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Is 'Insetting' the New 'Offsetting'?

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1. Introduction

There has been a fierce debate about the benefits of ‘carbon offsetting’ and the associated term ‘carbon neutral’. This paper does not seek to add to this polarised discussion, instead we seek to describe an emerging trend which we call ‘insetting’ amongst leaders in the corporate sector. ‘Insetting’ is a new paradigm which can better support businesses as they seek to respond to the challenges presented by the transition to the low carbon economy.

2. Background

2.1 Carbon trading and offsetting

Carbon trading is a key policy measure to address climate change and regulated cap and trade schemes (e.g. the Kyoto Protocol, and the European Union Emissions Trading Scheme) are already operating. In the future the scope of these formal trading systems will extend and there is the chance that a global carbon market will be created.

Participants within a cap and trade scheme must retire emissions allowances to cover their emissions. They have a choice between abating their emissions, purchasing allowances (from an initial auctioning process, or from other participants)[1], or purchasing 'offsets'.

Offsetting involves purchasing a credit from a project which reduces emissions. For example, if a company emits x-units of CO_2 to the atmosphere, these can be balanced (offset) by purchasing a corresponding quantity of emission reductions or carbon sequestration elsewhere on the planet.

Offsetting is an economically efficient means of reducing emissions as an organisation or company may find it expensive to reduce their own direct emissions, whereas offsetting projects can abate the same quantity of emissions at less cost.

1 Allowances may also be given to participants for free. This is also termed 'grandfathering'.

In addition to the regulated market there is also a well developed voluntary carbon market for offsetting. Companies and individuals may not be legally obliged to reduce emissions as part of a cap and trade scheme, but may still wish to reduce their climate change impact by voluntarily purchasing offset credits. During the late 1990's carbon offsetting and the associated term 'carbon neutral' emerged as an influential paradigm for businesses and individuals seeking to address climate change.

'Additionality' is a key principle in understanding what can be considered an offset. To qualify as an offset, the reductions achieved by a project need to be additional to what would have happened if the project had not been carried out. In other words a project must be more than 'business as usual' and would not have been viable without the extra funding from the sale of offsets.

2.2 Carbon neutrality

The term 'carbon footprint' is used to describe the direct and indirect emissions associated with a product, activity or organisation. The term 'carbon neutral' is used when emissions from a product, activity or organisation are balanced or compensated for through the purchase of an equivalent number of offsets so that there is a zero net impact on the climate.

The 'carbon neutral' concept is a powerful communication tool and has been used successfully by many different types of businesses. Whilst the term is well understood there is no universally accepted definition – although it is generally accepted that it includes the direct emissions from operations and the emissions from electricity used by the organisation (scope 1 and 2 emissions in the Greenhouse Gas Protocol). Some organisations extend the boundaries of their influence to include business travel, the use of their products or the emissions associated with the processing of purchased materials (scope 3 emissions) but there is no consistency.

Rather like the waste management hierarchy it has been proposed that the carbon management hierarchy is to avoid or reduce direct and indirect emissions, and then offset any remaining emissions.

2.3 Why businesses offset

The key benefits of carbon neutrality are that it is a very powerful demonstration of an organisations environmental commitment and an excellent tool for engaging staff and customers. Some early adopters were also keen to gain understanding of trading in preparation for mandatory schemes.

3. The voluntary offset market

The voluntary carbon market has expanded rapidly since the late 1990's. There are now a range of 'offsetting products' from those that offset emissions from one off events or conferences to those that make products or services carbon neutral. However there are two trends that could have a large impact on the market.

1. The scopes of emission trading schemes are expanding: The EU Emissions Trading Scheme will be extended to include aviation by 2012, and the Carbon Reduction Commitment is a new cap and

trade scheme which will apply to medium-sized energy users in the UK. This may diminish the interest in voluntary schemes.

2. Businesses that retain carbon neutral status despite the controversy generally do so because they see benefits in terms of engagement. However, engagement programmes need to be continually updated to retain their interest and leaders are starting to seek ways of more actively involving their staff and customers in behaviour change. There is also a desire for companies to use cash to do things that are of immediate benefit to their customers, supply chain or staff. This will increase interest in local 'offsetting projects'.

4. Insetting

A number of forward-thinking companies have started to explore new approaches which draw upon some of the ideas behind offsetting – looking for GHG abatement opportunities outside the immediate confines of the corporate boundary, but which seek to identify and support actions that are of relevance (and benefit) to the company's stakeholders. We call this approach *insetting.*

Carbon insetting can be defined as: *a partnership / investment in an emission reducing activity within the sphere of influence or interest of a company (outside WBCSD Scopes 1 and 2), whereby the GHG reductions are acknowledged to be created through partnership and where mutual benefit is derived.*

Figures 1a and 1b illustrate the differences between carbon offsetting and insetting. In the case of offsetting the emissions and reductions are discrete activities and there is no interaction between the parties except a financial transaction. In the case of insetting there is an exploration and partnership with various stakeholders to identify emission reduction opportunities.

Figure 1a. Offset

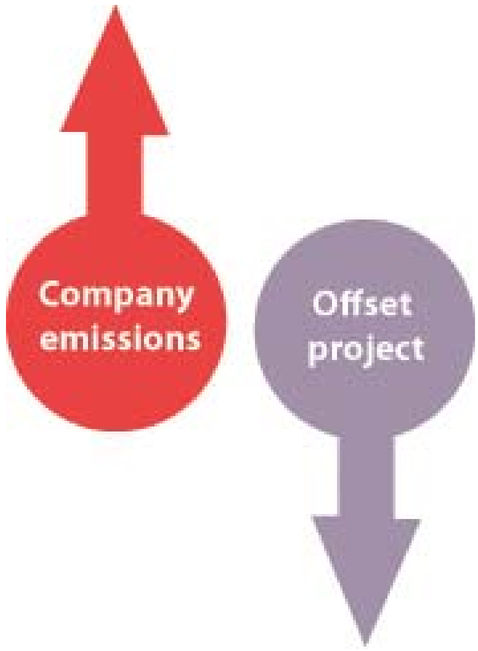
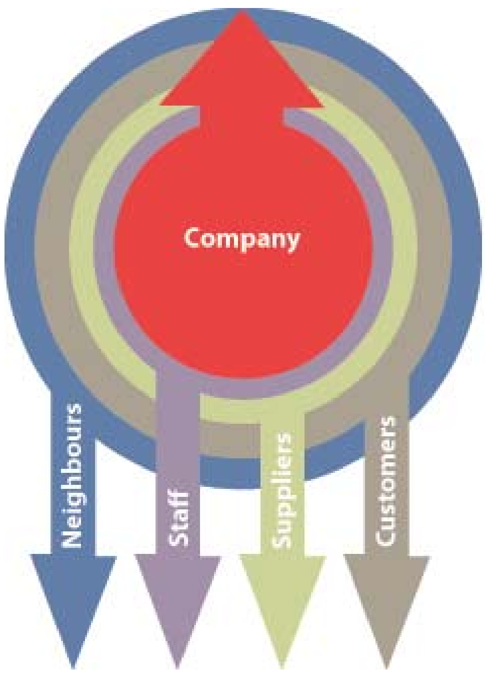


Figure 1b. Inset



A major advantage of the insetting approach is that it may often be worthwhile implementing emission reduction activities that have a higher notional cost of abatement than would be acceptable under a standard offset arrangement, given that there may be additional benefits to the lead company such as increased customer loyalty or supply chain efficiencies that can be factored in to the overall economic assessment. Insetting can be integrated within the broader business strategy.

A further benefit of the insetting approach is that it helps to reduce emissions along the supply chain, and can create a long-term competitive advantage. As cap and trade schemes are extended the price of carbon will be increasingly reflected in the price of goods and services. Supply chains with low emissions will be more competitive than those with high emissions.

An additional benefit that policy makers should be aware of is that insetting encourages businesses to tackle emissions sources that existing business-focused policies tend not to address, such as consumer and employee energy consumption.

Examples of potential insetting initiatives:

- ***Staff*** – commuting or home insulation offers
- ***Customers*** – encourage use of low carbon travel to stores or reuse of plastic bags
- ***Supply chain*** – joint investment in efficiency projects
- ***Products sold*** - product innovation that reduces the users' energy consumption
- ***Neighbours*** - joint recycling scheme with resources shared between a number of companies within a neighbourhood or office complex

5. Key differences between insetting and offsetting

Table 1. Key differences between insetting and offsetting

Stage	Offsetting	Insetting
Development	Emissions reduction projects developed by “project developers”.	Emissions reduction potential identified by businesses exploring supply chain, staff and customer GHG footprints.
Verification and Certification	Projects verified and certified through programmes such as the Clean Development Mechanism or Voluntary Carbon Standard.	No requirement for verification or certification, although may use independent verifier / auditor to check results.
Transaction	Emission reduction credits are traded between two entities. Quantities and prices are specified in the contract and normal trading conditions are applied on issues such as timing of delivery.	Agreement between stakeholders on how emission reductions will be achieved through collaborative action and how the resulting benefits will be shared and communicated. Total amount of emissions reductions may be uncertain at point of agreement of inputs.
Monitoring / follow-up	Monitoring and follow-up is normally specified in contract.	Emissions reductions occur within the boundaries of one or several of the participants and will be captured within the scopes of corporate or individual GHG accounting.
Relationships	Purchaser and offset provider are normally discrete / non-related entities (essentially a trading relationship)	Project is a collaborative activity between stakeholders in one or more businesses.

6. Does insetting address other concerns about offsetting?

The offsetting paradigm has been questioned in three important ways. Table 2 shows that these issues are largely addressed by insetting.

Table 2. Objections to offsetting and the insetting response

Objections to Offsetting	Insetting Response
Moral objections to the idea of paying someone else to reduce their emissions rather than reducing one's own emissions.	This objection is largely irrelevant as there is not normally an offset type sale / purchase of carbon. May be some criticism if a firm avoids looking seriously at emissions reductions opportunities within WBCSD Scope 1 & 2 boundaries.
Questions regarding the "additionality" of many projects funded, i.e. whether they would have happened anyway in the absence of carbon finance.	The issue of additionality is different for insetting. Whether the reduction would have happened or not any way does not alter the fact that a reduction has occurred within the boundary of the collaborating partners. However, the credibility of insetting may be questioned if a company claims an emissions reduction which they have not actively created or played a role in.
Questions about the reliability and long-term effectiveness of projects funded through offset initiatives.	Projects are more likely to be maintained for the long-term as they will be embedded within the boundaries of one or other of the companies / individuals participating. Companies will be directly responsible for maintaining monitoring and reporting systems.

7. Insetting – the downside?

While insetting can resolve many of the problems identified with offsetting there are also some limitations:

- ***Effort*** – while offsetting can be as simple as writing out a cheque, insetting requires greater effort on the part of companies to identify and develop opportunities in collaboration with stakeholders. The effort involved in working with external stakeholders should not be underestimated.

- ***Limited opportunities*** – while exploring beyond the boundaries of a company's control may provide some additional opportunities, there will by definition be a more limited set of opportunities than those available to an offset developer.

- ***Carbon neutrality more difficult*** – as a result of the effort involved and the more limited set of opportunities, the achievement of carbon neutrality from insetting alone is likely to be more difficult. It should be noted that insetting and offsetting are not mutually exclusive and that companies wishing to achieve neutrality may do so by a combination of internal action, then insetting and finally by offsetting.

- ***Double counting*** – the emissions reductions from insetting may be double counted if more than one of the collaborating partners claims or reports on the reductions. This issue can be addressed by agreeing who has ownership of the emissions reductions and how the reductions will be communicated.