



## How to improve the energy performance of buildings regime



### **Most of the answers in one place**

*The DCHI response to the request for views from Lord Marland of Odstock and Andrew Stunell MP*

*December 2010*

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## Introduction

This document seeks to identify the current issues with the energy performance of buildings regime through consultation among members of the DCHI and attempts to identify practical and cost effective solutions.

This response is designed to provide the reader with a clear and concise summary of the issues and solutions in a structured format against the topics indicated for the review. The primary purpose is to demonstrate where significant issues exist and where a potential solution can already be seen.

The initial section addresses the 6 specific questions raised. This is followed by a response to the request for views on how a roll-out of DEC's to commercial premises could best be achieved.

Paragraphs in *italic* are a more detailed description or background evidence for the benefit of the in depth reader. The sections in *italic* can be skipped for a general understanding of the issues. DCHI would be pleased to provide further details and evidence on request for any of the topics to assist in understanding the specifics involved.

## Summary of issues and solutions

### **a) The content, format, accessibility and coverage of EPCs and DEC's, and the extent to which consumers act on their recommendations.**

#### **1) Domestic EPCs**

##### **a) Lack of positive publicity.**

- i) There is a need to increase positive publicity and 'sell' the benefits of the information contained in EPCs and DEC's.

*It is necessary to sell the sizzle' e.g. "for the average home buyer, buying a "C" rated property instead of an "E" rated one will save you £?? per year; and that saving will increase as energy prices go up". Carbon reduction may be the ideal but it is financial benefit that will be the driver and the message needs to focus on "What's in it for me?"*

- ii) Sales / letting agents need to become engaged.

*Arguably the agent has a duty of care to the prospective buyer to ensure that they are as aware of the energy cost and carbon impact of the property as whether it has the right number of bedrooms or a suitable layout. Discussing the energy efficiency should become best practice driven by organisations such as NAEA and ARLA.*

- b) EPCs for sale are produced for the seller but it is necessary to focus the attention of the buyer on the recommendations if they are to be acted on.

*This is a combined function of raising perceived value and increasing visibility that is addressed later in the document.*

##### **c) Visibility**

- i) Energy ratings for white goods are there wherever you look. EPCs for properties are not.

(1) The secrecy around energy ratings should be removed so peer pressure can apply.

(a) Ratings should be visible to all and not just available to those who have an intention to buy or let.

- (b) For example property price websites clearly show ‘the market value of this property is X and the average price of similar properties in this area is Y’. They should also show ‘the energy rating of this property is X and the average energy rating of similar properties in this area is Y’.

*This type of exposure will encourage energy efficient upgrades before the property comes to market.*

- (c) Energy ratings must be on property adverts so buyers compare them when deciding which properties to view.

*This will increase the perceived value of the EPC rating to the seller or landlord and encourage them to make the energy efficient improvements before marketing. (They have no incentive once they have sold or a tenant is in).*

- d) Availability for decision making

- i) If owners are going to be influenced to make improvements it will be because prospective buyers / tenants are knocking prices down or going elsewhere.

*That will only happen if the energy rating is ‘in their face’ at the front end of the process. The rating has to be boldly displayed on all marketing material from the earliest point possible.*

- e) EPC Adviser

- i) A positive step but values generated need to match the current version of RdSAP for the process to have credibility.

*Currently the cost saving estimates generated will be very different to those indicated on an EPC generated the same day.*

- ii) There is a need for a consistent approach to be agreed for dealing with the RRNs that do not work.

*It would be counter-productive to have “My EPC didn’t work and the company that supplied it told me I had to buy another one” as a front page headline. There has to be an agreed solution and one that does not make the consumer pay twice.*

- f) Incentives

- i) A financial incentive for a good EPC such as a rebate on a bill such as Council Tax or energy bills would concentrate minds.

*A good EPC would need to be defined and may not necessarily be a high rating. It is probably more appropriate to consider the difference between actual and potential as someone who has done everything viable to a hard-to-treat property has contributed more to carbon reduction than someone who has not installed loft insulation in an otherwise efficient property.*

- g) Unspecific

- i) There are occasions when it would be useful for an assessor to be able to add explanatory text to deal with situations that are not covered by the addendum options.

*An example would be where there are two sections of loft and one is completely un-insulated or has minimal insulation. The EPC may not show a recommendation based on the average across the property being good enough, but it would be more appropriate to recommend insulating the un-insulated section.*

*It would also improve the perceived value if the EPC could include an explanation of what looks wrong to the reader. An example would be where there is more than one wall or floor type entered but often the EPC does not list it. The client then assumes the assessor has missed it and the certificate is therefore not accurate. This would not happen if there was an indication that more than one type has been entered and only the most prevalent one is shown.*

- h) Coverage

- i) It must be goal to assess all properties so recommendations can be made everywhere there is potential for improvement in energy efficiency.
  - (1) It is counter-productive to exclude HMOs and holiday lets since there is as much opportunity to achieve energy efficiency improvements in these properties as any other.
 

*In truth there is probably more opportunity since the EPC will be produced for the party continuing to own the building, overcoming one of the primary barriers to take up of recommendations.*

## 2) Commercial EPCs

- a) Lack of positive publicity
  - i) As with domestic above the benefits need to be 'sold'.
- b) Lack a financial benefit indication for improvements.
  - i) RdSAP provides an illustration of likely savings and a similar feature would be a valuable enhancement to commercial EPCs.
 

*The most beneficial solution would be for the assessor to be able to select improvements that could be most appropriate and the software re-run the model showing the potential impact.*
- c) Need for a commercial equivalent of EPC Adviser.
  - i) An SBEM based equivalent for EPC Advisor may be a workable solution to the above omission on commercial EPCs
- d) Incentives
  - i) Again a financial incentive for a good EPC such as reduced business rates, a rebate on business/ corporation tax or saving on energy bills would increase the perceived value of the rating and increase the likelihood of improvements being carried out.
  - ii) The kudos of being "green"
    - (1) There is nothing to stop an occupier displaying their EPC in the same way as a DEC to show they have invested in being green and this can be encouraged.
 

*The more EPCs are visible, the more comparison is possible, the greater the pressure to improve and the more recommendations that will actually be carried out.*

## 3) DECs

- a) Many occupiers see DECs as unimportant.
  - i) There should be an automatic process for writing to occupiers who have DECS that are poorly rated asking them to respond to a series of questions about what they are going to do to address the less than typical performance.
  - ii) There should be an official letter generated from the Landmark register data suggesting they look at their Advisory Report and consider the recommendations when a renewal DEC is lodged that is worse than the previous year.
 

*Possibly with the ability for the assessor to disable it with an explanation of the reason if there is a specific known issue such as energy use for construction works.*
  - iii) There must be a range of 'annual returns' that publicly funded organisations are required to complete. Including a requirement to enter the Operational Ratings from their DECs and list the steps taken to improve them on one of these would raise the perceived importance.
- b) Visitors do not pressure occupiers to improve.
  - i) The requirement could be extended so occupiers have to display the DEC as currently plus provide a user friendly mechanism for visitors to comment on the content. Most importantly for them to suggest where they have observed energy management practices that could be improved.

- c) The category labelling on DECS is inappropriate as “Heating” and “Electrical”. Heating is a use type but electrical is an energy type which creates an inconsistency. Heating can be electric which is even more misleading.
  - i) Labels need to be changed to “Heating” and “Light and Power” to correctly identify the primary use.
- d) The Technical Table is an undervalued element but it lacks key information.
  - i) The table should show the measurement period the data relates to.
  - ii) It should show the sub benchmark as well as the benchmark category

**b) How effectively EPC and DEC assessments are conducted, both in terms of the practical process/methodology used by assessors while on site, and the underpinning calculation methodologies/software they employ.**

**1) Domestic EPCs (RdSAP)**

- a) On site
  - i) Assessments are generally acceptable.
    - (1) Standards should be suitable as long as the accreditations address poor practise and lack of knowledge effectively when picked up by audits.
  - ii) Consistency of method
    - (1) There are some issues regarding consistency between accreditations. Consultation and the conventions groups are lessening this but there is still a lot to be done.
- b) Underpinning calculation methodologies/software
  - i) RdSAP should be generally acceptable if the next release of RdSAP addresses known limitations.
    - (1) It does however take too long to get the practical limitations addressed.  
*(e.g. first floor extensions, thickness of insulation at rafters and more than 2 extensions which have all been known issues for as much as 2 years).*
  - ii) There needs to be improved ability for assessors and/or assessor groups to feed issues to the convention groups and contribute to solutions.

**2) Commercial EPCs**

- a) On site
  - i) There is insufficient consistent guidance.
    - (1) Currently there is too much emphasis on audit (which is after the event) and the industry lacks guidance on best practice for collection of site data.
    - (2) It has not been possible to find anybody who knows what some of the descriptions in SBEM are intended to represent.
      - (a) For example what construction “heavy partition wall” should be used for is total guesswork.  
*There needs to be a definition for each of the SBEM options if assessors are to be expected to select the right one. Until that happens there will be different selections made for the same situation causing inconsistencies.*
    - (3) The BRE sensitivity analysis should be used to focus on the significant factors and standardise practise in areas that affect the rating.  
*A lot of time can be spent on detail that will make no appreciable difference to the output, whereas there are differences in application of other elements that can significantly affect the rating.*
  - ii) Different accreditations have different expectations of assessors and more consistency needs to be achieved.

- (1) The cross auditing of accreditations should improve this as long as the outputs are appropriately fed back.
  - (2) Organisations such as DCHI could assist significantly in identifying these areas however they are largely shut out of the process.
  - (3) It is not helpful that some accreditations consistently fail to engage in the conventions group process.
  - iii) Different support desks will give conflicting advice and sometimes different personnel on the same support desk.
    - (1) As above, the cross auditing of accreditations should improve this but the key will be how effectively the outputs are used to inform planning and training.
  - iv) Conventions are not always practical in real life and are sometimes worded in ways which are unclear to front line assessors.
    - (1) Conventions groups do not significantly include input from assessors so conventions are driven more by theory rather than practical experience.
    - (2) There needs to be improved ability for assessors and/or assessor groups to feed issues to the convention groups.
    - (3) If stakeholders representing assessors such as DCHI are not to be involved in the process, conventions should at least be circulated in draft form to reduce the potential for confusing inconsistencies.
      - e.g. the convention on dropped ceilings (Page 6 of 1<sup>st</sup> June 2010 conventions) which uses reverse logic to all the other ceiling conventions and contradicts the 'general rule' guidance on the same page.*

and text that still requires further clarification

    - e.g. the statement that assessors should not use defaults, (2.02 of 1<sup>st</sup> June 2010 conventions) which is intended to apply only to certain elements but the convention does not say which. In other areas assessors are required to use defaults and the position is less clear following the convention.*

*In both the above instances DCHI has sought a correction but it was too late as the conventions had already been published before we saw them.*
  - v) There is insufficient access to consistent information.
    - (1) There needs to be a central point for access to information on U-values for non-standard elements.
    - (2) There is a pressing need for an equivalent to the SEDBUK database for obtaining reliable (or at least consistent) efficiency ratings on relatively modern air conditioning units.
      - This is an area that can make significant differences to ratings and it is often the luck of the draw whether an assessor is able to find a reliable efficiency. 'Seasonal' data is extremely scarce.*
- b) Underpinning calculation methodologies/software
- i) SBEM is inconsistent in a number of areas and has much room for improvement.
    - (1) Improvements are needed to address issues such as too little sensitivity to fabric and too much sensitivity to lighting.
  - ii) Some buildings such as flats over shops could be assessed using RdSAP or SBEM depending on access. Results vary significantly.
    - (1) There needs to be more consistency between the two methodologies.
  - iii) The constructions data in SBEM is inappropriate for assessment of existing buildings. What is meant by many of the descriptions is unclear and there is no close match to many wall types seen by assessors daily.
    - (1) A database of fabric elements that is representative of what an existing building assessor will encounter daily should replace or supplement the current options.

*(Does not require any changes to SBEM).*

- iv) SBEM does not currently deal adequately with mixed lighting.
  - (1) An appropriate method and changes to support it within the software are essential.
- v) The handling of recommendations is too restrictive and reduces the value of the EPC.
  - (1) Frequently the wording of a recommendation is not quite right for the property. Often the relevance of the recommendation is unclear if it is specific to a particular element or HVAC. It would be beneficial to be able to adjust the text, perhaps by allowing a user defined segment within a standard recommendation, or the addition of a secondary explanatory text.
  - (2) It should be possible for the assessor to adjust the impact of a standard recommendation and have it stay within the standard section of the report. It should not be moved to the user selected section if the software has selected it and the user has down rated it.
- vi) There is a known issue with the changes to SBEM meaning that there will be a step change in ratings between EPCs produced pre and post 2010 regulations.
  - (1) To ensure consistency of response there needs to be a definitive explanation of the reasons that can be provided to a client should a query arise.

*It is not appropriate to leave individual assessors to try and explain a global change to the methodology.*

### 3) DECs

#### a) On site

- i) Many DECs and ARs have been produced without site visits.
  - (1) DCLG has addressed this for current and future DECs but many existing ones are based on unverified information.
  - (2) The validity of “Desk based” ARs should be reconsidered. *(It is the view of the author that action should be taken against any accreditation that chose to allow assessors to produce ARs without a site visit and based on answers to a standard set of questions. These need to be replaced at no cost to the building occupier for them to actually deliver carbon reduction).*
- ii) There is insufficient verification of energy and floor area data by assessors.
  - (1) Assessors should be required to establish that data is reasonably reliable. It is reasonable to accept data provided by a suitably qualified person (such as a building manager) but the assessor must check still how it was obtained and why it should be considered ‘trusted’.
- iii) There is too little emphasis on user defined recommendations which are the ones that can be highly building specific and have the ability to deliver low cost high impact solutions.
  - (1) It is necessary to encourage assessors to look for the value recommendations that are not generated by the software as it is too generic.
  - (2) A clear statement is required that the primary purpose of the Advisory Report is to identify ways in which the occupier can reduce energy use / carbon impact and the user defined (bespoke) recommendations should be used to maximise the opportunities to do so.
    - (a) There is a major deficiency in the guidance which states bespoke recommendations “may originate either from the energy assessor’s previous knowledge and experience of the building...” The intended application of the word “previous” is unclear and needs to be clarified.

*The interpretation of DCHI and we believe many accreditations is “previous knowledge” means the assessor’s experience and training. “Experience of the building” includes previous experience and more importantly current*

*experience gained from the walk around inspection that has been undertaken for the purpose of gaining that experience and understanding of the building.*

*The interpretation which appears to be applied in CIBSE TM47 is that the experience of the building must also be previous. This we believe to be contrary to the intention for the following reasons:*

- i. There seems little sense basing recommendations on previous experience and not on current experience.*
- ii. There is not believed to be an intention within the regulations to limit the ability of assessors to give useful recommendations to only those who are previous employees of the occupier.*
- iii. The guidance in TM47 effectively limits an assessor to giving bespoke advice if it is advice that the occupier has had previously. That is entirely counter-productive to the objective of Advisory Reports which is to make change happen.*
- iv. DEC assessors are qualified to identify a wider range of energy saving opportunities than just the limited set covered in the standard text recommendations. It makes no sense to place them in a situation where they will see many simple ways the occupier can stop waste and then prevent them from pointing them out. That would be totally counter to the EPB objectives.*

*It is essential for maximum use to be made of the bespoke recommendation facility if the process is actually going to succeed in delivering reductions in energy use. DCLG needs urgently to place strong positive emphasis on this key element.*

- iv) Benchmarking is hit and miss.
  - (1) Clear guidance is needed on appropriate use of benchmarking.
  - (2) Clear guidance is also needed on when to apply composite benchmarks as many buildings are being matched to a single benchmark when they should not be.
- b) Underpinning calculation methodologies/software
  - iii) ORCalc is currently not functioning correctly with respect to display of information for buildings with electrical heating. DCLG have been aware of the issue since October and have not acted to resolve it. The efforts of this association to address it are hampered by not being able to contact the developers directly.
    - (1) The issue needs to be fixed.
    - (2) There needs to be a better ongoing mechanism for getting ORCalc issues fixed.
  - iv) Benchmarks are limited and it is not always possible to find an appropriate one.
    - (1) Benchmarks need to be reviewed.
  - v) There is no adjustment for under-occupancy
    - (1) It is possible to get an A or B rating on a poorly managed building if it is only occupied one or two days in the week. Assessors need to be able to correct for this.
  - vi) Allocation of energy to site buildings by area is often not appropriate.
    - (1) It is necessary to provide a standard method of allocation between buildings that reflects both area and relative benchmarks.
    - (2) It is also necessary to agree a method to combine heating and electrical power benchmarks applied to areas in allocating electrical energy between buildings when one or more use electricity for both heat and power.

NOTE – allocation between buildings and the incidence of electrical heating is anticipated to increase when the requirement is extended to smaller buildings.

- vii) There is a fundamental problem with the exclusion of energy use for regional server rooms.
  - (1) The principle is that metered energy use for the server room is excluded from the DEC as it creates a negative distortion. In truth however a large part of that use is for servers related to the building that houses the server room and excluding that creates just as significant a positive distortion.
    - (a) There is a need for an approach to server rooms that excludes off site use but retains onsite use.
      - (i) Work would need to be done to establish a workable principle but it could for example be based on a declaration by the occupier of how many terminals are on site and how many are off site.
    - (b) It should also be considered that as DEC's are extended to smaller buildings, increasingly they will be provided on the satellite buildings that have lower demand for their ICT because the server is off site.
 

*The server energy use is ignored at both ends so effectively a large part of the ICT energy use of the organisation (typically local authorities) will be excluded completely giving enhanced operational ratings.*

**c) The adequacy of the existing qualification and accreditation arrangements for energy assessors, and whether the current numbers of assessors matches the likely future demand for EPCs and DEC's.**

1) Qualifications

- a) The qualifications are generally appropriate.
- b) The training is often too focussed on passing the exam and not enough on the practical aspects leaving supposedly qualified assessors to learn on the job, with the deficiencies not being addressed unless they are picked up at audit.
  - i) Improved training on site surveying / recording data is needed.
  - ii) There is also a need for better training on what is meant by the 'field labels' and terms used in SBEM and which to use when. They are often understood differently by different assessors and different accreditation bodies advise differently.
- c) There is anecdotal evidence that suggests the average quality of EPCs and DEC's produced by APEL assessors is lower than by trained assessors.
 

*The use of composite benchmarking, suppression of invalid recommendations and addition of user defined ones appears to be less among APEL qualified assessors.*

2) Accreditations

- a) Arguably there are too many accreditations. The result is too many interpretations with too many parties to sit around a table and agree a consistent approach; not helped by the fact that some appear to be less engaged and / co-operative than others.
  - i) Either the number of accreditations needs to be reduced or there needs to be more centralised writing of guidance and detailing of interpretations that all will follow.
  - ii) The conventions group is a partial solution but what is needed is practical best practice guidance, not abstract rules.

3) Assessor numbers

- a) Currently there are more qualified domestic, commercial and DEC assessors than are needed for the current mix of requirements. There will still be more than enough should compliance levels improve.

- b) There are probably insufficient air conditioning assessors to deal with demand should compliance levels improve significantly.
- c) There are probably enough surplus domestic energy assessors to pick up most of the demand for an extended role including energy adviser with only top up training being required.
- d) The massive oversupply of energy assessors has driven prices to a level that is uneconomic for the majority of professional people running a properly constituted business.
  - i) The result is a large number of the better assessors leaving because they can earn far more doing other things.
  - ii) Many left are part time and supplementing their income elsewhere (which will lower professional standards).
  - iii) To retain competent and experienced people it is necessary to ensure energy assessment is a viable profession. Extending the role of the energy assessor to include the energy adviser has the potential to make it a viable full time role and maintain quality.
  - iv) There is a secondary issue with DEC assessors in that several training organisations were using the DEC qualification as a give away to sell other things. This has created a large number of people who are qualified as DEC assessors but have no real interest in it and will not have used the qualification since obtaining it. These are a potential source of poor quality DECs when the requirement is extended.

**d) How effective the quality control and assurance arrangements are in ensuring the production of high quality EPCs and DECs consistently across the country and, in particular, the performance of the accreditation schemes and auditing processes.**

1) Effectiveness

- a) New auditing procedures have meant virtually no change for some assessors but been seen as a significant additional burden by others.
  - i) This indicates firstly that there has been a failure to be consistent and secondly that the new SOP is driving the required changes towards consistency.
    - (1) The new cross accreditation auditing will enhance this provided the outputs are used effectively.
- b) There are areas where the burden of proof is excessive and others where it is lacking.
  - i) There still needs to be a common sense approach to audit evidence with the emphasis on ensuring the assessment is done professionally by someone with the right skills rather than on whether they take a picture of a low energy lamp.
- c) There is a danger of dumbing down EPCs and DECs if some of the auditing is too strict.
  - i) Particularly with regard to commercial EPCs and DECs there is a need for balance as the best assessors will use professional judgement and improve the value of the output. The primary objective is carbon reduction and limiting assessor's ability to make intuitive building specific recommendations will be counter-productive.

2) Performance of accreditations

- a) To date there has not been enough consistency across accreditations
  - i) There needs to be more consistency in guidance, advice from help desks and auditing requirements.
- b) Some accreditations have failed to ensure acceptable quality control and as a result there are inaccurate certificates and poor quality recommendations in the market place that will remain current for some time to come.

- i) Anecdotal evidence suggests that the lowest standards are achieved where large numbers of properties are assessed within a single portfolio, particularly when the assessors or assessment organisation are closely linked to an accreditation.
 

*For example it is known that in the region of 800 DECs and associated ARs were produced for the NHS using centrally extracted information (ERIC data) without verification. It is also understood that much of that information was inaccurate so many of those have been produced with incorrect energy data, incorrect floor areas, inappropriate benchmarking and generic recommendations only.*
- ii) There is similar evidence that where organisations such as local authorities have chosen to do their DECs in-house by getting existing staff qualified it has resulted in a lower standard of DEC, and more significantly a less useful Advisory Report. Poor advisory reports will not deliver the EPB objective of reduced energy use.
  - (1) Experience indicates that organisations that took the in-house route obtained, intentionally or otherwise, ‘compliance DECs’ meeting the regulations with minimal effort. This has reduced their access to sound advice and will impact on ability to reduce energy wastage.
  - (2) There is a clear conflict of interest when, as is often the case, the in-house personnel are also responsible for managing the energy efficiency of the building they assess. Advisory reports need to be produced by independent assessors.
 

*Few energy managers will advise their employer that their own management of the energy use is not what it could be or that the investment they have made in upgrading HVAC or lighting is not actually meeting the needs of occupiers efficiently.*
- c) There have been too many default DECS allowed to be produced as an easy option when the energy data is not readily available.
  - i) There is a need to restrict the issue of default DECs and limit their use to where it is totally impossible to obtain the necessary information as it will not exist anywhere e.g. where a meter was faulty and did not record throughput.
  - ii) Assessors must not be permitted to issue a default DEC without a good reason why anything else is impossible.
  - iii) Default DECs must not continue to be used as an easy way for an occupier to comply with the regulations.
 

*It is believed that should DCLG look at the proportion of default DECs issued through each accreditation it will identify a disproportionate amount through one or two accreditations. It is also believed that there will be a correlation between these and the highest proportion of ‘desk based’ DECs and ARs. Investigating this via the database would allow DCLG to address the issue at source without the need for a global change to the methodology.*

**e) How effective the current provisions are for ensuring compliance (and for enforcing against non-compliance) with EPC, DEC and air conditioning inspection report requirements.**

- 1) Compliance – general
  - a) Compliance is woefully inadequate across all strands.
    - i) It is common knowledge in the marketplace that nothing will happen if you don’t comply so there is a need and duty to replace that with a fear of the consequences of non-compliance.
 

*That requires a clear zero tolerance statement of intent by government supported by positive actions and clear evidence of consequences.*

- ii) There is an equally important need to raise the perceived value so owners / occupiers actually want to know what an EPC / DEC / Air Conditioning report can tell them.
- b) Responsibility for an EPC needs to be clear and appropriate.
  - i) The owner or Landlord (who may be a tenant holding a master lease in the case of a sub let) must be responsible for an EPC being available.
  - ii) Anyone acting for the person or company in i) above in a professional capacity must also be responsible for ensuring the EPC is available before carrying out any activity in respect of the sale or let that requires an EPC.
  - iii) Each of the above to be responsible for their own actions and not the actions of the other however for the avoidance of doubt in the case of anyone acting in a professional capacity 'failure to advise' is an action for which they are responsible.
 

*Both are liable to a fine if an agent markets without an EPC having informed the client it is required. Only the agent is liable to a fine if an agent markets without an EPC without having clearly informed the client an EPC is required.*

*In the second instance the client will still be liable to obtain the EPC as soon as the non-compliance is identified and marketing must cease until it has been obtained.*
  - iv) The only exception to ii) would be within 28 days of the first point of marketing of a residential property when in order to discharge their obligations they must be in possession of documentary evidence that the EPC has been commissioned.
- c) Trading standards enforcement is not currently effective
  - i) Trading standards need the ability to enforce which is likely to require:
    - (1) The power to demand to see documents proving compliance from any party involved (owner, occupier, agent and assessor).
 

*It needs to be clear that without documentary evidence of an EPC being commissioned an agent will not comply if marketing under the 28 day rule.*
    - (2) The ability to apply fines at a level that will serve as a deterrent although not the party having intent to buy or rent.
    - (3) The resource to manage enforcement.
 

*This association supports the proposal to regionalise enforcement of EPB regulations within Trading Standards to provide a specialist service over a wider area. This is expected to be more effective than compliance being managed by a large number of local Trading Standards Officers who cannot realistically all be expected to have sufficient knowledge of the EPB regulations.*
- d) Compliance – Domestic EPCs
  - i) Evidence indicates the removal of the HIP regulations triggered a massive drop in compliance and also reduced the ability of Trading Standards to address it.
    - (1) It is necessary to clarify the regulations as requiring an EPC to be commissioned before marketing to start and the person responsible for marketing to hold documentary evidence that it is ordered.
    - (2) Introducing the requirement to include the EPC rating on all property particulars and on adverts over a minimum size would simplify identification of non-compliance and also create a desire to obtain the EPC as soon as possible.
    - (3) The powers lost by TSOs need to be reinstated.
  - ii) Other parties could be encouraged / required to become engaged.
    - (1) Some Local Authorities require evidence of an EPC before approving a housing benefit application from a new tenant, others apparently do not. They all should.
    - (2) Lenders could require an EPC on a property before confirming a mortgage application.

- (3) An EPC could be a required for any extension or structural alteration either on completion or as part of any planning application to ensure energy efficiency is considered as part of the project.
- e) Compliance – Non-domestic EPCs
- i) There appears to be a misconception among stakeholders and enforcement authorities that the point at which an EPC is required is unclear. (Possibly based on the 28 days to obtain one introduced by the 2010 regulations).
- (1) DCLG should take steps to ensure that it is abundantly clear that the 2010 regulations applied only to residential properties. Further that the requirement is a valid EPC at the first of a) provision of written property particulars or b) a viewing. The third trigger point of before contract can only apply in the case of an un-marketed sale of a building for which no particulars have been produced.
- (2) With the above clarified there is no barrier to enforcement based on uncertainty.  
*This should be a simple matter of a clarification statement by DCLG. There is no need for any change to regulations.*
- f) Compliance – DEC
- i) Not all buildings that require a DEC have obtained one.
- (1) It is understood that there was an impact assessment suggesting that 42,000 buildings would require a DEC. Hopefully this was strongly evidence based in which case it should be possible to identify most, write to the occupiers and request clarification of the reasons why they do not have a DEC.
- (2) If it is not already a requirement, surely all publicly funded organisations should be required to confirm in their annual returns the number of buildings they occupy that require a DEC and if there are any which do not have one. (Also it is suggested, what the average rating is and how that has changed from the previous year).
- ii) Many first year DEC
- (1) It should be possible to write to the occupier of all (qualifying) buildings having a DEC that has expired and not been renewed requesting a reason.  
*It will be important to avoid too strong a letter to any organisation that had commissioned a voluntary DEC.*  
*It is also necessary to accept that there may be a delay since where the validity period and the measurement period are aligned there will be a delay before the data is available and the CIP is released.*
- g) Compliance – Air Conditioning inspections
- i) Compliance levels are unknown
- (1) The mandatory lodgement of air conditioning assessments is critical to knowing if they are being done.
- (2) There is also a need to identify an effective way of knowing where they would be expected to be done for compliance to be assessed.
- ii) The majority of required inspections have not been carried out.
- (1) When DEC and Commercial EPCs are produced the assessor indicates whether air conditioning is present and which capacity band it is estimated to be within. It should be possible to extract this from the database and write to all occupiers of relevant buildings asking them to confirm the capacity of air conditioning units in the building and if over 12kW provide details of the assessment they have had carried out (which will pick up those produced but not lodged).
- iii) Those best placed are not engaged.

- (1) Many, if not most, relevant air conditioning units are subject to maintenance contracts and quite possibly inspection under the F Gas regulations. Those services or inspections should be identifying the need for an air conditioning assessment and triggering the commissioning of one. The organisations carrying out those associated works need to be engaged in the process.

**f) What scope there might be for making better use of EPC/DEC data to support the initiatives of public and private organisations to reduce carbon emissions from buildings.**

- 1) Statistical analysis
  - a) It should be possible to extract sufficient data from the Landmark register to identify by area (such as local authority area) what the mix of ratings is and to use this to assess the opportunities for improvements.
- 2) Positive publicity
  - a) Awards for organisations that are shown to have achieved a significant improvement in the energy efficiency of their buildings will publicise and incentivise.
  - b) Encouraging other publicity demonstrating where organisations have achieved significant improvement in the energy efficiency of their buildings will increase perceived value.  
*Particularly when they can illustrate how easy it was and how much money they are saving as a result.*
  - a) Prominently publish league tables of DEC Operational Ratings for all public buildings on the relevant public authority website.
- 3) Targeted contact – Domestic EPCs
  - a) By interrogation of the database it should be possible to identify the properties for which selected improvements are possible (e.g. cavity wall insulation) and target those with initiatives to get them upgraded.
  - b) Perhaps matching this data with other agency information on those claiming benefits or pensions would allow a more cost effective approach to ensuring funding (e.g. Warm Front funding) was directed where it is most needed.
  - c) If the EPC Adviser tool can be automated to run across the database it should be possible to identify the properties where the highest forecast impact is achieved and specifically target those.
- 4) Targeted contact – EPCs / DEC
  - a) Again, by interrogation of the database it should be possible to identify the properties for which selected improvements are possible although due to the different nature of the software it will only be possible to pick up standard recommendations within the Advisory Report or Recommendations report. This should allow accurate targeting with specific initiatives.
  - b) In particular it should be possible from a) above to target FiT funding at areas where there is the most need to supplement grid supplied electricity or the best weather conditions for solar PV or wind generation.
- 5) Requiring a new Advisory Report
  - a) Advisory reports are generally valid for 7 years (except site based) which may in some cases be too long.
    - i) An occupier should be required to commission a new advisory report after a shorter period if one a of a number of factors occur e.g.
      - (1) There is change of floor area of more than 10% of the building area.

- (2) There has been insufficient data to produce an accurate renewal DEC and a default has been needed.
  - (3) There has been a worsening in the Operational Rating of more than 5%
    - In the above cases a new AR should be required unless the assessor providing the renewal DEC completes a disclaimer confirming that the reason for the change is either adjustment to correct an error in the previous DEC, a meter that was not recording or a re-alignment due to changed application of benchmarks.*
  - ii) Other than the above there is no real issue with a 7 year period other than as changes are made a different set of energy saving opportunities will evolve.
    - (1) This should be addressed naturally by occupiers commissioning new ARs earlier to benefit from more current advice.
      - That is something that should happen naturally if facilities managers start to appreciate the value of the AR and that it will save them much more than it will cost.
        - In truth, a good AR is a cheap way of getting good advice on how to improve the energy efficiency of your building and can pay for itself within weeks. This is the message that DCLG needs to be getting across.*
- 6) Extending the role of the energy assessor.
- a) With a little further training many energy assessors could extend the service to effective building specific advice.
    - i) The role of the Home Energy Advisor should be an extension of the existing energy assessor role and not a stand-alone role.
      - There will be more value to the service if the role of experienced people is extended rather than bringing in a mass of inexperienced people. In addition independent energy assessors or assessment businesses are probably the only group in the sector without a clear conflict of interest when giving advice.*
    - ii) The energy advice element should be an upgrade option to an EPC in the manner of a basic EPC or an upgraded EPC.
      - Subsidising the upgrade to detailed and specific advice would possibly be the single most effective way of achieving increased carbon reduction.*
  - b) Channel funding initiatives through energy assessors.
    - i) Design the front end of the application / enquiry process for initiatives such as Green Deal, FiTs, Warm Front etc. so that energy assessors can instigate it in a simple and effective manner.
      - Assessors see the properties the funding is targeted at and it makes more sense for them to trigger an application / enquiry than to rely on an occupier subsequently acting on a recommendation.*
- 7) Landlord v/s Tenant
- a) There is a need to address the conflicting interests of landlord and tenant. To drive EPB objectives it is necessary to align their interests on the side of energy efficiency.
    - i) The cheapest solution for a landlord is electric panel heaters. (Not just for initial outlay but they last for years and don't need annual maintenance or gas safety checks). The tenant pays the electricity bill so that is not their problem.
      - This however does not assist with the EPB objectives and there needs to be a strong incentive or disincentive of some sort to change landlord practise.*
    - ii) There are many other situations where improvements cost the landlord but benefit the tenant.
      - If the landlord needs to improve the property in order to be able to advertise a rating that will attract enquiries, or allow a higher rent, that is the point when the

landlord has the incentive to make the improvements that will reduce energy cost to the tenant.

Once a tenant is in the landlord has no incentive to improve the property. (Money spent to attract a tenant is an investment but money spent on a tenant you already have is a cost).

*It is crucial for the focus on EPC rating to be at the start of the process when both the landlords and the tenant want the best they can get. This reinforces the points made elsewhere about needing to raise awareness and advertise the rating up front.*

## 8) Additional use of DEC's

### a) Extending DEC's to the private sector.

i) DEC's are likely to be more effective than EPC's at delivering carbon reduction in the private sector.

(1) DEC's are based on real values and make a building manager's performance instantly obvious to financial controllers.

(2) They address poor practice and incompatible controls which can deliver low cost, high impact savings quickly.

(3) They are visible and so are important to the perception of an organisation. EPC's are invisible and therefore do not need to be addressed.

*The OR will be critical to any organisation claiming to be socially and environmentally responsible so it will be a driver for energy efficient improvements.*

### b) Removing the requirement for a building to be frequently visited by the public.

i) There is just as much opportunity to reduce energy use in buildings that are not visited by the public.

ii) There will be far more pressure from staff who are not getting pay rises but can see their employer is wasting money on energy than there will be from a visitor who has no vested interest in how the building is managed.

## The roll out of DEC's to commercial properties

It would appear to make sense to be as consistent as possible between public sector and private sector. Therefore initially introducing a requirement for buildings over 1,000m<sup>2</sup> with subsequent phased extension to include over 500m<sup>2</sup> and then 250m<sup>2</sup> would seem appropriate.

For many commercial buildings there are appropriate benchmarks in existence and no change to the practical application of DEC's would be needed. For many more however there is a fundamental problem that prevents application of the standard methodology, namely process use. If a significant part of the energy use within a building is process use it will not be possible to compare to a benchmark unless there are hundreds of industry specific benchmarks.

The DEC serves two purposes. One is to illustrate how the building occupier is performing compared to the average. The other is to show the extent to which the building occupier is making progress in improving energy efficiency. Where there is no appropriate benchmark it will be possible to display the latter but not the former.

It is recommended that roll-out to commercial buildings be done on the basis that where the building use matches an existing benchmark the application is identical to that for a public building

and the DEC can look the same. If the building has a use type for which an appropriate benchmark exists a 'no benchmark' DEC is required.

A 'no benchmark' DEC displays the year-on-year energy consumption in exactly the same way as a typical DEC. In place of the Operational Rating and the A – G graph however it displays a large coloured number. The number will be the carbon impact expressed as  $\text{kgCO}_2/\text{m}^2$  pa value calculated for the building. This allows comparison to other buildings that may be considered similar, but not directly to a 'typical' building benchmark.

The colour of the carbon impact number (matched to the A – G graph colours) will reflect which of 7 bands it falls into with regard to whether it is a low, medium or high impact building (irrespective of use category). Therefore most heavy industry for example will display a red number indicating it is high impact even if it is well managed.

The 'no benchmark' DEC can however be a transitional arrangement if properly managed. It should be possible to apply primary and sub categories to the building types which fall outside of the established benchmarks. After a relatively short period it should be possible for many building types to take the average carbon impact of the DEC's lodged within a category and use that as the 'typical' benchmark for further DEC's lodged against similar buildings. At this point the category can convert to displaying a standard DEC rather than a 'no benchmark' one.

## DCHI

DCHI is a regional association of energy assessors in the South West and actively supports the initiatives to increase the effectiveness of energy performance of buildings initiatives. We provide a representative on the EPBD Sub Group and provide feedback to conventions groups across domestic and commercial strands.

The above document is a considered response to a fairly open set of questions. We have attempted to cover a wide range of topics in enough detail to deliver valuable insight.

Further information on all or any of the above topics can be provided and we would be pleased to become as actively engaged in the subsequent processes as we can. This is an important time for the EPB initiatives and the climate change agenda as a whole. If DCHI can assist in making them work more effectively we will endeavour to do so.

For more information or to request the further involvement of DCHI please contact Ian Sturt at [it@dchi.org.uk](mailto:it@dchi.org.uk) or on 01626 365581 / 07915 071705

DCHI has also produced guidance on when a Commercial EPC is required and when a DEC is required. These documents are available as a Key Document from the Directive Implementation Advisory Group (DIAG) at [www.diag.org.uk](http://www.diag.org.uk) or from DCHI directly at [www.dchi.org.uk/links](http://www.dchi.org.uk/links)

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Ian Sturt 21<sup>st</sup> December 2010