



Sustainable
Development
Foundation

<i>Job Title:</i> LOW CARBON BUILDINGS CAMPAIGN	Project Number: SDC 0011a
<i>Document Title:</i> LOW CARBON BUILDINGS CAMPAIGN – FEASIBILITY STUDY	Version: Final February 2007
<i>Prepared by:</i> SUZY EDWARDS	Checked/ Approved: JON BOOTLAND ¹

Low Carbon Building Campaign – Feasibility Report

February 2007

Executive Summary

In July 2006, the Sustainable Development Foundation (SD Foundation) set out to explore the potential for creating a Low Carbon Building Campaign that would enable construction industry professionals to play a part in the transition to a Low Carbon economy.

The starting point was to review the work of existing campaign organisations and establish the feasibility of working together in partnership. It was decided that formal partnership between existing groups would not be productive at this time. A stronger model will be to campaign by assembling appropriate groupings of experienced and influential industry representatives on a topic-by-topic basis.

This report sets out how the SD Foundation intends to do this.

The report contains:

- a) The Aim of the Low Carbon Building Campaign
- b) Feedback on support for another group
- c) Potential campaign topics
- d) A detailed examination of a potential campaign for School Buildings, including further work required.
- e) Recommendations for the way forward

A specific opportunity for action that has come to our attention during this feasibility study is the gap between the capital currently available to schools for new build and refurbishment and the additional capital that is required to achieve low carbon schools, even if the additional capital investment will lead to lower overall costs over the lifetime. Schools currently represent 15% of all public building emissions, which is approximately 2% of national carbon emissions or 10mt of CO₂ per year. Notwithstanding this, there is a strong social reason for ensuring that future generations are educated in low carbon buildings where the building itself is a learning tool. The SD Foundation will therefore pursue this specific action in early 2007, independently of progress on the wider Low Carbon Building Campaign.

We have identified three targets for the SD Foundation Low Carbon Building Campaign to take forward over the coming year.

1. The availability of budgets that enable low carbon Schools
2. Building of low carbon new public buildings (including refurbishment)
3. Transformation of existing public buildings to low carbon.

'Public Buildings' include Schools, Healthcare, Higher Education and Civic buildings.

It is proposed that for each topic the general campaign approach will be:

- create a loosely organised partnership based on common interest,
- work to assist relevant Government officials,
- adopt more vocal public lobbying techniques as appropriate.
- develop the business case post the Stern Review.

1. Introduction

Many solutions to delivering low carbon building, both new build and from existing, are already known. Industry in many guises, both owner-occupiers and developers, is calling for stronger regulation to provide a robust level playing field. The urgency with which we need to turn around the energy performance of the built environment in the UK has never been stronger.

Recognition of the importance of Climate Change has resulted in some form of action being taken by many groups. It is estimated in the scoping report for UK Green Building Council ² that there may be as many as 650 groups working a “greener” construction industry.



In October 2005, the SD Foundation began a series of letters and user-friendly email consultation responses on the Building Regulations, the Code for Sustainable Homes and Planning Policy Statement 3 to enable construction industry professionals to express their views on planned Government policies. The letter on Building Regulations was met with enthusiasm and obtained over 50 signatories.

The SD Foundation believes that the voice of authoritative industry figures and from the professionals who deal with these issues on a daily basis needs to be heard by government, local authorities and other developers.

The question arose: is there a niche for a more permanent and funded entity that enables construction professionals to speak out and have their voice heard on matters related to Low Carbon Buildings?

This report sets out what SD Foundation has done to answer this question and the way forward for a new Low Carbon Building Campaign. The work was carried out in two phases: through informal consultation with existing campaign groups, and industry professionals and by refining the options for low carbon campaigning with regard to topics and techniques. The results of this work are presented in sections 1 and 2.

² UKGBC Scoping Report, Cranfield University 2006

2. Background to the Low Carbon Building Campaign

Aim of the Campaign

To deliver a steep and rapid reduction in the energy consumed and Carbon emitted to produce, maintain and operate new and existing buildings, in line with the requirements of Contraction and Convergence³

Initial strategy for the Campaign

1. Using industry contacts and research by existing campaign groups, identify barriers to the delivery of Low Carbon Buildings⁴
2. Work with interested parties to identify efficient and effective actions that can be taken by Government and Industry to deliver Low Carbon Buildings
3. Organise opportunities for industry professionals willing to take personal action to campaign for low carbon buildings:
 - Engage them in supporting campaigns by existing organisations.
 - Engage them in providing feedback and inspiration to existing organisations on the value of different policies and actions.
 - Empower them to take collective action on topics as a group.

³ RIBA Position Paper on Contraction and Convergence, September 2006, provides a comprehensive explanation of C&C. Available on request from edwards.suzy@gmail.com

⁴ Low Carbon Buildings are defined as buildings that meet the requirement to reduce Carbon emissions by 80% by 2050.

3. Results of Consultation with Existing Groups and Industry Professionals

A review of some of the existing organisations working on climate change and buildings is provided in Annex 1. From this overview, it was considered that whilst there are indeed many groups working on this topic, many are at an early stage of determining their strategies – especially the professional groups, such as RIBA and Construction Products Association. Other influential groups such as WWF have had a big impact in some areas – e.g. influencing the sustainability code for new housing, and are now gearing up to campaign on existing homes. Groups such as the Sustainable Development Commission and Green Alliance undertake broad policy analysis that provides an excellent platform for more detailed research into specific barriers. New organisations such as the British Council for School Environments also now exist with the remit of enabling clients and deliverers to achieve better schools, but they do not have an explicit sustainability or campaigning remit.

Conversations took place with a number of individuals working in existing organisations or with a professional interest, also listed in Annex 1. The explorations taken to date have had a mixed response. After a number of conversations with campaigners, it became apparent that there is little appetite for a new formal grouping amongst existing groups. Each group (e.g. One Million Sustainable Homes, The Edge, RIBA) has its own focus and method of working and is wary of committing more time to group bureaucracy and also averse to creating formal campaign structures where they may have to compromise their own positions.

In examining these findings, the SD Foundation Board observed that there are still very few examples of low carbon buildings being delivered, that the pace of change in the industry is slow and that more action is still required. They recommended that the SD Foundation should work with those groups that share a common belief in the need for urgent and radical action on reducing Carbon emissions, working in largely informal partnership with these organisations. The Board also recommended that the Low Carbon Building Campaign should engage with influential individuals who are themselves willing to take a proactive and radical stance.

The key to success for the campaign would seem to be to work in partnership with the existing construction industry groups where appropriate and in addition, to bring together climate professionals from the campaign and solutions world, interested local government representatives and industry professionals who are not yet part of established groups but are keen to become active.

It became apparent that a loose-fit approach to creating campaign groups on a topic-by-topic basis would be the most appropriate way forward at the present time. This is covered in section 5. Out of this arrangement, it may be possible in the medium term to create a more organic list-serve that enables wider networking and sharing of ideas to support stronger campaigning.

The identification of suitable campaign topics forms the next section of this report.

4. Examination of Potential Campaign targets

A number of bodies, including CABE, the Sustainable Development Commission, and the Green Alliance have identified opportunities to remove barriers and put in place the mechanisms required for the delivery of low carbon buildings.

The first topic we chose to examine was public buildings; this choice was based on our experience in this sector.

We examined the opportunities for effecting change at two different levels:

1. Considering a selection of important barriers and potential mechanisms for effecting change in public procurement.
2. Detailed examination of one specific issue. It was decided that to look at the issues surrounding the freedom for schools to spend more capital in construction to achieve positive whole life value and whether they can access additional funding to deliver for low carbon schools.

4.1 Public Procurement of Low Carbon Buildings

Current barriers

A list of barriers affecting the delivery of low carbon buildings through public sector procurement was prepared, which is not intended to be comprehensive but is based on the experience of SD Foundation practitioners:

1. Low carbon buildings require increased capital cost
2. Separation and lack of flexibility between Capital and Operational budgets
3. Sustainability seen as a bolt-on by the client & is therefore lost through value engineering and often not considered at the beginning of process.
4. Lack of knowledge about what is a low carbon building
5. Lack of knowledge about costs and paybacks of low carbon measures
6. Overemphasis on expensive “signature” features providing poor carbon savings
7. Lack of understanding of how to operate low Carbon features in new buildings
8. Regional and Local Authority CO2 targets not translated into targets for sectors and individual buildings
9. No link (or poorly understood) between buildings and user outcomes (school learning results, patient recovery etc)
10. Little proof that sustainable buildings perform/evidence that they often do not: Usable Buildings Trust cites underperformance of up to three times as typical gap between designed and measured energy consumption.
11. No consistency of benchmarking, benchmarks rapidly out of date with rise in IT provision.
12. Low Carbon is seen as a tradable item, even in BREEAM
13. Lack of incentive for contractors and design team to deliver low carbon
14. Complexity of funding awards and lack of time in bidding process (e.g. 16 weeks for Buildings Schools for the Future) prevents implementation of bigger scale solutions e.g. renewables and decentralised energy.

Potential solutions

There is a fairly short list of generic solutions that could effectively address the above problems:

1. Change legislation
2. Provide fiscal incentives (carrot or stick) e.g. price on Carbon, investment in low Carbon technologies
3. Change policy
4. Set or change targets
5. Collect performance data (including overseas examples)
6. Provide guidance and training
7. Run awareness-raising and behavioural change campaigns
8. Run behavioural change campaigns

Potential mechanisms for change

There is a limited number of generic mechanisms that can be used to deliver the required solutions, including:

1. Lobby MPs (e.g. seek private members bill)
2. Private meeting/discussion with Ministers &/or civil servants
3. Invite Ministers/ civil servants to address industry gathering
4. Industry conference/ summit
5. Media campaign – trade press
6. Media campaign – national press, radio & TV
7. Partnership with lobbying organisation (e.g. Green Alliance, FoE)
8. Lobby other key individuals (e.g. Regional Development Authority staff and local Councillors)
9. Seek funding/ partnerships for research work
10. Seek funding/ partnerships for awareness-raising campaigns

Table 1 looks at these problems and charts them against the actors involved and the potential mechanisms. Each of these problems could be addressed in detail.

We chose to focus in detail on one of these issues – the availability of capital to invest in low carbon solutions which lead to whole life performance benefits. The findings of our further analysis in this area are presented in section 4.2.

Table 1. Delivery of Low Carbon Buildings: Public sector procurement barriers & potential change mechanisms

Barrier	Potential solutions	Who can control these items?	Who to involve?	How to effect change?
1. Low carbon buildings require increased capital cost	<ul style="list-style-type: none"> • Govt provide grants • Govt allow additional capital expenditure if covered by savings • Bring in private money for additional costs (ESSCo?) 	a) Treasury b) Treasury c) Treasury/ commissioning departments (NHS, DfES, MOD)	See section 4.2	See section 4.2.
2. Separation between Capital and Operational budgets	<ul style="list-style-type: none"> • Merge Capex & Opex • Set up mechanisms to share costs and savings • Govt allow additional capital expenditure if covered by savings 	a) Treasury b) Commissioning Depts (NHS, DfES, MOD)		
3. Low carbon seen as a bolt-on by the client & is therefore lost through value engineering	<ul style="list-style-type: none"> • Raise client awareness of low carbon & benefits • Guidance on examples of integrated low carbon • Low carbon set as a performance target for client funding approval 	a) Carbon Trust/ CABE & Commissioning Depts plus Institutions and Associations b) As above c) Commissioning Departments		
4. Lack of knowledge about what is a low carbon building	<ul style="list-style-type: none"> • Guidance and training on examples of low carbon buildings 	a) As 3 above plus sector skills councils		
5. Local Authority CO ₂ targets not translated into targets for individual buildings	<ul style="list-style-type: none"> • Set CO₂ targets for client funding approval • Set building CO₂ target requirement for Local Authorities • Raise LA awareness of low carbon buildings 	a) Commissioning Departments b) DCLG c) As 3 above plus LGA & IdEA		

4.2 Detailed examination of a single campaign target

In order to determine a useful campaign strategy and consider how a more detailed campaigning approach might be undertaken, one issue relating to public procurement was examined in more detail. This is:

Is additional capital available for a school project where the case for positive net present value can be demonstrated? Can schools have extra capital to invest in low carbon design and technology if that will pay for itself through whole life cost savings?

The preliminary findings are presented below.

Understanding of the barriers

DFES are the funding distributor of the budget from Treasury. Partnerships for Schools control the funding for the Building Schools for the Future programme – they state there is no more money available beyond the basic formula payment per school.

Treasury officials suggest that additional funds are available for public projects if positive net present value can be demonstrated but this is not promoted by DFES to schools. We have not yet been able to confirm that this money is available. DFES believe it would mean smaller operational budgets would be available and that schools would not accept this. Office of Government Commerce representatives state publicly that it is possible to spend more on each school to deliver a better whole life performance, but that this would mean less schools would be built or refurbished overall.

DFES themselves are unsure what would be needed to win more money from Treasury but have suggested that being able to prove positive net present value would be one requirement. We are unsure whether there is sufficient data yet in the public domain to do this.

Some grant money is available for low carbon technologies from the DTI Low Carbon Building Fund; DfES are keen to promote this and already point LEAs in this direction. However, the budget is inadequate for the scale of the challenge for UK Schools. It is too small, laborious to obtain and uncertain to deliver low carbon school stock nationwide.

It would be useful to explore whether there is another way they could do this e.g. external private sector investment (such as for Energy Service Companies).

Potential solutions and proposed actions for low carbon schools

We do not yet have an estimate of the additional budget required to deliver low carbon schools, nor suggestions for a method of distributing these funds. This would be a valuable research area and financial cost-benefit analysis will be vital to achieving political buy-in.

At the present time, the DFES is actively seeking solutions and is becoming increasingly engaged in the sustainable schools agenda (See Appendix 1). DFES, via Head of Capital, has welcomed the initial meeting with George Martin, and has invited Jon Bootland to meet with her. Therefore, at the present time it is proposed

that we cultivate the relationship with DFES and seek to enrol them in the need for more capital to deliver the low carbon agenda. This engagement should also be widened to include David Millibands' department.

Ultimately, however, the responsibility for providing more resources will sit with the Treasury. (It is interesting to note that the NHS already has a £100m budget ring-fenced for low-carbon approaches.) We should therefore seek to influence key individuals in the Treasury. We propose to achieve by approaching political lobbying organisations such as the Green Alliance and the Sustainable Development Commission to seek their support in accessing relevant individuals.

If Treasury are unwilling to provide leadership and promote the availability of extra capital, then we would need to persuade DFES to provide explicit guidance about how LEA's can obtain additional funding for low carbon approaches, and to support them in the preparation of information that proves they have met any Net Present Value requirements.

To create an effective lobby position, we will pursue the approach of working in partnership with other companies and organisations:

1. Have allies who are facing the problem and can provide feedback on real examples. George Martin was able to have a face to face meeting with the Head of Schools Capital and register his concerns with her and also ascertain the level of knowledge of the Department we are trying to lobby.
2. Making contact with further design teams and also involving the client (in this case a local education authority) would create further power. DFES have had little response when they have asked for feedback; we can help deliver the on-the-ground information they need.
3. Establishing the source of the problem – i.e. who has the knowledge to overcome the blockage. Partnerships for Schools and DFES were unaware of any additional funds. Information on availability of additional funds based on positive net present value appears to be locked in Treasury and potentially the Office of Government Commerce.
4. Asking partners to assist in unlocking the problem – in this instance working with Green Alliance to gain access to the relevant Treasury officials.

A contingency plan is required if there is not sufficient willingness within DFES to move this forward with velocity. Possible counter approaches might include press releases supported by leading industry practitioners and including quotes from celebrities etc. Alternatively, taking up the matter with relevant Ministers and/or opposition politicians should help encourage the Government to make the delivery of low carbon schools an urgent priority. These options will be explored at a later date as necessary.

In passing, it is worth noting that the low carbon requirements for schools are much weaker than in the health sector – the Department of the Health has a mandatory energy target and requires all new healthcare buildings to achieve a BREEAM Excellent rating. DfES currently has a small-scale pilot project for BREEAM Excellent schools and limited enforcement of its energy target. The SDF believes that BREEAM Excellent, with a non-tradeable carbon target, should be the minimum requirement for all new public sector buildings, and will therefore be pushing for DfES to adopt more stringent standards across this broader front as part of its campaign.

5. Way forward for the Low Carbon Building Campaign

Potential campaign topics

The most important area of the built environment to address is probably the existing building stock, especially existing homes, which represent about 25% of total UK CO₂ emissions. However there is already a significant amount of policy and campaign activity in this sector, with WWF adopting existing homes as its new campaign focus, and both the Energy Saving Trust and the Department for Communities and Local Government planning to launch new policies this year.

It would therefore probably be most useful for the SD Foundation to focus on other sectors. In particular, campaigning on low carbon for public sector buildings (e.g. schools and healthcare buildings), where the SD Foundation team have specific expertise, would be beneficial. Examination of the activities of the other main organisations campaigning in this field would suggest that such a focus would cover a gap that is not currently adequately covered.

It would also be useful for the SD Foundation to focus on one specific campaign area as its initial approach – for example low carbon schools. This would allow the campaign to deliver some specific achievements or change in a relatively short timescale, and also avoid diluting its resources to an ineffective level. As the health sector has several progressive policy measures already in place, such as an energy target and ring-fenced funding for low-carbon approaches, which the schools sector has yet to develop, the schools sector is therefore the proposed focus of the next steps for a low carbon building campaign.

As the SD Foundation's other activities currently focus on new build programmes, we suggest that it would probably be most useful to relate the campaign to the procurement of new buildings, to make maximum use of available expertise. However, the existing stock has much more significant CO₂ emissions than new build replacements, so it will be necessary for this campaign to address existing buildings as soon as possible.

In order to broaden the campaign's coverage in this way, it would be useful for the campaign to include a research/ scoping section that could examine the barriers and potential solutions for improving the carbon performance of existing buildings. Again, this should focus on the public sector buildings where the SD Foundation has its expertise, but should not exclude consideration of other high level changes (e.g. Building Regulations) that affect other building sectors.

Finally, in addition to the proposed work on schools and other public buildings, the campaign should include a further parallel activity that will continue to scope out the most effective pressure points (e.g. Building Regulations, Planning Controls or EU Directives such as the Energy Performance in Buildings Directive) for achieving the fastest and deepest cuts in carbon from buildings across all sectors.

Approach to the campaign

In preparing this feasibility study, we have considered two different approaches to examining barriers affecting low carbon performance in public sector building procurement:

1. Identifying a list of barriers and developing ideas about potential solutions
2. Undertaking a detailed examination of one barrier and identifying detailed proposed solutions to that problem.

As a result of this study, a number of options are now available to us in terms of a campaign approach to change performance:

- Lobby on the basis that the SD Foundation team know there is an issue and request that the Government find a solution
- Lobby on the basis that an issue is known and that the SD Foundation and partners have a potential solution.

From our experience in investigating the issue of whole life performance and school budgets, it would appear that an effective and efficient solution is a 'half way' strategy, whereby the SD Foundation narrows down the focus of the analysis and finds out the source, current policies and practices and requirements regarding the barrier to low carbon.

From the work undertaken to date, several items have also emerged as useful in creating an effective lobby position.

1. Have allies who are facing the problem and can provide feedback on real examples. Help deliver the on-the-ground information Government officials need.
2. Establish the source of the problem – i.e. who has the knowledge to overcome the blockage.
3. Align in informal partnership with, or request assistance from, established campaigning and policy development partners to assist in unlocking the problem and gain access to the relevant Government officials.

A contingency plan may be required if there is not sufficient willingness within the relevant Department to move this forward. A counter approach, based on unfavourable press releases, preferably with quotes from relevant celebrities might be a good fall back position to embarrass the Government into moving the issue up their agenda. Jamie Oliver is an example of a celebrity who has successfully engaged with Government and achieved policy change. To support such an approach, the SD Foundation would call upon its wider supporters and encourage the Government to change by gathering a larger number of signatories, an approach the SD Foundation has used before on proposed changes to the Building Regulations.

It is proposed that this strategy of a loosely organised partnership based on common interest, leading to more vocal public lobbying as appropriate, is the most effective way forward for the campaign on Low Carbon Buildings. The SD Foundation will therefore seek to gather a coalition of interested parties with whom they will work. Some parties will be interested in taking further campaigns in the future, whilst others will be related to schools campaigning only.

6. Next Steps

The overall campaign

The SD Foundation should develop plans and seek funding for a low carbon buildings campaign that focuses on public sector buildings, with an initial focus on new building procurement. This would fill a gap not currently covered by other organisations already active in the field of low carbon buildings. There is a strong need for such a campaign as there is still very little change on the ground in most sectors, despite the activities of WWF and other organisations.

The SD Foundation campaign should start with an initial short-term focus on low carbon school buildings, in order to deliver some specific achievements and change in a short timescale. This campaign might particularly focus on capital investment for whole life benefit, but could also cover other aspects of low carbon schools procurement.

In the medium term, the SD Foundation should also seek to build capacity so that it can campaign on the carbon performance of other public sector buildings as soon as possible. It should also seek to scope out the potential impact of high-level policy changes that could affect low carbon building performance across various different sectors.

Initial activities - Low carbon schools

The low carbon schools part of the campaign should aim to deliver change by cultivating the relationship with DFES and seeking their support for the release of more capital to deliver the low carbon agenda. This positive engagement should also include David Millibands' department.

Beyond this point, the SD Foundation should seek to engage key individuals in the Treasury, probably through collaboration with political lobbying organisations, in order to persuade them to release the additional capital necessary to invest in low carbon approaches.

To develop this campaign, the SD Foundation should:

1. Gather allies who are facing the problem and can provide feedback on real examples, including Local Education Authorities and Major Contractors.
2. Establish the source of the problem – i.e. explore with DfES and Treasury officials what is the real cause of the current blockage.
3. Develop informal partnerships with established campaigning and policy development partners to assist in unlocking the problem.
4. Help to develop the business case for taking a low carbon approach.

Finally, the SD Foundation should develop a contingency plan in case there is not sufficient willingness within DFES or Treasury to move this forward with velocity. Possible counter approaches might include press releases supported by leading industry practitioners and celebrities, or taking up the matter with relevant Ministers and/or opposition politicians.

Appendix 1

Overview of Existing Activity on Low Carbon Buildings

The key lobby group on low carbon buildings at the present time which has strong green credentials and with most access to press, ministerial ear and public recognition is WWF. They are a strong player within the Green Alliance and the other environmental NGOs look to WWF for leadership. Through their alliance with BioRegional, WWF also have strong “solutions” credibility through the One Planet Living brand and its activities on demonstration projects and research into lifestyle. WWF have sought to rank housebuilders by their green credentials and have also publicly pulled out of the Code for Sustainable Homes to demonstrate their dismay at Government inaction. Since then, a revised and stronger Code has been promised for implementation in February 2007.

Green Alliance: in May 2006, they published a report, [Housing a low carbon society: An ODPM leadership agenda on climate change](#), which is supported by 28 other organisations working in this area. Including green developers e.g. Gusto Homes, NGOs, Sponge and the EST to produce a comprehensive report detailing policy requirements for Low Carbon Building, for new and existing homes. Some parties also support stronger measures which were not included in the report.

AECB with the Bronze, Silver and Gold Standard has been seeking to influence EST, BRE and Government to adopt their higher standards.

The Edge is asking the Institutions and CIC to take leadership and commit to setting their professions on course to meet the requirements of Contraction and Convergence.

CIC is considering hosting a summit on climate change and the construction industry. The Sustainability Committee is not currently powerful. The remit of CIC to be all-inclusive would appear to reduce the opportunity at the present time for any significant leadership from within CIC on climate change.

RIBA is undertaking a review of the industry and its activities on reducing climate emissions, led by incoming president Sunand Prasad, with report by Lynn Sullivan. Its position is yet to be determined. A great deal can be done through training in low carbon literacy via CPD and or requirements for RIBA membership.

Friends of the Earth: has limited in-house resource and is focussing on the Big Ask legislation requesting a 3% cut in climate change gasses. This is subject to criticism from the Global Commons Institute for not going far enough. Action on building likely to focus on promoting Merton Rule on Renewables to North of England Local Authorities.

Greenpeace: is focussing on Decentralised Energy as part of community development. Promoting to Local Authorities via a DVD.

The Carbon Trust: is actively placing articles linking buildings to climate change in the mainstream press – see Annex 3 as an example from The Guardian Unlimited website.

Sponge: have Government-funded research projects into public demand for Sustainable Housing as well as on-line Discussion Forum, but does not have a

specific stance on low carbon buildings. This group has a wide network of contacts but is not a campaigning organisation.

Carbon Trust: Actively promoting linkage between buildings and climate change. See Annex 4 for example of article they have placed in The Guardian.

Greater London Authority and Climate Change Agency: Have identified London has 70% building derived climate change emissions. Therefore construction is key focus.

UK Green Building Council: Seeking to be inclusive and democratic. Stance yet to be determined but looking to become “the” voice in the industry on green building matters. Strong calls for action can be expected plus new vehicle for promotion of BREEAM. Pace likely to be slow in short term and how the structure is set up will determine effectiveness. Inclusivity likely to reduce radicality and therefore not considered likely to offer a substitute for SDF plans. Does create atmosphere of threat to existing groups as UKGBC and existing settle into relationship with each other. Will occupy thinking time available to potential members of SDF Low Carbon campaign. SDF are involved in initial meetings.

CABE: has recently taken a leading stance on low carbon buildings and is currently commissioning a series of communications roadshows to take round the country promoting the importance of the built environment to climate change.

CIBSE: launched their “100 days of carbon clean-up” campaign in Mar 2006, have a register of consultants accredited to comply with the new Part L of the Building Regs, and run regular events on the subject.

Appendix 2

Individuals consulted re formation of a new Low Carbon Building Campaign.

Andy Simmonds, AECB

Robin Nicholson, The Edge

Tracy Carty, Green Alliance

Hugh Ellis, Friends of the Earth

Laura Yates, Greenpeace

Pooran Desai, BioRegional Quintain

Lynn Sullivan, Broadway Malyan

Michael Pawlyn, Senior Partner, Grimshaws

Rab Bennetts, Bennetts Associates.

Charles Couzens, Director, Somerset Trust for Sustainable Development

Peter Holden, Director, LifeHaus.co.uk.

Sonny Masero, Director, Sponge

Prof Sue Roaf, Oxford Brookes University

Dave Hampton, Carbon Coach

George Martin, Head of Rethinking, Willmott Dixon Construction

Appendix 3

Background Information re DFES and Sustainable Schools

Build programmes/ funding streams:

There are four main funding streams:

- Voluntary-aided and faith-based schools
- Capital-funded schools (£3bn per year) – delivered by Local Education Authorities
- PFI schools (£2bn per year) – delivered through Partnerships for Schools (P4S), mainly through the “Building Schools for the Future” programme
- City Academies

Existing activities and support:

BREEAM for Schools – covers new-build schools programme

New version of SEAM in 2005 – covers existing schools estate

BREEAM assessors will be able to do a top-up course to apply BREEAM to schools; LEA staff will be able to do specific BRE training to become in-house assessors.

Green Net.

P4S has produced a model output spec, which includes some sustainability measures – developed by Faithful & Gould plus BRE

DfES is also working with CABE on DQIs.

There will also be a framework to link sustainability into the school curriculum, based on the WWF model of 5 levels – this is not just about the estate, but will also refer to SEAM.

Client Advisors for each LEP programme

Sustainable Schools leaflet offering “Top Ten Actions”

Current policy drivers:

BREEAM VERY GOOD

The Sustainable Action plan for Schools

P4S performance will be monitored by DfES, including indicators for BREEAM and DQIs – their payment from DfES will be linked to this performance. Time, Cost and Energy and construction waste also monitored.

NOV 06: Letter from Sally Brooks, Dep Director of Schools Capital at DFES re. advance of capital funds available.

“The Department is able to advance these allocations by managing cash flows across our capital programmes. Due to delays in the delivery of some programmes, particularly the early waves of Building Schools for the Future, we have the opportunity to accelerate other capital programmes. We have chosen to do this because of the benefits it offers to your local investment programmes. You will be able to bring forward projects from your asset management plans, and procure them at 2007-08 prices. You may also be able to achieve greater strategic impact by adding the advance of investment to current, larger projects.

It is for you to decide how to invest this in line with your asset management plans. We are asking you to take two areas of building need into special consideration for use of these funds, both of which have come to prominence since you agreed your asset plans.

With the emphasis on sustainable schools and efficiency measures, all authorities should consider investment in energy and water saving measures, and other sustainability initiatives for schools as a priority. Local authorities can also use this advance of capital to encourage schools to take simple steps to improve their energy efficiency, as part of the year of action on sustainable schools. We will be writing to you shortly with further details about our *expectations* (SDF emphasis) for sustainability in schools, and you can find a leaflet we have prepared for schools at [insert web link].* “

*The leaflet points to DTI Low Carbon Building Programme for funds for low carbon technologies.

Appendix 4

Policy suggestions from key lobby groups: Commission for Architecture in the Built Environment (CABE) and Sustainable Development Commission (SDC)

1) CABE

In response to an Environmental Audit committee review of Building Schools for the Future programme (BSF), in June 2006, CABE gave the following answers:

Statement from CABE

CABE's enabling programme for public sector bodies is giving strategic advice on how to help get better value from their projects through better design. The advice covers issues such as project vision, client resources, briefing and competitive selection of design and developer teams.

CABE is currently involved in supporting all 38 local authorities involved in the Building Schools for the Future programme up to wave 3.

This involvement builds on our work with previous school building programmes, before BSF. Our network of advisers ('enablers') has provided client-side support to 27 PFI 'clusters' between 2000 and 2003. These clusters will eventually build 110 secondary schools, the majority of which are yet to open.

1. Will BSF ensure that schools are sustainable - environmentally, economically and socially?

It is too early to tell. But sustainability is not an explicit aim of the programme and there are few mechanisms within it to promote or incentivise sustainable design and construction (see comments on question three below regarding environmental sustainability). In terms of social and economic sustainability, it is CABE's view that good design is sustainable design. In particular, this means 'future proofing' buildings by designing in flexible and adaptable spaces. With the demands of education and learning changing rapidly, this is nowhere more important than in schools. Designing schools that can meet the needs of new learning models means designing places that have the capacity to change.

2. Will schools built under BSF satisfy the government's definition of sustainable development as being that 'which meets the needs of the present without compromising the ability of future generations to meet their own needs'?

Whether or not a school can be considered to be sustainable will largely depend on strategic decisions made early on in the process. These will include where the school is placed, the orientation of the buildings, and the landscape design of school grounds. Local authorities are not well-versed in writing a brief to make the most of the opportunities

Encouragingly, a small number of schools visited CABE's flexible solutions that made steps towards meeting the Building Schools for the Future agenda for transformational, 'future-proofed', 21st century environments.

Most new schools are designed to tight spatial briefs limited by financial constraints.

Devices to generate power such as combined heat and power plants, wind turbines etc. could also supply energy to other local developments. A sustainable school provides obvious ways to augment and illustrate the curriculum, as evidenced by the St Francis of Assisi Academy in Liverpool.

3. How effective are the tools currently used in BSF to secure sustainable school design, including the Building Research Establishment's Environmental Assessment Method (BREEAM)?

Compliance with BREEAM 'very good' is the only tool within BSF for securing environmentally sustainable school design. While the standard has strengths, many people have identified weaknesses. Within the sustainable design community, it is thought that 'very good', the required rating for new BSF schools, is quite easy to achieve: for example, it is possible to achieve a 'very good' rating by installing a hi-tech solution such as a wind turbine, and fail to deliver on more basic but essential elements. This makes a school expensive, and provides plenty of opportunities for technical failure, while not necessarily delivering good energy performance in use. DfES should investigate the robustness of the BREEAM for schools rating and raise the target to 'excellent' for all new-build schools. A similar tool should be developed for use on all refurbished and remodelled schools.

Given that BREEAM is the only driver of environmental sustainability and that we are effectively replacing or renewing an entire class of buildings for upwards of 50 years, we believe that BREEAM 'excellent' should be the required standard for schools built through BSF. Alternatively, as DfES publish energy usage and water consumption statistics for 2000 schools and analyses best and worst performing deciles (this was last published in 2003), a performance level that has a measure of continuous improvement against this data could be used.

2) Sustainable Development Commission (SDC) In response to the Consultation for Building Schools for the Future programme (BSF), in June 2006, SDC made a comprehensive submission. The following extracts are of relevance to the NPV and WLC issue.

Are BSF funding levels sufficient to deliver sustainable transformation?

BSF funding levels are based on a fixed formula and do not allow whole life costing to maximise benefits of upfront investment in sustainable measures.

SDC's research suggests that increased capital funding with paybacks within 30 years would deliver additional savings of 20,000 tonnes of carbon per year for the secondary schools and up to 10,000 tonnes of carbon per year for primary schools (BRE 2006).

The study showed that the 15% of schools that will undergo 'minor refurbishment' in BSF could benefit from £5m investment in energy efficiency that will payback in less than 5 years, saving £5,000 annually for each school.

Installing micro wind turbines and biomass boilers in 10% of schools undergoing major refurbishment or being rebuilt would require an investment of £45m, and save 15,000 tonnes of carbon per year, paying back within 30 years.

Further, 'invest to save' resources are limited at the local level. The recently announced £20m revolving loan fund for energy efficiency to be administered by local authorities should be made available to schools. This would enable schools to make investments in resource efficiency which would reduce utilities bills, allowing the school to pay back the initial investment over several years and benefit from savings into the future.

The vision proposed in this submission may require increased capital investment but will deliver greater direct and indirect savings across the public sector.

The DfES and Partnerships for Schools should work with the SDC, Defra, Cabe, NGOs and industry groups (such as SDF) to formulate a bold, but practical, vision of sustainable school buildings and a sustainable schools estate. This vision should be consistent with the goals of the DfES Sustainable Schools strategy and the UK Sustainable Development Strategy.

Taking into account leading practice, the DfES should commission research into (a) the true costs and benefits of high quality sustainable design based on the vision outlined above, and not restricting their thinking to 'very good' or 'excellent' on the BREEAM Schools scale; and (b) methods of linking sustainable design to pupil learning.

Capital budgets for BSF should be reviewed to incorporate allowance for whole life costing. Better incentives should be developed to encourage resource efficient operation of school buildings.

The vision, road map, research and guidance should be actively promoted through all available communication channels, positioning sustainable development as a fundamental objective of the capital programmes, not a 'bolt on'.