

**REIGATE & BANSTEAD - eaga plc /SECBE BALANCE TRADING FEASIBILITY STUDY AND PILOT PROJECT: CONTRIBUTION TO CORE STRATEGY POLICY 11 EVIDENCE BASE.**

The Borough's draft Core Strategy sets out in *Policy 10 Sustainable Construction* the policies which will eventually deliver zero carbon housing i.e.

- a three phase increase in the Code for Sustainable Homes Level requirements rising from Level 3 up to 2010, through Level 4 to 2013 to Level 5 during the period to 2016 and Level 6 thereafter;
- 10% of the reduction in predicted energy use to be achieved through renewable energy; and
- *'until such time as Zero Carbon building standards are being met (Code Level 6) Carbon Neutrality must be achieved by making a financial contribution to the Local Carbon Offset Fund, proportionate to the difference between Target Emission Rate and the total energy demand to enable residual carbon emission rates to be offset elsewhere in the Borough'*

Thus in the transitional period before Zero Carbon CSH 6 becomes the minimum standard in 2016, the housing component of the Borough's Sustainable Construction policy will be to deliver carbon neutral housing development

The ***rationale for this policy*** is as follows

- the Borough has a responsibility to reduce the carbon footprint of its area in line with government targets for the reduction of CO2 emissions;
- the existing housing stock accounts for over 25% of the Borough's CO2 emissions, thus a significant reduction in emissions from the housing stock will be essential if targets are to be met;
- but the additions to the housing stock between now and 2016 will add to the CO2 emissions as they will be at a lower standard than CSH Level 6;
- the Borough is a growth area, delivering relatively high volumes of housing and therefore creating disproportionately more carbon emissions from housing than non-growth areas;
- thus the challenge of reducing the Borough's carbon footprint will be proportionately greater and this justifies higher than minimum standards for new housing and a policy of carbon neutral housing development which offsets this disproportionate growth in emissions;
- a significant proportion of the new housing will be delivered through small-scale developments where it will be difficult to provide on-site renewables;

- however, a financial contribution from developers, to offset the emissions from new housing development and /or the impracticality of on-site renewable installations, which is then invested (via a Low Carbon Reduction Fund) to reduce emissions from existing neighbourhoods, will accelerate the reduction of emissions from the existing stock and ensure that the development of new housing is carbon neutral during the transitional period to zero carbon new housing;

Overall, this policy instrument of offsetting will provide flexibility in the implementation of the Borough's Sustainable Construction policy, the need for which is emphasised by changing housing market conditions. However, it will be used in a way that does not undermine the relevant CSH standards and the renewables requirement. Offsetting will be a last resort measure to achieve carbon neutrality, not a means of reducing environmental standards for new development.

The Borough is developing its **capacity to implement this policy** through an ongoing partnership with eaga plc and the South East Centre for the Built Environment (SECBE), to develop Balance Trading as a key policy instrument. This project is drawing on a recently completed research project to assess the requirements of establishing a Low Carbon Reduction Fund, carried out for the Borough by the Energy Centre for Sustainable Communities.

Balance Trading is a new policy instrument being developed by eaga plc which would enable the net carbon emissions from new housing development to be offset by providing for S106/tariff funded investment (or direct contributions) via a Low Carbon Fund (or Carbon Offset Fund ) to finance energy saving installations and/or the application of renewable technologies to eco-retrofit nearby neighbourhoods. This investment would deliver the carbon emission reductions equal to the gap between the standard achieved in the new development and Zero Carbon CSH Level 6.

eaga plc delivers energy efficiency improvements to some 250,000 households a year nationwide, on behalf of Government and energy companies through installing insulation and renewable energy systems. eaga has been active in Reigate and Banstead for several years. The company has funded the eaga-SECBE Balance Trading Project, with the aim of taking the principle of carbon offsetting into sustainable construction practice in the South-East. SECBE is one of SEEDA's 5 core-funded industry sector consortia which is tasked with promoting triple bottom line improvements in the region's built environment sector, including the reduction of its carbon footprint.

This project is providing evidence to support the Borough's carbon neutral sustainable construction policy through four activities;

- monitoring the national debate and the evolution of government policies in the context of rapidly changing market conditions;
  - monitoring the emerging policies of other LPAs in the South East, particularly in the growth areas, to identify progress and problems in the development and implementation of Sustainable Construction policies;
  - 'market-testing' the BT approach with housing developers through a range of interviews with the management of a range of house-builders and their agents;
- and

- securing agreement of all parties to the approval of an application for residential development which includes a BT component, which would provide concrete evidence of the practicality of BT as a tool to deliver carbon neutral development through the planning system, in advance of Building Regulation standards

At **national level** the UK Green Building Council report *The definition of Zero Carbon* was produced by an industry-led Zero Carbon Task Force and published in May 2008. The recommended zero carbon housing definition is one that incentivises developers to address the problem in a hierarchy of

- energy efficiency – for which a minimum requirement should be set
- on- or near site zero carbon technologies – a minimum requirement
- offsite technologies – a mechanism needed for allowing these as last resort solutions

The off-site technologies would include payments into a Community Energy Fund ‘...to support installations that achieve additional carbon savings at least equivalent to those that could not be mitigated on- or near site by the developments making contributions. One example put forward by the group was that the fund could be used to serve the existing stock using heat from new developments’ (p35)

This is seen as appropriate for smaller sites (especially Conservation Areas) where the developer could pay into the fund at the same rate as the larger sites. The Community Energy Fund should have a preference for installations close to projects that have paid into the fund and should possibly be managed by trustees. Organisations and companies could then bid into the fund to for projects that deliver carbon savings as part of a wider strategic plan.

In parallel, there is increasing concern to accelerate the rate at which the existing housing stock is ‘eco-retrofitted’ to reduce carbon emissions. For example, the recent report of the House of Commons Communities and Local Government Committee *Existing Housing and Climate* argued that government had to engage as fully with cutting emissions from the 25 million existing housing as it is with zero carbon new build and eco-towns

The BT policy instrument is similar in principle to the UK Green Building Council Community Energy Fund proposal, but it focuses specifically on linking new housing development with the reduction of the carbon impact of the existing stock by using offsetting as a last resort solution to fund energy efficiency and renewables installations that would deliver carbon neutral housing development. ***Thus the BT approach is consistent with the views of the Zero Carbon Task Force.***

At **regional level** the eaga-SECBE project undertook an initial exploratory questionnaire survey of all LPAs at the beginning of this year, to help identify those LPAs who were committed to developing innovative policies to reduce carbon emissions from their housing stock. This data indicated that, for example

- half of the LPAs were developing SPDs on Sustainable Design and Construction
- over 40% were committed to CSH 3 now and a further 30% had or were developing proposals for Code Level 4
- half of the LPAs had adopted or were developing proposals for 10% renewable energy to be met from on-site installations

- 20% were developing proposals for carbon offsetting, which indicates, that Reigate and Banstead are in a leading group of LPAs in this field, but are by no means alone in developing policies of the kind included in the Draft Core Strategy

This work is now being supplemented to improve the data base by web-site work and discussions with leading LPAs in this field which the survey helped to identify. Priority is being given to profiling the circumstances in the growth areas in the South East where, not matter what the extent of the down-turn, major housing development will take place and without the application of BT, this will guarantee proportionately higher increases in carbon emissions compared with other LPAs

For example discussions with the PUSH (Portsmouth and Urban South Hampshire) LPAs has established support for carbon neutral development policies and a willingness to engage with willing developers to undertake voluntary pilot schemes. Eastleigh Council is committed to become a Carbon Neutral Council by 2012. Brighton and Hove, Basingstoke and Deane and Reading Councils Council have agreed to work with eaga-SECBE to develop voluntary pilot schemes. Linden Homes and Worthing Homes have agreed to work with eaga-SECBE to find an LPA partner with whom to develop a scheme.

More specifically the ECSC report *Reigate and Banstead Borough Council Local Carbon Reduction Fund* identified several local authorities in the South East and elsewhere, including Milton Keynes which have developed carbon offset funds.

In this context SEEDA (in co-operation with SEERA and GOSE) is now assessing the potential of and support for implementing BT type approaches to link new housing development with the existing housing stock, as part of its work to develop policy for improving the energy efficiency of the housing stock in the South East (Consultation Event, Gatwick Hilton, 8<sup>th</sup> July 2008)

***Thus there is evidence that the policies which the Borough are part of a process of innovative policy making which is gaining momentum in the South-East.***

Since last Autumn eaga has been '**market-testing**' the principle of BT with a wide range of developers in England Scotland and Wales to assess their attitude to BT as an additional tool to accelerate the rate at which carbon emissions from housing are reduced. The general response to this engagement with key stakeholders has been positive, but that 'the devil is in the detail'.

One concern was that BT would be an extra charge, rather than being funded from agreed obligations for affordable housing/ community infrastructure and that there was just so much that the market would bear. This issue is increasingly important in the context of falling house prices and the difficult trading conditions which are now emerging.

Another issue was that there would need to be clear support in principle for BT from the LPAs before developers would enter into pilot schemes on a voluntary basis. Such pilot schemes would be necessary to work out the details of implementation, particularly in terms of the unit cost per different type of dwelling

The means by which the funds generated would be invested was also a concern. It is clear that a proposed Local Carbon Offset Fund would need to be developed in a way that made it absolutely clear where and how the BT funds are invested. Some developers suggested that they contract directly with eaga or a similar company to implement the installations in existing housing that would deliver the carbon offset.

The generally favourable response from developers is consistent with the views of the government's Zero Carbon Task Force.

***Thus there is evidence to show that developers appreciate the potential of BT, in terms of the flexibility and robustness that it would provide for the implementation of a carbon neutral housing policy as a key component of the Borough's Sustainable Construction policy.***

The ***implementation of the carbon neutral policy*** will involve a series of carefully sequenced steps. The Balance Trading option would be particularly appropriate on smaller sites with limited scope for renewables. The Borough will need to be satisfied that housing development proposals submitted for planning approval are designed to meet the standard set – be it Code Level 3/4/5 and/or a renewables obligation. The Borough will negotiate with the developer for a contribution to fund the balance between the standard achieved by the design and zero carbon. Where the Borough is satisfied that the renewables requirement cannot be achieved at reasonable cost it may then offer an additional element of BT offsetting to enable the scheme to go forward.

The volume of carbon emitted by a new housing development scheme will be calculated. An allowance will be made for the amount of energy generated on site by the maximum feasible application of renewables, verified by independent low carbon consultants. The remaining amount - the balance - of carbon would be saved off-site by improving existing homes in the local area, funded by a portion of the developer contribution for the scheme.

eaga estimates that for each new dwelling it would be possible to use the balance to fully insulate three homes. Each of these households would see their energy bills cut by an average of £160 per annum. Alternatively the balance could be used to subsidise the installation of renewables in conjunction with Warm Front grant funded insulation for low income families, or provide a financial incentive for 'able to pay' households to install renewables. This could be a pump-priming component for the development of the area/neighbourhood approach proposed by the House of Commons CLG Committee.

The Borough is working with the eaga-SECBE project to implementing **a pilot project**. This involves securing the agreement of all parties to the submission and approval of an application for residential development which includes a BT component. It also will require the establishment of the creation of the Reigate and Banstead Local Carbon Reduction Fund.

This work involves appraising outline schemes to assess the carbon emissions reductions needed to make them carbon neutral and calculating the costs of the installations ( a combination of insulation and renewables) needed to offset the emissions. The Project Team is working with developers and their agents to undertake these appraisals.

The Borough will adopt a pricing structure which would demonstrate what the developer would need to contribute per dwelling to deliver the reduction in carbon emissions necessary in existing dwellings to enable a scheme to meet the carbon neutral policy requirement. This would vary with the type of installations funded and the type of house/neighbourhood which is the target of the investment. A financial model is being developed and applied to a range of proposals in different areas of the Borough in order to establish indicative costs for the required offsetting.

The sharp deterioration in market conditions may mean that it will take rather longer than was envisaged to implement a pilot scheme. But the Borough takes the view that even in these difficult conditions a developer will see the competitive advantage of delivering the first carbon neutral housing project in the Borough and possibly in the South East.

The implementation of the policy will also require the creation of a **Local Carbon Reduction Fund**, with clearly accountable management procedures to ensure that the BT funds are invested appropriately in existing housing areas. The investment of the developer contributions would be transparent and would be integrated with other local carbon reduction investment programmes to ensure additionality. *The report Reigate and Banstead Borough Council Local Carbon Reduction Fund* addresses these issues and provides a clear basis for the Borough to choose between a range of governance structures to create the fund.

***Thus substantial progress has been made towards the implementation of a pilot project and the parallel creation of the Local Carbon Reduction Fund. On this basis the Borough is confident that its policy of carbon neutral development is deliverable.***