

# The state of voluntary carbon offsetting in the FTSE 100.

18 April 2011.

# Executive summary.

This report examines the state of voluntary carbon offsetting in the FTSE 100.

Twenty one FTSE 100 companies offset; six of these claim to be carbon neutral.

Voluntary offsetting is confined to only three sectors: Financials, Consumer Discretionary and Consumer Staples.

Ninety percent of companies offsetting are non-carbon intensive, that is, have low carbon emissions per unit of revenue. This is perhaps because these companies can offset a significant proportion of their emissions at relatively low cost. They are also less likely to be covered by emissions regulation, so are more prone to 'self-regulating'.

Outliers are Unilever and Reckitt Benckiser, both of medium carbon intensity. However, both only offset a part of their operations.

Financials are leading the way with offsetting. Over 61% of FTSE 100 companies in this sector offset at least a portion of their emissions. In all but one year from 2005-2010 one FTSE 100 financial company has gone carbon neutral.

No offsetting is reported in the IT, Healthcare or Telecommunications sectors, all of which have low-carbon intensity. Lack of voluntary action from these companies, plus sectors with medium/high carbon intensity, means that only 0.1% of FTSE 100 carbon emissions are being voluntarily offset. High intensity firms are covered by regulation; medium intensity firms that are not could do more voluntarily.

If all non-carbon intensive companies went carbon neutral, offset volumes would increase by 39m tonnes. This represents only 1.4% of FTSE 100 emissions, but it would almost double the size of the global voluntary market.

Around half of companies report using third-party standards, and just under two thirds of credits are reported as verified. This is low given that 90% of all voluntary offsets transacted globally in 2009 were third-party verified, and indicates that the low figure may be due to non-disclosure rather than companies not purchasing verified offsets.

Motivations for voluntary offsetting are: enhancing corporate reputation, plugging the gap until new low carbon technologies become available, taking responsibility, and engaging stakeholders.

With this in mind, it seems odd that FTSE 100 companies are disclosing reasonably low levels of information about their offsetting, as information about offset standards and methods are important to the credibility of offset claims.

If the FTSE 100 companies are to make meaningful steps towards reducing their collective environmental impact, then:

- Non-carbon intensive sectors that do not currently use voluntary offsets (IT, Telecoms, Healthcare) need to follow the lead of the sectors that do (Financials, Consumer Discretionary, Consumer Staples).

- Voluntary offsetting, as well as ambitious emission reduction strategies, must begin to play a more substantial role amongst medium-high intensity companies.
- Offsets must be verified by a high quality third-party standard.
- Methods and standards must be clearly disclosed so claims can be assessed by stakeholders.

The report is based on publically available data regarding 2009-10, accessed February-April 2011.

# 1



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# Introduction.

This research examines the state of voluntary carbon offsetting by the largest 100 companies in the Financial Times and Stock Exchange Index (FTSE 100), and examines whether, how and why some of the UK's largest companies are offsetting their carbon emissions.

The research is concerned with the 'pure' voluntary carbon offsetting market only. It does not cover offsets bought for compliance with regulation, or the generation and sale of carbon offsets by FTSE 100 companies.<sup>1</sup>

This report focuses on FTSE 100 companies because:

- They have a considerable influence on climate change, in terms of their emissions, influence over government policy and ability to set global standards for responsible business practice.
- There is a relatively high rate of climate-related information disclosure among these companies. In 2010, 86 companies publically disclosed their carbon emissions<sup>2</sup> and 21 reported that they voluntarily purchased credits for carbon offsetting.
- They come from a wide cross-section of sectors, which enables an analysis of whether and how different sectors are taking up offsetting.

## What is voluntary carbon offsetting?

*A carbon offset is a reduction in or sequestration of emissions of carbon dioxide or other greenhouse gases, made in order to compensate for or to offset an emission made elsewhere.*

*Carbon offsets are usually measured in tonnes of carbon dioxide equivalent (tCO<sub>2</sub>e), a measure used to compare the impact of greenhouse gases based on their global warming potential (GWP). For example, the GWP of methane is 21 times greater than that of CO<sub>2</sub>.*

*Carbon offsets are either derived from projects such as tree-planting or renewable energy, or involve removing the right for an entity elsewhere to pollute, for example by removing pollution allowances from the EU Emission Trading Scheme.*

<sup>1</sup> Some companies purchase carbon offsets for compliance or sales purposes and motivations for this are very different; see glossary for more information on the "Compliance carbon market".

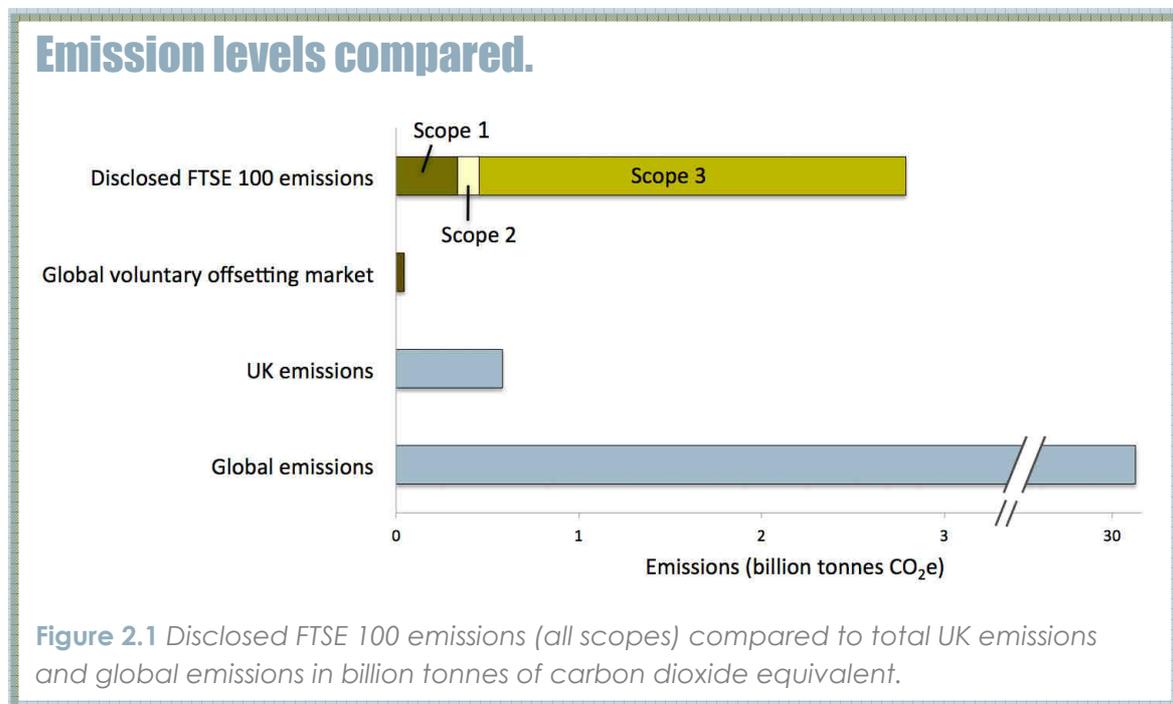
<sup>2</sup> 63 had public, complete data for scopes 1, 2 and 3. Of these, 26 had full independent verification, 20 were partially verified, and 17 were unverified. 23 had publically available but incomplete data. We define 'complete data for scopes 1, 2 and 3' to mean that a value is reported for each of the scopes. We define 'full verification' to mean that 80-100% of each of the scope 1, 2 and 3 emissions has been verified. Data were sourced from company websites and Carbon Disclosure Project (CDP) responses.

## Context

The global market for voluntary carbon offsetting is worth \$186m and represents 45 million tonnes of emissions. Europe represents approximately 41% of this market,<sup>3</sup> and the UK is thought to dominate the drive towards offsetting within Europe.

Compared to these figures, FTSE 100 emissions are vast:

- Scope 1 and 2 emissions from FTSE 100 companies (direct emissions and those from purchased energy) are equivalent to at least 78% of the UK's total emissions, and 2% of global emissions.<sup>4</sup>
- Add in scope 3 emissions - emissions associated with activities such as business travel, waste and supply chain - and the FTSE 100 emissions dwarf UK emissions and amount to at least 9% of global emissions.



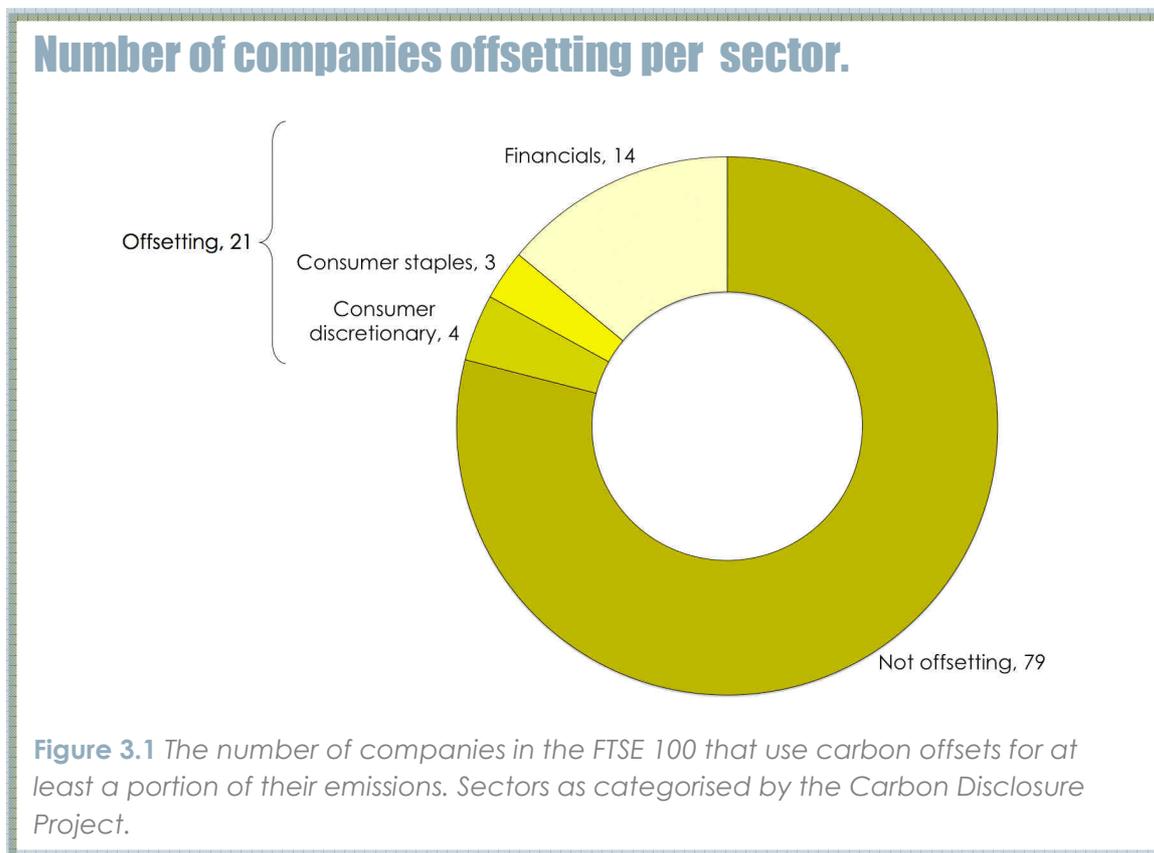
<sup>3</sup> *Building Bridges: State of the Voluntary Carbon Markets 2010*, Ecosystem Marketplace and Bloomberg New Energy Finance, June 2010. This figure refers to the volume of credits that are intended for retirement i.e. not for resale or compliance purposes.

<sup>4</sup> UK emissions in 2009 were 566 million tCO<sub>2</sub>e (source: Department for Energy and Climate Change Statistical Release [http://www.decc.gov.uk/assets/decc/Statistics/climate\\_change/1515-statrelease-ghg-emissions-31032011.pdf](http://www.decc.gov.uk/assets/decc/Statistics/climate_change/1515-statrelease-ghg-emissions-31032011.pdf)). The percentage equivalence to UK emissions is for comparison only; note that FTSE 100 companies often operate globally, and hence a large proportion of their emissions are likely to be outside of the UK. Global emissions in 2009 were at least 30.8 billion tCO<sub>2</sub>e (source: Friedlingstein, P. *et al.* (2010). Update on CO<sub>2</sub> emissions. *Nature Geoscience* **3**, 811-812. <http://www.nature.com/ngo/journal/v3/n12/full/ngo1022.html>).

# Who is offsetting?

## 21 FTSE 100 companies use voluntary carbon offsets.

Twenty one FTSE 100 companies voluntarily offset at least a portion of their emissions. All of these companies come from only three sectors: Financials, Consumer Discretionary and Consumer Staples (see figure 3.1).



The companies which purchase carbon offset credits to voluntarily offset at least a portion of their emissions are listed in figure 3.2.

Financials	Consumer Discretionary	Consumer Staples
3i	BSkyB	Imperial Tobacco
Aviva	Pearson	Reckitt Benckiser
Barclays	TUI Travel	Unilever
British Land	WPP	
Hammerson		
HSBC		
ICAP		
Investec		
Land Securities		
Man Group		
Old Mutual		
Royal Bank of Scotland		
RSA Insurance		
Standard Chartered		

**Figure 3.2** Companies which purchase carbon offset credits. NB This table does not include companies which sell or facilitate the sale of offsets to their staff and/or customers, unless the company also makes a financial contribution. BP and International Airlines Group are therefore not included.

## Six companies claim full carbon neutrality.

Only 11 of the 21 companies publically disclose the volume of carbon offsets purchased.<sup>5</sup> Six companies in the FTSE 100 are carbon neutral.

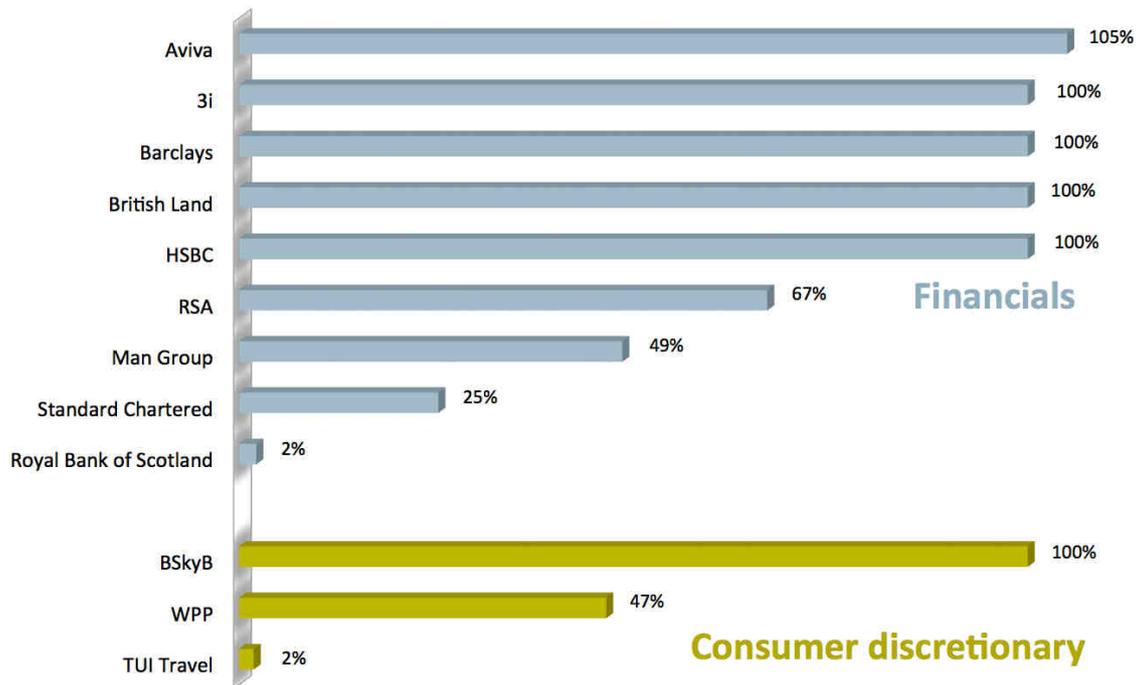
Figure 3.3 compares the percentage of scope 1, 2 and 3 emissions offset for the 14 (of 21) companies that both offset and either disclose the quantity purchased or claim carbon neutrality.

Of the companies that report their carbon footprint and the quantity of offsets purchased, six have disclosed or suggested that they purchased credits totalling 100% of their annual emissions or more. Aviva reports that it has a '5% margin of error' in emissions data,<sup>6</sup> so offsetting an extra 5% ensures the robustness of carbon neutrality claims.

<sup>5</sup> Where the remaining companies claimed to be carbon neutral (or in the case of Aviva, stated that they offset 105% of their emissions), we have inferred the volume of offsets purchased from their scope 1, 2 and 3 emissions data. In two cases (Barclays and British Land) companies disclosed the volume of offsets purchased and stated that they were carbon neutral, but the volume of offsets purchased was not equal to their total scope 1, 2 and 3 emissions from that company. In these cases we have inferred the volume purchased from the scope 1, 2 and 3 emissions and the carbon neutrality claim. Finally, where companies said that they offset but did not claim to be carbon neutral nor disclose the volume purchased, we have not inferred volumes purchased and hence they are not included in this section of the report. See the methodology for more information.

<sup>6</sup> Aviva Carbon Disclosure Project response, 2010.

## % of emissions offset by each company



**Figure 3.3** The percentage of total scope 1, 2 and 3 disclosed emissions offset by each company. NB Hammerson, ICAP, Imperial Tobacco, Investec, Land Securities, Pearson, Reckitt Benckiser and Unilever have all disclosed that they have purchased offsets but are not included in this graph because they have not publically disclosed the volume of offsets purchased.

## Offsets are almost exclusively used by non-carbon intensive companies.

Figure 3.4 shows the strong relationship between the carbon intensity of a company and the percentage of emissions offset by that company.<sup>7</sup>

<sup>7</sup> The following companies are not included in the chart as they have not disclosed the volume of offsets purchased: Unilever, Reckitt Benckiser, Hammerson, ICAP, Imperial Tobacco, Investec, Land Securities and Pearson. It is, however, possible to determine their carbon intensity. Unilever has a medium carbon intensity (2.7 tonnes per \$000 revenue) and purchases carbon offsets to make their subsidiary brand Ben and Jerry's carbon neutral. Reckitt Benckiser has a medium carbon intensity (2.0 tonnes per \$000 revenue) and purchases offsets to cover its manufacturing operations. Hammerson, ICAP, Imperial Tobacco, Investec, Land Securities and Pearson have very low carbon intensity: less than 0.1 tonnes/\$000 revenue.

## Carbon intensity related to % of emissions offset.



**Figure 3.4** Percentage of total scope 1, 2 and 3 emissions offset against carbon intensity (tonnes of CO<sub>2</sub>e per thousand \$ of revenue). NB Graph does not include either companies that do not disclose their emissions or companies that do offset but do not disclose the volume of offsets purchased.

Almost all companies that use offsetting are of low carbon intensity. All companies that are carbon neutral (i.e. 100% or above in figure 3.2) have low carbon intensity. There are two potential reasons for this:

- 1) Companies of low carbon intensity can offset a significant proportion of their emissions at relatively low cost; and
- 2) Companies with higher carbon intensity are more likely to be covered by regulation, such as the EU Emissions Trading Scheme, which regulates and reduces industrial emissions in Europe by making companies pay for the right to pollute; hence, they do not feel the need to participate in the voluntary carbon market as well.

Despite this clear pattern, not all non-carbon intensive companies in the FTSE 100 are offsetting (see companies circled in red on figure 3.4).

**There are 67 non-carbon intensive companies in the FTSE 100.<sup>8</sup> 48 of these companies are not offsetting.**

<sup>8</sup> Non-carbon intensive here means companies with less than 0.5 tonnes of emissions per \$1000 of revenue.

The total emissions of non-carbon intensive companies is 42m tonnes. Currently these companies only offset just less than 3m tonnes. If all non-carbon intensive companies went carbon neutral, offset volumes would increase by 39m tonnes.

This 39m still constitutes only 1.4% of FTSE 100 emissions, but if this amount were offset it would almost double the size of the global voluntary offsetting market.

No FTSE 100 companies in the low carbon intensity sectors of IT, Telecommunication Services and Healthcare currently report offset use.<sup>9</sup> Reasons for this may be that:

- These sectors are simply slow on the uptake. In Healthcare some companies have made future carbon neutral commitments, for example GlaxoSmithKline plans to become carbon neutral by 2050.<sup>10</sup>
- These companies are slow on the uptake (for their sector). For example there are an increasing number of carbon neutral IT and Telecommunications Services companies outside the FTSE 100, such as Google,<sup>11</sup> Atos Origin<sup>12</sup> and XLN Telecom.<sup>13</sup>

## Financials lead the way.

**61% of Financial companies in the FTSE 100 offset at least a portion of their emissions and five (3i, Aviva, Barclays, British Land, and HSBC) claim to be carbon neutral.**

Carbon offsetting and carbon neutrality are points of differentiation in many sectors. Amongst financial companies, in particular banks, it is a different picture: carbon offsetting has become a hygiene factor.

*"Carbon offsetting is not a solution to climate change by itself, but it is an important part of a package of measures."*

**Barclays, Climate Action Programme (2009)**

FTSE 100 financial sector firms have steadily been going carbon neutral at a rate of almost one per year since HSBC started the trend in 2005 (figure 3.5).

The knock-on effect among financial service providers across the FTSE 100 and beyond is evident: over 61% of all financial companies in the FTSE 100 now use carbon offsetting to take responsibility for at least a portion of their unavoidable emissions.

<sup>9</sup> There are relatively few companies in each of these sectors in the FTSE 100, only ten in the three sectors combined, so the sample size is too small to infer a great deal about the approach to offsetting in these sectors.

<sup>10</sup> GSK announced in March 2011 that they would be carbon neutral by 2050:

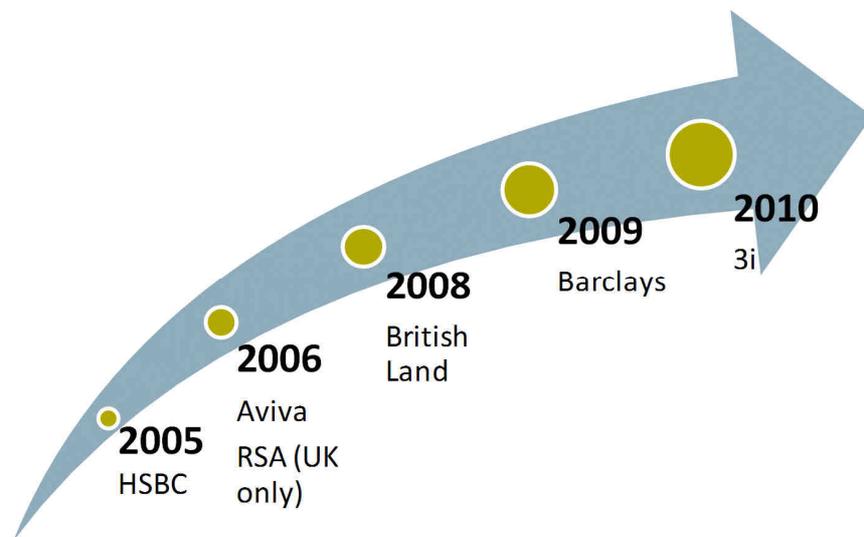
<http://www.gsk.com/media/pressreleases/2011/2011-pressrelease-381836.htm>

<sup>11</sup> <http://www.google.com/corporate/green/operations.html>

<sup>12</sup> [http://www.atosorigin.com/en-us/Newsroom/en-us/Press\\_Releases/2011/2011\\_03\\_09\\_01.htm](http://www.atosorigin.com/en-us/Newsroom/en-us/Press_Releases/2011/2011_03_09_01.htm)

<sup>13</sup> <http://www.carbonneutral.com/about-us/media-centre/press-releases/xln-telecom-achieves-carbonneutral-status/>

## FTSE 100 financial companies go carbon neutral.



**Figure 3.5** The year in which companies currently in the FTSE 100 first went carbon neutral.

Of the financial companies that do not offset, over half (five of the nine) are in the insurance industry. Insurance, however, is ahead of other industries in reporting and verification: all insurance firms in the FTSE 100 report into CDP and over half have all of their emissions reporting independently verified.

Aviva and RSA are both carbon neutral; it may be that this is the next industry to embark on wholesale take up of carbon offsetting. Just as in 2004, when HSBC claimed that it would be the first major bank to go carbon neutral,<sup>14</sup> insurance companies are in a race to make similar claims. In 2006 RSA claimed to be the UK's "first carbon neutral insurer"<sup>15</sup> and Aviva have been the first to achieve global carbon neutral status.<sup>16</sup>

*"Aviva was the first insurance company in the world to be carbon-neutral across its worldwide operations. We reached this milestone in 2006."*

**Aviva, CSR Report (2010)**

Why the proliferation of carbon offsetting in the financial sector in particular?

- We have already seen that the financial sector has low carbon intensity, so carbon neutrality can be achieved by a financial services firm at much lower cost than in more intensive sectors.
- Bloomberg New Energy Finance reveals that improved corporate reputation is the most significant benefit of offsetting.<sup>17</sup> High-street banks and insurance

<sup>14</sup> <http://www.hsbc.com/1/2/newsroom/news/2004/hsbc-worlds-first-major-bank-to-go-carbon-neutral>

<sup>15</sup> <http://www.rsagroup.com/rsa/pages/media/ukpressreleases?type=press&ref=530&view=true>. RSA have not offset international emissions and are therefore not included in figure 3.5 which deals with fully carbon neutral firms in the financial sector.

<sup>16</sup> <http://www.aviva.com/reports/cr10/climate-change-environment/controlling-impacts/carbon-offsetting.html/>

companies have a strong public presence, and reputation is important for securing and retaining customers in these sectors.

- Financial companies provide carbon trading services and financial support for large offsetting projects; institutions which responsibly manage their own carbon impact are more likely to win custom in these markets, and are best placed to utilise these markets for their own purposes.
- Insurance companies are very well placed to assess the potential impacts associated with climate change – and the long-term success of their businesses depends in no small part on avoiding those impacts.

## **Bigger emitters are not joining the party.**

The big question is whether companies with medium to high carbon intensities will follow the same trend.

The fact that only low carbon intensity businesses are offsetting a substantial proportion of their emissions has significant implications for global emission levels and therefore climate change. These companies are leading the way in terms of responsibility in the FTSE 100.

### **The volume of voluntary offsetting as a percentage of FTSE 100 emissions is pitifully low.**

Currently the total quantity of offsets reported or inferred<sup>18</sup> in the FTSE 100 is 2.8million tonnes, which is 0.1% of the total FTSE 100 carbon emissions for scopes 1, 2 and 3. If the FTSE 100 are to make meaningful steps towards reducing their collective environmental impact, then offsetting, as well as ambitious emission reduction strategies, must play a more substantial role.

There are a number of medium intensity companies that are neither offsetting nor covered by regulation. These companies come from the Consumer Discretionary sector and include Carnival and Intercontinental Hotels.

Such companies are therefore not taking part in either the voluntary or the compliance carbon markets. These firms would make a large impact by reducing emissions and looking carefully at their direct emissions, supply chain and consumer use of products to see what part offsetting could play.

Unilever and Reckitt Benckiser are taking the lead in this area, being medium intensity companies that do use offsetting, although they could also expand their use of offsetting.

- Unilever has an overall carbon intensity of 2.7 tCO<sub>2</sub>e/\$000 revenue. One of their brands, Ben and Jerry's has been carbon neutral since 2007.
- Reckitt Benckiser has an overall carbon intensity of 2.0 tCO<sub>2</sub>e/\$000 revenue. Their manufacture has been carbon neutral since 2006.

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<sup>17</sup> The business case for carbon offsetting – an independent analysis, Bloomberg New Energy Finance, June 2009

<sup>18</sup> Where companies did not disclose the volume of offsets purchased but claimed carbon neutrality, we have assumed that they have offset their total disclosed scope 1, 2 and 3 emissions.

## The FTSE 100 could wield power in the voluntary market.

The volume of voluntary carbon offsets purchased by the FTSE 100 amounts to 6% of the global market.

Actions taken by FTSE 100 firms to increase the quality of methods and standards used could therefore have a considerable impact, both because of their position as big, well-known brands and because a small number of companies purchase a significant volume of offsets relative to the market size.

# 4

## Offsetting methods and standards.

### Renewable energy projects provide the most popular offsets.

There are numerous methods of carbon offsetting. Traditionally carbon offsetting has involved purchasing credits generated by projects in developing countries or North America. These projects reduce or sequester emissions and can include anything from planting trees and protecting forests to energy efficiency and renewable energy projects.

More recently a new method of offsetting has been developed, called EUA retirement. This method (used by the authors of this report, Carbon Retirement) involves purchasing allowances (called EU Allowances or EUAs) needed by heavy industry in Europe, and permanently removing them from the emission trading system so they cannot be used.<sup>19</sup>

### Renewable energy projects generate the most popular credits; these are purchased by 12 of the 21 FTSE 100 companies.

Figure 4.1 shows that companies most commonly choose renewable energy credits; by volume, renewables represent 72% of offsets purchased by FTSE 100 companies.

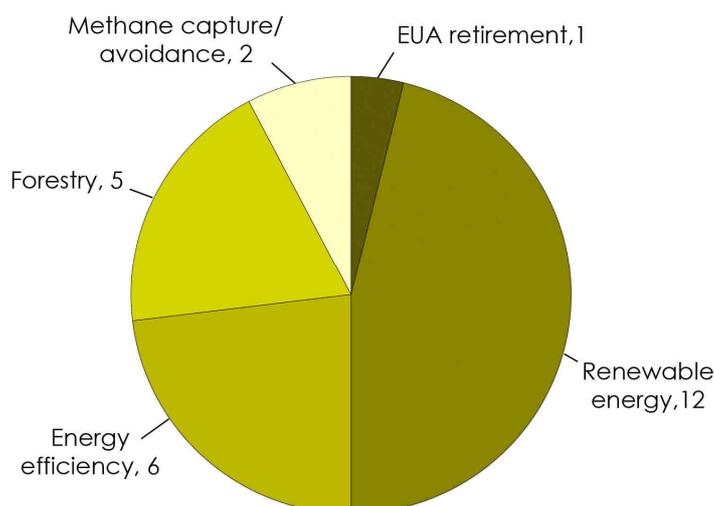
Of the 17 companies that disclosed the offset method:<sup>20</sup>

- Nine companies use a single offset method (3i, British Land, Imperial Tobacco, Man Group, Reckitt Benckiser, Royal Bank of Scotland, RSA, Standard Chartered and Unilever).
- Eight use a number of different methods (Aviva, Barclays, BSKyB, HSBC, Old Mutual, Pearson, TUI Travel and WPP), perhaps to reduce the risk of challenges regarding the nature of specific projects. For example, forestry and large hydro projects have long been criticised and, more recently, HFC-23 destruction projects have come under attack. Spreading offset purchases across different project types is one way of reducing the risk that problems will arise with a particular project type.

<sup>19</sup> For more information on different types of offsetting projects and on EUA retirement, including which companies use each method, see Appendix B.

<sup>20</sup> Four companies do not disclose the method or methods that they use (Hammerson, ICAP, Investec and Land Securities).

## Offsetting methods used.



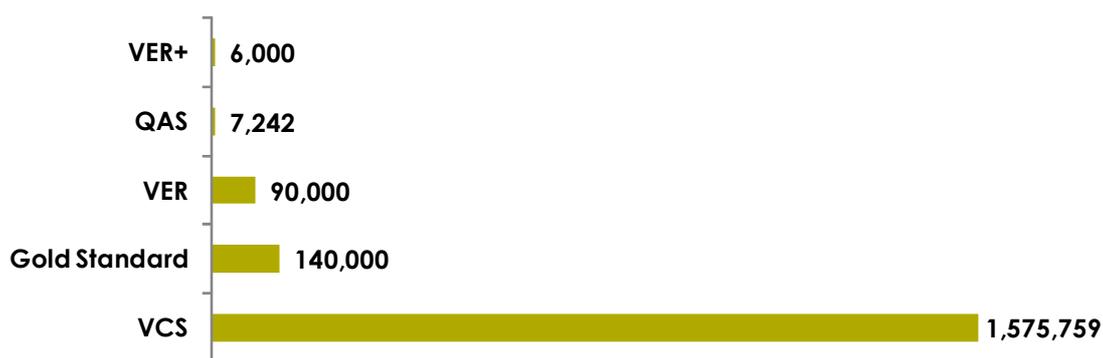
**Figure 4.1** Number of FTSE 100 companies using different offsetting methods. NB These categories are not mutually exclusive: some companies use more than one method of offsetting.

## Around half of companies use third-party standards.

Of the 21 companies that offset a portion of their emissions:

- Twelve disclose that they used a third-party standard or standards and disclosed the volume purchased (3i, Barclays, British Land, HSBC, Man Group, RSA, TUI Travel and WPP). Figure 4.2 shows the volume of different credits purchased by these companies across five different standards.
- Eight companies do not disclose the standard used (Hammerson, Imperial Tobacco, Investec, Land Securities, Old Mutual, Pearson, Reckitt Benckiser and Standard Chartered).
- One company retired Renewable Energy Certificates (RECs) for voluntary offset purposes (Royal Bank of Scotland). RECs do not have a voluntary offset standard which applies to them.
- Four companies disclose the standard but not the volume of offsets bought per standard (Aviva, BSKyB, ICAP and Unilever).

## Offsetting standards used (tCO<sub>2</sub>e).



**Figure 4.2** Volume of carbon offsets purchased (in tonnes of CO<sub>2</sub>e) by FTSE 100 companies under each standard. NB Graph does not include companies that have disclosed third-party standards used but not the volume purchased or volume per standard.

### FTSE 100 companies have offset with a combination of five different standards.

There are at least 18 standards available for verifying or endorsing carbon offsets.<sup>21</sup> Five of these have been used by the 12 companies in the FTSE 100 that disclosed volume of the standard or combination of standards used.

The voluntary carbon offset market is unregulated, so this proliferation of third-party standards is often viewed as successful self-regulation. However the sheer number of standards available has also led to confusion among many buyers.

Despite the proliferation of standards, major risks associated with project-based offsetting remain, in particular that projects will not be additional.<sup>22</sup> Research from the University of Stanford shows that “between a third and two thirds” of project-based offsets have not achieved a net reduction in emissions.<sup>23</sup>

For this reason many companies take extra steps themselves to try and ensure their carbon offsets genuinely make a difference (see box on HSBC), and try to communicate clearly about their purchases.

“HSBC takes a number of steps to ensure the credibility of the carbon credits it purchases. In addition to the UN’s Clean Development Mechanism, HSBC undertakes its own checks on all potential offset projects. The bank undertakes due diligence to make sure that projects do not cause negative impacts on the local community and the environment.”

HSBC corporate website

<sup>21</sup> *Building Bridges: State of the Voluntary Carbon Markets 2010*, Ecosystem Marketplace and Bloomberg New Energy Finance, June 2010.

<sup>22</sup> ‘Additionality’ refers to the need for offset finance to create reductions that would not have happened otherwise. Non-additional offset projects therefore create no net emission reductions and are worthless to buyers wanting to use them to offset their carbon footprint.

<sup>23</sup> Source: Victor and Wara, University of Stanford, June 2009

<http://www.law.stanford.edu/news/details/1722/Stanford%20Study%20May%20Stir%20Debate%20On%20Limiting%20Costs%20In%20Climate%20Bill/>

### **Just under two thirds of offsets were reported as verified by a third-party standard.**

This is surprisingly low, given the risks associated with poor quality offsets. In 35% of cases, either the third-party standard used or the volume offset by standard was not disclosed.

Globally, 90% of all voluntary offsets transacted in 2009 were third-party verified,<sup>24</sup> indicating that the low figure for standard use in the FTSE 100 is more likely due to non-disclosure rather than FTSE 100 companies not purchasing third-party verified offsets.

### **The limited disclosure of standards makes it difficult for carbon offset claims to be thoroughly assessed.**

There are distinct differences between the standards and so disclosure gives a good indication of the quality of an offset. WWF have compiled a comparison of the various offset standards.<sup>25</sup>

The most popular type of offset standard used by FTSE 100 companies was the VCS, accounting for 55% of all offsets purchased and disclosed; this is one of the cheapest standards. Prices in 2010 were between £0.75 and £7.50 per tonne.<sup>26</sup>

The Gold Standard accounted for 5%. This is the only standard which measures and is accountable for social benefits for the local community; this standard was used by Barclays and TUI Travel.<sup>27</sup>

In response to the complex array of standards and the criticisms associated with many of them, the UK Government launched the Quality Assurance Scheme (QAS) in 2009 as a "shortcut to purchasing high quality offsets".<sup>28</sup> 3i was the only FTSE 100 company to purchase credits approved to this standard.<sup>29</sup>

*"The main purpose of the QAS is to provide a straightforward route for those wishing to offset their emissions to identify quality offsets. By vouching for the quality of the offsets, the Scheme helps clear up the principle uncertainties involved in offsetting."*

**The Department of Energy and Climate Change**

As the UK Government QAS is relatively new, uptake is likely to increase as it becomes more widely recognised.

Section 3 showed that the FTSE 100's share of the voluntary offset market is significant (6%). A move by FTSE 100 companies towards the more robust standards such as the Government QAS would have a knock-on effect on the rest of the market and could make the whole offsetting market more effective.

<sup>24</sup> *Building Bridges: State of the Voluntary Carbon Markets 2010*, Ecosystem Marketplace and Bloomberg New Energy Finance, June 2010.

<sup>25</sup> *A Comparison of Offset Standards*, WWF, 2008.

<sup>26</sup> Prices from Bloomberg New Energy Finance, December 2010. Price against other standards is compared in *A Comparison of Offset Standards*, WWF, 2008.

<sup>27</sup> Unilever and Aviva also purchased some Gold Standard offsets, but details on the amount purchased were not disclosed.

<sup>28</sup> DECC UK Government Quality Assurance Scheme for Carbon Offsetting <http://offsetting.decc.gov.uk/cms/assets/Uploads/NewFolder-3/090311-Scheme-Requirements-version-1-4-FINAL.pdf>

<sup>29</sup> International Airlines Group subsidiary British Airways runs a customer offsetting scheme that is approved under this standard, but they do not purchase offsets themselves through the scheme.

# Motivations for carbon offsetting.

Organisations and specialists generally agree that carbon offsets should only be used after companies have reduced their emissions as far as possible.

In the Department of Energy and Climate Change's (DECC's) short guide to carbon offsetting, they give a hierarchy of actions: Calculate, Avoid, Reduce and Offset. Thus, carbon offsetting represents the move to taking full responsibility for your carbon emissions by compensating for what you cannot avoid.

This sentiment is reflected in many of the FTSE 100 companies' CSR reports.

*"The decision to become carbon neutral tangibly incentivises the business to focus on resource reduction. The target will be achieved through on-going measurement and reduction of carbon dioxide emissions, by maximising energy efficiency, increasing the use of renewable energy and by using offsetting as a final step to achieve carbon neutrality."*

British Land

Evaluating the way that the FTSE 100 companies talk about offsetting, the motivations for corporate offsetting

- **Enhancing corporate reputation.** Many companies use offsetting to improve their reputation and demonstrate leadership. WPP states, *"We believe that showing leadership on climate change will support our reputation with employees, clients and investors."*
- **Plugging the gap until new low carbon technologies become available.** Offsetting is often used as part of a long-term strategy that recognises reduction technologies are likely to improve over time. To quote WPP: *"Compensating for unavoidable emissions through offsets is a good way to reduce our carbon footprint until more low carbon solutions become more accessible."*
- **Taking responsibility.** It is very difficult for companies to completely reduce their emissions, and hence there is always likely to be some residual emissions that a company cannot reduce. Companies that want to take responsibility for these

emissions can achieve this through offsetting. *Marks and Spencer recognises this, stating, "In becoming carbon neutral the company has committed to only use carbon offsetting as a last resort."*

- **Engaging employees, customers, investors and other stakeholders.** Carbon offsetting can engage stakeholders by being relevant to their community or relevant to their activities. For example RSA encourages staff to offset and BP, International Airlines Group and TUI Travel encourage customers to offset. Barclays states: *"For Barclays, one of the key benefits of offsetting is that it supports the development of clean technology in emerging markets. It also enables us to engage our employees and other stakeholders in emissions reductions projects in the communities in which we operate."*

With these drivers in mind, it seems strange that companies are not publically disclosing more detail about the volume of offsets that they are buying and the methods and the third-party standard used.

Non-disclosure leaves companies open to the accusation that they are buying cheap and ineffective credits, and do not disclose details so as to avoid criticism. Moves towards increased voluntary or even mandatory disclosure would increase credibility of offsetting claims and the industry as a whole.

# Methodology.

This report was prepared and based upon publically available data, sourced from desk research conducted in February-April 2011. Carbon Retirement does not warrant the accuracy of this information.

## 1. FTSE 100 companies listed

A list of FTSE 100 companies, correct as at 17 March 2011, was sourced from <http://www.ftse.com/>

## 2. Publically available data sourced

Data on company carbon emissions and offsetting was sourced from:

- 2010 Carbon Disclosure Project (CDP) company reports. In the majority of cases these reports concern emissions and offsetting data for 2009.
- Company websites, annual reports and corporate responsibility reports.

For consistency we have used data from 1 January – 31 December 2009 where available. Where these data were not available, we have used data from the nearest available period. A list of companies for which we reported on data for a period other than 1 January – 31 December 2009 is shown below.

Company	Period
3i	1/4/2009 - 31/3/2010
British Land	1/4/2009 - 31/3/2010
BSkyB	1/4/2008 - 31/3/2009
Imperial Tobacco	1/10/2007 - 30/9/2008
Investec	1/4/2008 - 31/3/2009
Land Securities	1/4/2009 - 31/3/2010
Man Group	1/4/2009 - 31/3/2010
Reckitt Benckiser	1/1/2008 – 31/12/2008
Standard Chartered	31/8/2008 - 30/8/2009
TUI Travel	1/10/2008 - 30/9/2009

### 3. Inferring missing data

- For companies which claim carbon neutrality for all operations, we have assumed they offset 100% of their scope 1, 2 and 3 emissions, unless otherwise stated, and used that to infer the volume of offsets purchased. This assumption has been made for the following companies:
  - 3i - 100% offset
  - Aviva - 105% offset
  - Barclays – 100% offset
  - British Land – 100% offset
  - BSkyB – 100% offset
- Pearson state on their website that they have a 'climate neutral commitment', but it seems that this commitment has not yet been met. It seems that some offsets were purchased in 2007 and plans remain to become carbon neutral at some point, but no more recent data have been disclosed.<sup>30</sup> For this reason we have not inferred any volume data for Pearson, nor have we counted them as carbon neutral. We have however counted them in the number of companies using carbon offsetting.
- Reckitt Benckiser state that their manufacturing operations are carbon neutral but do not state the volume of offsets purchased. Emissions data for their manufacturing operations were not available so it was not possible to infer the volume of offsets purchased.
- Where companies disclosed the third-party standard used, volumes of each standard have not been inferred unless it is clearly and publically stated.

### 4. Additional assumptions

The scope of this research was companies which voluntarily offset their own emissions. It did not cover companies which offset in order to comply with regulation, or those which generate or sell offsets to customers or employees - unless the company also makes a contribution. For example, BP and International Airlines Group sell offsets to customers; in this respect we considered them to be acting as offset providers.

The industry sectors used throughout this report are consistent with those used by the Carbon Disclosure Project (CDP).

We have assumed that the information reported by companies in their websites and CDP reports is correct; companies have no legal obligation to report details of their voluntary offsetting or obtain independent verification of such data.

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<sup>30</sup> <http://www.pearson.com/responsibility/sustainable-business-practice/annual-environment-review/climate-footprint/>



# Appendix.

## Appendix A: Glossary

<b>Carbon footprint</b>	The annual quantity of CO <sub>2</sub> e emissions for which a company is responsible, expressed in metric tonnes of CO <sub>2</sub> e.
<b>Carbon intensity</b>	CO <sub>2</sub> e emissions per \$000 of revenue.
<b>Clean Development Mechanism (CDM)</b>	The Clean Development Mechanism (CDM) is a Kyoto Protocol mechanism designed to assist developing countries in reducing their greenhouse gas emissions. The CDM allows projects in developing countries to generate emission credits which may be sold in both voluntary and regulated markets (such as the EU ETS).
<b>CO<sub>2</sub>e</b>	Different greenhouse gases have different global warming potentials. 'Carbon dioxide equivalent', or CO <sub>2</sub> e, is a metric which incorporates all of the greenhouse gases. It is thus the quantity of CO <sub>2</sub> which would have the same global warming potential as a given quantity of other greenhouse gases.
<b>Compliance carbon market</b>	<p>The compliance carbon market refers to companies, governments, or other entities who buy carbon offsets in order to comply with legally binding caps on the total amount of greenhouse gases they are allowed to emit. This market exists in order to achieve compliance with obligations of Annex 1 Parties under the Kyoto Protocol.</p> <p>An example of this in the FTSE 100 is the regulation of companies by the EU Emission Trading Scheme. These companies have very different motivations and strategies for the use of carbon offsetting from the voluntary market, and hence it is not meaningful to directly compare compliance buyers with voluntary buyers.</p>
<b>Consumer discretionary</b>	This sector includes companies which deal with products and services that are not necessities. These products and services are purchased at the discretion of the consumer. Examples include holidays, hotels, restaurants, department stores and media.

<b>Consumer staples</b>	This sector covers companies which deal with products that are used for personal and household purposes. Examples include food, alcohol and tobacco.
<b>EU Allowance (EUA)</b>	EU Allowances (EUAs) are emissions permits traded within the EU Emission Trading Scheme (EU ETS). One EUA represents the right for an industrial company to release one tonne of CO <sub>2</sub> e.
<b>EU Emission Trading Scheme (EU ETS)</b>	The EU Emission Trading Scheme (EU ETS) is a Europe-wide scheme in which entities in heavily-polluting industries must acquire emission allowances (called EU Allowances or EUAs) to cover their emissions. The number of allowances is capped, thereby restricting emissions from the industries covered by the regulation. Allowances can be traded between companies, enabling emissions abatement to take place at the lowest cost. The policy is therefore commonly known as cap-and-trade.
<b>Greenhouse gas</b>	Any gas which has a warming potential in the Earth's atmosphere. The primary greenhouse gases are: carbon dioxide (CO <sub>2</sub> ), methane (CH <sub>4</sub> ), nitrous oxide (N <sub>2</sub> O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs) and sulphur hexafluoride (SF <sub>6</sub> ).
<b>REC</b>	Renewable Energy Certificates
<b>Scope 1, 2, 3</b>	Greenhouse gas emissions are reported in three scopes which reflect the varying levels of responsibility that a company has for emissions:  <u>Scope 1</u> : All direct emissions, for example emissions from company-owned vehicles, plants or landfill sites.  <u>Scope 2</u> : Indirect emissions from consumption of purchased electricity, heat or steam.  <u>Scope 3</u> : Other indirect emissions, such as those caused by production of purchased materials, transport in vehicles not owned by the company and waste disposal.

## Appendix B: Offset methods explained

<b>Offset type</b>	<b>Explanation</b>	<b>FSTE 100 companies using this method</b>
<b>Energy efficiency</b>	This approach funds projects in developing countries which aim to reduce energy use. A common approach is the use of efficient cooking stoves in poor communities.	Aviva, Barclays, BSKyB, HSBC, Old Mutual, TUI Travel

<b>EUA retirement</b>	This approach involves the removal of emissions allowances (EUAs) from the EU Emissions Trading Scheme. As each permit allows the emission of one tonne of CO <sub>2</sub> e, cancellation (retirement) of one EUA prevents the release of one tonne of CO <sub>2</sub> e.	3i
<b>Forestry</b>	The aim of forestry projects is to sequester CO <sub>2</sub> from the atmosphere. Projects can involve either the planting of trees or the management and protection of existing forests. Sequestration of emissions from forestry is temporary, as the carbon is released back into the atmosphere when the tree dies (through human intervention or naturally, for example through disease).	Imperial Tobacco, Man Group, Old Mutual, Pearson, Reckitt Benckiser, Standard Chartered
<b>HFC-23 destruction</b>	HFC-23 is a greenhouse gas with a Global Warming Potential (GWP) 11,700 times higher than that of carbon dioxide. It is produced during industrial processes, and credits can be derived from its destruction. A number of issues with HFC-23 destruction projects have resulted in their being banned from use by companies for compliance reasons in the EU Emission Trading Scheme from 2013. For more information on this issue see <a href="http://www.carbonretirement.com/content/doubt-over-integrity-half-offset-credits-ever-produced">http://www.carbonretirement.com/content/doubt-over-integrity-half-offset-credits-ever-produced</a> .	None reported
<b>Renewable energy</b>	Renewable energy projects fund low carbon electricity generation in developing countries. Generation methods include wind, solar electric, hydropower and geothermal.	Aviva, Barclays, British Land, BSkyB, HSBC, Old Mutual, Pearson, Royal Bank of Scotland, TUI Travel, Unilever, WPP
<b>Methane capture/avoidance</b>	Methane is a potent greenhouse gas with a Global Warming Potential (GWP) twenty one times higher than carbon dioxide. Methane-based carbon offset projects can include capture or avoidance of methane from landfill and agricultural sources.	Barclays, Old Mutual

# 8



## Who we are.

**Carbon Retirement** is a carbon offsetting company that leverages the EU ETS to reduce emissions.

We work on behalf of organisations and individuals that want to offset their unavoidable emissions.

The approach involves buying EU Allowances from the EU Emission Trading Scheme (EU ETS) and permanently removing them from the scheme so they cannot be used. This reduces emissions from heavy industry in Europe and incentivises investment in low carbon technology.

**Carbon Retirement** provides an innovative and robust alternative to traditional project-based offsetting. Our clients range from FTSE 100 private equity firm 3i, to the Church of England and the UK Committee on Climate Change.

Our aim is to increase the transparency and effectiveness of the two markets we bring together: voluntary carbon offsetting and the EU ETS.

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