

Hydro CERs and the EU ETS 2009



September 2010

Contents

About Sandbag Climate Campaign	3
Hydro CERs and EU ETS	4
Member State analysis	5
Sectoral Analysis	6
Host Country Analysis	6
Understanding Offset Origins	7
Annex	9
Other Things We Do	11

Report authors: Rob Elsworth

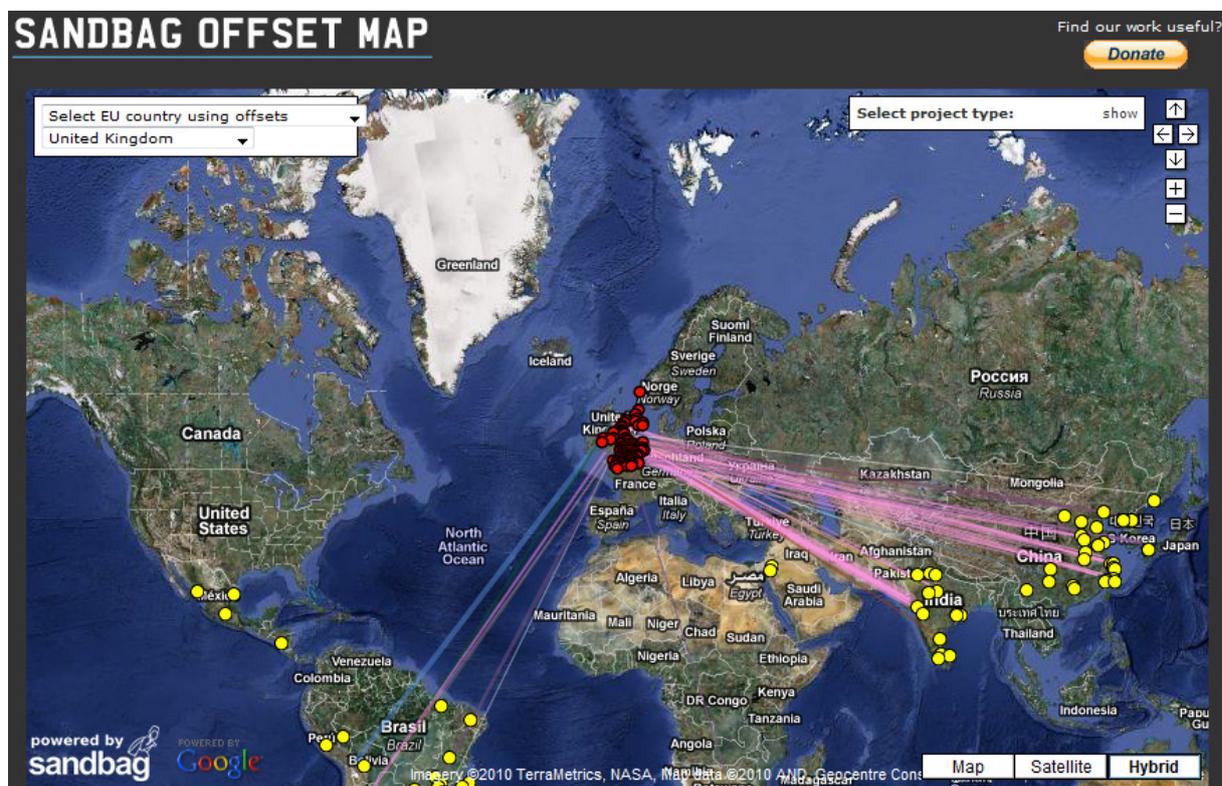
Sandbag Climate Campaign is a not-for-profit enterprise and is registered as a Community Interest Company under UK Company Law. Co. No. 671 4443

About Sandbag Climate Campaign

Sandbag Climate Campaign 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 aim is educate and inform civil society about emissions trading policy, to scrutinise how it is working on the ground and to lobby for improvements. 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.

Sandbag bases all its data analysis on publically available information taken from the UNFCCC¹ and the EU community independent transaction log (CITL)² websites. Data is made available at installation, sector and country level. Through our own research we have also made further more detailed sectoral distinctions as well as adding company level information.

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. All the information required to determine the origin of offsets being surrendered into the EU ETS is publically available. Sandbag has combined this information and formed a unique dataset, furthermore, it has been integrated into an interactive map to bring transparency and accessibility to the issue of emissions trading. Access this map at www.sandbag.org.uk/offsetmap



¹ UNFCCC, Available at: <http://www.unfccc.int>

² European Commission, Available at: <http://ec.europa.eu/environment/ets/>

Hydro CERs and EU ETS

Introduction

The UNFCCC separates CDM and joint implementation (JI) project credits into 15 sectoral scope types. These sectoral scopes broadly differentiate the different project types, however, they do not always provide the most useful definitions, for example renewable and non-renewable project are included under the same sectoral type. For this reason Sandbag has further broken down the UN definitions into more detailed project types. This makes it clear what type of emissions reductions credits are entering the EU ETS and also makes the data more accessible for the lay person.

Chart 1 shows the full breakdown of CERs used for compliance in the EU ETS in 2009. The use of offset credits is overwhelmingly dominated by CERs originating from industrial gas projects (HFC and N₂O), nevertheless, credits from hydro projects are present.

In 2009 a total of 78.3 million CERs were surrendered for compliance in the EU ETS, 3% of that total came from hydroelectric projects (2% large and 1% small).

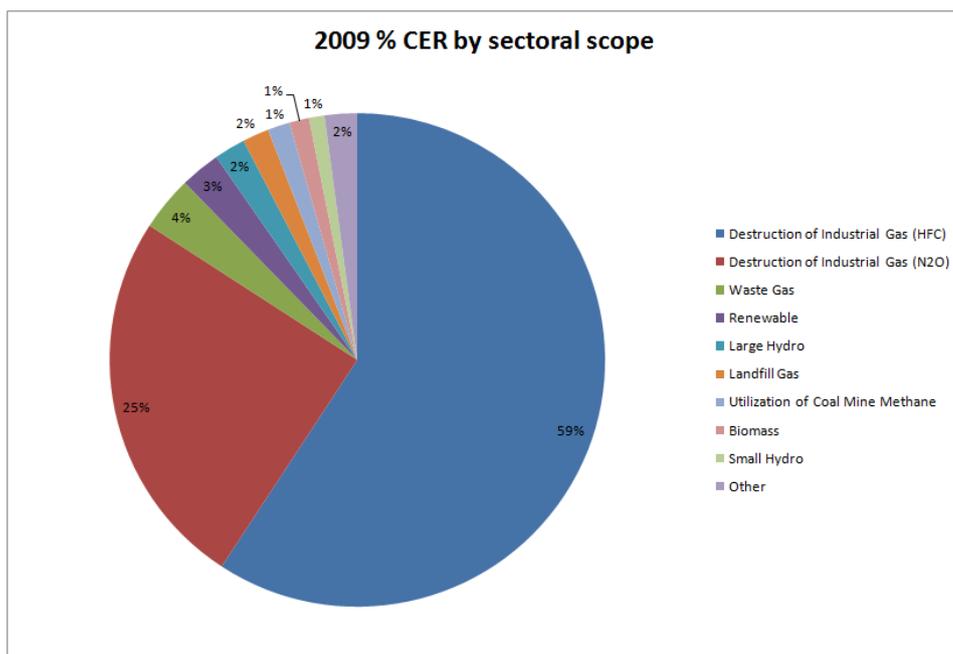
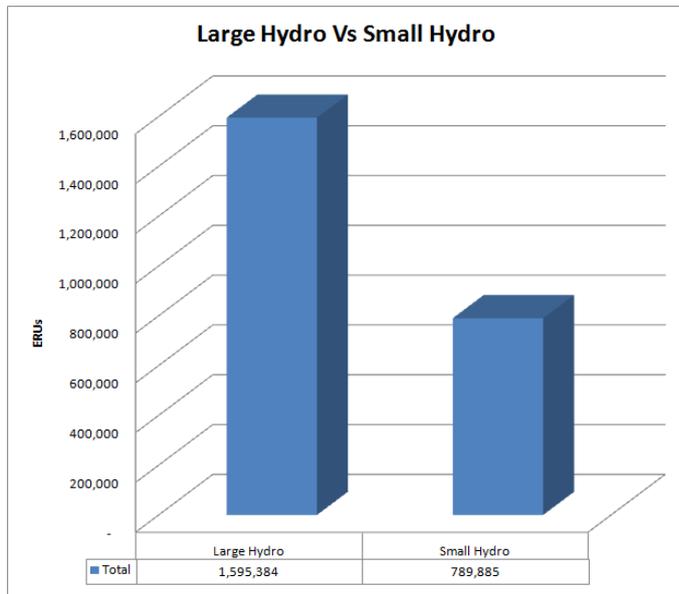


Chart 1

Sandbag has made the distinction between 'large' and 'small' hydroelectric projects. This distinction is based on the additional quality criteria hydro credits are subjected to as stipulated in Article 11b paragraph 6 of the EU ETS directive which states:

In the case of hydroelectric power production project activities with a generating capacity exceeding 20 MW, Member States shall, when approving such project activities, ensure that relevant international criteria and guidelines, including those contained in the World Commission on Dams November 2000 Report 'Dams and Development — A New Framework for Decision-Making', will be respected during the development of such project activities³.

³ <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CONSLEG:2003L0087:20090625:EN:HTML>



In 2009 a total of 2.3 million hydro CERs were used for compliance in the EU ETS. Chart 2 shows the breakdown of these credits between large and small, with the majority of CERs originating from large hydro CDM projects.

Chart 2

EU Member State Analysis

The use of offset credits varies dramatically among EU Member States. Chart 3 breaks down the use of large and small hydro CERs in 2009 according to Member State. A full breakdown can be found in Table 1 in the Annex. German installations surrendered 28% of all hydro CERs in 2009, followed by Spain, the UK and France with 24%, 14% and 8% respectively.

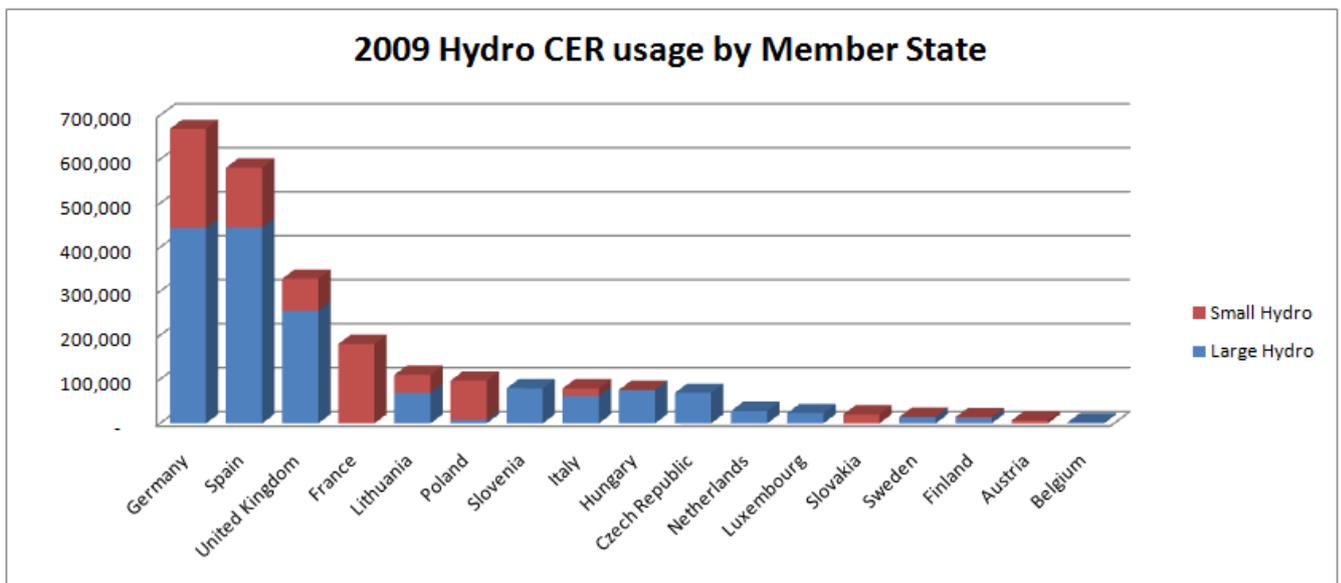


Chart 3

Sectoral analysis

The EU ETS breaks participants down into 10 distinct sectors, Chart 4 breaks down the usage of hydro CERs in 2009 according to which EU sector surrendered them.

CITL sector 1 ‘Combustion Installations’, which covers power generators, surrendered the overwhelming majority of hydro CERs in 2009. This is unsurprising given that this sector is the only one facing large deficits in the number of allowances they have been given.

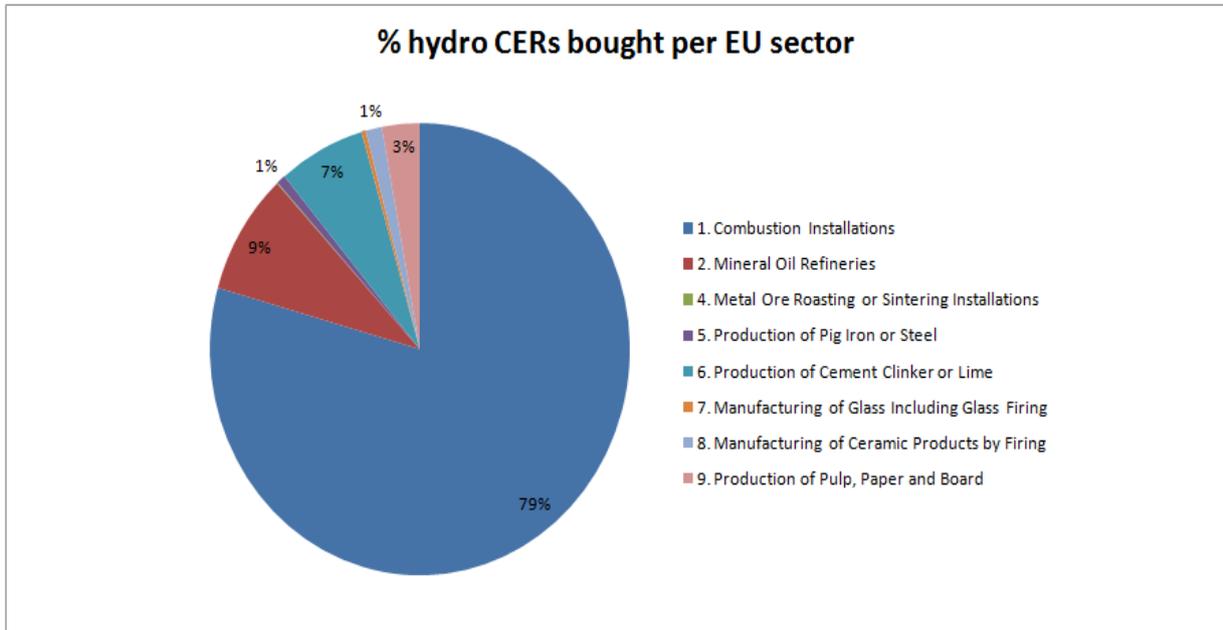


Chart 4

Host Country Analysis

Just as the number of countries using offset credits vary so do the number of countries generating them. Chart 5 breaks down the origin of hydro CERs surrendered into the EU ETS in 2009 according to host country and large and small project type. A full breakdown can be found in Table 2 of the Annex. China originated 70% of all hydro CERs surrendered into the EU ETS in 2009, followed by Brazil, Bolivia and India with 13%, 9% and 5% respectively.

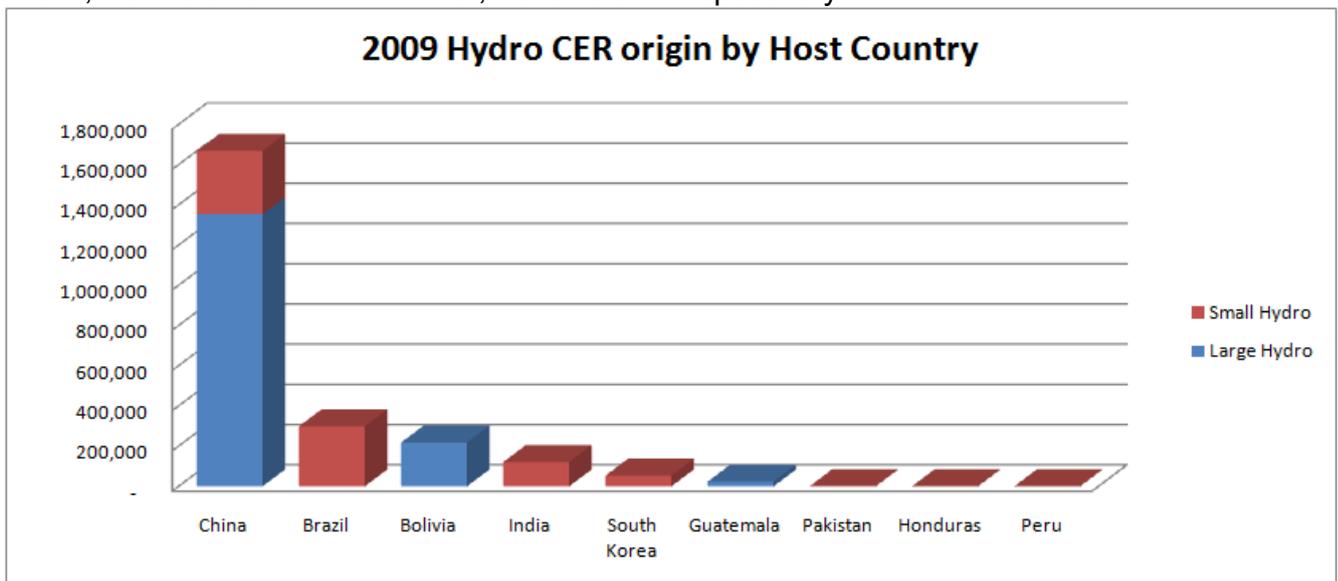


Chart 5

Understanding Offset Origins

As previously mentioned CERs from hydro project are already subject to additional quality criteria as set out in the ETS Directive. Sandbag has distinguished between large and small hydro projects, with 20MW being the existing threshold set for 'large hydro'. This distinction is still relatively broad and the analysis can easily be further refined to pick out more detailed information which will help differentiate the project credits eligible for compliance in the EU ETS.

Gold Standard Hydro

In 2009 a lone hydro Gold Standard project saw 907 of its CERs surrendered for compliance into the EU ETS. The 'La Esperanza Hydroelectric'⁴ CDM Project⁵ is a 13.8 MW small hydro project in Honduras. It was developed in line with additional quality criteria set by the Gold Standard accreditation process. This additional criteria guarantees 'the emissions reductions that back up carbon credits are not only real and verifiable, but that the project activities make a measureable impact on sustainable and social development in local communities'.⁶ The La Esperanza Hydroelectric project is pictured on the front cover of this report and shows the scale of the project in question. The table below shows the breakdown of who in the ETS surrendered these gold standard credits.

Country	Installation	Company	No. CERs 2009
Finland	Hämeenlinnan tehtaat	Ruukki	457
Sweden	Rya Kraftvärmeverk	Göteborg Energi	411
United Kingdom	Eggborough Power Station	EDF	38
Grand Total			906

Policy development in the EU

The debate about the quality of offset credits that can be used in the ETS is already underway with the European Commission expected to publish recommendations for introducing more stringent quality criteria well before the start of the next trading period in 2013. These will apply to offset usage in the ETS only. Separate policy decisions would need to be reached to limit credits used by EU countries for their Kyoto compliance.

Two issues are central to this debate – whether the credits represent good value for money for the EU and whether the emissions reductions credited are genuine, additional and contributing to meaningful sustainable development in the host country.

⁴ N.B The majority of the CERs from this project are retired by Atmosfair, the project developer, of behalf of their clients.

⁵ CDM Project id 9

⁶ <http://www.cdmgoldstandard.org/What-we-stand-for.66.0.html>

Some hydro projects can prove problematic in that in many countries they represent Business As Usual development patterns. In some cases they can also lead to very negative social and environmental impacts. Once built, however, they can also provide countries with a long lasting renewable source of reliable and low cost energy, with many advantages over alternative, fossil based development options.

It seems likely that in the future criteria based on size alone will not prove effective at distinguishing between 'good' and 'bad' hydro projects and the EU will need to develop its own comprehensive assessment criteria.

Table 1

Countries surrendering Hydro CERs

Country	Large Hydro	Small Hydro	Grand Total 2009
Austria		6,967	6,967
Belgium	2,673		2,673
Czech Republic	69,696		69,696
Finland	12,983	1,488	14,471
France		180,643	180,643
Germany	444,716	224,848	669,564
Hungary	76,001	241	76,242
Italy	62,697	17,030	79,727
Lithuania	70,000	40,422	110,422
Luxembourg	23,352		23,352
Netherlands	28,500		28,500
Poland	8,376	88,796	97,172
Slovakia		20,500	20,500
Slovenia	80,000		80,000
Spain	445,442	136,166	581,608
Sweden	14,475	411	14,886
United Kingdom	256,473	72,373	328,846
Grand Total 2009	1,595,384	789,885	2,385,269

Table 2

Countries generating Hydro CERs

Country	Large Hydro	Small Hydro	Grand Total 2009
Bolivia	217,997		217,997
Brazil		298,488	298,488
China	1,353,860	314,347	1,668,207
Guatemala	23,527		23,527
Honduras		906	906
India		120,890	120,890
Pakistan		1,500	1,500
Peru		394	394
South Korea		53,360	53,360
Grand Total 2009	1,595,384	789,885	2,385,269

Table 3

Overall breakdown of CER types surrendered in the ETS in 2009

Overall CER Types 2009	No. CERs 2009
Destruction of Industrial Gas (HFC)	46,354,160
Destruction of Industrial Gas (N2O)	19,522,526
Waste Gas	2,805,594
Renewable	2,043,199
Large Hydro	1,595,384
Landfill Gas	1,361,420
Utilization of Coal Mine Methane	1,130,609
Biomass	1,007,969
Small Hydro	789,885
Agriculture	578,526
Industrial Energy Efficiency	495,349
Manufacturing Energy Efficiency	253,706
Fuel Switch	209,493
Gas Recovery and Utilization	92,432
Metal Production	31,818
Transport	1,441
Grand Total	78,273,511

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.

For more information on our research consultancy services please contact info@sandbag.org.uk