

# **BREEAM for Healthcare**

**Report for:**

**NHS Estates and Facilities Policy**

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## Acronyms

BRE	Building Research Establishment
BREEAM	Building Research Establishment Environmental Assessment Method
B4H	BREEAM for Healthcare
CHP	Community Health Partnerships
DEC	Display Energy Certificate
DoH	Department of Health
EPC	Energy Performance Certificate
ERIC	Estates Return Information Collection
GCCAM	Good Corporate Citizen Assessment Model
HTM	Health Technical Memoranda
LIFT	Local Improvement Finance Trust
LZC	Low or Zero Carbon Energy
NAO	National Audit Office
NEAT	NHS Environmental Assessment Tool
NHS	National Health Service
PCT	Primary Care Trust
PFI	Private Finance Initiative
PSCP	Principal Supply Chain Partners
PPW	Planning Policy Wales
SDU	Sustainable Development Unit
SHA	Strategic Health Authority
TAN	Technical Advice Note
WAG	Welsh Assembly Government

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## 1.0 Introduction

This report is an update on previous work on environmental assessments carried out by the authors for the Department of Health (Hudson et al, 2003). It has been deliberately timed to coincide with a debate on the use of BREEAM in Education in the light of changes to the Building Schools for the Future programme. It also provides an opportunity to appraise the BREEAM for Healthcare scheme since its introduction in 2008 and as BREEAM moves onto the 2011 version. The latter may have consequential implications on the credits and perhaps the issues that separately distinguish healthcare properties.

## 2.0 Background

In 2002 the NHS commissioned the NHS Environmental Assessment Tool (NEAT), its own version of the BRE's Environmental Assessment Method (BREEAM). It was very similar to BREEAM, with sections on management, transport, materials, energy, land-use and ecology, pollution, internal environment and water. It had healthcare-specific credits such as 'wayfinding' and 'art' and also had additional, healthcare-specific, sections on social issues (such as stakeholder consultation) and operational waste. NEAT was intended as a self-assessment tool to benchmark existing premises and to improve the environmental sustainability of new designs.

BREEAM had been used primarily for commercial office developments but by 2006 had developed into other sectors. The UK healthcare agencies commissioned the BRE to develop BREEAM for Healthcare (B4H) and with effect from 1<sup>st</sup> July 2008, the NHS replaced the requirement for the use of NEAT as a tool across the estates and adopted B4H 2008.

Prior to the introduction of revisions to BREEAM in 2008 there had been complete flexibility in the sections and the credits in the sections that cumulatively derived the BREEAM 'score'. A 'Very Good' simply required a score in excess of 55 and an 'Excellent' a score of 70+. The 2008 changes introduced an additional 'Outstanding' category, with a score over 85, as well as some mandatory credit requirements.

In 2011 a new version of all of the BREEAM Schemes was introduced and replaced BREEAM 2008.

The research questions that this report seeks to ask are:

Has B4H been a 'driver' for sustainable design and operation?  
Is there any evidence of B4H making a difference to the design of healthcare projects?  
Are buildings that are BREEAM certified demonstrably more energy efficient?  
How might the alterations to BREEAM 2011 change the situation?  
Is there a clear case to be made for the NHS to continue to support B4H?

## **3.0 Healthcare Assessments**

### **3.1 B4H 2008**

As indicated above, NEAT was a healthcare-specific assessment tool with healthcare-specific sections and credits. An important distinction was also the fact that it was self-assessed rather than independently audited. In contrast, BREEAM is developed from a tool that was applied initially to commercial office premises. For a variety of reasons, some economic and some of which relate to a perceived need for commonality across sectors, BREEAM has a substantial core element. The corollary of this is that any sector's specific BREEAM scheme loses its uniqueness.

In B4H 2008 the Healthcare specific credits are:

- Man 13 – Good Corporate Citizen
- Hea 19 - Arts in Health
- Ene 16 - CHP Community Energy

It should be noted that, in line with many other of the individual credits that make up an assessment, none of these healthcare specific credits are mandatory in any healthcare projects. If, as is the case, these credits are not being obtained in healthcare projects then there is potentially nothing to distinguish the project from a commercial office building.

This may seem perverse and indeed counter-intuitive, given the unique nature of healthcare provision with, for example, extensive Health Technical Memoranda (HTMs). This does raise the issue of potential overlap and/or double counting with BREEAM where a 'reward' is given for a mandatory credit such as Hea 12 – Avoidance of Legionella when it is also a HTM requirement.

There is also a further, simplistic question perhaps as to how a Healthcare project scores in a section entitled 'Health and Wellbeing' with credits relating to the achievement of good indoor air quality (Hea 8) and avoiding potentially harmful contaminants (Hea 9). This is addressed in Section 3.4 below.

### 3.2 B4H Registrations and Certifications

The B4H 2008 figures from the BRE indicate that in the period up to 09 February 2012 there were 737 NHS buildings registered across the UK. However, only 15% of these (110) were certified. The breakdown by region is as shown in Table 1:

	Registered	Certified	%
England	616	101	16
Wales	66	6	9
Scotland	45	3	7
Ireland & Northern Ireland	10	0	0
UK	737	110	15

**Table 1 - B4H - Registrations and Certifications**

These statistics ask a number of questions. One obvious issue is do the numbers simply represent a time lag between the implementation of the mandatory requirement to do a BREEAM assessment and/or the lag between project inception and completion? The answer is yes in both cases. In the former case the requirement was rolled out two years later in Scotland and this perhaps explains the 7% figure.

A secondary question is will the number of buildings that are certified ever match the number of buildings registered? The obvious answer is no; the authors' personal experiences and discussions with Healthcare assessors indicate that any BREEAM projects can 'wither on the vine'. This can be through a variety of reasons but includes design teams 'moving on' to more pressing matters and a consequent lack of forthcoming information from design team members. A situation where there is no perceived pressure from the client exacerbates the situation.

Between February and June 2012 there were an additional 30 projects certified across the UK, bring the total to 140. This figure is however slightly misleading as it includes projects that have been certified at two different stages - at an interim stage (known as 'design and procure'



assessments) and at final stage (post-construction or post-occupancy). This is an important distinction and the changes introduced in BREEAM 2008 across all the sectors tried to address the issue of projects being assessed upon the reality of a completed building rather than on the basis of what might only have been design stage aspirations.

Removing the duplication of both interim and final assessments results in a reduced total of 119 certified projects across the UK.

Of the total of 119 the breakdown by region is shown in Table 2:

	<b>Certified</b>	<b>%</b>
England	102	86
Wales	9	8
Scotland	7	6
Northern Ireland	1	1
<b>UK</b>	<b>119</b>	<b>100</b>

**Table 2 - B4H Certified by region**

Of the total of 119, only 23 projects have been certified post-construction/post occupancy and therefore it is only these 23 that are technically 'fully' assessed.

The majority of the 23 projects had also been assessed at an interim stage but five of the projects were assessed only at final stage. In a standard procurement it would perhaps be more normal to carry out an interim assessment in order to formally gauge the BREEAM 'score'. Discussion with the assessors on these projects, to try and discover why there was no interim assessment, indicate a variety of reasons including one or more of:

- a lack of information at design stage,
- the appointment of the assessor only at the time of the appointment of the contractor,
- the appointment at tender stage only,
- a design and build procurement method.

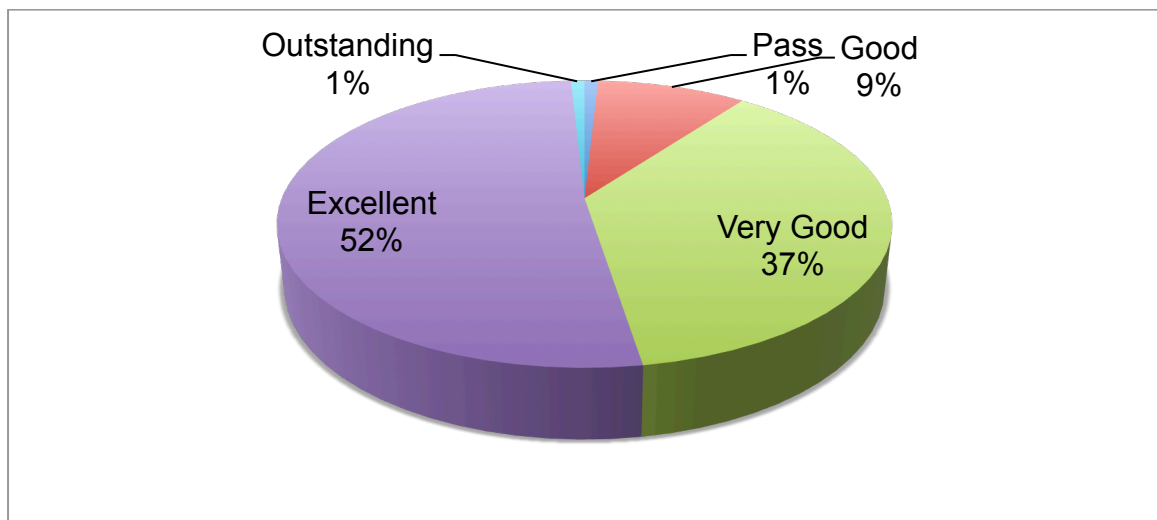
### **3.3 B4H 'Scores'**

The overarching 'government' requirement for BREEAM 'scores' was given in 'Constructing the best government client: achieving sustainability in construction procurement – sustainability action plan' (OGC, 2000). Mirroring these requirements within the sector, all new healthcare development projects and refurbishments should achieve BREEAM scores of

'Excellent' and 'Very Good' respectively (Department of Health, 2009) (HTM 07-07).

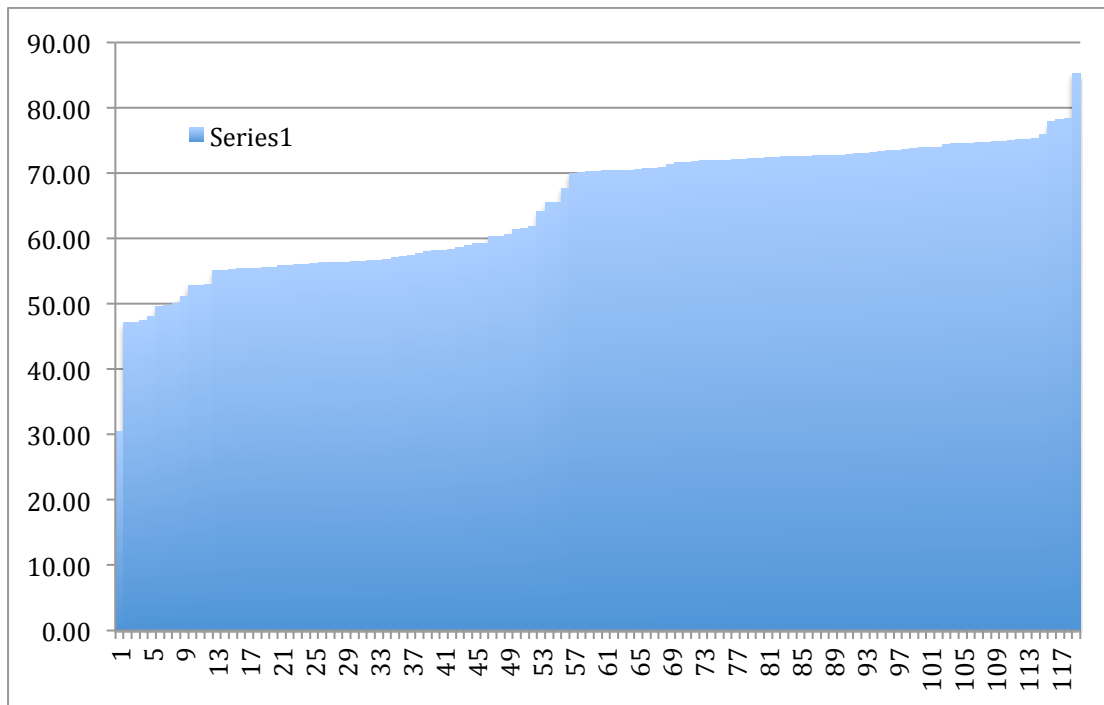
The Scottish Government Health Directorates supported the general thrust of the other UK health departments and from August 2008 required all Boards to seek to attain the BREEAM healthcare 'Excellent' rating for new builds and 'Very Good' rating for refurbishment of existing properties' (Health Facilities Scotland, 2012). The Scottish Capital Investment Manual (SCIM) requires all new build with a capital value of above £2 million to obtain a BREEAM Healthcare (or equivalent) 'Excellent' rating and refurbishment building projects of £2 million or more to obtain a 'Very Good' rating.

The breakdown by BREEAM Ratings of the 119 projects is shown in Figure 1 below:



**Figure 1 - B4H 2008 Ratings - Certified Projects**

It is useful to consider the results in more detail and the full profile of 'scores' is given in Figure 2 below. This better illustrates the nature of a BREEAM assessment where the target may be get a 'Very Good' (a score of over 55) or an 'Excellent' (a score of over 70). There may be little perceived merit in obtaining a score of 56 or 71 if each additional point is considered to have incurred additional capital to a cost for an unspecified benefit.



**Figure 2 - BREEAM Healthcare 'Scores' ranked according to scores (each coloured column represents a certified project along x-axis with its' corresponding score on the y-axis).**

### 3.4 B4H Healthcare Specific Credits

The healthcare-specific credits in B4H 2008 relate to the Good Corporate Citizen (Man 13), Arts in Health (Hea 19) and CHP/Community Energy (Ene 16). The Good Corporate Citizen Model is not always used. Arts in Health were considered by all assessors as 'easy' to obtain, which may unfortunately negate its perceived value. Community energy was also viewed as a 'straightforward' issue.

If these credits are not always being obtained in healthcare projects then in assessment terms there is little to distinguish that project from a commercial office building.

One of the additional research questions was to consider how well the buildings performed overall in the section on Health and Wellbeing, in that it could be difficult to try and defend an 'unhealthy' healthcare building. The results of the analysis indicate that healthcare buildings are in reality no different to buildings in other sectors. In particular, credits for daylighting levels (Hea 1), view out (Hea 2) and the potential for natural ventilation (Hea 7) are all not routinely achieved. Credits for good indoor air quality (Hea 8) and the avoidance of potential contaminants such as VOCs (Hea 9) are not always achieved.

## **4.0 BREEAM as part of a process**

One of the issues raised in section 3 above is the clear gap between the numbers of registered and certified buildings and the potential for 'stopping' of assessments at an interim point rather than progressing to an assessment at post-construction or post-occupancy.

### **4.1 Business Case Approval**

B4H is a necessary requirement in a healthcare project's approval process. The Business Case can be broken down as follows:

1. Strategic Outline Case
2. Outline Business Case
3. Full Business Case

B4H is nominally required at stage 2 above but an informal, pre-assessment is likely to satisfy the requirements. At stage 3 an informal (neither quality-assured nor certified by the BRE) 'design' or 'interim' assessment would suffice. Post-construction/post-occupancy/final assessments are therefore less likely to be undertaken or progressed from an earlier 'interim' assessment.

As there is no requirement at any later stage in this process for a BREEAM assessment of any type there is little, if any, incentive for a client such as a Trust, to do any more than is absolutely necessary. There is no effective monitoring within the NHS system to ensure that the standard that is aspired to is actually achieved.

In discussions with Heads of Estates and Facilities they did concede that best practice would be to move a design stage assessment through to completion either post construction and/or after occupation but there is no incentive to do this within the current NHS system. Anecdotally the system was perceived as one that tends to run on a reactive basis and where the focus is soon elsewhere – running the facility, rather than 'paper-chasing'.

### **4.2 Planning Policy as a delivery mechanism for sustainability**

Discussions with both assessors and clients indicated that the planning process may be a key driver for sustainability and therefore that there may be an element of duplication in the requirements to obtain a BREEAM.

A Local Planning Authority in England is mandated through Planning Policy Statement 1, Delivering Sustainable Development (2005) specifically in the 'prudent use of natural resources' to adopt policies to minimise the environmental impact of developments in their locality. Many local authorities have produced Supplementary Planning Guidance to advise applicants on planning policy. A relatively straightforward way to invoke policy has been to require a minimum BREEAM rating for new developments (usually 'Very Good'). This has often been a requirement in tandem with the 'Merton Rule', which requires a certain percentage (typically 10%) of energy be developed on site from renewable technologies. The result is a series of parallel yet unique policies on sustainability.

In the current economic climate, developers in the NE of England have been able to 'negotiate-away' BREEAM-specific conditions on the grounds that projects are on the margin of viability and any additional cost may jeopardise the development. Planners have been applying a '*viability rule*' and waiving such conditions on the grounds that '*it's all about jobs and growth*'. It may be that in a more buoyant market or in a region with stronger demand and thus higher profit margins these conditions may be effective. In a similar manner, planning officers acknowledge that they have lacked the technical knowledge to negotiate the minutia of Merton Rule conditions and have had difficulty drawing on expertise from within the local authority due to staff shortages.

The situation in Wales parallels that in England. The policy requirement is for a BREEAM assessment as well as minimum energy standards (see Section 6 below).

Across both England and Wales planning policies require options for enforcement in case of non-compliance. Crucially, dependent upon the attitude and resources of the Planning Authorities, policies on sustainability may or may not be enforced. From local experience, and from the data presented in this paper, it is apparent that planning conditions requiring BREEAM assessment are not effectively enforced upon completion. This may be either through omission or a calculated decision that scarce enforcement staff time should be directed at more high visibility issues.

The situation in Wales appears to be more explicitly set out in that the Technical Advice Note on 'Planning for Sustainability' (WAG, 2010) contains a flowchart for the process and includes the role of BREEAM assessor (reproduced here in Appendix 1). The flowchart suggests that

buildings cannot be commenced until an interim BREEAM certificate is produced and cannot be occupied until a final certificate is produced. Despite such laudable intentions, Table 1 would indicate that there is even less enforcement in Wales compared to England.

In summary, although at face value planning policies should be effective, and both clients and assessors suggested planning as a driver, in reality conversation with planning staff suggest only a marginal effect. The planning system in both England and Wales has similar aspirations to the NHS system and is backed by national and local guidance but achievement is similarly sporadic and essentially voluntary in nature dependent upon strong leadership and effective resourcing.

### **4.3 The role of individual leadership**

As earlier work has suggested, individuals can and do drive the sustainability agenda at a local level. As part of the research for this report a number of Directors of Estates/Facilities were interviewed to gauge their views on the value of BREEAM as a tool and its potential as a driver of sustainability.

Some individuals demonstrated a stronger personal commitment to sustainability and valued BREEAM as an authoritative benchmark of their buildings. Illustrative of this approach is the response from one local PCT where the Director has a strong personal belief in the positive outcomes for health by combating climate change and has translated this enthusiasm into a virtuous circle of sustainable development. BREEAM 'Excellent' has been established as a minimum standard for new developments and this has been achieved by making sustainability a critical issue in the procurement process. He recognizes that BREEAM has its flaws but values the fact that it is the industry standard and has considerable breadth. This has been particularly useful when procuring a joint service centre or partnership projects that may include leisure facilities in the same premises. Whilst achieving BREEAM standards has cost additional capital funding the interviewee could point to demonstrable revenue savings.

The question of the usefulness of NEAT was raised during the interview, it was thought that the absence of independent assessors might have undermined the validity of the tool but conceded that a 'super NEAT' could be developed to cover some of the weakness in the original NEAT, particularly in respect of location and ecology issues.

This interview demonstrated that high BREEAM standards could be achieved, particularly with an experienced design and construction team who shared a concern for environmental sustainability and had readymade answers to many of the BREEAM questions.

The above interview is in contrast with another Head of Estates who indicated that over the previous five years his Trust had procured a considerable number of new buildings, up to £16 million capital cost, and refurbished over 20 properties. Although some of the latter may have gone under the BREEAM 'radar' (in that the capital cost was less than the £2 million threshold for BREEAM) none of either the new or refurbishment works has a certified BREEAM. He was however 'content' with the BREEAMs that had been done – informal pre-assessments.

The latter, pragmatic, approach to sustainability and BREEAM in particular may be just down to that individual. It must be viewed as the more representative approach if the apparent gulf between the numbers of registered and certified buildings indicated in Table 1 does not reduce.

#### **4.4 Summary**

The NHS system appears not to have moved on from the views expressed by the National Audit Office in 2007. They considered that there was:

*'little enforcement of the policies and standards to which departments and agencies are subject, and underperformance goes unchecked'.*

and that there was:

*'insufficient leadership on sustainable construction and refurbishment'.*

It might be considered that the planning system could provide a 'safety-net' in the case of shortcomings in the NHS system. It would appear however that that process suffers similar problems and cannot be relied upon to guaranteeing sustainable development; in the main a result of the reluctance to enforce sustainability related planning conditions.

## **5.0 Healthcare Credits – BREEAM 2011**

BREEAM 2011 is deliberately a single, consolidated scheme document, covering all building types. The BRE have indicated that although there will cease to be separate scheme documents, BREEAM:

*'continues to maintain assessment criteria specific to the range of building functions, sector stakeholders and end-user covered by its scope'.*

The particular changes to the healthcare credits in BREEAM 2011 are:

- Man 13 - Good Corporate Citizenship is now included in the 2011 credit 'Man 04 Stakeholder Participation' (there are additional criteria but no additional credits).
- Ene 16 - Community CHP is effectively dropped in 2011 and is now considered part of a Low and Zero Carbon Assessment.
- Hea 19 - Art is now in 'Hea 01 - Visual comfort' - as Visual Arts (1 credit).

As indicated above, the BRE claim that the new BREEAM scheme is generic and is still appropriate for all sectors, including healthcare buildings. The overall effect of the above changes is that in reality there is no longer a distinct B4H. Given that many trusts separately report Good Corporate Citizenship (so there is a potential for double-counting) and that the previous credit on Community CHP has been subsumed it leaves only 'Arts' (now part of Hea 1) as the one 'distinguishing' feature of healthcare.

The changes have important implications, particularly given that with B4H 2008 there were already questions being raised by both clients and assessors in respect of the ownership of the tool and its relevance to certain building types within the sector. BREEAM 2011 also requires ongoing assessments after project completion in order to maintain currency of the certification. Given the systems in place currently within the NHS this is impracticable.

## **6.0 Energy Use**

### **6.1 Metrics**

The DoH has not set any new energy targets since it committed to reduce the level of primary energy consumption by 15% or 0.15 MtC (million tonnes of carbon) over the period March 2000 to March 2010. As part of this the strategy included a target of 35-55 GJ/100m<sup>3</sup> for all capital developments, major redevelopments or refurbishments and a target of 55-65 GJ/100m<sup>3</sup> for all existing facilities. It would appear that, perhaps alone in property terms, target energy use figures in GJ/100m<sup>3</sup> are still common. Although perhaps an understandable and therefore useful benchmark for



those in the healthcare sector it is difficult to marry such a metric with other metrics, accepted universally elsewhere, such as metered kWh or kWh converted into kg CO<sub>2</sub>e/m<sup>2</sup>.

The healthcare sector still requires the annual return of estates data including energy use figures (ERIC returns) and recently this has been extended to Trusts and Foundation Trusts. This ERIC data is site based and includes all consumption.

The information sheet 'The Week' Issue 239 for 9 to 15 March 2012 on the subject of 'Sustainability reporting in the NHS', indicates that the Sustainability Reporting Framework, which was available to use on a voluntary basis in 2010/11, is now a mandatory part of the annual reporting requirements for 2011/12 onwards. This means that NHS chief executives should include Sustainability Reporting framework output in their Annual Report. The metrics are changing and those for Building Energy Use and BREEAM are given in Table 3 below:

Measurement and targets	Indicator	Measure	Target
Building energy use	Metered energy use	Tonnes CO <sub>2</sub> e	Reduction of 10%
	Metered energy use	Kg CO <sub>2</sub> e/m <sup>2</sup>	Reduction of 10%
	Energy from renewables	%	Increase to over 10%
DEC Report	Reviewed DEC Advisory Report	Yes/No	Yes/No
BREEAM Standard	Excellent for New Build; Very Good for Refurbishments	Yes/No	Yes/No
Facilities - GCC	Progress	Score	
	Quality	Score	

**Table 3 – Sustainability Reporting Framework**

## 6.2 EPCs

The energy standards across the healthcare properties that have been BREEAM assessed vary with the BREEAM 'scores'. For a project with a BREEAM 'Very Good' score there is no minimum energy standard. For a BREEAM 'Excellent' there is a mandatory requirement to achieve a

minimum score of 6 credits in the Energy Section under Credit Ene 1 – Reduction of CO<sub>2</sub> emissions. This equates to a minimum EPC rating of 40 in the case of new buildings and 47 in the case of refurbishments. This minimum score of 6 credits is also a requirement in Wales in PPW and TAN 22.

Perhaps understandably, given the minimalistic approach that has already been demonstrated in Figure 2 the typical 'score' for Energy Credit Ene. 1 in most of the 'Excellent' schemes is 6, i.e. the mandatory minimum. There is therefore *de facto* a new energy standard for buildings, over and above Building Regulations requirements, if a BREEAM 'Excellent' is obtained.

It must be remembered however that these are design standards, obtained at design stage, and are unlikely to change even if the schemes were to be assessed post-occupancy. The EPC reflects the potential energy efficiency of a building and is a theoretical rating, based on assumed patterns of use and occupation, and taking into account a limited range of energy uses within the building. In essence the improved EPC rating best reflects an improvement in the building fabric, it does not necessarily correlate with the actual energy use within the completed building.

### 6.3 DEC's

Display Energy Certificates (DECs) focus on operational energy use and were designed for prominent display in buildings. They do not appear to be universal across the healthcare sector and DECs are currently required only in buildings occupied by the public sector over 1000m<sup>2</sup>. There is some evidence emerging of the value of DECs, with potential year-on-year improvements in DEC ratings and consequent reductions in energy costs. This has happened in commercial property because there is a reputational driver to improve and because of the financial incentive of reduced energy bills.

Interviews with healthcare clients suggested that DECs for hospital sites might be problematic because of shared energy supplies across a number of buildings. Given advances in technologies, for example remote monitoring techniques, use of smart metering etc. as well as increased use of BEMs this argument would seem hard to sustain. An accurate DEC may however require some investment in sub-metering/distribution boards and or heat meters.

It is more likely that there are functional issues with the use of DECs if it were expected that DECs be used to drive behavioural changes. Many hospital buildings will be divided into, say, wards and a DEC for a building

as a whole may be rather meaningless. One clear issue however would be costs – annual DEC costs money and if nothing is happening with them then it will be an additional cost with no tangible benefit.

#### 6.4 Summary

The obtaining of a BREEAM 'Excellent' score for an individual building is likely to have resulted in an improved EPC with a asset rating of 40. This is a potential improvement in energy efficiency over and above that required by the Building Regulations. EPCs are of little value however to healthcare clients and do not necessarily correlate with actual consumption values given by DECs and/or reported via ERIC. A roll-out of DECs, including reducing the requirement from buildings over 1000m<sup>2</sup> to 500m<sup>2</sup> and 250m<sup>2</sup> could identify opportunities for improvement in the energy efficiency of buildings. Ultimately these should correlate with ERIC returns. The move away from GJ/100m<sup>3</sup> is to be commended and should facilitate improved benchmarking in the future.

## 7.0 Conclusions and Recommendations

It is clear that not all Boards or Trusts are following recommendations and utilising formal, certified, BREEAM assessments for their schemes.

The system in place within the NHS does not encourage the production of BREEAM assessments beyond the initial business case. The situation appears no different from that reported by the NAO report in 2007 – there is little enforcement of policies and procedures and if a BREEAM assessment is not done then nothing happens. In order to ensure assessments at post-construction or post-occupancy phases then the DoH would perhaps need to consider a system that involved the retention of capital support monies against certification.

In some areas of the country a driver for a BREEAM assessment is the planning process. There may be no reason for the NHS to duplicate this and additionally some planning authorities are also requiring a LZC approach (the Merton Rule). There may be a perception of being able to 'leave it' to the planners but evidence suggests that enforcement in the case of non-compliance is unlikely to take place.

Those clients and design teams that have 'signed-up' to the BREEAM approach are understandably 'playing the system'. This is clearly shown by

the bandings in the assessments, with most of the certified assessments simply creeping over either the 55 or 70 'hurdle'.

There is no objective evidence of any more energy efficient buildings as a result of the use of BREEAM but the buildings that have been certified as BREEAM 'Excellent' will have an EPC asset rating of approximately 40. This may be useful in itself but the proliferation of different metrics and the lack of correlation of EPCs with DEC's and ERIC returns can be confusing and potentially counter productive.

There is widespread dissatisfaction of the assessment process and the BRE, particularly in respect of the QA process. What this has done is to take the ownership of the assessment even further away from the Boards and Trusts.

In 2007 the NAO gave recommendations that included:

*'Advise departments on the factors to consider when assessing whether it is appropriate for a BREEAM assessment or alternative assessment method to be undertaken, and commission alternatives to a full BREEAM assessment for use on smaller projects or minor refurbishments'.*

This research would suggest that there is a need to revisit this area. There are already ownership issues with BREEAM assessments on the part of the Boards and Trusts and questions as to its' appropriateness across all healthcare sector buildings. The changes in BREEAM 2011 will exacerbate these situations. It may be that some form of self-assessed, smaller and more appropriate tool, such as a revised NEAT is preferable. If a BREEAM-like tool is to continue and is to be useful then a much more pragmatic approach is necessary – the perception of any tool must not be the 'tick-box' 'hurdle' that is the represented by current BREEAM assessments.

BREEAM 2011 has effectively no healthcare-specific credits; the one exception being 'Art'. Given the situation with B4H 2008 and Trusts as reported above and their autonomy in respect of revenue funding there is little likelihood of any annual re-certification of a BREEAM 2011 assessment.

The NAO also indicated that departments were struggling to reconcile sustainability and value for money and that the benefits of sustainable buildings were generally not measured or quantified. They said that:

*'If departments are to make progress towards achieving the targets for Sustainable Operations on the Government Estate, they will need to focus increasingly on incorporating specific output-oriented specifications in new construction or major refurbishment projects, rather than simply specifying a requirement for BREEAM 'Excellent'. These should include specifications for water consumption per person per year and for energy consumption and carbon emissions per square metre. Such an approach would also match the trend towards more specific assessments of building performance, such as the forthcoming requirement under the Energy Performance of Buildings Directive for all public buildings to display energy efficiency ratings.'*

There is still little objective appraisal of either the costs or the benefits of sustainable healthcare buildings. There is a clear requirement to be able to demonstrate to Trusts the costs associated with BREEAM assessments and the premiums to be expected going to 'Very Good' and to 'Excellent' and 'Outstanding'. This must be supported by the value of the benefits over the life of the projects. In austere times it is perhaps even more necessary for the perceived premiums to be widely known.

One of the easiest ways to have performance assessed in an acceptable and understandable way would be to better utilise DEC's and to require them in all buildings, say above 250m<sup>2</sup>. This is a scheme that is already in existence and has established protocols/assessment tools etc. However, if DEC's just replicate ERIC returns and increase costs for no perceived benefit then they will be problematic for Trusts. The use of the DEC metric, kgCO<sub>2</sub>e/m<sup>2</sup>, will allow for better cross-sector comparison as well as enabling decarbonisation of the grid to be taken into account.

We would have liked to look in more details at the differences that different procurement routes may have on sustainability. Anecdotally clients indicated that it made little difference.

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# Appendix 1

## Welsh Assembly Government – Technical Advice Note 22 – Flowchart for Planning Process

