countries from which CERs are surrendered, including Bolivia, Guatemala, Pakistan, Papua New Guinea, Israel and the Philippines. However, the numbers of

CERs from these countries are almost trivial compared to China, India, South Korea and Brazil.

A. Installation/Project level analysis

EU ETS Installations

The EU ETS is most easily analysed at the individual installation level and we can therefore easily trace what type of projects credits have been surrendered by installations. The table below shows the top 10 biggest users of CER credits in 2009.

As in 2008 the use of international offsets was dominated by a handful of individual installations. These top 10 installations were responsible for 21.4% of all CERs surrendered into the ETS in 2009. It is

interesting to note that some of these installations used offsets to cover the majority if not all their obligations. ENEL's Centrale Termoelettrica di Montalto di Castro installation used 100% CERs, choosing to bank its EUA for later use. This is permitted under the ETS rules because the limits on the use of offsetting credits in most Member States allow for banking between the different years of the traded phase. Over the five years these installations will however have to comply with the limits set by Member States as described in Annex 1.

| Plant Name | Company | Country | Location | 2009 Emissions | Total CERs | % of total CERs | % of plants total emissions |
|---|--------------------------|---------|-----------------------|-------------------------|------------------------|-----------------|-----------------------------|
| Glocke Salzgitter | Salzgitter | Germany | Salzgitter | 3,445,580 | 3,429,700 | 4.4 | 99.5 |
| Elektrownia BEŁCHATÓW | PGE Elektrownia | Poland | Rogowiec | 29,473,072 | 3,000,000 | 3.8 | 10.2 |
| Kraftwerk Westfalen 14310-0921 | RWE Power Vattenfall | Germany | Hamm Spremberg | 2,877,254 10,670,204 | 2,266,680 1,780,770 | 2.9 2.3 | 78.8 16.7 |
| HKW Reuter West | Vattenfall | Germany | Berlin | 2,658,065 | 1,255,706 | 1.6 | 47.2 |
| Elektrownia TURÓW | PGE Elektrownia | Poland | Bogatynia | 11,624,371 | 1,070,761 | 1.4 | 9.2 |
| Centrale Termoelettrica di Montalto di Castro | ENEL | Italy | Montalto di Castro | 1,056,906 | 1,056,906 | 1.4 | 100.0 |
| Elektrownia DOLNA ODRA | PGE Zespól Elektrowni | Poland | Nowe Czarnowo | 4,982,434 | 959,298 | 1.2 | 19.3 |
| 14310-0916 | Vattenfall | Germany | Boxberg | 7,191,197 | 956,566 | 1.2 | 13.3 |
| Elektrárna Mělník 1 | Energotrans | Poland | Tychy | 1,930,017 | 950,000 | 1.2 | 49.2 |
| Total top 10 | | | | | 16,726,387 | | |
| Total CERs in 2009 | | | | | 78,273,511 | | |

Figure 1 below shows the different volumes of credits bought from different countries by the top 10 installations. Figure 2 shows similar information in more detail revealing the type of project credits and country of

origin. Both the dominance of China and India as host countries and the use of credits from industrial gas projects are evident in both figures.

Origin of top 10 buyers

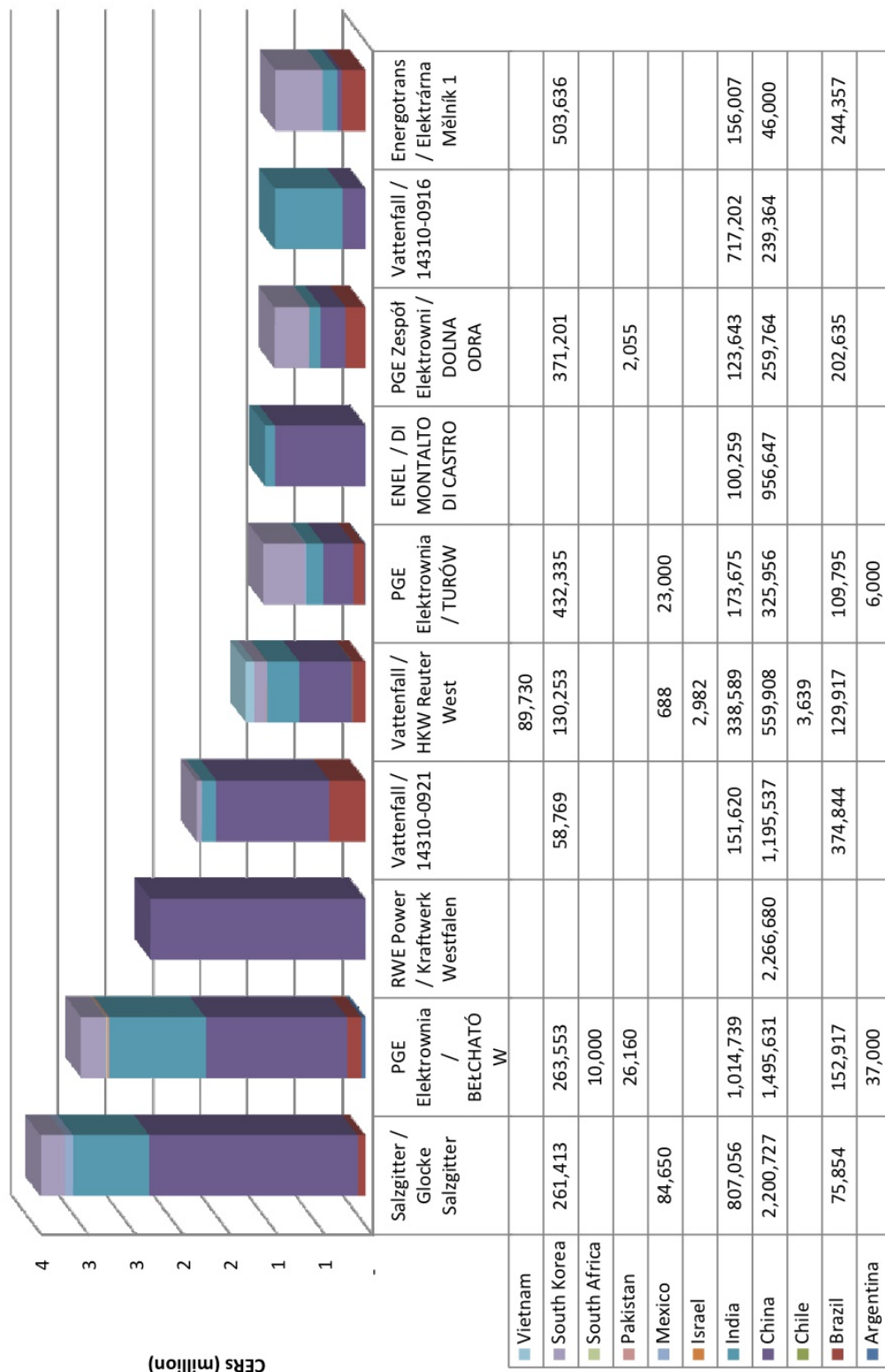


Figure 1

CER origin top 10 installations

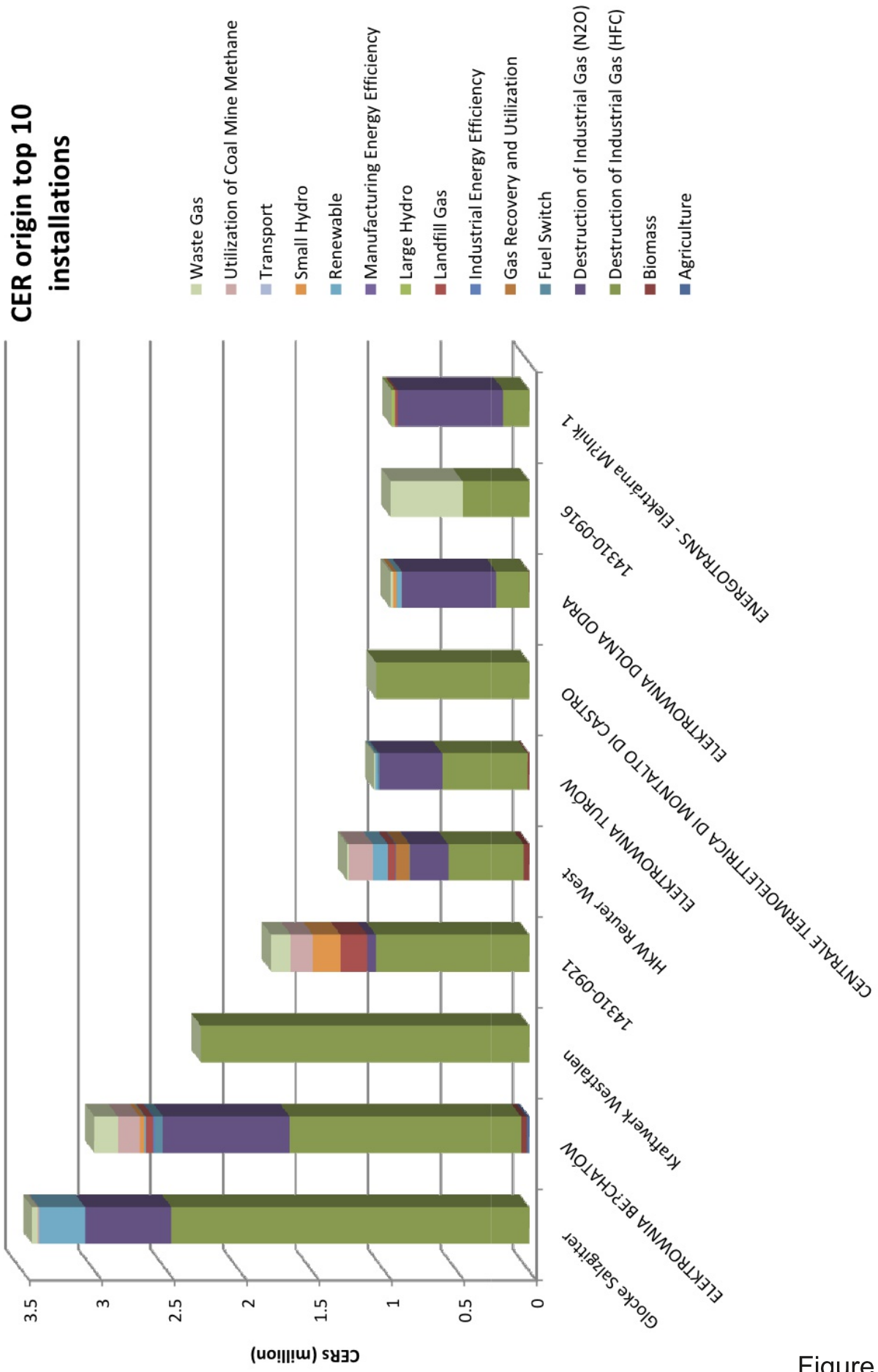


Figure 2

Salzgitter case study

The Salzgitter steel plant, Glocke Salzgitter in Germany, was the single biggest user of CERs for compliance in the ETS in 2009. Of the 3,445,580 permits surrendered by the plant in 2009, 3,429,700 (99.5%) were made up of CERs. Figure 3 gives a full breakdown

of the CERs bought by the plant, including host country, project type and quantity. If we take into account the other type of developed country offsets (ERUs) used by Glocke Salzgitter, this brings the figure of total offsets surrendered to 3.6 million credits despite total emissions of only 3.4 million tonnes.

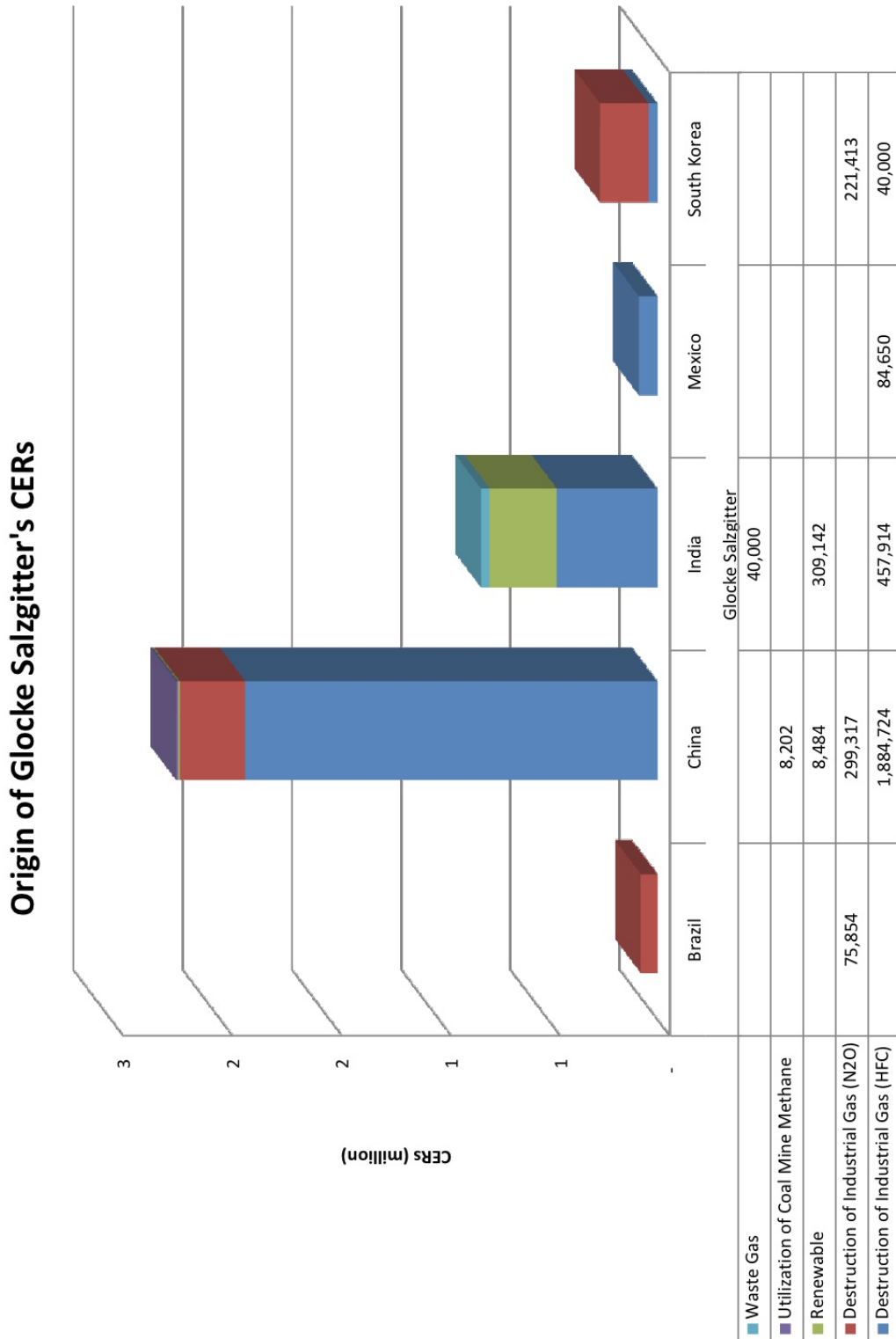


Figure 3

CDM Project analysis

405 projects in 23 countries generated credits that were used for compliance in 2009. The table below shows the top 10 CDM projects

surrendering their CERs into the ETS. These projects account for 66.5% of all CERs surrendered in 2009 and represent an estimated value of €510 million.¹⁵

| Project Type | CDM Project id | CDM Project title | Country | Surrendered CERs |
|-------------------------------------|----------------|--|-------------------|------------------|
| Destruction of Industrial Gas (N2O) | 99 | N2O Emission Reduction in Onsan | Republic of Korea | 9,439,519 |
| Destruction of Industrial Gas (HFC) | 1 | Project for GHG emission reduction by thermal oxidation of HFC 23 in Gujarat | India | 7,738,994 |
| Destruction of Industrial Gas (HFC) | 306 | Project for HFC23 Decomposition at Changshu 3F Zhonghao New Chemical Materials Co. Ltd, Changshu, Jiangsu Province | China | 6,224,364 |
| Destruction of Industrial Gas (HFC) | 11 | Project for GHG Emission Reduction by Thermal Oxidation of HFC23 in Jiangsu Meilan Chemical CO. Ltd., Jiangsu Province | China | 5,418,537 |
| Destruction of Industrial Gas (HFC) | 868 | No.2 HFC-23 Decomposition Project of Zhejiang Juhua Co., Ltd, P. R. | China | 4,744,789 |
| Destruction of Industrial Gas (N2O) | 116 | N2O Emission Reduction in Paulínia, SP | Brazil | 4,401,455 |
| Destruction of Industrial Gas (N2O) | 1238 | N2O decomposition project of PetroChina Company Limited Liaoyang Petrochemical Company | China | 4,155,821 |
| Destruction of Industrial Gas (HFC) | 232 | Shandong Dongyue HFC23 Decomposition Project | China | 4,115,136 |
| Destruction of Industrial Gas (HFC) | 115 | GHG emission reduction by thermal oxidation of HFC 23 at refrigerant (HCFC-22) manufacturing facility of SRF Ltd | India | 3,301,134 |
| Destruction of Industrial Gas (HFC) | 550 | Project for HFC23 Decomposition at Limin Chemical Co., Ltd. Linhai, Zhejiang Province, China | China | 2,508,000 |

B. Company level analysis

Company level analysis is more difficult to carry out, primarily because installations are not legally obliged to surrender information about their parent company into the CITL and often even primary company information is incomplete. While it can be easy to find company information for companies with a relatively small number of installations, it can be extremely difficult to match those

companies with a large number of subsidiary companies across a number of EU Member States. The table below sets out the top four users of CERs in 2009¹⁶. All but the steel manufacturer Salzgitter are power companies. As top offsetter in 2009, Vattenfall's use and origin of offsets are looked at in more detail below.

| Company | Total number of CERs used in 2009 |
|---------------------------|-----------------------------------|
| Vattenfall AB | 6,739,636 |
| Polish Energy Group (PGE) | 6,195,285 |
| ENEL/Endesa | 3,748,752 |
| Salzgitter AG | 3,442,500 |

¹⁵ This calculation is based on the assumption of a €11 CER price.

¹⁶ Information taken from Carbon Market Data's 11th June press (www.carbonmarketdata.com/en/news) release plus supplementary Sandbag research

Vattenfall's 2009 CER usage

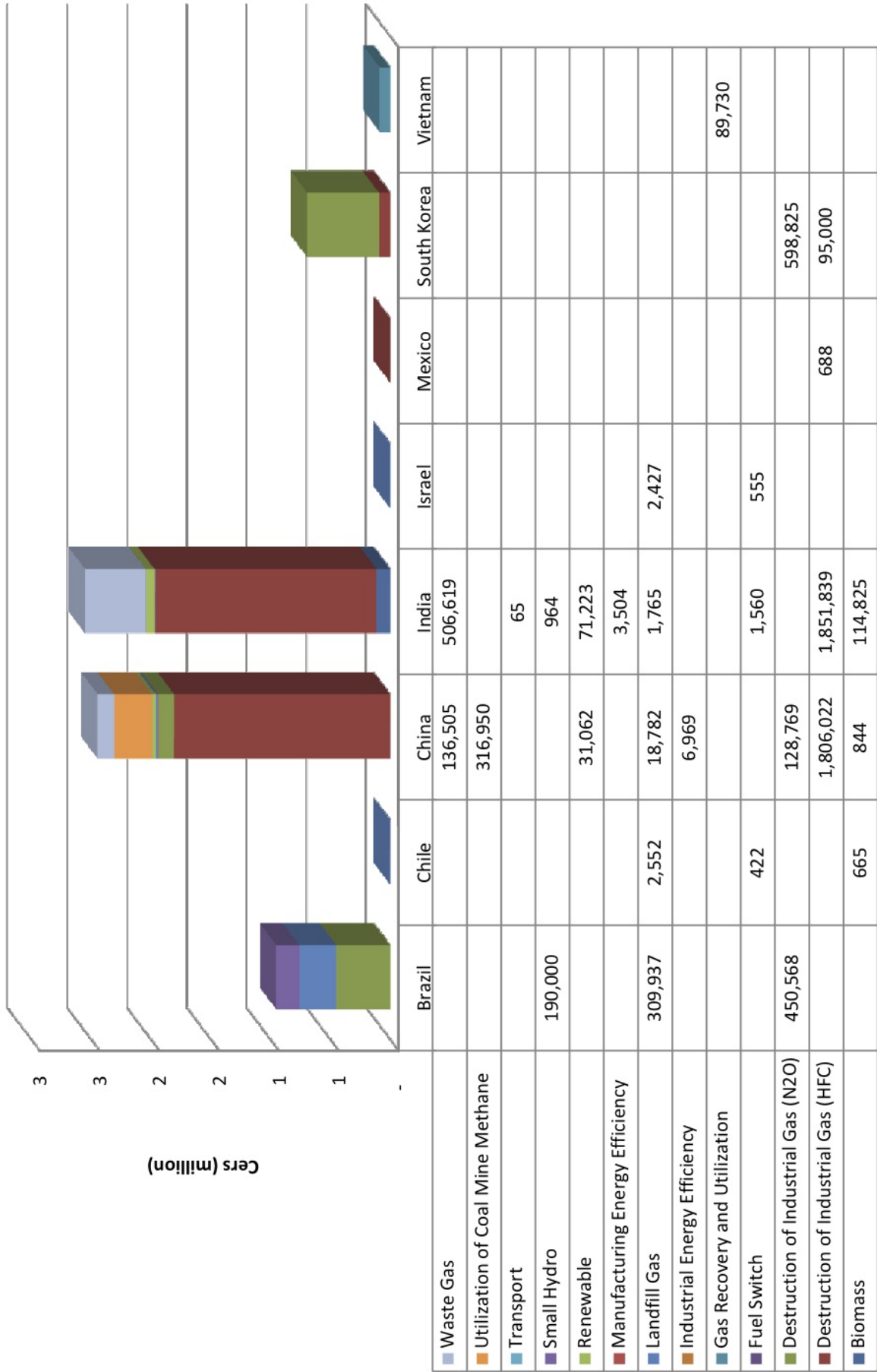


Figure 4

The Swedish energy provider Vattenfall was the biggest user of CERs in 2009, surrendering 6.7 million credits (representing 7.4% of their 2009 emissions). Figure 4 shows in detail the origin, type and quantity of Vattenfall's CER usage. The use of credits from industrial gas projects clearly dominate. Of Vattenfall's 97 installations across Europe

12 surrendered CERs in 2009, Figure 5 shows the number of CERs surrendered by each installation. Using the installation search function of the Sandbag emissions map¹⁷ it is possible to find the locations of these installations, their emissions data and the sources of their CERs.

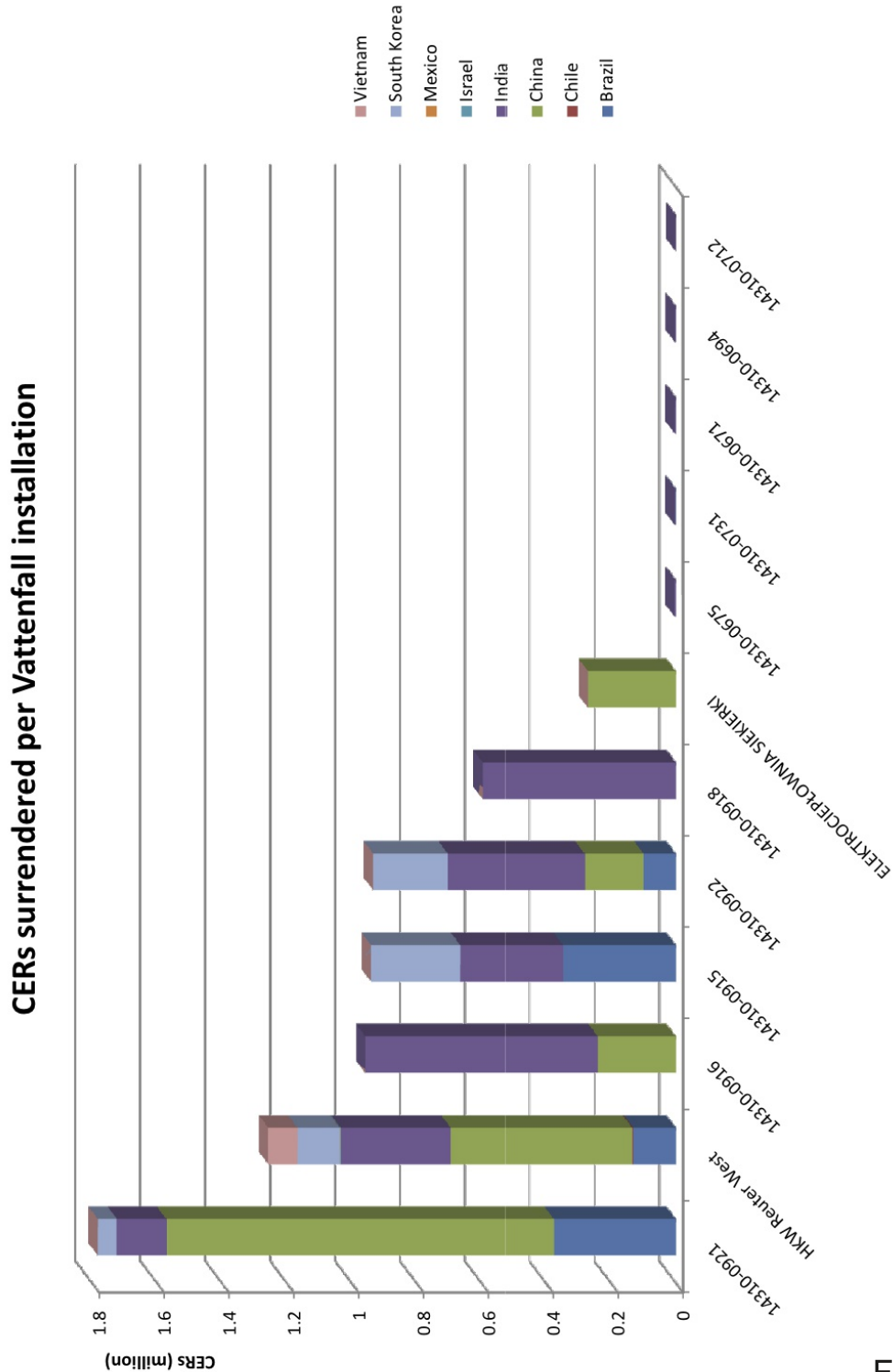


Figure 5

¹⁷ <http://sandbag.org.uk/emissionsmap>

Corus CERs Swap case study

The British steel firm Corus is a good example of swapping CERs for more valuable EUAs either for sale or use later. Of Corus's twelve installations, only four have surrendered CERs. However, as shown in Figure 7, Corus has a combined Phase II surplus of just over 12 million permits. There is no pressing need for Corus to have to rely on using international offsets other than taking advantage of the lower price of CERs. The original intention of the linking directive was to allow companies to meet their emissions targets at the lowest possible cost as a means of being able to meet their emissions commitments in the most economically competitive way. In this case it seems that the use of offsets is allowing

companies to avoid surrendering their EUAs. It is difficult to value the benefits of swapping out CERs as it is dependent on the cost of the CERs bought compared to the free EUA which can be banked or sold. Based on the difference in CER versus EUA price it is estimated that Corus could have already made a windfall of €7.7 million. Policies currently act in favour of this swapping activity since limits on use of offsetting are set at an installation level and not consistently pegged to effort under the scheme – this should be addressed as soon as possible in order to encourage domestic action and prevent unnecessary costs for those who have genuine targets and consequently more need to use offsetting.

Corus' emissions vs. allocations

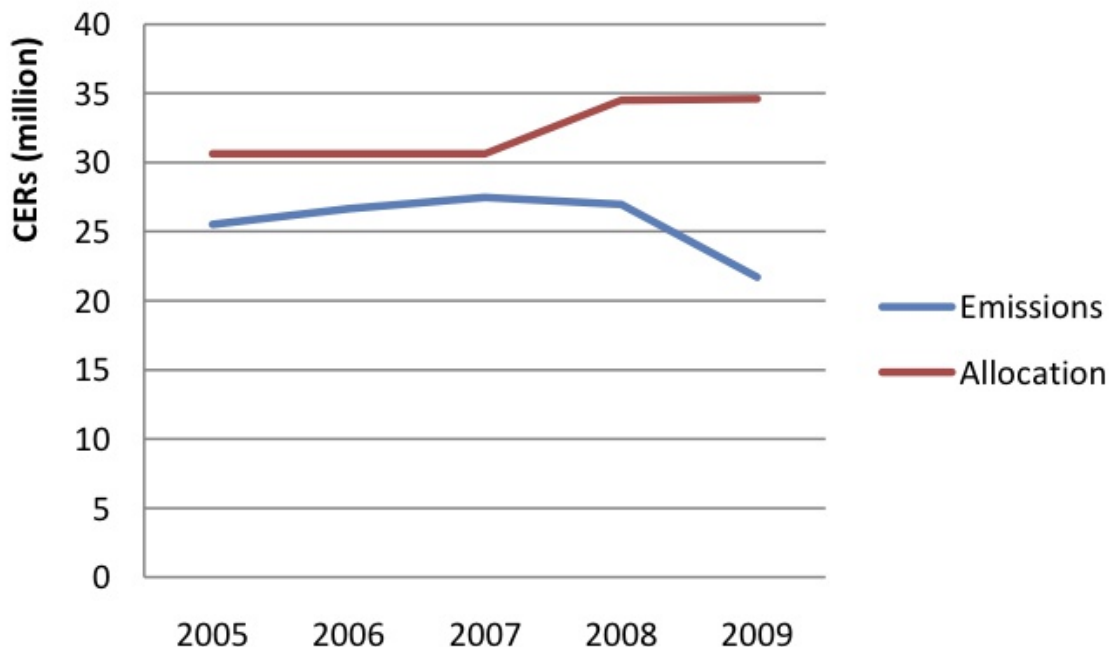
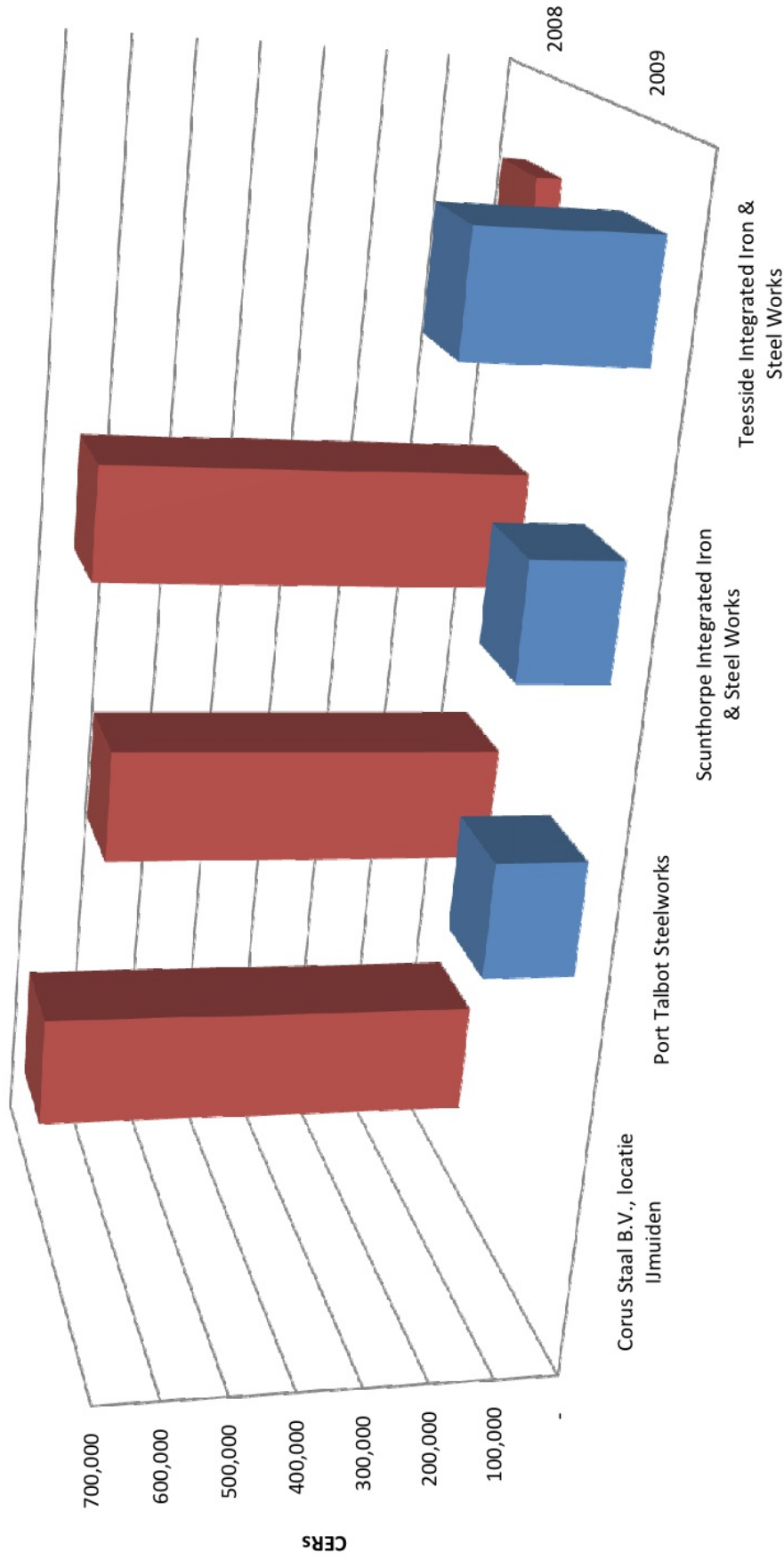


Figure 7

Corus 2008 - 2009 CER usage



| | Corus Staal B.V., locatie IJmuiden | Port Talbot Steelworks | Scunthorpe Integrated Iron & Steel Works | Teesside Integrated Iron & Steel Works |
|------|------------------------------------|------------------------|--|--|
| 2009 | | 140,192 | 140,192 | 270,620 |
| 2008 | 700,000 | 620,000 | 666,500 | 38,500 |

Figure 8

C. Sector level analysis

Offsetting countries

Installations in the EU ETS are grouped according to different sector types. Though

stringent caps this is not surprising.

The cement sector was the second highest user with 9% and iron and steel third with 7%

% CERs bought per EU sector

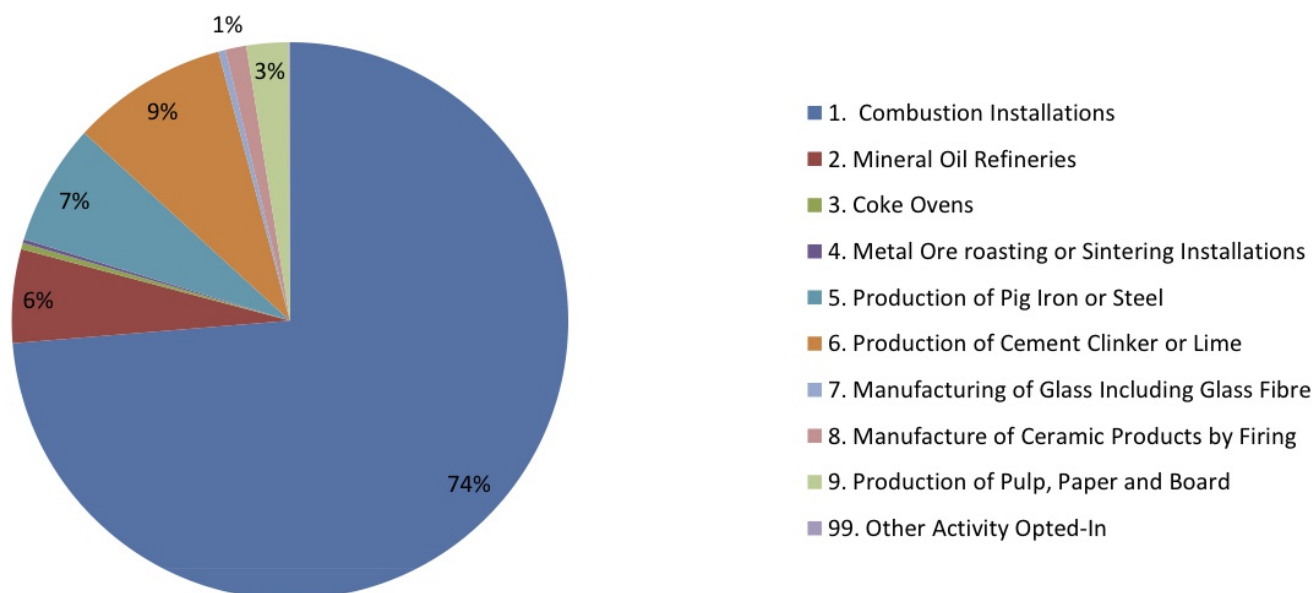


Figure 6

not particularly detailed they do enable us to establish a good overview of how different industrial sectors are engaging with international offsetting.

Figure 6 shows the breakdown of European sectors using CERs for compliance. According to the EU (CITL), there are 10 industry sectors, these can be seen in Figure 6 above, and each sector is relatively self explanatory. Sector 99 is a miscellaneous category which is used for opted-in installations and includes hospitals and universities.

As shown in Figure 6, combustion installations (power generation) are overwhelmingly the biggest users of CERs accounting for 74% of all offsets surrendered in 2009, an increase on the 2008 figure of 67%. Since this is the sector with both the biggest volume of emissions and the most

of total CERs surrendered. Both these figures are down compared to 2008 when they were 10% and 11% respectively.

In 2009 these industrial sectors experienced huge emissions reductions leaving them with significant surpluses of EU allowances. The relatively high use of offsets, despite this fact, implies that many installations in these sectors are swapping cheaper CERs in order to either sell or bank the more valuable EUA allowances they currently receive for free.

Figure 9 gives a full break down of the top three European sectors using CERs according to project type and quantity uses.

As seen in previous graphs the use of credits from industrial gas projects dominate.

Origin of EU top three sectors CERs

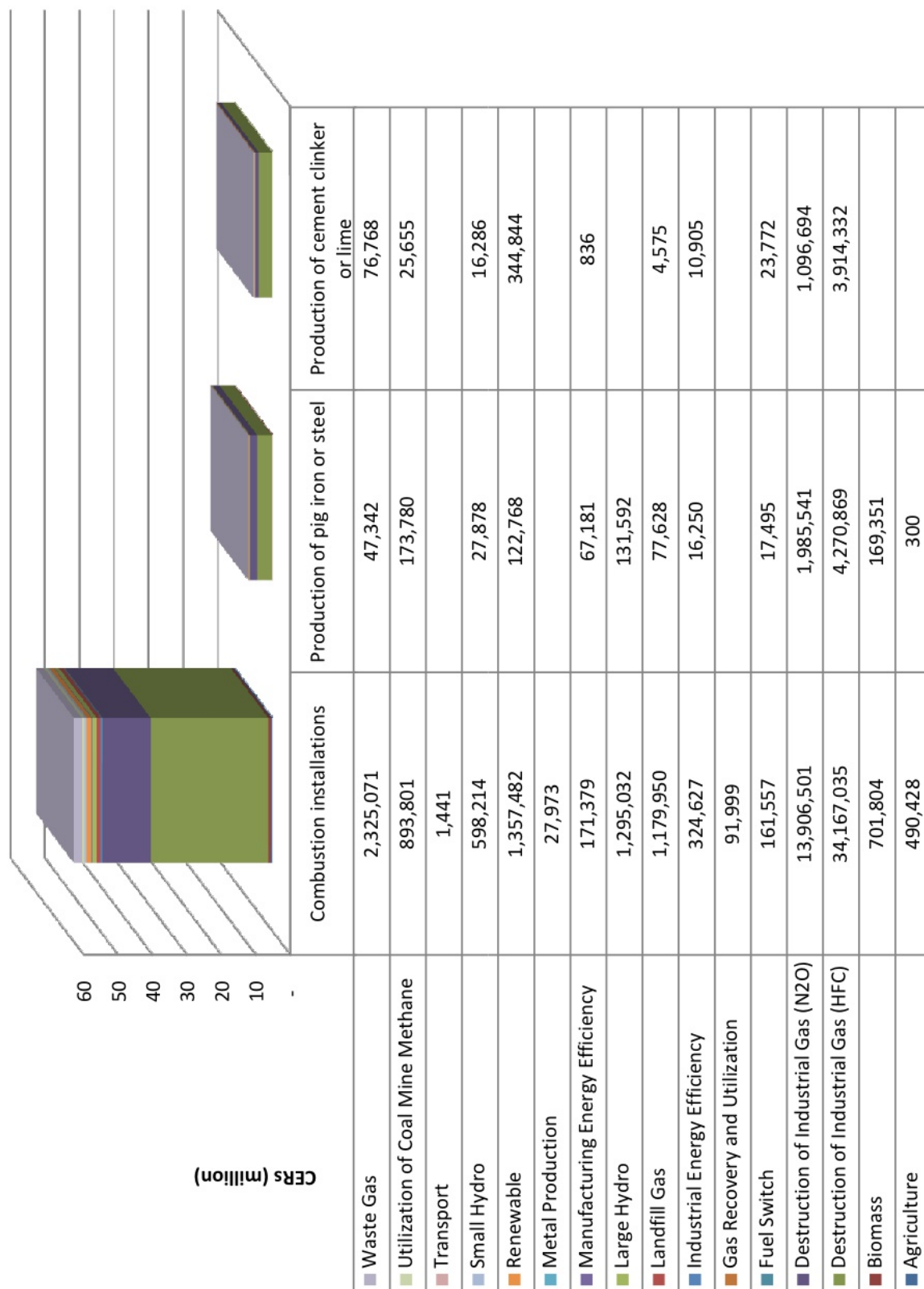


Figure 9

CDM Sectors

The types of projects that are generating credits for sale can also be grouped according to 'sectoral' or project type definitions. As previously mentioned, our project type descriptors are based on the sectoral scopes as

registers, nevertheless, they are a welcome addition and perhaps a sign that CERs from a more diverse range of projects could be used in the future.

Looking at the sources of CERs in more detail it is possible to pinpoint which economic sectors in developing

% CERs from Sectoral Scope

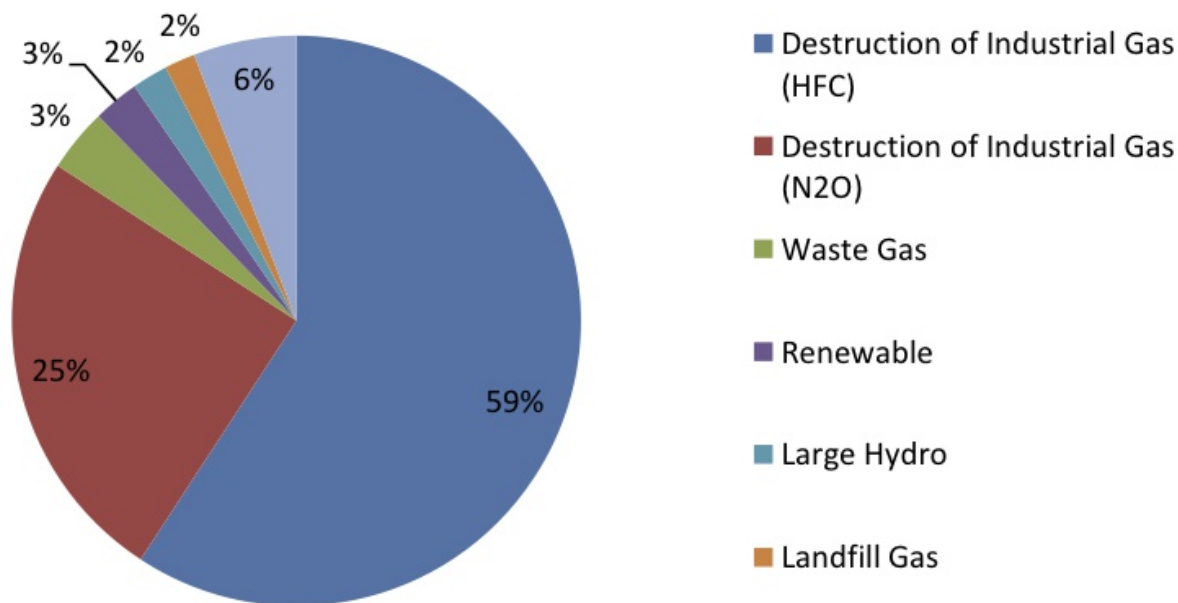


Figure 10

set out by the UNFCCC with slight modifications to breakdown projects in the energy sector into renewable and non-renewable. Each project is assigned to a sectoral scope depending on the project methodology.

The chart above shows that the overwhelming majority of CERs used originated from a limited number of project types, as in 2008 the used of credits from industrial gas projects dominated. Only 4% of CERs used came from renewable or biomass projects. 2009 has seen the addition of an interesting new project type: transport. With only 1,441 (0.002% of total) being surrendered from transport projects their presence scarcely

countries EU firms are directly subsidising through the surrendering of CERs. Despite European industry being reluctant to take on more ambitious unilateral emissions targets due to fears of carbon leakage, there is seemingly a contradiction between this stance and their actions.

The table below highlights examples of where a direct competitive distortion that is taking place amongst one of the most vocal opponents of emissions trading due to carbon leakage concerns: the steel sector. The European steel installations identified below are surrendering CERs sourced from steel installations in developing countries. While it is perfectly legal

and on one level economically rational to do this it begs the question of why companies would choose to send a direct subsidy to their international competitors if fears of carbon leakage were so pronounced. Frustratingly it seems that EU installations seem to have a greater incentive to fund abatement projects amongst their competitors rather than invest in these improvements themselves. Steel plant, Glocke Salzgitter steel plant in Germany, the number one user of

offsets in 2009, also surrendered CERs from steel projects in 2009.

The use of CERs from steel CDM project by EU steel installation represents a fraction of overall CER usage. In 2009 over 2 million CERs originating from steel projects from three host countries, China, India and South Africa, where surrendered by 18 EU Member States, representing a total value of over €22 million.²⁰

| Installation | Installation Phase II Surplus | Company | Year | CERs | CDM Project | Host Country | CDM Project id |
|----------------------------------|-------------------------------|----------------------------|------|---------|--|--------------|----------------|
| Glocke Salzgitter | 10,930,852 | Salzgitter | 2009 | 40,000 | Waste Heat Recovery Based Captive Power Project activity in steel plant | India | 696 |
| Integriertes Hüttenwerk Duisburg | 23,827,266 | ThyssenKrupp | 2009 | 21,768 | Waste gas CDM project in Jinan Iron & Steel Works | China | 812 |
| Integriertes Hüttenwerk Duisburg | 23,827,266 | ThyssenKrupp | 2008 | 375,000 | Generation of Electricity through combustion of waste gases from Blast furnace | India | 325 |
| Elektrostahlwerk Trier | 120,598 | TSW Trierer Stahlwerk GmbH | 2009 | 15,000 | Baotou Iron & Steel Blast Furnace Gas Combined Cycle Power Plant Project | China | 1416 |
| U.S. Steel KoÅjice s.r.o. | 5,071,633 | U.S. Steel | 2008 | 210,000 | Generation of Electricity through combustion of waste gases from Blast furnace | India | 325 |

²⁰ Assuming a €11 CER price.

D. Country level analysis

Top 6 offsetting countries

The international carbon market is not equally distributed, with some countries in Europe buying far more than others. There are a number of reasons for this including the

overall ambition of the caps set in National Allocation Plans, the caps set out the use of offsets (detailed in Annex II) and the range of policies that exist in a country to encourage investment in abatement at home rather than abroad.

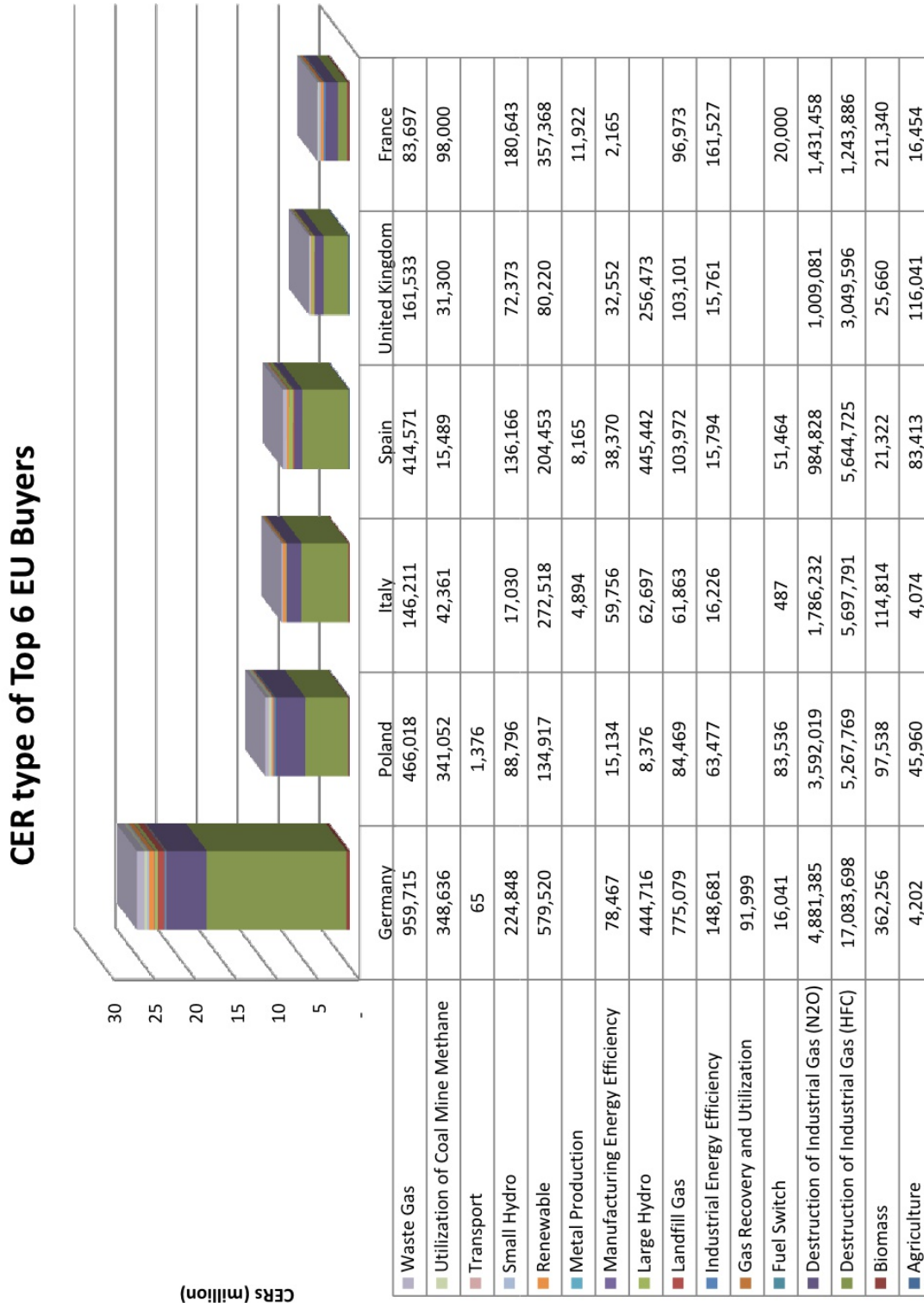


Figure 11

Figure 11 illustrates the top six countries surrendering CERs in 2009 and the type of credits surrendered. The top 6 countries remain the same in 2009 as in 2008 though in a slightly different order. Germany, which

has the highest emissions in the scheme and tough caps on its power sector, kept the top spot in both years, with a 9% increase in CERs used from 2008 to 2009.

| Country | Total Emissions 2009 | Total EUAs M/tons | Total CERs M/tons | % total made up of CERs |
|---------|----------------------|-------------------|-------------------|-------------------------|
| Germany | 428,179,688 | 402,180,380 | 25,999,308 | 6.1 |
| Poland | 190,970,066 | 180,679,629 | 10,290,437 | 5.4 |
| Italy | 184,877,146 | 176,590,192 | 8,286,954 | 4.5 |
| Spain | 136,931,403 | 128,763,229 | 8,168,174 | 6.0 |
| UK | 231,936,016 | 226,982,325 | 4,953,691 | 2.1 |
| France | 111,074,979 | 107,159,546 | 3,915,433 | 3.5 |

Top host countries

Just as the buying of permits is not evenly distributed among countries; so the supply of CERs is largely concentrated in a few countries. Figures 12 and 13 below shows that as in 2008 the overwhelming majority of CERs that entered the ETS originated from a

As in 2008, project type 11 (HFC destruction), 5 (N2O destruction) and 1 (energy industry projects – waste gas) clearly dominate the types of projects being used for compliance. Figure 10 gives a % breakdown according to CER host countryAs in 2008, project type 11 (HFC destruction), 5 (N2O destruction) and 1 (energy industry projects –

% CERs originating from host county

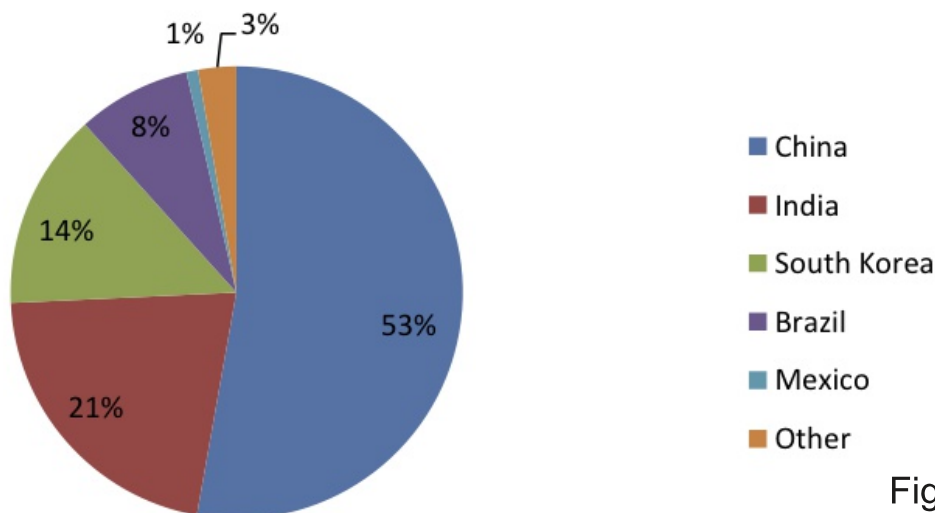


Figure 12

small number of countries, notably China, India, South Korea and Brazil. Note that the numbers from 1-15 relate to the UNFCCC sectoral codes, a detailed description of these sectors can be found on page 10.

waste gas) clearly dominate the types of projects being used for compliance. Figure 10 gives a % breakdown according to CER host country.

Host country vs. project type

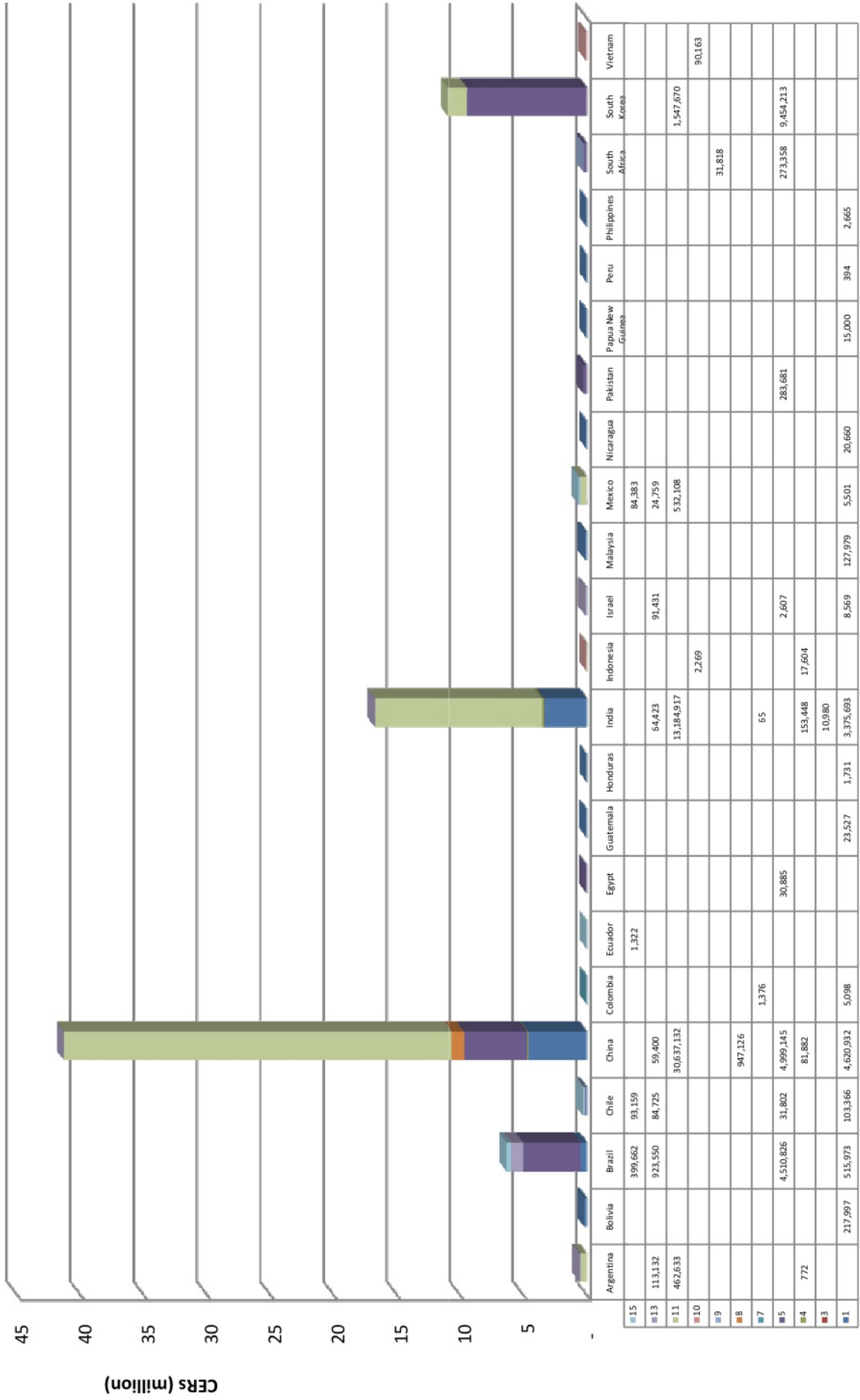


Figure 13

Observations and recommendations

Just the beginning

International offsetting is a complex policy area and we do not profess to have all the answers to the questions that may arise from exploring this data. However, we firmly believe that making this information available can only help to improve our collective understanding and raise the standard of debate.

We believe the principle of supply chain transparency is important. Especially since many of the big buyers of credits are power companies whose revenues are coming in part from European citizens. We hope that by making this information publicly available we can help to encourage buyers to be more interested in the sources of the credits they are purchasing. While public pressure has led to much greater interest in the ethical and environmental impacts of buying choices in many sectors it seems odd that there should be no similar accountability and pressure applied in the one market whose sole existence is intended to deliver environmental gain.

We would like the publication of this report and associated on-line map to continue to add to a new degree of public engagement in the workings of the international carbon market and for that, ultimately, to lead to a more effective policy. We would be delighted to hear from all those who might be interested in helping us to improve this resource.

Buying patterns revealed

This information provides a snapshot of how international offsetting is being used in the EU to comply with legally binding caps on emissions in 2009.

The dataset we have compiled enables us to explore the pattern of buying that installations and companies are exhibiting since we can explore exactly what is being bought and where from. Previous assessments of the ownership of credits has been limited to those who invest in projects to bring credits to market²¹. Though interesting, this does not indicate where the money for offset credits ultimately originates from.

Unsurprisingly, the 2009 data shows continued use of the purchasing of the most easily available and cheapest credits: those generated from chemical factories in richer developing countries (chiefly HFC and N2O destruction projects in China and India). These made up over 59% of the offset compliance permits in 2009.

Although the profits from HFC 23 projects have been criticised for being excessively large²², it remains also true that there is currently no regulation in place that would otherwise prevent these emissions from occurring. The use of HFC credits is however coming under increasing pressure due to the evidence of perverse incentives that are being created (see below).

There remains evidence of buying of more 'charismatic' projects such as renewable

²¹ A breakdown on CDM developers can be found on www.cdmpipeline.org

²² Wara, M and Victor, D (2008) A Realistic Policy on International Carbon Offsets. Program on Energy and Sustainable Development, Stanford University– Working Paper 74.

energy schemes. These projects can be seen by some commentators as less controversial than chemical projects in that they demonstrate how clean technologies can be successfully deployed in countries where inward investment in such projects has historically been low. However, these projects are controversial in another respect since there are question marks over the degree to which they are 'additional', especially where they originate in countries that already have their own policies to encourage renewable energy. Investment via the CDM could therefore be seen as displacing investment that would have happened anyway in response to the domestic policy signal.

Interestingly Slazgitter's Glock Salzgitter steel plant shows some evidence of what appears to be an attempt to show a green tinge to what otherwise could be seen as purely least-cost compliance buying. In 2009 this installation sourced 91% of credits from industrial gas projects, with the remaining 9% coming from more charismatic renewable projects.

Controlling the future quality of credits

The goals of the Kyoto mechanisms are to create a cost-effective form of compliance for Annex I countries, as well as to encourage flows of investment, the transfer of technology and to promote sustainable development in the region where the project is based. Project developers wishing to be accredited under the CDM must follow the rules set by the UNFCCC. In doing so they must meet mandatory standards, show proof of additionality and be certified by third party verifiers.

However, the process of assessing whether

projects meet all these criteria is not straightforward and is vulnerable to a certain degree of subjective decision-making.

Quality remains a central issue to the use of offsetting in the ETS, and debate on the subject has intensified throughout 2010. The EU has already acted to tighten the rules set by the UN, which normally dictate the type of projects that can qualify for credits. The EU's Linking Directive²³ currently sets out a number of quality restrictions on CER types, excluding the use of CERs from nuclear and land use, land use change and forestry (LULUCF) projects. Hydroelectric projects over 20MW must also adhere to tighter rules and has recently suggested that it is open to exploring future additional restrictions.

Central to the gathering storm around supplementary quality controls is the use of credits from the destruction of HFC 23 gas projects. Opinion against the use of HFC credits point to the lack of value for money and sustainable development benefits associated with such projects. Proponents point out that emissions are easily verifiable and additional since outside of the market there is currently no regulation to prevent their release. However, as discussed below the market has the potential to create substantial perverse incentives and must be well regulated to avoid unintended consequences undermining environmental integrity.

Addressing Perverse Incentives

In 2010 the USA put forward a proposal that would extend the Montreal Protocol to cover emissions of HFC 23 in particular the modification of Article 5 which would see production of HFCs frozen and phased out.²⁴

²³ European Commission, amending Directive 2003/87/EC establishing a scheme for greenhouse gas emission allowance trading within the Community, in respect of the Kyoto Protocol's project mechanisms, Available at: <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2004:338:0018:0018:EN:PDF>

²⁴ Article 5 of the Montreal Protocol relates to the freeze in production of HCFCs by 2004 and phase out consumption by 2030 and that Parties operating under paragraph 1 of Article 5 are obligated to freeze production of HCFCs by 2016 and phase out consumption by 2040.

This was, however, blocked by India and China²⁵ two of the biggest beneficiaries of the sale of HFC 23 credits via the carbon market. China in particular applies a substantial tax of 65% on the purchase of HFC project credits.

Clearly this situation is sub optimal. HFC projects offer few additional sustainable development benefits and the technology for destroying HFC23 gases is now well understood and costs very little, regulation is the most appropriate way forward for their control. It is important that the revenues generated by the market do not have the effect of blocking legitimate proposals for their elimination via regulations.

Currently the environmental NGO movement is also pressing hard for CERs from HFC to be subjected to a revised UN methodology that would significantly reduce the volume of CERs issues from such projects. This is based on research by NGO CDM Watch into the production levels of HFC 23 plant in relation to the subsidies they receive. The alarm has been raised over projects that appear to be operating in order to maximise the subsidy they receive rather than acting to minimise the production of the previously unwanted waste gas. The proposed methodology change would slash the proportion of credits awarded to HFC projects in order to better reflect the cost of achieving such reductions and reduce the likelihood of gaming of the system.

In light of this new evidence we believe HFC credits should be phased out of use in the ETS as soon as possible to break the cycle of perverse incentives and allow the market to move on to source more appropriate project credits. The EU has the power to shape the future of the international carbon market, they have already set quality standards and we hope that they will continue to do so in order to maintain the environmental integrity of the scheme and ultimately make it more effective

in achieving the goal of tackling climate change.

The EU has an opportunity to change the rules governing the quality of credits used for compliance ahead of the next phase of trading beginning in 2013. The exclusion of HFC credits from the EU ETS would be the strongest signal yet that the EU demands the highest levels of environmental integrity in the offsets it uses and support a regulatory approach to the control of industrial gases such as HFC 23. It would also reduce the dominance of a handful of projects and create demand for smaller more sustainable projects in the market.

Are offsets supplemental to domestic effort?

The ability of European businesses to use CERs as an offsetting tool ultimately allows them to pay for reductions outside of Europe while continuing to emit at home. This is justified as a way of ensuring the EU is able to meet its climate targets without incurring excessive costs, since in the science of climate change it does not matter where in the globe emissions reductions are attained, the overall effect is the same.

However, a balance needs to be struck to ensure that the use of trading is 'supplemental' to domestic effort to reduce emissions. If the only investments being made are in projects to reduce emissions outside Europe, it would fail to meet developing country expectations that richer countries should decarbonise their own economies. It would also negatively impact on Europe's competitiveness by diverting investment away from projects to increase the efficiency of European industry or to decrease reliance on fossil fuels. In the future Europe may also lose out on future revenues from exportable low carbon technologies and

²⁵ IISD, Briefing Note on The Montreal Protocol OEWG-30, Available at: http://www.iisd.ca/ozone/oewg30/brief/oewg30_brief.pdf

solutions.

As the EU's climate targets are for the period 2008-12 it is difficult to make any assessment of the degree to which trading is supplemental from a single year of data. This is especially true since the banking and borrowing of offsets is allowed by most countries²⁶. However, this issue will need careful monitoring. As this report shows, at an installation and company level some participants are exhibiting very high levels of offsetting. If the principle of trading being 'supplemental' to action to abate at home were to be applied in these cases, companies would have to meet very high overall levels of actual reductions in their own emissions to match their use of offsetting. However, the only rules that currently apply at the level of participants in the EU ETS are that the number of CERs submitted must be within the limits set in the National Allocation Plans. Careful monitoring will need to take place to ensure these limits are not breached.

Much of the reduction in emissions that has been achieved recently in European industrial sectors has arisen as a result of the economic recession – the degree to which this represents 'effort' to decarbonise is highly questionable. Because of the recession there is very real potential for the caps in this current phase to be left higher than actual emissions (i.e. total supply of permits will outstrip demand). In this scenario it is hard to see how any offsetting can be 'supplemental' to a level of effort that is non-existent and a review of the limits set would seem appropriate. If the only actions taking place in Europe are reductions arising from the recession, savings from other policies such as renewable targets and offsetting, then it is hard to see how arguments that the EU ETS represents good value for money and that tackling climate change will boost economic growth in Europe can be sustained in the long term.

To guarantee that the principle of complementarity is upheld and to ensure that low carbon investment continues to flow into Europe as well as into international offsetting projects the EU should consider taking on tighter overall targets and tighter limits on offsetting. To encourage domestic action and avoid installations using CERs in order to bank their EUA the EU should reserve the use of offsets for those companies who are close to or exceed their cap.

Views on future countries of origin of CERs

The use of international offsets can be understood as a subsidy. The EU, through purchasing CERs, subsidises the use of clean technologies in developing countries in return for being able to continue emitting. Some may argue that maintaining this kind of subsidy is no longer justified since richer developing countries have themselves indicated that they do not need money from developed countries in order to tackle climate change and have already moved to introduce emissions reduction targets in domestic policies.

It may be argued therefore that the EU should lead the way in supporting and promoting only the most beneficial offsetting projects. These might be projects to deliver emissions reductions in vulnerable and least developed countries (LDCs) where questions of additionality are much less complicated.

This would also help to address the potential competitiveness distortions that arise in internationally traded sectors, where, for example, a steel firm in Europe is faced with a cap on its emissions while paying for a competing steel plant in India or China to generate offsetting credits. This is already occurring as shown earlier in the report and is a practice that must be questioned as Europe increases its efforts to tackle climate change. The USA has stated in draft cap and

²⁶ See Annex II

trade legislation published this year that it would not accredit projects in internationally competing sectors and countries and the EU should also adopt this policy ahead of any more draconian measures such as border tax adjustments.

The 2009 data has shown that there has been an increase in the number of host countries from which CERs are surrendered, including Bolivia, Guatemala, Pakistan, Papua New Guinea, Israel and the Philippines. Credits from these countries are a welcome addition to the EU offset mix, however, the number of CERs from these countries are very low compared to those from China, India, South Korea and Brazil. These fast developing economies were able to take advantage of the CDM during its early development. Perhaps it is now time for a mechanism that ensures the flow of this subsidy reaches only those areas in greatest need of investment. A positive list of projects that would be approved is one way of ensuring this would happen.

The definition of a qualifying project should in future not only refer to the project type but also increasingly to the country of origin and credits from directly competing sectors such as iron and steel should be phased out.

Continued use of offsets in the EU ETS?

Banning the use of offsets altogether from the ETS would be one way of tightening the cap on EU emissions and raising carbon prices, compensating for the large surpluses of allowances that have accrued due to the recession.

However, Sandbag believes international carbon markets have many potential benefits and the EU should continue to use and provide a market for international offsets. However for the market to function effectively more ambitious EU

targets must be set post 2013.

The CDM has thus far successfully created a legitimate and trusted framework by which European capital can flow into developing countries. By reducing the risk of having to deal directly with governments and having the security of a UN system, investors have been reassured and money has flowed.

The questions over HFC credits should not be the scandal to bring down the CDM. Rather it illustrates the dynamic and fast flowing nature of market mechanisms. Reforms are however needed and the EU has a vital role to play in demonstrating it has the capacity to react appropriately and dynamically to changing circumstances. Taking decisive action now will help to protect the scheme into the future.

ANNEX 1

| Country | HFC | Total 2009 CERs | % HFCs |
|----------------|------------|-----------------|--------|
| Austria | 205,966 | 389,309 | 53 |
| Belgium | 434,819 | 634,893 | 68 |
| Czech Republic | 591,879 | 3,025,287 | 20 |
| Denmark | 47,723 | 132,806 | 36 |
| Finland | 443,534 | 1,198,964 | 37 |
| France | 1,254,186 | 3,915,433 | 32 |
| Germany | 17,083,698 | 25,999,308 | 66 |
| Greece | 70,729 | 133,742 | 53 |
| Hungary | 866,747 | 1,283,930 | 68 |
| Ireland | 153,912 | 223,643 | 69 |
| Italy | 5,697,791 | 8,286,954 | 69 |
| Latvia | 277,871 | 479,600 | 58 |
| Lithuania | 537,359 | 1,084,102 | 50 |
| Luxembourg | | 23,352 | - |
| Netherlands | 559,987 | 761,062 | 74 |
| Norway | 264,235 | 331,296 | 80 |
| Poland | 5,267,769 | 10,290,437 | 51 |
| Portugal | 733,733 | 1,527,532 | 48 |
| Romania | 1,919,548 | 3,403,141 | 56 |
| Slovakia | 807,421 | 1,229,241 | 66 |
| Slovenia | 237,252 | 367,952 | 64 |
| Spain | 5,644,725 | 8,168,174 | 69 |
| Sweden | 213,980 | 429,662 | 50 |
| United Kingdom | 3,049,596 | 4,953,691 | 62 |
| | | | |
| Grand Total | 46,364,460 | 78,273,511 | 59 |

ANNEX 2

Table Showing Summary of CDM/JI limits in EU ETS National Allocation Plans for Phase II

| Member State | Annual Cap 2008-2012 in MMT CO2e | Annual JI/CDM limit in % | Annual JI/CDM limit in MMT CO2e | Banking/Borrowing | Region/Sector differentiation |
|--------------|----------------------------------|--------------------------|---------------------------------|--------------------|-------------------------------|
| Austria | 30.7 | 10 | 3.1 | Yes/yes | |
| Belgium | 58.5 | 8.4 | 4.9 | - | Yes |
| Bulgaria | 42.3 | 12.6 | 5.3 | Yes/yes | |
| Cyprus | 5.48 | 10 | 0.5 | Yes/yes | |
| Czech Rep. | 86.8 | 10 | 8.7 | Yes/yes | |
| Denmark | 24.5 | 17 | 4.2 | Yes/yes | Yes |
| Estonia | 12.72 | 0 | 0.0 | No/no | |
| Finland | 37.6 | 10 | 3.8 | Yes/Yes | Yes |
| France | 132.8 | 13.5 | 17.9 | Yes/Yes | |
| Germany | 453.1 | 22 | 99.7 | Yes/Yes | |
| Greece | 69.1 | 9 | 6.2 | Yes/Yes | |
| Hungary | 26.9 | 10 | 2.7 | No until end 09/No | |
| Ireland | 22.3 | 10 | 2.2 | Yes/Yes | Yes |
| Italy | 195.8 | 15 | 29.4 | Yes/no | Yes |
| Latvia | 3.43 | 10 | 0.3 | Yes/Yes | |
| Lichtenstein | | 8 | | Yes/Yes | |
| Lithuania | 8.8 | 20 | 1.8 | No/no | |
| Luxembourg | 2.5 | 10 | 0.3 | Yes/Yes | |
| Malta | 2.1 | 10 | 0.2 | Yes/Yes | |
| Netherlands | 85.8 | 10 | 8.6 | Yes/Yes | |
| Norway | | 13 | | Yes/No | |
| Poland | 208.5 | 10 | 20.9 | Yes/No | |
| Portugal | 34.8 | 10 | 3.5 | Yes/Yes | |
| Romania | 75.9 | 10 | 7.6 | Yes/Yes | |
| Slovakia | 30.9 | 7 | 2.2 | Yes/Yes | |
| Slovenia | 8.3 | 15.8 | 1.3 | Yes/Yes | |
| Spain | 152.3 | 20.6 | 31.4 | Yes/No | Yes |
| Sweden | 22.8 | 10 | 2.3 | Yes/Yes | Yes |
| UK | 246.2 | 8 | 19.7 | Yes/No | Yes |
| Total | 2080.93 | - | 288.7 | | |

In the table above the "banking" and "borrowing" of CERs/ERUs refer to the intra-period annual banking/borrowing. Regional/Sectoral differentiation refers to the presence of disaggregated limits on CER/ERU use according to sector type or region within the country.

Sources:

1. Carbon Offset Research (SEI)

<http://www.co2offsetresearch.org/policy/EUETS.html>

Values calculated based on emissions cap and JI/CDM % limit.

Source: European Commission, 2007a

2. Deutsche Bank – information compiled from Member State NAPs

NB Sources differ for % annual limit for Germany and Spain value used is Deutsche Bank's