Reigate and Banstead Borough Council Local Carbon Reduction Fund

ecsc
ENERGY CENTRE FOR SUSTAINABLE COMMUNITIES

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Contents

1 The Report

This report has been produced to outline the findings of a study undertaken by ecsc to identify some of the key issues involved with the development of a local carbon reduction/offset fund in the Reigate and Banstead Borough Council (RBBC) area. The scope of the report is limited and further work should be carried out to take forward some of the ideas put forward. A range of key information has been provided in the Appendices and is referred to throughout this document.

2 Introduction

The Council wishes to investigate the potential for a Local Carbon Offset/Reduction Fund to help deliver significant carbon reductions within the Borough and to create long term action on climate change within the wider community (including businesses, individuals, schools and community groups). The Fund could potentially seek investment from a range of sources, including private businesses, individuals and developers. Outcomes/returns from the fund will also be wide ranging and may include primary outputs such as carbon reduction technologies for schools, community buildings and new development as well as funding for secondary and tertiary outputs such as funding for a green technology business or a biomass supply chain.

A scoping study was carried out to investigate how such a fund could be established and what the range of available outputs are locally and where the fund could receive inputs from. While there are several ways in which such a fund could be established (as shown in section 5 through the work of other local authorities) two main types of fund have been identified as potential options for an RBBC fund. These are

- A 'Community CO_2 Top up fund' (which would combine existing funding with locally generated 'inputs' to achieve CO_2 savings that would otherwise not be achieved or would only be achieve far into the future under businesses as usual scenarios)
- A local 'CO_2 Offset Fund' (which would offer a set price per tonne of CO_2 to local residents and businesses to offset unavoidable CO_2 emitting activities)

3 Key Findings

The following key findings have been identified:

- Both a 'Community CO_2 top up fund' and a local CO_2 offset fund are possible, although given the current state of the offset market (nationally and locally) it may be wise to establish the community fund and achieve outputs prior to establishing an offsetting service. Outputs from the fund can be used to strengthened the offset service and provide more coherent marketing materials.

- Significant CO_2 savings are possible within the Borough and there are many potential CO_2 reduction projects which achieve high levels of additionality and added value (i.e. they would not be possible without the support of a local fund and have benefits beyond CO_2 savings).

- For a local fund to achieve sufficient investment, it may need to offer a range of advice, signposting and support services to potential investors which could be provided by a local CO_2 reduction campaign or programme, encompassing businesses, individuals and the wider community.

- To achieve investment from businesses it may be necessary to assist them to quantify their CO_2 impact and provide advice on how they can reasonably reduce this before considering offsetting.

- A robust deliver mechanism (which is properly resourced) will be required to deliver CO_2 reduction projects within the borough. This may be delivered in part by existing advice and support services but it is likely that new resource will be required. The fund will either have leverage sufficient investment to build an appropriate pot (which can cover management costs) or will have to be seed funded by the Council.

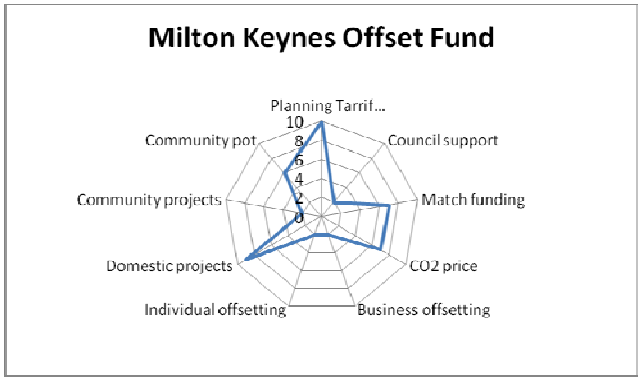
4 Existing initiatives and standards

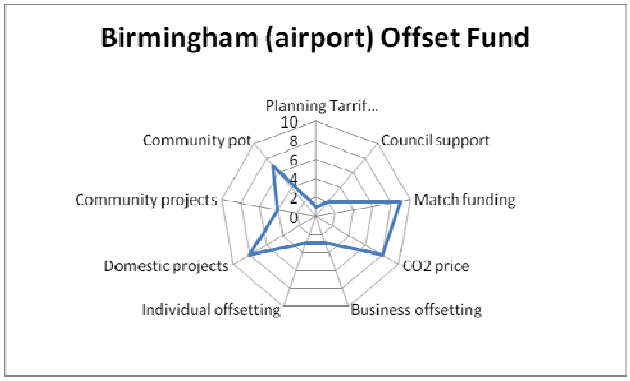
As part of the study a brief review was carried out of existing local carbon offset initiatives and existing standards used in carbon offset programmes. The purpose of the review was to inform the development of the RBBC fund, identifying key issues and lessons learnt from other initiatives and the standards to which the RBBC fund could (or should) operate.

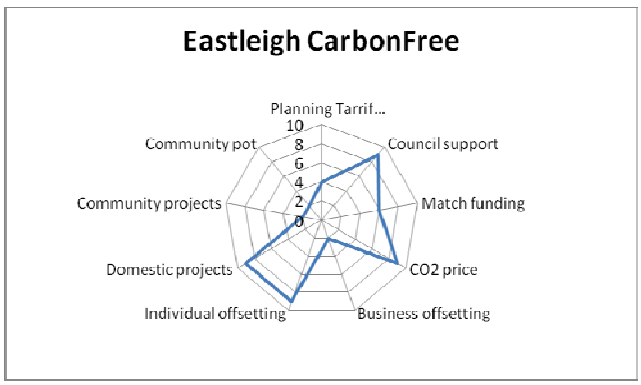
4.1 Existing UK based initiatives

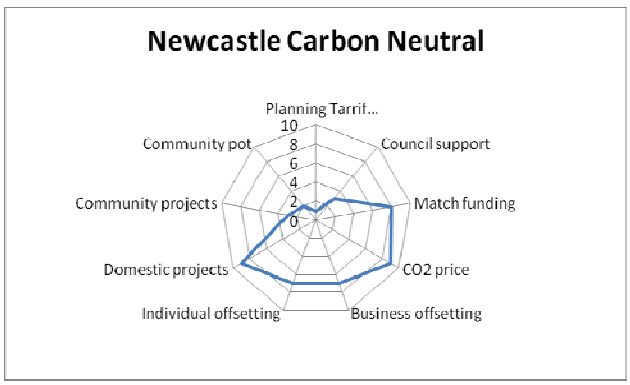
Desk based research and telephone interviews were carried out to identify and review existing local carbon offset schemes operating in the UK. A total of six schemes were identified for further investigation however the overwhelming finding was that, despite schemes being promoted and discussed in the public domain, none were fully operational as yet. A summary of the most relevant findings is provided below. A more detailed description of the findings is included in Appendix 1.

Using the responses from the review a list of fund characteristics has been developed and then each fund has been mapped according to which element they have or are planning to adopt. The characteristics focus on key elements for a fund relating to securing finance/investment, type of projects delivered and the relationship between fund inputs and CO_2 offsets. These are; Planning tariff, council support (has the council provided seed funding or some kind), match funding (will the fund secure match funding from existing grants), CO_2 price (is there a set price per tonne of CO_2), business offsetting, individual offsetting, domestic projects, community projects (renewable in schools etc...) and community pot (will the fund support community projects irrespective of CO_2 offset potential). The results have been provided below for 4 of the most developed initiatives.









The Milton Keynes carbon offset fund was found to be the most developed existing initiative of those reviewed as it had already started to generate income. It had not, however, implemented any projects to spend the funds generated. It is intended that the funds will be used (likely in addition to additional funding such as CERT[1]) to deliver insulation measures to local residents. The fund has set a price of £200 p/tCO_2 (indexed linked) and receives payments from property developers through section 106 'tariffs'[2]. The price has been based on the cost of delivering CO_2 reductions from domestic insulation measures.

The Birmingham City Council initiative is working with the international airport to develop a flight tax/tariff which would feed into an independent (charitable) pot. A range of outputs are expected (with a strong focus on energy efficiency measures for vulnerable residents) and match funding will be sought where possible from existing grant schemes.

The Eastleigh 'CarbonFree' fund has been supported by the Council initially with a contribution of £50,000 which will support insulation projects in the borough. The Council have set a price per tonne of CO2, currently at £10 (reviewed annually). The price has been derived from the cost of local insulation projects and market testing of the price residents are willing to pay to offset CO_2. The Council have also taken a strong stance on CO2 reduction before offsetting and have their own Carbon neutral targets for their direct operations.

The Newcastle Carbon Neutral scheme operated as a partnership between the council and The Carbon Neutral Company and is no longer running due to changes in the way it could generate carbon credits (see Appendix 1 for further information). However, the approach taken is worth noting as it provided advice and assistance to businesses on reducing their carbon footprint prior to offsetting.

The following broad conclusions have been drawn from the review:

- The Local Authorities contacted view the creation of a local carbon offset fund as a viable concept for achieving long term CO2 savings
- It takes significant time to develop a local carbon reduction (or offset) fund
- The inability of UK based schemes to achieve accreditation under the DEFRA Voluntary carbon offset code is an issue but has not deterred local authorities from pursuing the concept

The following specific conclusions have been drawn from the review which should inform the development of the RBBC fund:

- There are mixed opinions on the requirement for complete additionality (i.e. where the fund is the only contributor to an output/CO2 saving) and combining different sources of funding for any one project may be viable.

[1] The Carbon Emission Reduction Target (CERT) replaces the Energy Efficiency Commitment (EEC) and places targets on utility companies to provide a proportion of their turnover to achieving specific carbon emissions reduction targets.

[2] Developers are asked to pay a set rate per tonne of CO_2 for which a new development has failed to reach a zero carbon standard i.e. the balance between the level achieved and zero carbon status.

- The price per tonne of CO_2 saved is governed by the outputs of the fund i.e. the Milton Keynes' £200 p/tCO_2 price is based on insulation measures as outputs as is the Eastleigh £10 per tonne[3]. This approach may not be capable of supporting other types of project, such as renewable energy in schools.
- It may not be necessary to attribute a price per tonne of CO_2 (for sale) and rather to opt for a charitable grant format for the RBBC fund.
- It is necessary to take a strong stance on reducing CO_2 prior to offsetting activities and Local Authorities that wish to establish offset funds locally, should also be taking action on reducing their own emissions.

4.2 Review of Existing standards

A short review of existing international and national carbon offset standards was carried out to ascertain whether a RBBC fund could meet criteria set by these and to identify any key issues for consideration in relation to assessment of fund 'outputs'. A number of standards exist for carbon offsetting and each identifies specific methodologies and approaches which are accepted under the standard. At present, there are no standards which cover 'local' carbon offset programmes and it is unlikely that an RBBC fund could qualify for accreditation under any standard for the foreseeable future.

Existing standards (including Defra's recent Carbon Offset Code of Practice[4]) only count carbon emissions reductions (or 'credits') generated in non-Kyoto signatory countries. The methodologies (such as Clean Development Mechanism) accepted by existing standards are geared towards projects being carried out in these countries and tend to be highly technical and complex in their application. There are elements of these standards and methodologies however that could be adopted by the RBBC fund.

Potentially the most relevant (and widely accepted) standard is the Voluntary Carbon Standard (VCS). The VCS provides a framework for projects that wish to generate carbon credits to ensure that they are additional, verifiable and robust and is supported by a number of prestigious government and non-governmental organisations and large private sector organisations. The VCS sets out that carbon emissions reductions should be[5]:

- **Real -** All the GHG emission reductions and removals and the projects that generate them must be proven to have genuinely taken place.
- **Measurable -** All GHG emission reductions and removals must be quantifiable using recognised measurement tools against a credible emissions baseline.
- **Permanent -** Where GHG emission reductions or removals are generated by projects that carry a risk of reversibility, adequate safeguards must be in place to ensure that the risk of reversal is minimized and that a mechanism is in place to guarantee reductions.
- **Additional -** Project-based GHG emission reductions and removals must be additional to what would have happened under a business as usual scenario if the project had not been carried out.

[3] Milton Keynes' tariff is higher to cover the cost of achieving lifetime savings, where as Eastleigh have charged the same 'lifetime' rate but broken down as a yearly cost
[4] http://www.defra.gov.uk/environment/climatechange/uk/carbonoffset/pdf/carbon-offset-codepractice.pdf
[5] http://www.v-c-s.org/docs/Program%20Guidelines%202007.pdf

- **Independently verified -** All GHG emission reductions and removals must be verified to a reasonable level of assurance by an accredited verifier with relevant expertise.
- **Unique -** Each VCU must be unique and should only be associated with a single GHG emission reduction or removal activity. GHG Programs must contain checks to ensure that double counting of reductions and removals – in mandatory or other voluntary markets – does not take place.
- **Transparent -** Publicly disclose sufficient and appropriate GHG related information to allow intended users to make decisions with reasonable confidence.
- **Conservative** - Use conservative assumptions, values and procedures to ensure that the GHG emission reductions or removals are not over-estimated.

Not all of the above criteria are relevant to a RBBC fund and some would be cost prohibitive to implement(e.g. independent verification). From these the most relevant criteria could be that projects should be Real, Measurable, Additional, Transparent and Conservative.

The standards reviewed also put forward preferred methodologies for the assessment of baseline scenarios and CO_2 reductions. Again, methodologies proposed by the CDM are highly technical and would incur significant costs in implementation and are arguably not necessary for an RBBC fund as it cannot be accredited through the CDM. In the UK, the Defra Code of Practice will be the most visible standard and if promoted widely will be looked upon by those who wish to offset CO_2 as the standard of choice. While the RBBC fund could not qualify under the code it could adopt some of its key principles to demonstrate the quality of service. This could include clear and transparent information on how offsetting works and how projects (outputs) will work in practice and use of Defra emission factors.

The Council aims to achieve significant CO_2 savings within the Borough and therefore it may not be necessary to follow the rigid approach set out by international standards. A more flexible standard which deals with some of the key issues surrounding carbon offsets would allow for a less resource intensive initiative which is able to maximise CO_2 reductions where they would otherwise not be achieved (or where they would only be achieved far into the future under 'business as usual' scenarios).

A checklist (based on some of the key criteria of existing standards) was developed for the purposes of this study to inform the assessment of projects. In addition to the above criteria it was felt that projects supported by the fund should have added value, beyond CO_2 savings (such as education, regeneration, awareness raising, economic benefits). This added value is important to reflect the wider regeneration activity taking place within the borough and in order to take a more holistic approach to delivering environmental sustainability objectives. The checklist has been provided in Appendix 6 and the added value and additionality test in Appendix 4.

In order to set up the fund these elements should be further developed into a more comprehensive standard/policy by which the fund is governed. Issues to consider include:

- The selection of projects (a system that takes account of factors beyond CO_2 savings e.g. investor preference)
- Clear and transparent criteria for project assessment (to include input from above)
- Criteria for project delivery
- Levels of funding required and how money is allocated i.e. if there are multiple pots of money, what dictates where investments go

These criteria should be developed in consultation with key stakeholders and potential investors (businesses and community).

5 Assessment of local projects (Outputs)

A major part of the study was to identify potential projects (outputs for the fund) within the Borough. A potential project was defined as one which could deliver robust and verifiable CO_2 savings now and in the future by either reducing energy demand through energy efficiency or replacing a proportion of energy demand (from 'business as usual' activities) from fossil fuels with renewable energy technologies. Projects would also have added value, beyond CO_2 reductions, as outlined in section 5.1 and Appendix 4 and 6.

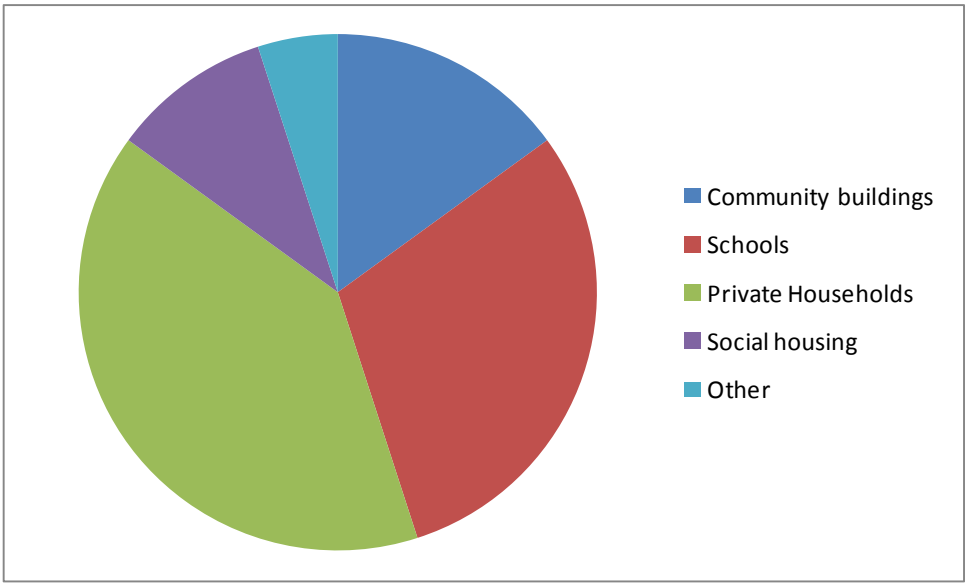
For the purposes of the study, projects were put into two categories of Community Projects (consisting of renewable energy in schools and community buildings) and Domestic/Housing projects (consisting of energy efficiency and renewable energy measures for domestic properties).

5.1 Project Portfolio

An initial 'trawl' of existing data was carried out to identify a range of potential projects and to test the availability of projects in the future. For the purposes of the study, the potential projects consisted of schools, community buildings and domestic properties (either private, rented or social). This involved collecting data from 39 schools within the borough, identifying over 40 community buildings and analysing data for over 29,000 properties in the borough (using Home Energy Conservation Survey returns). Further wok was done to identify local housing associations that could be targeted for either domestic housing projects or community projects.

From the initial assessment it is clear that there are a large number of potential CO_2 reduction projects which could be included in the RBBC fund portfolio. There are over 30 schools within the borough, many of which have not implemented any measures to reduce CO_2 emissions. There are a large number of community buildings (over 40 identified) which may be targeted as projects. While much work has been done to promote energy saving to residents, a large proportion of domestic properties are still in need of basic improvements, such as loft and cavity wall insulation.

Potential Project Portfolio Mix



There are also over 20 housing associations with properties in the Borough which could be targeted by the fund.

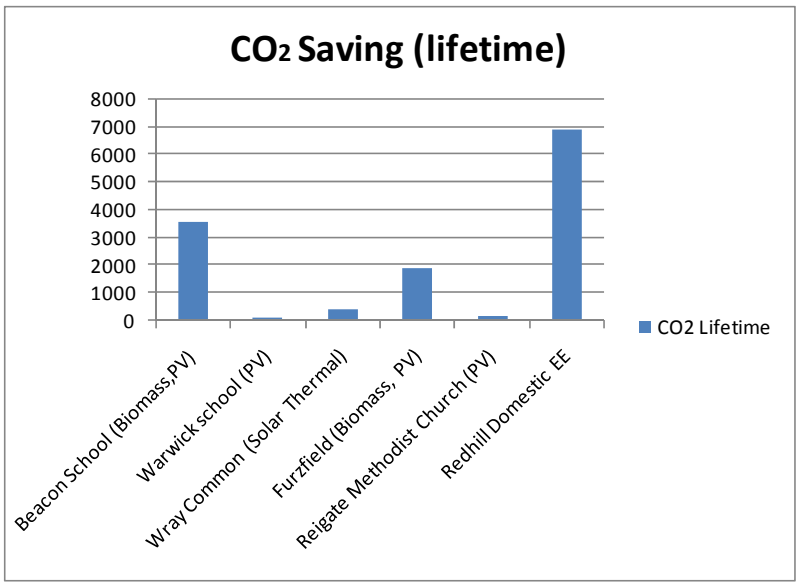
The fund may wish to expand its project portfolio and the type of projects funded over time but it would be prudent to start with the 'easier wins' where projects take place in existing buildings where proven technologies and measures can be installed to reduced CO_2 emissions from 'business as usual' activities e.g. heating, lighting and use of equipment. The mix will begin to change over time and it could start to include new build or major refurbishment projects and 'secondary' projects (such as funding to set up biomass supply chains).

A total of 5 community projects have been identified and an initial assessment has been carried out. Potential housing projects have also been assessed using Home Energy Conservation Survey data for the Borough. The results of each assessment are provided in Appendix 2, 3 and 4.

In order to build a project portfolio further work should be done in partnership (e.g. with Surrey County Council) and a thorough 'trawl' of the borough should be executed over time using project screening criteria. This could be developed from the Checklist provided in Appendix 6 and the additionality and added value assessment provided in Appendix 4. There is potential that projects may be able to deliver more than one cycle of CO_2 reductions, especially if they were approached within a wider programme of advice and support e.g. in assessing schools projects a number of potential measures were identified to reduce CO_2 emissions which have not been included as they are not viable at this point in time. It may be, however, that these measures could be 'tracked' as part of ongoing monitoring and included within the project portfolio in the future.

5.2 CO_2 Savings and costs

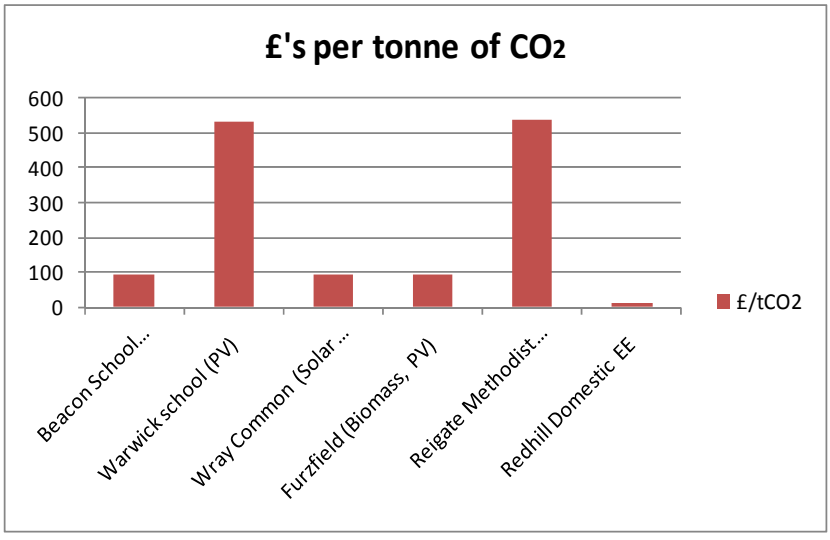
In order to define what type of fund RBBC could develop it is important to identify how much it will cost to achieve CO_2 savings across the available project portfolio. In order to offer a carbon offset service to individuals and businesses, a price must be established per tonne of CO_2 saved and 'sold'. From the projects identified it is clear that the housing projects offer a lower cost per tonne of CO_2 saved than community projects. However, it could be argued that community projects, such as a biomass boiler for a school, are more 'additional' and that the CO_2 savings are therefore more valuable than those derived from housing projects.



The costs of community projects assessed ranges between £100,000 and £300,000 capital cost with CO_2 savings ranging from 4 – 75 tonnes per year and 100 – 3,000+ tonnes lifetime saving. The price per tonne of CO_2 on combined technology projects (with high renewable energy outputs) is approx £2,000 (annual) and £90 lifetime[6]. There is potential to reduce the cost to the fund by leveraging match funding. As the example in Appendix 2 shows, the cost could be halved on these types of project through government (and other) grants, making the price of CO_2 far more attractive.

Note: *It may be possible to leverage further funding from recipients themselves where a case can be made for a contribution e.g. if a school requires a new boiler and has been identified as a potential Biomass project, they could provide partial funding equivalent (at least in part) to the cost of replacing a conventional boiler in a business as usual scenario.*

However, by using match funding, the CO_2 savings derived from projects are 'owned' by several parties. While the contribution of the fund is still achieving additionality (i.e. where the extra finance can not be gained elsewhere to trigger CO_2 savings), offering a CO_2 offset service here will go against the traditional view of offsetting where each 'credit' or tonne generated is unique.

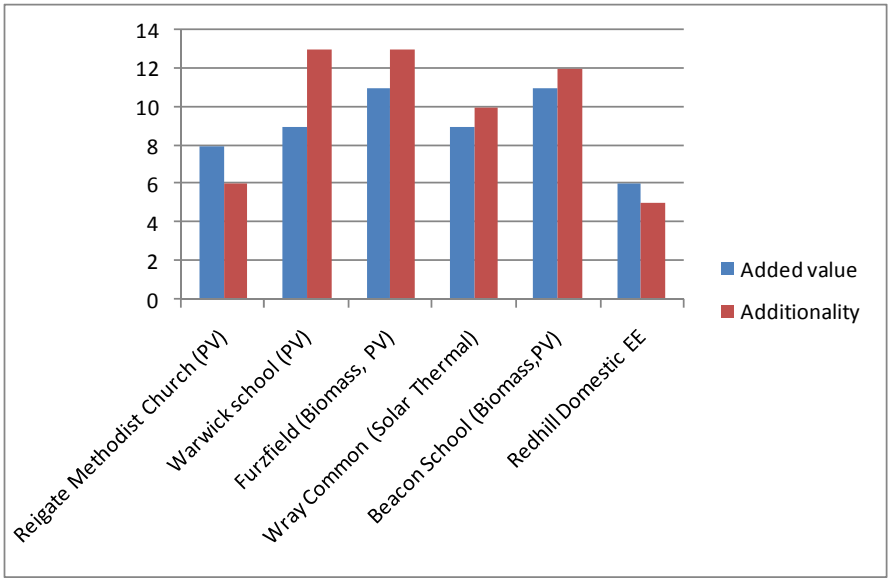


[6] Costs are based on information obtained from installers and national benchmarks and averages e.g. Energy saving trust figures and CIBSE data. Full details are provided in Appendix 2 and 3.

Domestic projects will vary significantly depending on the mix of measures applied within each project and over different project sizes (e.g. number of properties included in any one technology mix). A breakdown of the costs and CO_2 savings for individual domestic measures is provided in Appendix 3. Using this data a potential project has been developed for 100 homes in Redhill. Here, applying a basic cost and discount rate (20% discount on economies of scale against the Energy Saving Trust's average cost per measure) prior to any additional funding (such as CERT) the cost per tonne of CO_2 is approx £380 (annual) and £11 (lifetime).

The table below shows each project assessed against a set of additionally and added value criteria. The projects have been placed in the table in order of descending cost per tonne of CO_2. As is shown, the higher cost community projects score higher in both added value and additonality. The criteria used to assess both additionality and added value is provided in Appendix 4.

Assessment of Additionality and Added Value
(Projects in order of descending £/tCO_2)



From these findings it becomes clearer that the projects available in the Borough will suit different types of fund or will require varying levels and types of investment. Due to the difference in cost of projects and the resulting difference in prices for a tonne of CO_2 and the existence of grants and funding for some renewable energy technologies, projects will suit different types of project. This may mean that the fund should take a more flexible approach which can provide both 'top up' funding in order to get projects off the ground and funding in return for predicted CO_2 savings or 'credits'.

The community based projects, of higher cost and greater complexity, do not offer a competitive price for CO_2 but arguably have greater value both by reducing 'harder to reach' CO_2 emissions and by bringing added benefits (such as education). Domestic projects offer a much more competitive price for CO_2 and therefore suit a 'traditional' offset scheme better. Community projects could attract match funding from grants and as part of ongoing maintenance requirements (e.g. if a schools boiler brakes down they have to replace it) which would then require 'top up funding' to 'trigger' the CO_2 saving from installing more costly renewable energy technologies.

Note: *the fund would need to build up sufficient momentum of funding to satisfy each tonne of CO_2 purchased i.e. offsetting one tonne at £11 would not lead directly to one tonne being saved from loft insulation. In reality, the fund would need to secure up to £400 in order to initiate a loft insulation installation to deliver CO_2 savings. Low prices are possible for larger offset services (setting up international projects) as they have sufficient 'CO_2 portfolios' to absorb these and are likely to have large amounts of investment secured over time.*

6 Local Carbon Offset market (Inputs)

Which ever type of fund is developed it will require inputs which can be sustained over time, to contribute to the outputs discussed above. There are a range of potential inputs which could feed into the fund.

Community contributions from individuals or groups could be received for offsetting 'everyday' or specific CO_2 emissions (as in the Eastleigh CarbonFree initiative) or as charitable donations to a local fund (in the same vein as the Surrey Community Foundation offerings[7]).

Contributions could also be collected from property developers who fail to meet planning policy energy or CO_2 targets (as in the Milton Keynes carbon offset fund). Work is currently being carried out to assess this option along side new planning policies within RBBC. This would generate funding by asking property developers to pay funds to balance the difference between the CO_2 which planning policy has set for a new development and the level at which the development can feasibly be built.

Both of these inputs have the potential to provide investment into either a "Community CO_2 top up fund" or a "local CO_2 Offset fund". Further research should be carried out to gauge whether or not residents are willing and able to pay into either type of fund and if so, how much are they willing to contribute.

Contributions could also be received from businesses that provide services within the borough or that have a major base within the borough.

6.1 Local Business Market

Reigate and Banstead is home to a diverse range of businesses, many of which are large corporate organisations which have significant energy demands and wider environmental impacts. Businesses represent a significant potential market for a CO_2 offset or reduction fund, however the concept must align with corporate objectives and provide sufficient value to justify providing finance or resource to this type of activity.

As part of the study a group of 8 local businesses[8] were interviewed to identify what they are doing (if anything) to address their own environmental (and CO_2) impacts, what their views on offsetting are (how could they engage with an offsetting fund), what they might require of a local offset service and whether they are currently providing support to community projects in the Borough. The aim was to identify how the fund might interact with businesses and what would be required to secure investments.

The full set of notes from interviews is provided in Appendix 5 and relevant findings have been summarised below.

Note: *Further work should be carried out to identify a larger pool of businesses within the borough that may wish to contribute to a local CO_2 fund. Those interviewed as part of the study represent*

[7] The Surrey Community Foundation sets up local funds which provide support to local projects which are usually prescribed by donors e.g. individuals will leave a legacy for a specific community project.
[8] Canon, Legal and General, Pfizer, Toyota, Total Gas and Power, Esure, Orborne and Black and Veatch

some of the largest companies based in the Borough and a broad review of large and medium sized businesses would be beneficial to get a clearer picture of the available market for a fund.

6.1.1 Business environmental activity

The businesses interviewed have all taken some action to quantify their environmental performance and put in place a programme of improvement. The level of quantification and action varies significantly between businesses but all have a remit to address these issues.

The table below summarises what businesses are doing against key criteria.

	Legal and general	Pfizer	Osborne	Toyota	Canon	Esure	Total gas & power	Black & Veatch
Environment programme in place	●	●	●	●	●	●	●	○
EMS in place e.g. ISO14001	●		●	●	●		○	
Energy and CO_2 monitored	●	●	●	●	●	●		
Emissions from transport quantified			●				●	
CO_2 targets in place e.g. 'carbon neutral'			●	●	○		○	
Staff awareness programme in place	●		○			●		
Incentive schemes in place to improve performance	○					●		

While none of the businesses interviewed have a current target to be carbon neutral, all but one have environmental programmes which aim to achieve year on year improvements (Black and Veatch have just begun assessing what they will do in this area). Both Toyota and Canon have aspirations of 'Environmental Leadership' throughout all of their operations. Pfizer, Legal & General and Esure are taking a 'how low can we go' approach to reduce as far as possible their emissions from direct operations, while Total Gas and Power are still in the process of deciding on overarching targets, but have quantified the CO_2 emissions from business travel and have reached the final stages of ISO14001 implementation.

6.1.2 Business CO_2 offsetting

Of those interviewed only Osborne and Pfizer have considered offsetting of some kind. Osborne has established their own offset fund into which they pay an allocated amount based on emissions from transport and office energy use. This is done alongside emissions reductions actions. The fund is used to contribute to CO_2 saving activities suggested by staff.

	Legal and general	Pfizer	Osborne	Toyota	Canon	Esure	Total gas & power	Black & Veatch
Actively offsetting CO_2 through offset service								
Have considered CO_2 offsetting	○	●	●				●	
Have a company offset scheme			●					
May consider local offsetting	●		●			●	●	
Interest in on site renewable energy techs.	●	●		●	●			●
Apposed to offsetting all together				○	●			

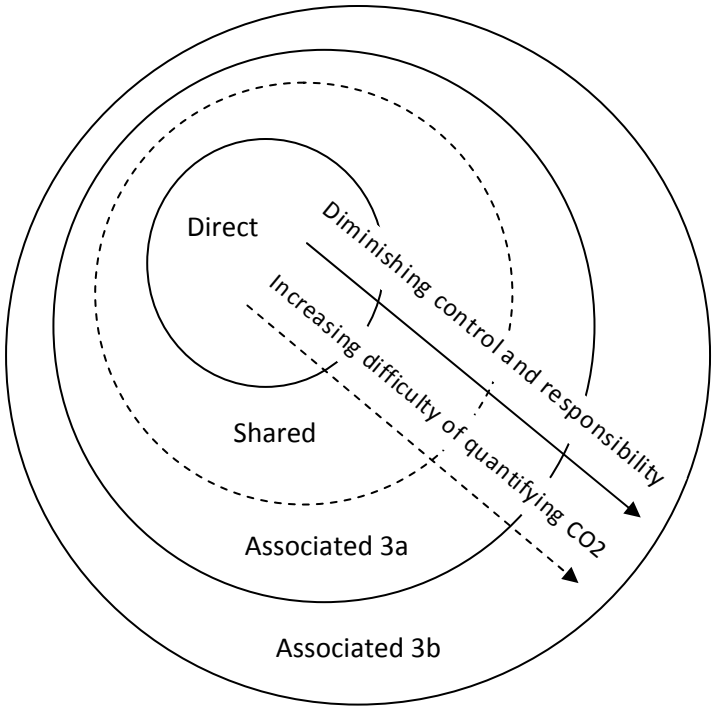
Generally, companies interviewed are not in a place to consider traditional offsetting at present or at least none of the services available have allowed them to 'buy in' to the concept (i.e. they do not align closely enough with priorities). It seems that the point at which a company could consider offsetting would be defined by the boundaries of their CO_2 assessments, their ability to reduce these themselves and limitations of their sites of operation e.g. can they feasibly provide a significant proportion of their energy requirements from renewable energy sources? This is the approach being taken by larger offset providers such as the CarbonNeutral Company, who advocate carrying out 'footprinting' exercises, identifying the boundaries of direct emissions and the limitations on reductions before offsetting. They also offer services to assist companies get to this point. There approach is provided in Appendix 1 section 7.

Some companies (Toyota, Canon, Legal and General and Pfizer) have considered on site renewable energy to supply their operations, however none have been able to take this to an implementation phase. It may be that a local CO_2 fund could assist them in establishing offsite renewable energy installations as part of these aspirations, if they can gain appropriate levels of return on their investment (either in capital or increased brand awareness).

This may not be the case for all companies within the Borough, depending on their current position in regards to their environmental performance and their level of knowledge of how they can reduce their emissions. It will also depend on the value that companies place on the improved brand and other business benefits that good environmental performance or a low carbon footprint can provide. If the fund is able to identify these clearly to businesses, then it may be able to generate a local market and assist where necessary.

The diagram below demonstrates the 'sphere of influence' that companies might adopt in order to identify where the boundaries of their emissions strategies lie and therefore how they plan to deal with their impact.

CO_2 spheres of influence[9]



6.1.3 Existing community support

All of the businesses interviewed have existing community support initiatives, all of which vary in the type and level of support and the type of community projects supported. Businesses tend to choose specific organisations or project types to support which align to the priorities of the business (e.g. Pfizer support projects focused on improving health and well being).

	Legal and general	Pfizer	Osborne	Toyota	Canon	Esure	Total gas & power	Black & Veatch
Existing community programme	●	●	●	●	●	●	●	●
Provide funding to projects	●	●	◌	●	●		●	
Active in RBBC area	●	●		●	●		●	
Have existing relationships which could be CO_2 projects	●			●			●	
Their programme could align with RBBC fund	●		●	●			●	●
Provide non-finance support (e.g. in-kind expertise)	●	●		●		◌		●

[9] *Adapted from "Towards a one planet 2012" Sustainability Plan, 2007*

Some of the businesses interviewed had existing relationships with schools and community organisations which could have potential for CO_2 reduction projects.

There is potential for the fund to receive support, not under an offsetting agenda but through community support programmes, where the outputs have the dual benefits of supporting local communities and reducing CO_2 emissions. When questioned about this, Total Gas and Power, Legal and General and Toyota all said they might consider supporting local projects which had an environmental or CO_2 reduction element.

Community giving by businesses and individuals has taken place for many years and in Surrey, the Surrey Community Foundation provides a one stop shop for the development and delivery of local funds. A recent fund added to the foundations portfolio has been set up by a group of residents (as a legacy fund) to support projects with an environmental agenda. It may be possible to establish a similar fund within the RBBC area or to accept investments to the fund from this type of source.

6.1.4 Requirements of a local fund

As most of the businesses interviewed had not yet reached a stage where offsetting was being considered by senior managers, not a great deal is known about what exactly they may require from a local fund/service. However, it is clear that businesses do feel that there should be greater engagement with the Council on sustainable business issues and that future partnership working would be welcomed. [2]

When prompted, businesses felt that the fund should be transparent (where CO_2 reductions are being promoted, information should be provided on how these have been calculated and where money has been spent), that there should be some form of regular communication between the fund, 'investors' and outputs and that where support is provided there should be clear benefits for the business (i.e. sponsorship, visibility, promotional opportunities). Businesses have noted that they would want to see a clear definition of what constitutes a project or potential project supported by the fund i.e. what will and won't the fund support. Also, businesses have suggested that they would want information on the potential of the fund and how much investment is expected over time i.e. would they be the only contributor, would there contributions actually lead to projects going ahead or would this predicated on achieving a specific level of 'total' investment.

From all businesses, it was clear that where CO_2 foot printing is concerned, there could be more support and advice provided to them to identify how they should be assessing their impact and reducing it. The issue of standardised methodologies for CO_2 foot printing was raised and while this is an issue of contention for many (not just businesses) a lead from the council may be beneficial. In addition, those businesses that have considered on site renewable energy installations would welcome support in making this happen.

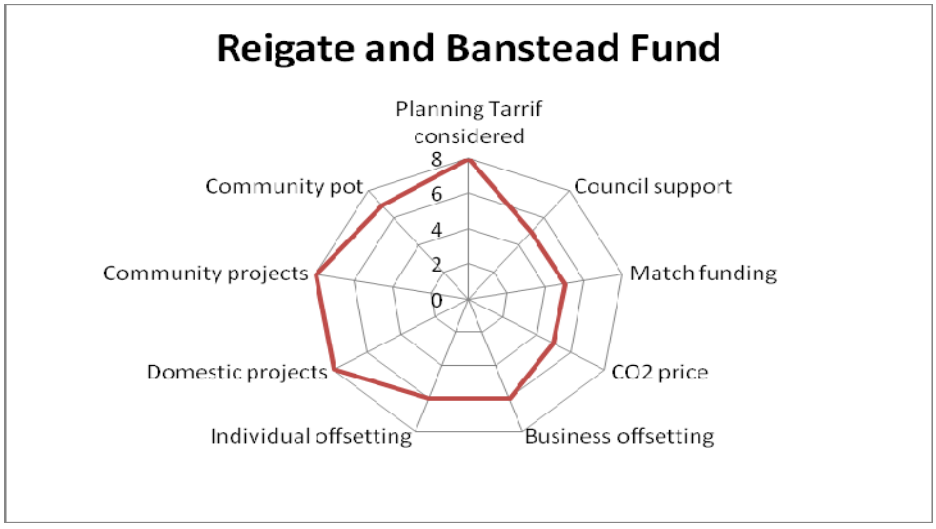
Finally, many of the businesses inquired as to the Council's own stance on CO_2 offsetting and foot printing and in what way the Council would be tackling its own impact. If an RBBC fund was established, a strong message from the council would be required as to what it expected of the local community alongside how it will be tackling its own impact now and in the future.

7 A potential model for the RBBC Carbon Reduction Fund

As described above the RBBC fund could take a dual approach, with two separate offerings for 'investors'. A charitable 'CO_2 top up fund' to trigger savings that would otherwise not take place or only take place far into the future and a "CO_2 offset fund", which can offer a set price (reviewed annually) and verifiable CO_2 savings as required. Due to the lack of an immediate local CO_2 offsetting market (pending further review of community opinion and business approach to offsetting) it may be beneficial to begin with a community top up fund and work towards an offset fund/service. A community top up fund could still retain elements of 'offsetting' in order to encourage CO_2 reductions in the Borough e.g. the level of investment from a business could be defined/directly linked to a percentage of CO_2 emissions from their operations.

The decision about which 'inputs' can and would feed into the fund (and what service they will support i.e. Offsetting or Community projects) will be guided by the requirements of 'investors' (how much they are willing to contribute/pay and their priorities) and the ability of the fund (and any complimentary services) to 'sell' the concept and benefits that the fund can provide.

Using the set of criteria outlined in section 4 we can compare a potential RBCC fund (and how it might look) to others already running or in development. It is clear from the diagram below that the RBBC fund could operate a flexible approach making use of a range of elements and would not have to exclude offsetting for instance in place of community CO_2 reduction projects.



From the findings of the study, a summary of how the fund might operate (at a high level) is provided below, with suggestions of potential products and services that the fund could offer.

Note: *Further work should be done to test the approach and decisions made as to how the fund would be established e.g. could the council provide seed funding in order to leverage payments from 'investors'? As more knowledge is gained of local markets and potential delivery mechanisms it may be that the model above could be modified to represent a more direct approach.*

7.1 Standards

Which ever type of fund is offered, it will need to have a clear set of standards to which it can operate, which are highly visible to potential 'investors'. The checklist provided in Appendix 6 could provide a good basis for the RBBC fund principles. Where offsetting is being promoted, a strong focus on reduction before offsetting should be promoted, ideally backed by guidance and support to achieving improvements in environmental performance.

In assessing potential projects, nationally recognised benchmarks and emissions factors should be used to align as closely as possible with government guidance on offsetting. The project examples provided in Appendix 2 and 3 (with full 'case studies' in Appendix 7,8 and 9) have been assessed in a conservative manor to ensure that CO_2 savings are not over estimated (see Appendix 2 for a breakdown of assessments and for detail on how assessments were carried out). . Standards can be reviewed over time to reflect data returned from successful projects (building local benchmarks for performance).

As the RBBC fund would not be eligible for accreditation under any existing offsetting standards, independent verification and lengthy approval processes (associated with existing standards) would only serve to increase the resource required to manage the fund and deliver outputs.

7.2 Fund outputs

The RBBC fund could have a number of outputs and could become part of a wider service/programme within the borough focused on CO_2 reduction and encouraging better environmental behaviours. The fund should remain flexible in regards to the type of service it can offer, with both types of fund mentioned above, being available, in order to service the varied requirements of 'investors'. If both types of fund are available, the fund can make use of existing relationships between businesses and their local communities but also ensure that as and when businesses or individuals are prepared to consider offsetting, that they have a viable local option available to them. It is likely that the "Community CO_2 top up fund" could be established first to get a number of flagship projects up and running. Once further research has been carried out a local offset fund/service could be promoted locally.

It is clear, from the work that other local authorities are doing and from the expectations of businesses (and the expectation created by the existing national carbon offset market) that an RBBC fund would have to present itself as a service, with added value attached, that can help residents, businesses and the wider community to reduce their impact on climate change.

7.2.1 Promotion and services

The fund should have a strong presence locally and its messages should be clear. Eastleigh Borough Council and Newcastle City Council's carbon offsetting initiatives are good examples of this. Both have taken the approach to promote reduction before offsetting and both offer advice and assistance on how this can be achieved.

RBBC does not currently have a dedicated offering for residents or businesses who wish to obtain advice on how to tackle their environmental impact. It may not be necessary to create a bespoke service as a wide range of advice is available nationally (Energy Saving Trust and Utility Companies provide consumers with energy efficiency advice, Carbon Trust and envirowise provide businesses with advice on improving environmental performance across operations and locally, Business Link

provides sustainable business advice to small and medium sized organisations). However, a dedicated portal of information which clearly states that the Council is aiming to achieve significant improvements within the borough could act as a good platform for the fund.

This could include advice for residents and businesses on how to calculate their CO_2 footprint (e.g. through use of Defra Act on CO_2 calculator or Carbon trusts Emissions calculators), links to recent news regarding climate change, best practice case studies and question and answer forums.

Working with existing advisory organisations, the service could offer workshops and presentations, site visits and follow up support to implementing actions to improve environmental performance.

A strong message should be developed outlining the Councils own objectives, such as Eastleigh Borough Council's carbon neutral target. This should be backed by information on what the council is doing to reduce emissions from its own operations now and in the future and the work being carried out in the new growth point areas and Redhill area regeneration.

As far as possible the Council should utilise existing services for business. This should be done in close partnership with organisations like business link and carbon trust to ascertain exactly what they can provide and how this could be promoted (in conjunction with the fund) locally.

Note: *An objective of the study was to identify a number of businesses and to provide general energy advice to them, in partnership with existing service providers such as Business Link or Carbon Trust. It has been difficult to get any commitment from these organisations within the life of the study as competing priorities seem to act as barriers to cooperation. Business Link's sustainability advisor service does not seem to have the capacity to provide extra services to businesses and they are unable/unwilling to allow other organisations to utilise their contacts database. Further work should be done to try and expand partnerships with business link to overcome some of these barriers.*

7.2.2 Products offered

The RBBC fund could offer a range of 'products' to potential 'investors' in the shape of local CO_2 reduction projects. The fund could offer an 'offset' product where a price per tonne of CO_2 is set and certificate provided for offsetting against an unavoidable CO_2 emitting activity e.g. air travel.

Given the current market for offsetting it is likely that domestic energy efficiency projects would be the preferred output for this type of product. A recent survey carried out by 'Which' showed that the price of offsetting one tonne of CO_2 currently lies between £7 - £23[10]. The high cost of community projects would not offer a competitive rate against the market, where as domestic projects (with the added value of being locally based) could compete.

The Community projects assessed can offer a reasonable price per tonne of CO_2 over their lifetime, when additional funding is available and the fund acts to 'top up', effectively triggering the CO_2 savings. In order to ensure that these projects went ahead though, a businesses would either have to contribute the full amount of top up funding or the fund would have to finance the project on a pro rata basis, where payments from investors could replenish the fund over time. Sufficient capital would be required to set up this type of fund, perhaps using Council funds and a 'rolling' pot where a proportion of funds are drawn back over time, following contributions by 'investors'.

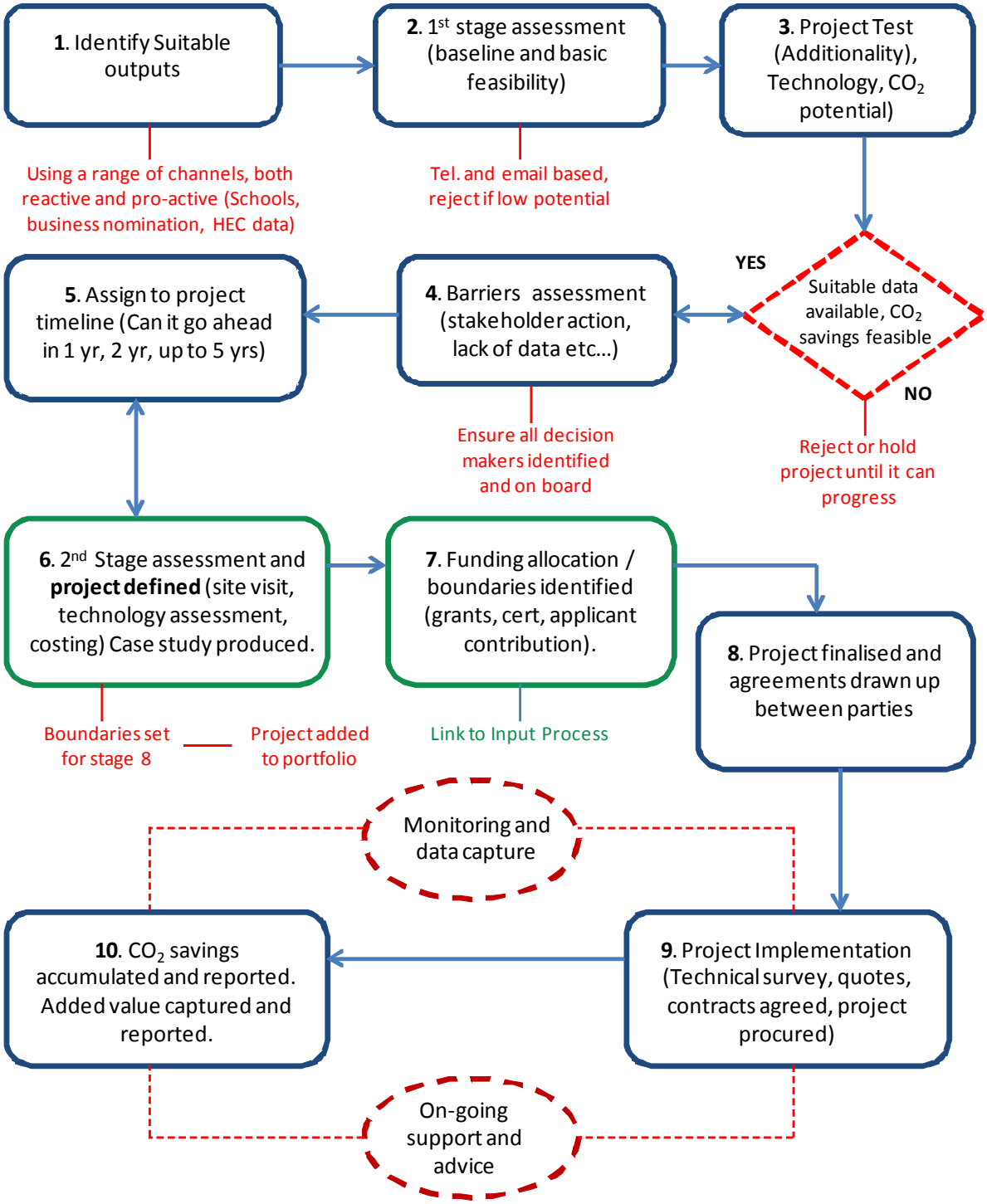
[10] "Can we buy our way out of CO2 chaos?" Independent, 22 March 2008

Three of the projects assessed have been worked up into 'products' or case studies which could be used to promote the fund or to report on fund activities. These are provided in Appendix 7, 8 and 9. Each describes what the baseline scenario is, the CO_2 outputs of the project and added value generated by the funds contribution.

The following sections provide an overview of how the fund could operate to assess and deliver outputs and to receive inputs. Section 8.5 discusses the potential management implications of this.

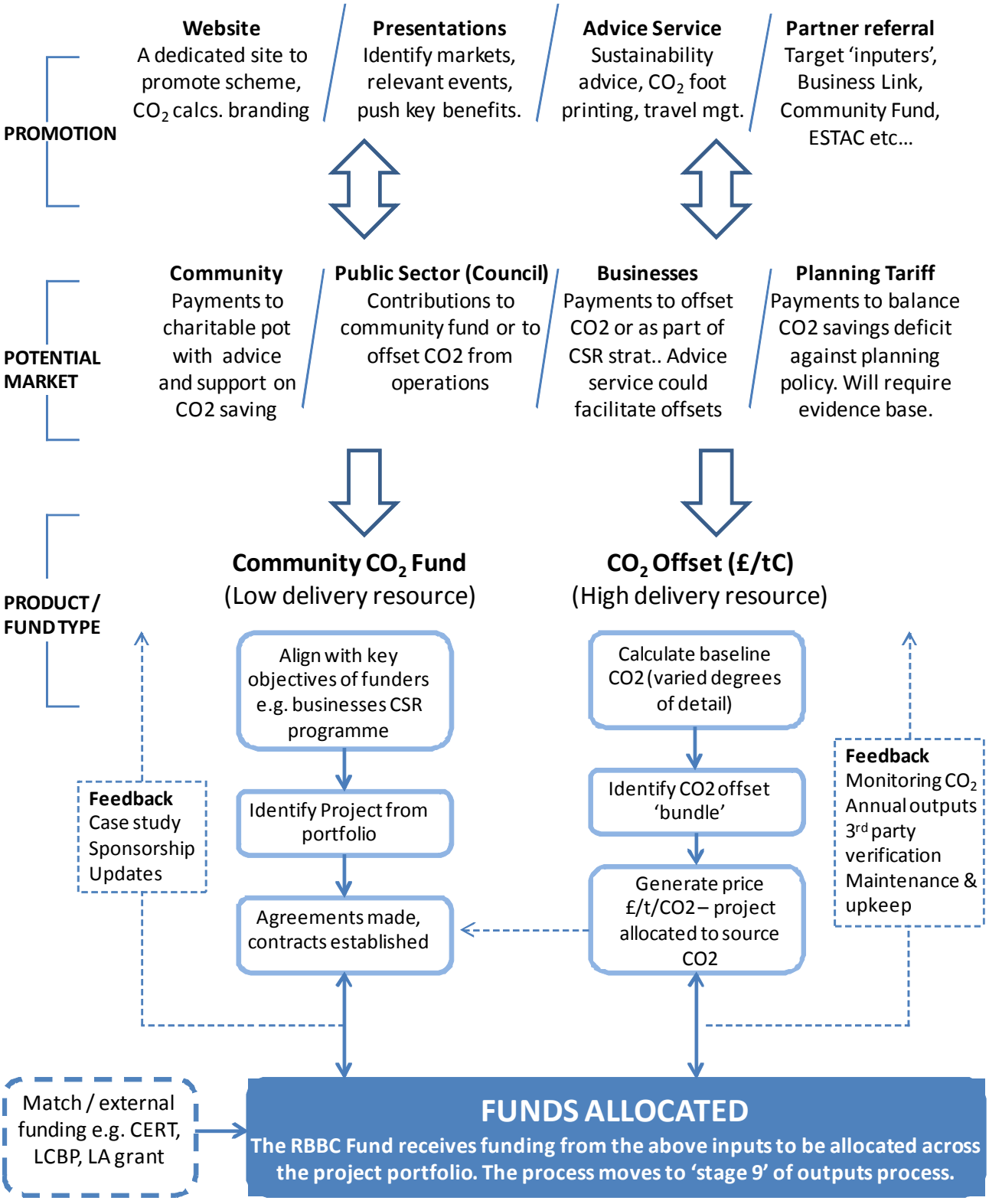
7.3 Outputs process

The process below is intended to provide an overview of how the RBBC fund might operate with key milestones and action points . The process assumes that a 'project' has already been defined and starts from identifying projects to assess from a range of sources. The 'input' process has been provided, in greater detail, separately.



7.4 Inputs process

The process below outlines the proposed process for achieving inputs to the fund, using two suggested fund types, a Community "CO2 top up fund" and a "CO2 Offset Fund"



7.5 Management and delivery

The RBBC fund options described above would require significant management resource to operate effectively. While some resource could be provided through partnerships (e.g. with existing advice providers such as Business Link, Carbon Trust and Energy Advice organisations) it is likely that dedicated resource will be required to manage funds, generate contributions from investors and to manage the delivery of projects (including sourcing measures, negotiating discounts, leveraging match funding and assessing, specifying and implementing projects on the ground). A local company, Black and Veatch, which provides technical renewable energy consultancy services (with expertise in Biomass) has indicated that it would cost approx. £4,000 to carry out a detailed assessment of each project and to take it to an implementation stage (their proposal is provided in Appendix 10).

In addition, projects will need to be monitored (to varying degrees) over their lifetime. For CO_2 offset projects, the amount of CO_2 generated or saved will need to be recorded and balanced within a wider CO_2 portfolio. Where one off contributions are made to a Community CO_2 top up fund it is likely that a limited number of reports (e.g. at beginning and end of a project) would be required to inform 'investors' of key successes.

There may be an opportunity to receive support (in-kind) from local businesses and service providers in place of cash contributions which could assist in providing some of the resource required to manage fund activities. Local companies such as Black and Veatch and Legal and General both expressed an interest in providing in-kind expertise to help get projects off the ground.

In order to maximise the cost effectiveness of the fund (and therefore the ability to attract investments to it over time) a robust project delivery mechanism would be required which can offer a set of CO_2 reduction measures (for potential outputs) at the best possible price while maintaining high standards of quality. Larger offsetting programmes often enter into partnerships with specific organisations to deliver projects e.g. technology providers, surveyors and installers. Using the checklist provided in Appendix 6 and project types provided in Appendix 2 and 3, it would be possible to establish a set of measures offered by the fund (which have the most potential to service the projects available within the borough) which can be standardised and delivered by a minimum number of suppliers.

As shown above, the resource required to deliver the fund will depend on the type of fund which is developed. It is clear that a CO_2 offset fund would require far greater resource than a community CO_2 top up fund but that in both cases some upfront investment will be required to develop the fund and the services that it provides.

8 Key Issues / Going Forward

There are a number of decisions that must be made in order to identify how the RBBC fund could be developed further. There is potential locally to develop a portfolio of CO_2 reduction projects and to generate funding which can support these over time. However the following issues should be investigated further to identify exactly how the fund should be developed.

- Delivery mechanisms – price of projects (managed and installed)
- Range of outputs - housing VS community
- Seed funding for the pot – would the council make a contribution
- Monitoring and verification – levels required (by output and fund type)
- Additional offerings to leverage funding - services to assist businesses to work towards a level of internal CO_2 reduction where offsetting becomes an option for them to balance remaining emissions.