sandbag

E R Who?

Joint Implementation and the EU Emissions Trading System

October 2010

About Sandbag

Sandbag is a 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 also 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.

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Contents

Executive Summary

The EU ETS is now in its sixth year of operation. Since its introduction in 2005, it has undergone significant changes and more will be implemented at the start of the next phase in 2013. Decisions about the rules for this next phase are being debated and taken now.

A key element of the policy is the ability for participants in the scheme to use offsetting credits towards their targets.

The level of offsetting allowed in the scheme was calculated based on expected economic growth in Europe, which unfortunately did not come to pass. The recent economic recession caused emissions to tumble and has left the ETS with an oversupply of emissions allowances. Large volumes of offsets are also available for use, far above what might have been needed to contain prices. This has led to sustained low prices for carbon and very weak investment signals.

The solution is tighter caps and stricter limits on offsets. However, industries fearing for their competitiveness in global markets, strongly oppose these improvements. One way of reassuring industry is perhaps to look in more detail at the potential for using community offsetting.

The trading mechanism that currently facilitates this is known as 'Joint Implementation'.

This report introduces this mechanism and offers some analysis of how it is performing to date. It is based on a consolidated database of information about the use of credits from Joint Implementation (JI) projects, know as Emission Reduction Units (ERUs), for compliance within the EU emissions trading system (ETS).

Joint implementation, along with the Clean Development Mechanism (CDM) and International Emissions Trading (IET), is one of the three flexible mechanisms of the Kyoto Protocol. A JI project, unlike the more prolific CDM projects, allows for emissions reduction projects to take place between two capped counties. While much of the debate surrounding the role of international offsets focuses on credits generated in developing countries through the CDM, relatively little attention is given to credits generated through the JI.

In 2008 just over 40 thousand ERUs were surrendered into the EU ETS, too few to warrant detailed analysis or to be able to identify meaningful trends. This figure jumped to over 3 million in 2009, almost a one hundred fold increase. This figure is still small considering that a total of 163 million international offsets have been surrendered into the EU ETS so far (combined total for 2008 and 2009).

From analysing the data it is possible to determine the origin and type of ERUs entering the ETS, some of our key findings include:

- Germany surrendered 21% of all ERUs in 2009 followed by Lithuania and Romania surrendering 14% and 10% respectively.
- The Ukraine originated 73% of all ERUs surrendered in 2009, followed by Germany and France originating 17% and 5% respectively.
- Both France and Germany surrendered ERUs originating in their respective countries.
- Finland introduced a model of JI which incentivised Finnish companies to sell ERUs into the ETS market but also held some credits back to help it to generate AAUs for Kyoto compliance.
- 24% of all ERUs surrendered in 2009 were credits from district heating projects, followed by N20 credits with 22% and utilization of coal mine methane with 21%.

The use of JI in the ETS is still relatively new and unexplored, nevertheless, this report shows that community offsetting in the ETS is possible and already taking place. EU installations have already spent over €1.3 billion on dubious HFC CERs. The question is could this money could have been spent more effectively within Europe via the JI?

While potentially offering a number of new opportunities, JI also brings with it new challenges. Questions over the potential for double counting, for credits to be awarded for 'hot air' could mean that JI present more problems than solutions. There is also the question of how much the private sector is being relied upon to deliver funding pledges to developing countries via offsetting. The question of whether other types of policies in uncapped sectors might be as effective as or more effective than baseline and credit trading schemes also needs to be carefully considered. Nevertheless, as Finland, France and Germany have shown, JI can be used creatively and should not be ignored.

Our recommendations

The EU should take on more ambitious emissions reduction targets and caps under the ETS. It should also introduce new, stricter quality criteria for offsetting. In doing so it should explore the options for expanded used of JI. This would in part compensate for the introduction of tighter quality controls on CDM credits which may limit supply of credits to the market.

Specifically we recommend that the EU should:

- **Develop a clearer policy on the role of JI post 2012.**
- **Introduce tighter quantitative and quality controls for offsetting, applied to JI as well as CDM.**
- **Draw up options for encouraging more domestic abatement to meet enhanced targets in uncapped sectors. It should assess both the option of promoting greater use of EU based JI or community offset equivalent and also the potential to use other policies including through extension of the scope of the ETS to cover these sectors.**
- **Ensure that any future use of community offsetting is clearly labelled as such, is subject to civil society scrutiny and meets the highest environmental and social standards.**

Introduction

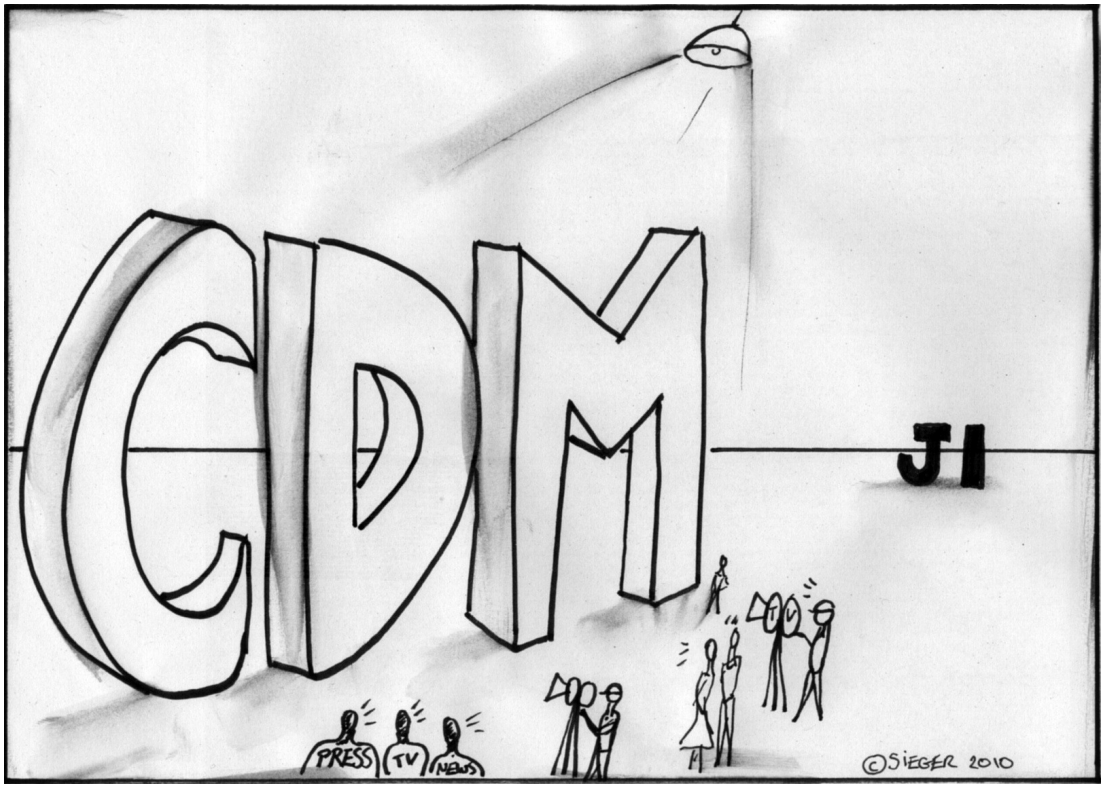
In 2005 the European Union (EU) introduced legally binding caps on all large point sources of emissions in each of the 27 Member States. This introduced caps on emissions from some 12,000 installations and created the EU Emissions Trading Scheme (ETS), now in its second phase.

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 via the Linking Directive to the international emissions trading mechanisms, established under the Kyoto Protocol. Companies are allowed to buy credits for compliance with their targets.

Credits can be generated in uncapped countries via the Clean Development Mechanism (CDM) or in capped countries via Joint Implementation (JI).

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 cost effective emissions reductions. The amount of offsetting is limited, the precise level in this phase having been set by Member States in their National Allocation Plans[1].



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[1] See Annex
[2] Illustration by L Sieger: lucindasieger@talktalk.net

About this Report

This report follows on from Sandbag's 'International Offsets and the EU 2009'[3] report released in July 2010. That report focused specifically on the use of CDM credits generated in uncapped countries, which make up the overwhelming majority of offsets used for compliance in the EU ETS to date. Nevertheless it was noticed that in 2009 there was a sharp increase in the number of JI credits from capped countries being surrendered for compliance. With much of the focus on the CDM it is easy to overlook the use of JI.

Why we did this analysis?

Sandbag has invested a considerable amount of time compiling a database, which links installations in the EU ETS to the projects from which they have bought international offsets. This has allowed us to bring transparency to the debate surrounding the use of international offsets, however, until now much of this work has focused on the more commonly used CDM credits know as certified emissions reductions (CERs). We want to shine a similar light on to the use of JI and the credits generated under it, known as emission reduction units (ERUs).

This report is also released against the backdrop of fierce debate about future levels of caps and the quality and type of CERs that are eligible for use in the EU ETS. Much of this later debate has centred on CDM industrial gas (HFC23) destruction projects, which have generated vast quantities of credits at very low cost.

This discussion about the future use of credits from industrial gas projects is taking place at both a UN and an EU level. The UNFCCC has suspended issuance of credits from HFC projects until the CDM Methodology Panel has investigated allegations that projects have been artificially increasing the production of the waste gases in order to maximise the number of credits under the CDM. This process is likely to take some months to complete.

The European Commission has previously ruled out the use offsets in the ETS from nuclear power, land use, land use change and forestry (LULUCF) and set higher standards for large-scale hydro projects. It now looks set to introduce further quality restriction on the use international offsets in its trading scheme relating to industrial gas projects.

Restrictions imposed by the EU would also apply to similar projects initiated under the JI, whereas action by the CDM Executive Board would only apply to CERs.

In the debate about the future levels of caps in the ETS one of the arguments against more ambition is the risk it might pose to the EU's economic competitiveness if other countries fail to act. Rather than hold back ambition we would like to start a debate about how flexibilities in offsetting policy might be used to minimise any competitiveness risks the EU is exposed to.

We feel it is important to raise awareness of the use of JI in offsetting as so far it has gone largely unnoticed. Decision makers and stakeholders need to be aware of this potentially important additional source of offsets but also to consider some of the risks.

The JI has the potential to be either another source of low quality credits or to be a driving force for improving the efficiency of industry in capped countries, in particular EU Member States. Whether and how it is implemented in the future will determine the result.

This report takes on much the same format at the international offsets and the EU ETS reports, it aims to shed light on the use of JI credits, how many ERUs are being surrendered in what quantity, from where and by whom.

[3] International Offsets and the EU 2009, Available at: http://sandbag.org.uk/files/sandbag.org.uk/offset2009.pdf

Data sources

Data used in this report is taken from the UNFCCC and the EU community independent transaction log (CITL) website. Data is made available at installation, sector and country level.

As part of the reporting process of the UN, Joint Implementation (JI) projects are required to submit a substantial amount of documentation about their projects. This includes the project design documents (PDD). 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 available via the CITL.

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

This report complements the launch of the new Sandbag JI map illustrating how ERUs are being used in the emissions trading system.

Project Categorisation

In order to make information about project types more user-friendly, Sandbag modified the standard UN JI 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 we have attributed each scope with a Sandbag descriptor and introduced sub categories for sectoral scope one 'Energy industries (renewable/non renewable sources)', to provide a higher level of differentiation between project types. Table 1 provides a breakdown of all the JI sectoral scopes that have been covered in this report.

Our Interactive JI map pictured below is available at:
http://www.sandbag.org.uk/maps/jimap

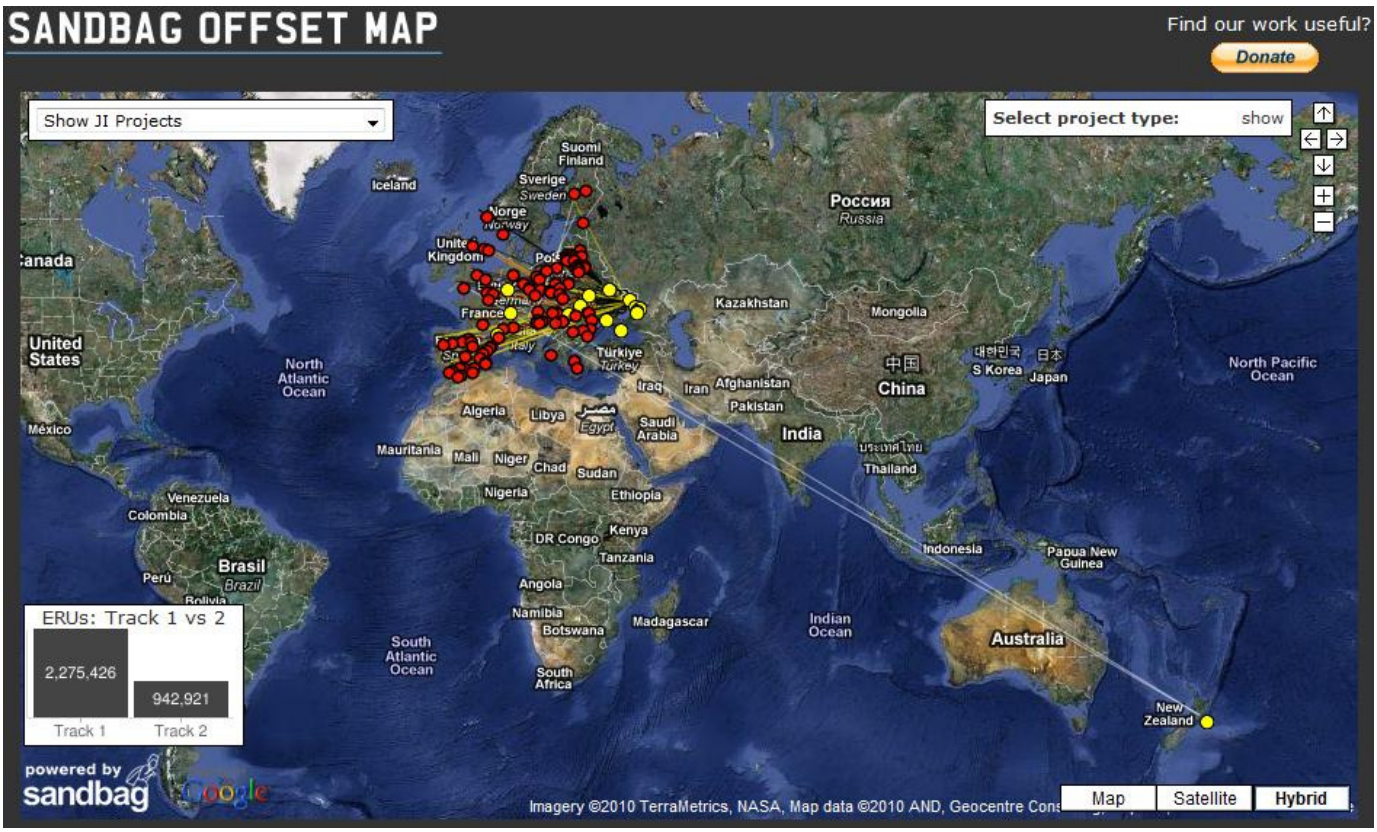
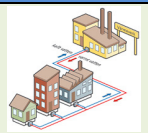
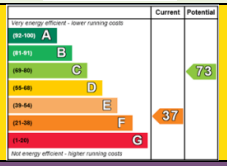


Table 1 JI projects according to the UNFCCC sectoal scope as well as the Sandbag Descriptor and sub category

UNFCCC Sectoral Scope	Scope Description	Sandbag Descriptor	Sub category	ERUs	Picture	Explanation
1	Energy industries (renewable - / non renewable sources)	Energy industry – renewable	Renewable	68,059		Renewable energy is the generation of energy from sources that are naturally replenished, e.g. by harnessing wind, sun or biomass energy.
2	Energy distribution	Energy distribution	District heating	786,958		The purpose of these project is to develop a centralised system of heat distribution for residential or commercial heating requirements.
4	Manufacturing industries	Manufacturing Energy Efficiency	Na	535,532		These projects focus on reducing emissions from manufacturing – such as the upgrading of boilers to improve thermal efficiency.
5	Chemical industries	Destruction of Industrial Gas (N2O)	Na	697,360		N20 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 instillation of a dedicated facility to convert at height temperatures the nitrous oxide into nitrogen.
8	Mining/mineral production	Utilization of coal mine methane	Na	672,966		The purpose of these projects is to capture and utilise coal mine methane. Typically project extract methane directly from coal mines to be burnt to generate power.
10	Fugitive emissions from fuels (solid, oil and gas)	Gas Recovery and Utilization (Flaring)	Na	358,835		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.
13	Waste handling and disposal	Landfill Gas	Na	98,637		The purpose of these projects is to capture and burn methane produced from landfill sites.
Grand Total				**3,218,347**		

1. Introduction to Joint Implementation

What is Joint Implementation?

Joint implementation (JI) is one of the three Kyoto Mechanisms which include:

- International Emissions Trading (IET) which allows countries to trade their Kyoto targets (companies may not use this market to comply with the ETS). Traded unit: AAU/RMU

- Clean Development Mechanism (CDM) which allows capped countries and companies to offset their emissions from projects in uncapped countries. Traded unit: CER

- Joint Implementation which allows capped countries and companies to offset their emissions from projects in other capped countries. Traded unit: ERU.

Both the JI and CDM involve implementing emission reduction projects that generate tradable carbon credits.

The CDM has been the most prominent of the Kyoto mechanisms and much of the discussion about international carbon offset projects refers to this mechanism.

JI is a project based trading mechanism between two Annex I, or capped, countries under the Kyoto Protocol. Credits are awarded on a 'baseline and credit basis' meaning that they are awarded project by project, where savings are deemed to have occurred against a business as usual projection.

JI differs from the CDM in an important respect in that it requires careful accounting of assigned amount units (AAUs) - the overarching trading mechanism of the Kyoto Protocol. To deliver credits from a JI project into the market the host country must convert an appropriate number of its AAUs into ERUs. It can then transfer them to the entity seeking to buy the credits.

AAUs are assigned to Annex I countries by the Kyoto Protocol, there are themselves a tradable commodity and have a potential value for the country that they have been assigned to. This is an important nuance of JI: host countries must convert their AAUs in order to issue ERUs.

Where JI is used by a country to fund emissions reductions, and the credits transferred overseas, it cannot at the same time take credit for these reductions in domestic climate policies. This would constitute double counting where citizens were being potentially misled about the extent to which global emissions were being reduced by the policy.

Two Tracks

There are two kinds of JI projects commonly referred to as Track 1 and Track 2. This stems from the two ways a JI project can be verified.

Track 1 applies when a host country meets the JI eligibility requirements as set by the UNFCCC. The eligibility requirements include[4]:

- is a Party to the Kyoto Protocol;
- having in place a national system for the estimation of anthropogenic emissions;
- has submitted annually the most recent required inventory;
- having established the nation's emissions to be issued as Kyoto AAUs.

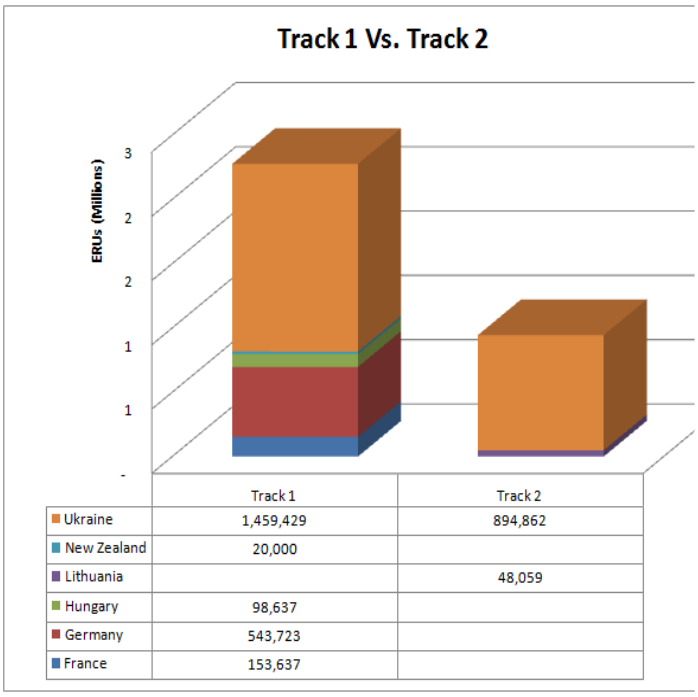
If these requirements are met the host party is able to implement 'simplified' JI and thus

[4] UNFCCC, *Eligibility Requirements*, Available at: http://ji.unfccc.int/Eligibility/index.html

verify its own emissions reductions according to its own rules.

Track 2 Applies when the host country does not meet the criteria to verify its own emissions reductions. Projects must be assessed according to procedures administered by the JI Supervisory Committee (JISC)[5]. The involvement of the JISC means that track 2 projects are similar to CDM projects in that they must be verified by a third party.

Chart 1 Compares the Track 1 ERUs with Track 2 and breaks down country of origin.



	Track 1	Track 2
Ukraine	1,459,429	894,862
New Zealand	20,000	
Lithuania		48,059
Hungary	98,637	
Germany	543,723	
France	153,637	

Both track 1 and 2 ERUs are eligible to be used for compliance in the EU ETS. In 2009 3.2 million ERUs were surrendered into the EU ETS. Chart one shows that the majority of these ERUs come from self verified Track 1 projects.

How many ERUs are we talking about?

In 2008 just over 40 thousand ERUs were surrendered into the EU ETS, too few to warrant detailed analysis or to be able to identify meaningful trends. This figure jumped to over 3 million in 2009, an increase of 99.2%. Such an increase can be taken as a sign that JI projects are maturing and starting to make their way into the international emissions trading market.

This figure of 3 million is still small considering that a total of 163 million international offsets have been surrendered into the EU ETS so far (combined total for 2008 and 2009). However, the role of the JI looks set to increase with the news of Russia approving 15 JI projects in 2010.

Economic decline in Russia in the 1990s mean it has considerable surpluses of tradable emissions rights (in the form of AAUs). Through strategic use of JI it is has the potential to provide the majority of ERUs in the coming years. There is a risk that the mechanism could be used to convert AAUs arising from economic collapse into ERUs but so far comments from civil society[6] indicate that the projects approved to date are additional, representing genuine investment in new emissions reductions.

The Intercontinental Exchange (the US operator who bought the European Climate Exchange in April 2010) has recently announced it will offer the world's first futures contracts in ERUs[7]. This is further evidence that the JI market is maturing.

According to the JI pipeline projected amount of ERUs in the pipeline until 2012 is 197[8] million.

With such a sharp increase in the number of ERU being surrendered into the ETS and the potential for significantly increased supply in the future we felt it was important to understand what is currently happening and to hopefully begin a debate about what may happen in the future.

[5] There are 10 members and 10 alternate members in the JISC

[6] WWF Russia commented that they had no objections to any of the 15 new JI projects, however, they noted that many renewable projects were NOT adopted.

[7] Stafford. P, *ICE to offer world's first ERU futures contracts*, Financial Times, Available at:http://www.ft.com/cms/s/0/86b9c628-d50b-11df-ad3a-00144feabdc0.html

[8] Personal communication with the UNEP Risø Centre

2. What the data enables us to discover

Combining JI project data with data about those installations participating in the EU Emissions Trading System enables us to look at a number of different aspects of international offsetting. Below we present some key findings looking at the data from an installation, sector and country level.

A. Installation Level Analysis

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

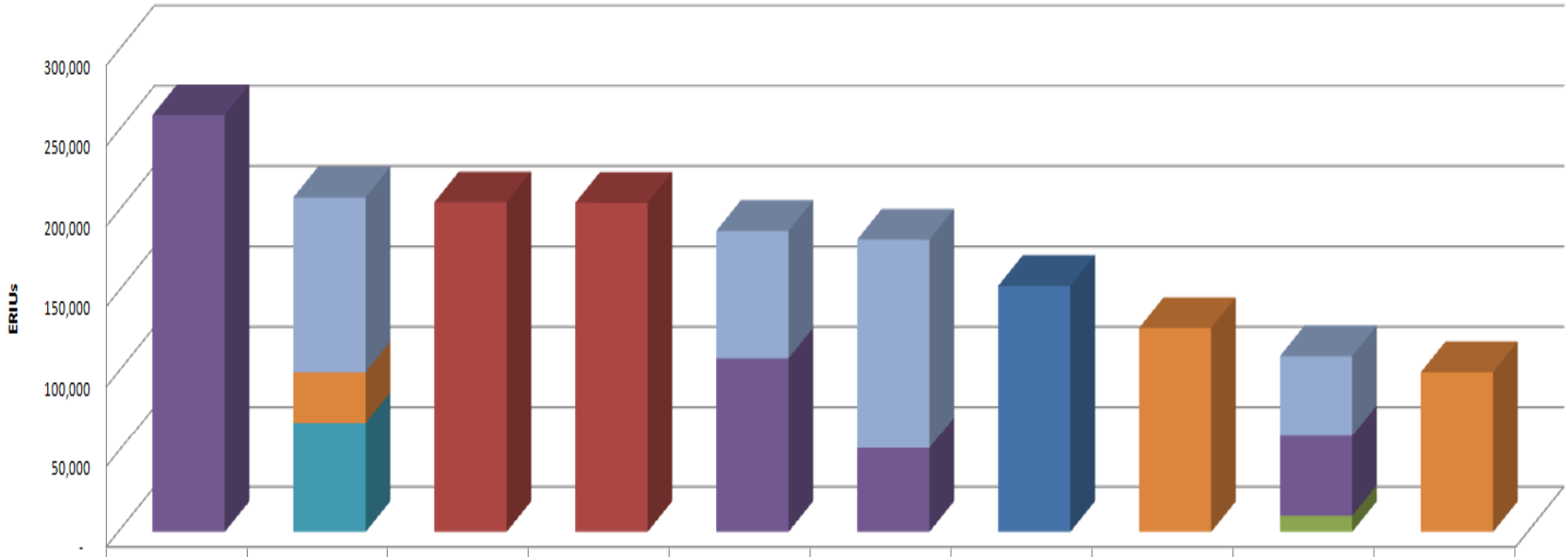
Table 2 Top 10 installations using ERUs for compliance in 2009

Installation Name	Country	Company	Sector	2009 Emissions	% of emissions made up of ERUs	Total ERUs	% of total ERUs used in 2009
Naftos perbirbimo gamykla	Lithuania	ORLEN Lietuva	Mineral Oil Refineries	2,102,763	12.4	260,000	8.1
Kraftwerk Schkopau	Germany	E.ON	Power	6,074,922	3.4	208,750	6.5
Raffinerie §25 TEHG Einheitliche Anlage Glocke	Germany	Conocophillips	Mineral Oil Refineries	639,043	32.2	205,723	6.4
ConocoPhillips Skandinavia AS Ekofiskområdet	Norway[9]	Conocophillips	Power	1,022,500	20.1	205,382	6.4
STABILIMENTO DI TARANTO	Italy	Edison	Cement Clinker or Lime	346,246	54.3	187,848	5.8
Glocke Salzgitter	Germany	Salzgitter	Iron or Steel	9,276,102	2.0	182,500	5.7
CEVCO Plateforme chimique de Pont de Claix	France	Rhodia	Power	331,423	46.4	153,637	4.8
Pietarsaaren voimalaitos	Finland	Alholmens Kraft	Power	538,346	23.7	127,500	4.0
TE-TOL, D.O.O.	Slovenia	TE TOL	Power	701,085	15.7	110,000	3.4
CENTRALE TERMOELETTRICA LERI CAVOUR	Italy	ENEL	Power	147,723	67.7	100,000	3.1
Other Installations						1,477,007	45.9
Total ERUs 2009						3,218,347	

For the first time we are able to establish how many ERUs installations used as well as where they originated from in terms of country and project type.

[9] Norway participates in the EU ETS despite not being a member of the European Union

Chart 2 below shows the origin and project type for ERUs surrendered by the top 10 installations.



	Lithuania Naftos perbirbimo gamykla	Germany Kraftwerk Schkopau	Germany Raffinerie §25 TEHG Einheitliche Anlage Glocke	Norway ConocoPhillips Skandinavia AS Ekofiskområdet	Italy STABILIMENTO DI TARANTO	Germany Glocke Salzgitter	France CEVCO Plateforme chimique de Pont de Claix	Finland Pietarsaaren voimalaitos	Slovenia TE-TOL, D.O.O.	Italy CENTRALE TERMOELETTRICA LERI CAVOUR
Ukraine - Utilization of Coal Mine Methane		108,750			79,347	130,000			49,846	
Ukraine - Manufacturing Energy efficiency		31,744						127,500		100,000
Ukraine - Gas Recovery and Utilization (Flaring)		68,256								
Ukraine - District Heating	260,000				108,501	52,500			50,000	
Lithuania - Renewable									10,154	
Germany - Destruction of Industrial Gas (N20)			205,723	205,382						
France - Destruction of Industrial Gas (N20)							153,637			

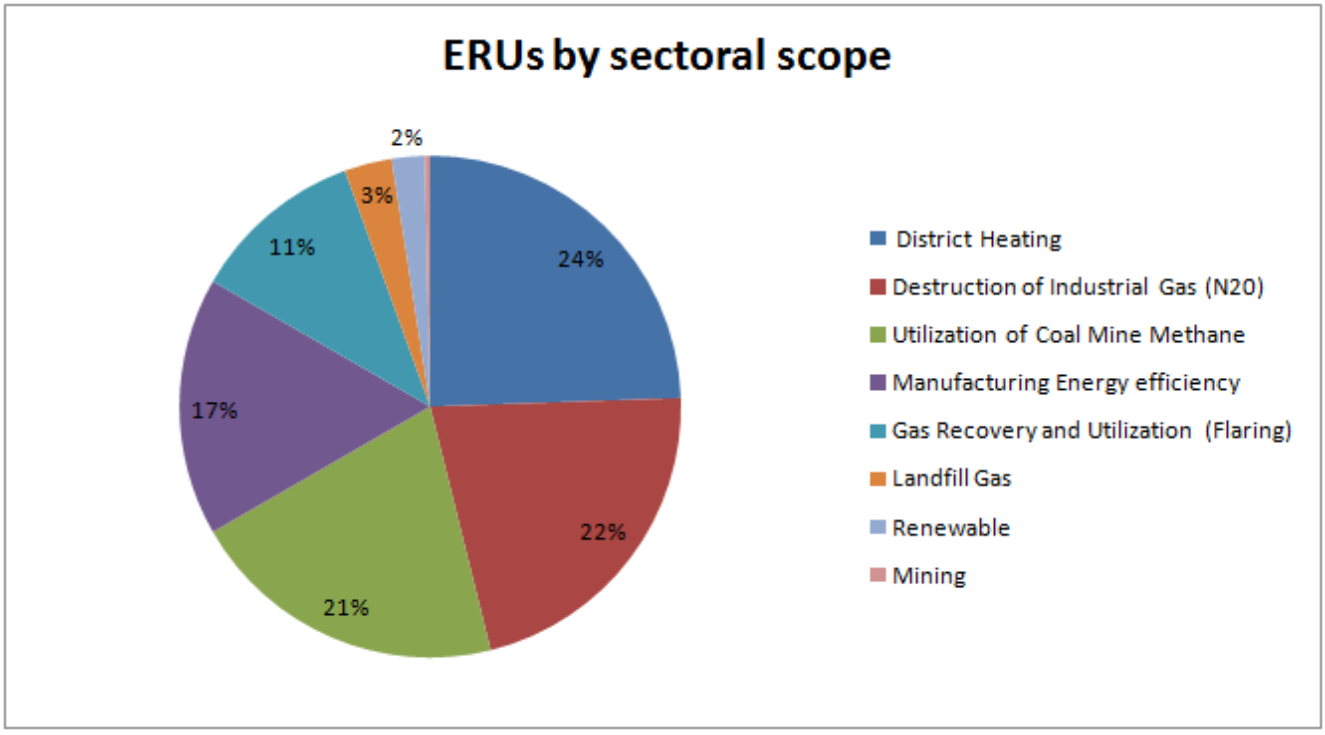
It is interesting to note that German and French installations surrendered ERUs originating in their respective countries. This is the first evidence of the JI is being used as a community offsetting tool. The issue of community offsetting will be covered in more detail in section 3.

B. Sector Level Analysis

The types of projects that are generating credits for sale can be grouped according to 'sectoral' or project type definitions. Our project type descriptors are based on modified UNFCCC sectoral scopes as set out on page 8. Each project is assigned to a sectoral scope depending on the project methodology.

Chart 3 shows the breakdown of ERUs used for compliance by EU installations. They come from a range of projects types, with district heating projects in the Ukraine narrowly being the most dominant. As with offsetting credits originating from the CDM, there is a high number of credits originating from industrial gas projects (21.7% of total surrendered from N20 projects). In the continued debate about quality criteria surrounding industrial gas projects in the CDM it is equally important to understand where JI credits are originating from. Any quality adjustments put in place for CERs should also be applied to ERUs. Only 2% of ERUs surrendered originated from renewable projects.

Chart 3 shows the breakdown of ERU types surrendered in 2009

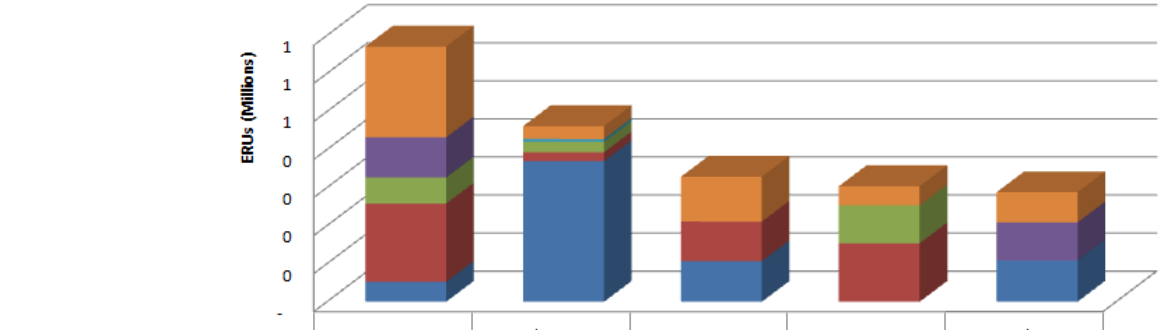


C. Country Level Analysis

1. Top ERU buyers

The international carbon market is not equally distributed with some countries in Europe buying far more than others. There are various reasons for this including the overall ambition of the caps set in Member States' National Allocation Plans (NAPs). Levels of offset usage is also determined by Member States in their NAPs, see Annex 1 for details. All EU countries, expect for Estonia, allowed for JI credits to be used, however, only companies in 16 EU Member States used ERUs for compliance in 2009.

Chart 4 illustrates the top 5 countries surrendering ERUs in 2009 and the types of credits surrendered.

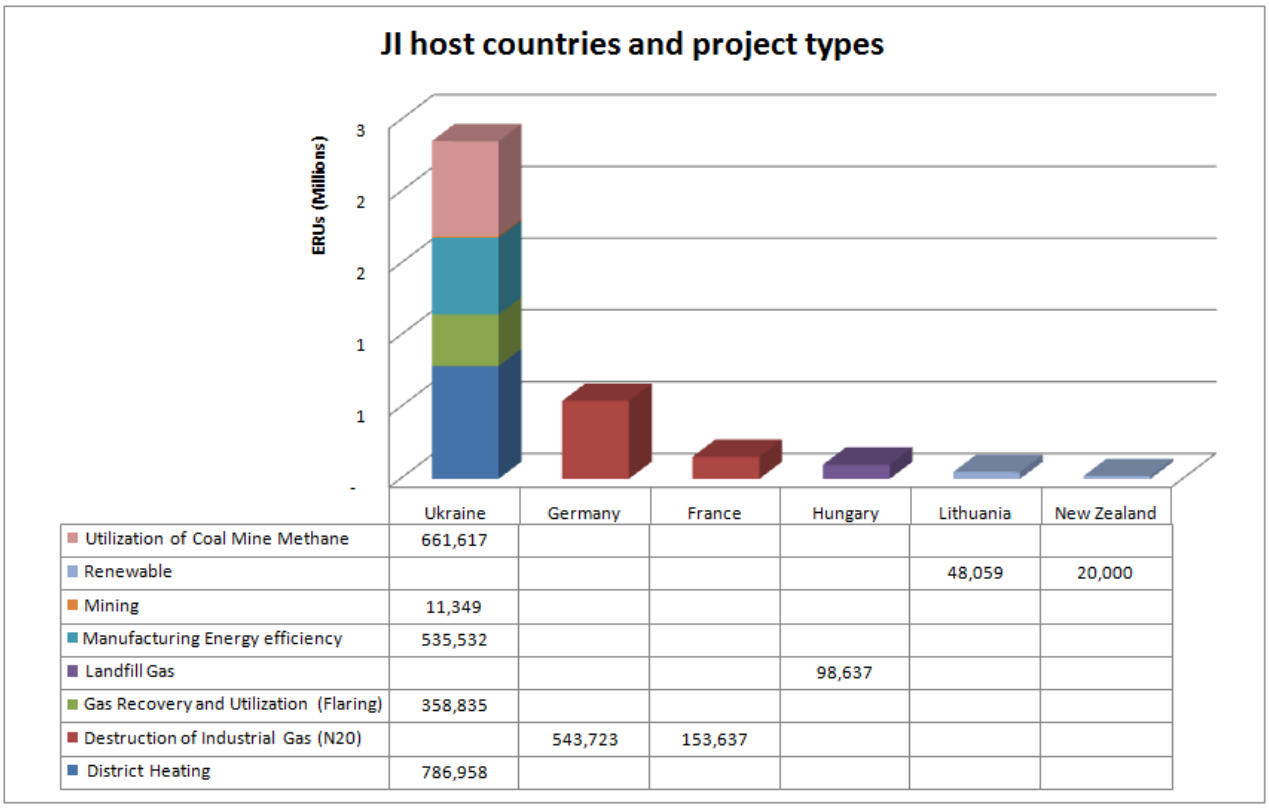


	Germany	Lithuania	Romania	France	Italy
Utilization of Coal Mine Methane	238,756	33,537	117,779	50,000	79,347
Renewable	10	8,000			
Manufacturing Energy efficiency	105,745				100,000
Gas Recovery and Utilization (Flaring)	68,256	27,213		100,000	
Destruction of Industrial Gas (N20)	205,723	23,317	104,040	153,637	
District Heating	52,500	369,570	106,665		108,501

2. Top supplying countries

Just as the buying of ERUs is not evenly distributed, neither is the origin of these credits. In 2009 76% of all ERUs used for compliance came from outside the EU (Ukraine and New Zealand) with the remaining 26% originating from EU countries.

Chart 5 illustrates the origin and type of ERU used for compliance in the EU ETS in 2009



	Ukraine	Germany	France	Hungary	Lithuania	New Zealand
Utilization of Coal Mine Methane	661,617					
Renewable					48,059	20,000
Mining	11,349					
Manufacturing Energy efficiency	535,532					
Landfill Gas				98,637		
Gas Recovery and Utilization (Flaring)	358,835					
Destruction of Industrial Gas (N20)		543,723	153,637			
District Heating	786,958					

Chart 6 shows the host country origin of ERUs surrendered into the EU ETS in 2009

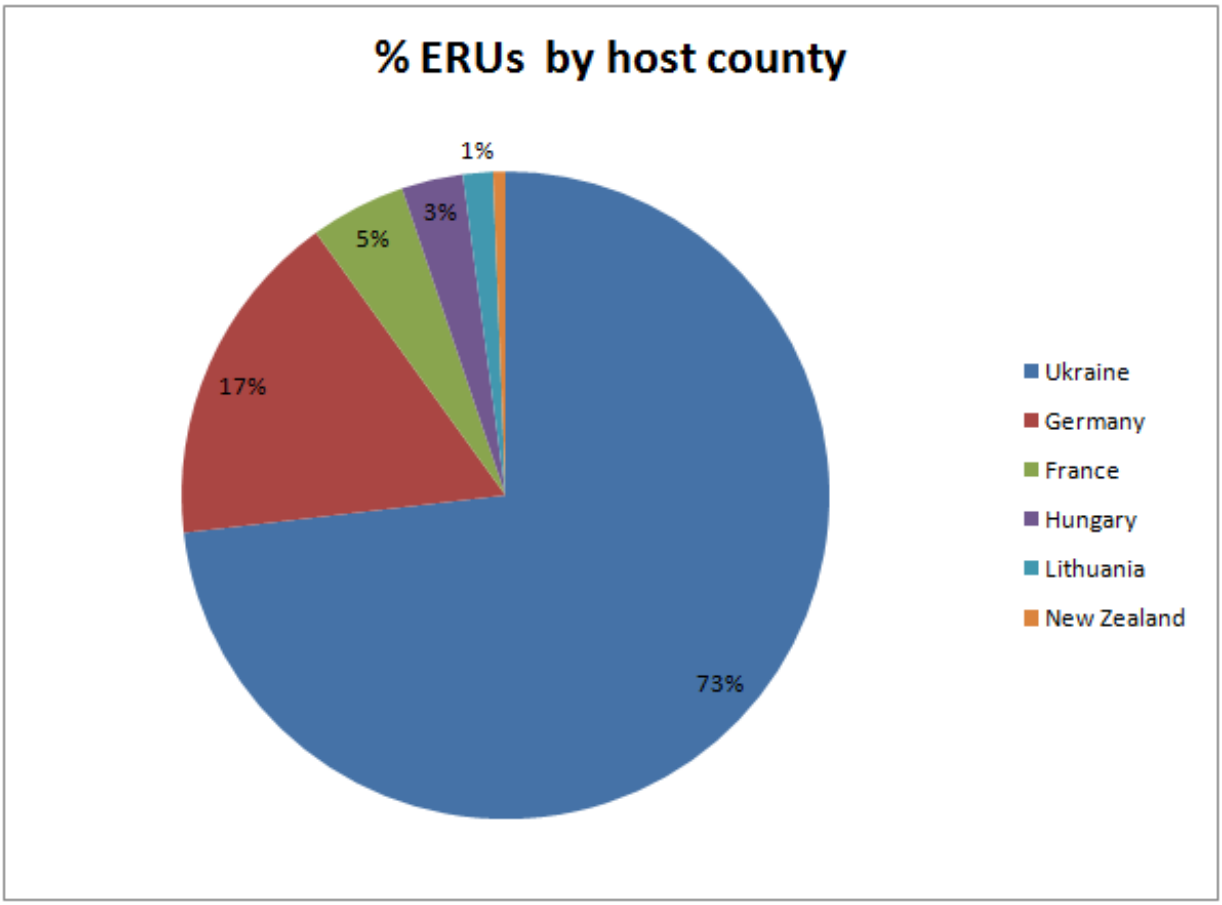


Chart 5 breaks down the ERUs surrendered in the ETS in 2009 according to host country and project type. Chart 6 gives this host country breakdown as a percentage figure. 73% of all ERUs entering the EU ETS in 2009 originated from the Ukraine. German and France, with 17% and 5% respectively are the second and third biggest supplier of ERUs. This may come as a surprise to many who assume international offsets only originate from non-EU countries.

3. Joint implementation and Community offsets

Offsetting offers installations a cost effective way of complying with emissions trading regulations. However, as Europe has been suffering an economic downturn the need for offsetting is considerably reduced. Indeed in our latest report into the ETS 'Cap or Trap' we question whether the EU is in danger of using offsetting provisions too much, to the detriment of low carbon solutions domestically. This is important since uncapped countries expect capped countries to lead by example in decarbonising their own economies, not to just import solutions form elsewhere – no matter how welcome the income generated from offsetting might be. Having money flow out of the Union, often to competing industries and sectors, can also exacerbate concerns about Europe's competitiveness. This report has shown that it is possible to use the JI mechanism to deliver offsets from within the EU.

Germany and France already appear to be making use of the JI mechanism, as rules set out in the Emissions Trading and Linking Directives, to enable capped companies in their countries to access credits from their own community offset projects. This enables offsetting to take place using projects in uncapped sectors in the same country and even within the same company.

For example as shown in Chart 7, all French ERUs were surrendered by the Rhodia installation 'CEVCO Plateforme chimique de Pont de Claix' in France. These French ERUs originated from two JI project[10] both located in fellow Rhodia installations a mere 330km away. This is the clearest example yet that JI projects can be used as a form of community offsetting. The fact that these ERUs were both originated and then surrendered by the same company illustrates how companies can make use of the flexibilities inherent in the system to maximise their efficiency and protect their competitiveness.

This flexible use of trading is something that the EU may wish to actively encourage and explore further since in a time of recession it makes sense for the EU to prioritise inward investment, particularly where it improves efficiency and help develop a low carbon economy. Current rules do not enable a distinction between EU and non-EU offset credits, however, this could be changed post 2012 when, depending on how international negotiations proceed, the EU may be faced with reinventing its own offsetting rules and mechanisms.

Opportunistic use of industrial gas projects

The only two sources of domestic credits used so far, however, involve the destruction of industrial gases, specifically N2O. There are concerns that N2O projects, specifically those dealing with the destruction of adipic acid, share many of the same controversial traits as HFC destruction projects, including: low technological investment, low abatement costs and high yields of highly profitable credits, a limited number of plant owners. There is the genuine worry that we are paying over the odds for an emissions reduction which could be done far more cost effectively through another means of regulation. It is likely that credits from N2O projects will face similar quality restrictions as HFC credits. Such a limitation would also affect JI credits regardless if they are originated at home or abroad. Whatever happens to quality criteria, the opportunity to use EU N2O credits will be short-lived since these projects will no longer be able to generate credits for use in the EU ETS as they will be entering the scheme as the scope of the Trading Directive is expanded to include N20.[11]

[10] JI project id's FR1000029 and FR1000049

[11] European Commission, *Questions and Answers on the Commission's proposal to revise the EU Emissions Trading System*, Available at: http://europa.eu/rapid/pressReleasesAction.do?reference=MEMO/08/35

Double counting risks

There is a fear that JI projects developed in the EU could lead to double counting of emissions reductions. If the JI project is in a sector covered by the ETS, such as renewable electricity or energy efficiency, it could create slack in the ETS in that it would create saving that would free up EUAs. EUAs equal to the saving made must therefore be cancelled rather than traded. Some Member States, such as Romania's, have in their National Allocation Plan (NAP) created a JI reserve which compromises of EUAs which will be cancelled as and when JI project come online and make savings in ETS sectors.[12]

A risk of double counting also arises if Member States lay claim to emissions reductions achieved domestically whilst the actual emissions benefit of the projects, represented by the ERU credits, are traded away.

Labelling of offsets

The ETS is supposed to incentivise both domestic abatement in capped sectors and to allow limited offsetting. The balance between these is important if the EU wants to avoid locking itself into a high carbon future. Limits on offsetting must therefore be applied to preserve an investment incentive in the capped sectors.

At the moment JI credits like CDM credits are clearly labelled and the cap on their use is therefore easily policed. In the future if the EU were to make greater use of community offsets within the ETS it would need to continue to label them as such in order to ensure that limits on their use can be enforced. If community projects were to generate EUAs rather than ERUs it would become impossible to maintain a price incentive in the capped sectors as the use of offsetting would essentially become limitless.

[12] Romania's National Allocation Plan (NAP), Available at: http://ec.europa.eu/environment/climat/pdf/nap_romania_final.pdf

Chart 7 breaks down ERUs surrendered by French installation in 2009 according to host country origin and project type.

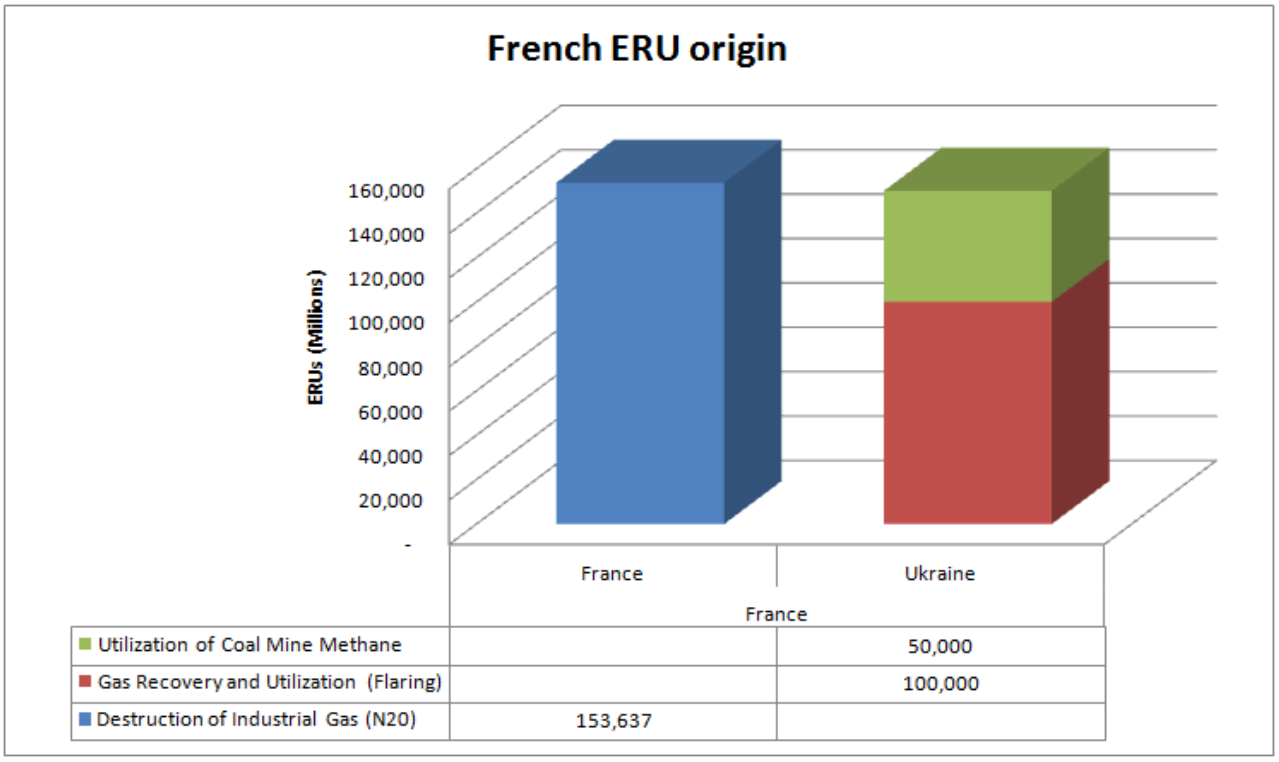
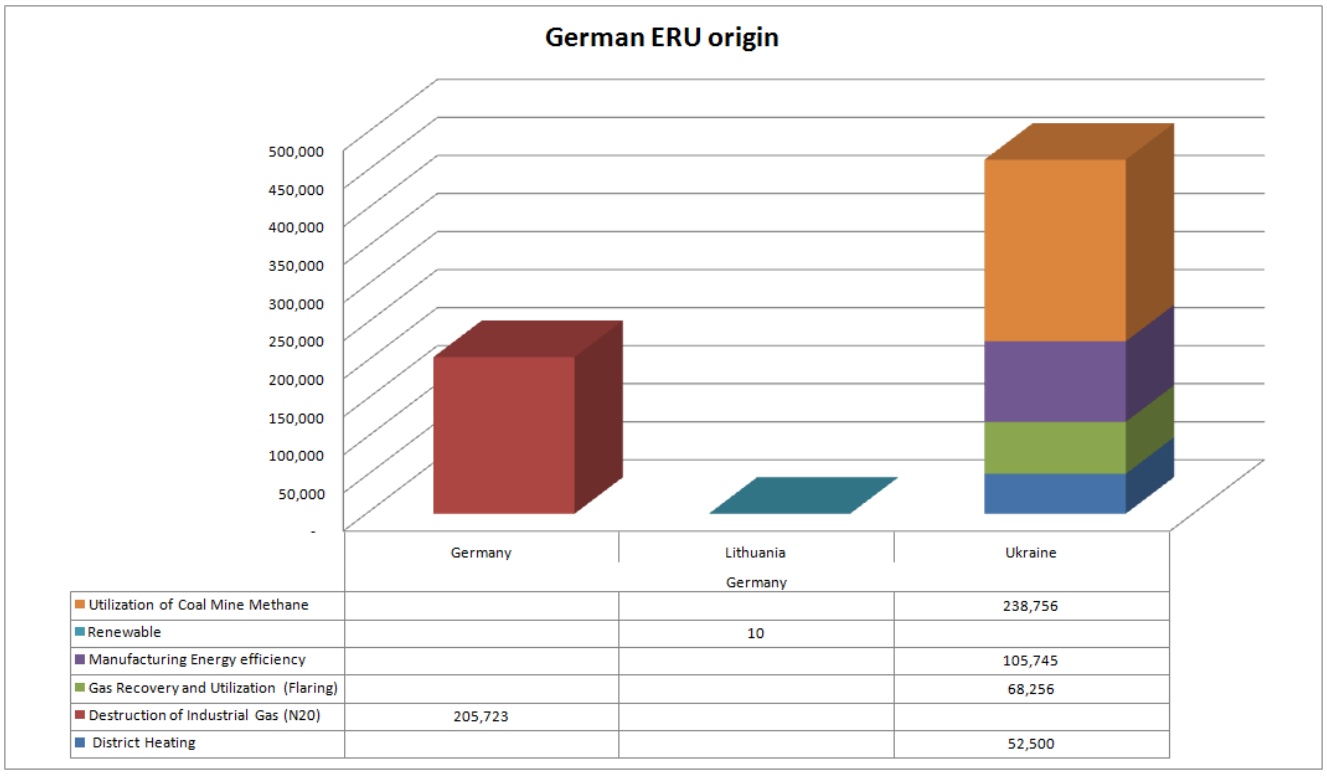


Chart 8 breaks down ERUs surrendered by German installations in 2009 according to host country origin and project type.



Different Member State approaches to JI

While a couple of companies in Germany and France are clearly making full use of the flexibilities inherent in the ETS not all EU Member States allow JI projects to be developed at home. There are a number of different reasons for this, which often relate to the fact that to generate ERUs the host country must in return surrender their AAUs. The UK Government for example is committed to cancelling spare AAUs from non ETS sectors, swapping them for ERUs to be sold on by private companies could therefore be environmentally counterproductive. Similarly the Dutch government has ruled that converting its AAUs into ERUs via that JI would be counter-productive as it would not help them reach their Kyoto targets.

Some other countries have taken a hybrid approach. Finland, for example, has approved three N2O JI projects of which only a portion of the credits will be issued. Emissions reductions arising from these JI projects will help the state in meeting its targets stipulated under the Kyoto Protocol and so, to maintain some of the benefit, the project credits has been split between project and state. Meaning that only a portion of the credits are issued for sale into emissions trading schemes while the remainder are kept for the state to use as compliance with Kyoto. The resulting benefit for the state has been estimated as some 2 million tonnes of CO2-equivalent compared to the situation without the investment. Counsellor Harri Laurikka from the Finnish Ministry of Environment explains:

> "*This is an innovative way to provide incentives for private companies to reveal and utilise cost-efficient emission reduction options beyond the existing legislation. The benefits for reduced emissions are shared between the State and private companies*".[13]

On the other hand many of the Eastern European Member States have large surpluses of AAUs due to their historical circumstances. Many of these countries also have a greater need to update their energy infrastructure to become less carbon intensive and more efficient. The expansion of JI among these countries could be a welcome move if projects are genuinely additional and encourage inward investment in the EU during a time of economic difficulty. That said other policies could also achieve this outcome and the EU should conduct an assessment of the various options.

[13] Finish Ministry of the Environment, *Finland's greenhouse gas emissions decrease through three joint implementation projects*, Available at: http://www.ymparisto.fi/default.asp?contentid=361867&lan=en&clan=en

4. Observations and Recommendations

The Future of JI in the EU?

The EU ETS covers a wide range of sectors including power generation, metal and cement production. The question is: which of the remaining non EU ETS sectors could benefit from JI project being implemented. This is best answered by looking at those section not covered by the scheme, these include CO2 from emissions from aluminium and N2O production, agriculture, coal mine methane, waste, heating of buildings, transport and forestry. It must then be decided how best the emissions from these sectors will be most effectively dealt with, through which policy. Some will be dealt with most effectively directly through the ETS such as emissions from aluminium and N2O production, which through sectoral scope expansion will be included in the scheme from 2013. Others must be covered through other policy options, in this instance Joint implementation could offer a solution. Whilst there are issues associated with baseline and credit trading mechanisms that would need to be addressed, allowing market forces to seek out and commercialise the most cost effective solutions has advantages – not least facillitating more targeted regulation at a later date if needed.

Like the other mechanisms of the Kyoto Protocol, the future of JI is currently uncertain and it is not yet clear if JI would still function without an extension of the Kyoto Protocol. The EU ETS, as the most extensive legally binding emissions trading system currently operating in the world, currently creates the largest market for Kyoto credits. The EU is also one of few regions who have accepted caps on its emissions which it will continue even in the absence of a legally binding international agreement requiring other countries to do the same.

It is possible that no future binding commitments will be secured before the end of the first Kyoto compliance period at the end of 2012, in which case JI may no longer exist. The EU's ETS will therefore effectively set the rules for international emissions trading until a successor commitment is agreed. Other countries active in the international emissions trading market may similarly set up their own systems to ensure offsetting continues to play a role in their domestic climate policies. The EU has prepared itself for such an eventuality and has set out in the 2009 revision of the EU ETS Directive the possibility to develop community offset projects independent of the Kyoto Protocol process. Article 24a states:

> *Implementing measures for issuing allowances or credits in respect of projects administered by Member States that reduce greenhouse gas emissions not covered by the Community scheme may be adopted.*[14]

Where the Commission has retained the possibility to develop community offset projects in the future little is understood about in what form they would take or what type of credits they would generate. Activating this clause in the directive would require the implementation of provisions trough a commitology process. Naturally any development of community offsetting would need to be labelled as such and measures taken to ensure that no double-counting was taking place and there were no conflicts with existing policy measures to reduce emissions in non ETS sectors.

[14] EU ETS Directive, *Article 24a paragraph 1*, Available at: http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CONSLEG:2003L0087:20090625:EN:HTML

Protecting EU's competitiveness

In its recent communication regarding the EU's potential move towards a 30% reduction target for 2020 the EU referred to the reforms it would like to see in the current emissions trading mechanisms. Key amongst these were changes to the type of offsetting credits that would be accepted which could rule out credits from some industrial gas projects and projects in directly competing internationally traded sectors. The EU has a clear preference is for sectoral trading schemes to be created. These would help to level the playing field of competing sectors whilst still taking into account historic responsibilities.

In the context of domestic EU policy helping to drive the carbon market of the future, it seems likely that the EU would wish to continue to recognise projects in previously capped countries, preferably only where there is no competitive disadvantage to the EU in doing so.

The fact that the Ukraine is the biggest source of JI credits to date gives rise to a number of concerns, firstly, the dominance of the Ukraine highlights the fact that bordering EU Member States are losing out in an investment opportunity and potentially seeing their competitiveness undermined. A sizeable number of permits have been generated from projects to improve manufacturing efficiency. It would make sense for those same neighbouring States to seek to maximise their own involvement in JI to fund their shift to a lower carbon economy. Thereby helping the EU to meet its self imposed targets through domestic investment in uncapped sectors. This would circulate more of the revenues internally helping to counter claims that the ETS inappropriately disadvantages Europe by helping to boost innovation and efficiency.

In September 2010 the European Commission announced that 'no EU money should flow to the Ukraine's state programmes for the Environment unless the government opens up to input from civil society'[15]. Though referring more broadly to the process being used to determine the Ukraine's energy and environment strategy the statement should also apply to the effective subsidy the EU is providing the Ukraine via its JI projects.

Harnessing the market

Using the market more to fund domestic EU abatement could shift the burden away from taxpayers, who may be currently funding energy efficiency and low carbon subsidies, towards the polluters who would be financing projects. Obviously they are likely to pass costs on but by internalising the costs in energy bills it acts as a further incentive to increase efficiency. By harnessing the market in this way Governments avoid having to 'pick winners' which may turn out to be the wrong or less cost efficient options allowing commercial companies to find and commercialise the least cost solutions.

While the EU is struggling to secure investment that will stimulate its own low carbon economy it allows for vast sums of money to subsidise dubious carbon reduction projects in uncapped countries in return for carbon credits. Between 2008 and 2009 EU installations spent over €1.3[16] billion on HFC CERs originating in fewer than 18 CDM project. The question is could this money could have been spent more effectively within Europe via the JI? Without doubt the prospect of keeping funds flowing within the EU is appealing, especially when it would help develop Europe's low carbon technology as well as uncovering low cost emissions reductions from non-ETS sectors. However, redirecting the cash towards Europe could potentially conflict with Europe's international commitments under the Copenhagen accord of contributing towards the $100bn in climate finance pledged to developing countries. Where many organisations wish to see these commitments come

[15] Pop. V, 24th Sept 2010, Ukraine's environment strategy worrying Brussels, Available at: http://euobserver.com/9/30887/?rk=1
[16] Assuming a €13 CER price

from public funds alone it is very unlikely that this could be met without the assistance of the markets.

The question of the quality of offset projects in the JI needs also to be addressed and clear policies introduced to guarantee civil society scrutiny and to ensure that both Track 1 and Track 2 projects are genuinely additional and contributing to broader sustainable development objectives.

Community offsetting or extended scope of the ETS?

One of the concerns over stepping up to a higher emissions reduction target in Europe is that more ambitious targets will be harder to meet in uncapped sectors where companies lack access to the flexibilities created by international emissions trading mechanisms. Use of community offsetting provides only a mechanism by which uncapped sectors can sell their emissions reductions, they do not have access to offsetting themselves to help meet targets.

An alternative way for Europe to meet its emissions reduction targets cost effectively and efficiently would be to expand the scope of the existing trading scheme further to include emissions from transport and heating fuel distribution. This could be relatively easily achieved by attributing the emissions arising from fossil fuels sold into these markets to the distributors of the fuels.

Just as in the electricity sector caps would need to be set to take into account expected savings from climate policies that seek to for example improve vehicle and building efficiency, and decarbonise energy supplies. Including these sectors would internalise a price for carbon, creating a price incentive to innovate, where currently the JI provides only a very weak and poorly understood one. These sectors would then also enjoy, as capped sectors currently do, limited access to offsetting to meet their targets. This option should be investigated by the EU as a cost efficient way of reducing the risk of moving to a 30% reduction target for 2020.

Member States are free to opt in new sectors to the scheme and could choose to use such a policy mechanism to help meet their emissions reductions commitments. To avoid intra-EU competitive distortions, however, it would be more sensible to proceed on an EU wide basis.

Recommendations

The EU should take on more ambitious emissions reduction targets and caps under the ETS for 2020. In doing so it should explore the options for expanded use of flexible traded mechanisms in the EU, including through the JI. This could in part compensate for policy decisions that will potentially limit the supply of credits to the market through for example tighter quality controls being applied to CDM credits.

Specifically we recommend that the EU should:

- **Facilitate a debate to develop a clearer policy on the role of JI and community offsetting post 2012 and issue guidance to Member States on how best to make use of it to help meet their targets under Kyoto and the ETS. The Finnish example is one that it could usefully be recommended to others.**
- **Tighten the overall volume of offsets allowed and introduce tighter quality controls for offsetting, applied to JI as well as to CDM credits.**
- **Draw up options for encouraging more domestic EU abatement to meet enhanced targets in uncapped sectors. This should assess both the option of promoting greater use of EU based JI or community offset equivalent and also the potential to extend the scope of the ETS to cover these sectors.**
- **Ensure that all future use of community offsetting is clearly labelled as such, is subject to civil society scrutiny and meets the highest environmental and social standards.**

ANNEX I

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.

Other things we do:

Sandbag is the NGO leading in research-led campaigning for effective emissions trading. Our informed reports, briefing papers, consultation responses and workshops have reached and influenced European policymakers at the highest levels and been widely reported in the European and international press.

Sandbag can provide your organisation with:

- **Commissioned reports:** our reports combine rigorous research with clear and targeted messaging.
- **Research and data analysis:** Sandbag has extensive experience analysing the key EU ETS data, and has developed some unique tools (such as our offset and emissions trading maps) to make these more transparent. Sandbag has also developed extensive profiles of specific sectors, companies and countries within the scheme.
- **Workshops:** We have provided workshops to MEPs and UNFCCC delegates on such topics as offset reform, carbon leakage, ETS reform, and sectoral trading.

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