

Commissioning, Seasonal Commissioning, EPCs & DECs

3rd June 2011

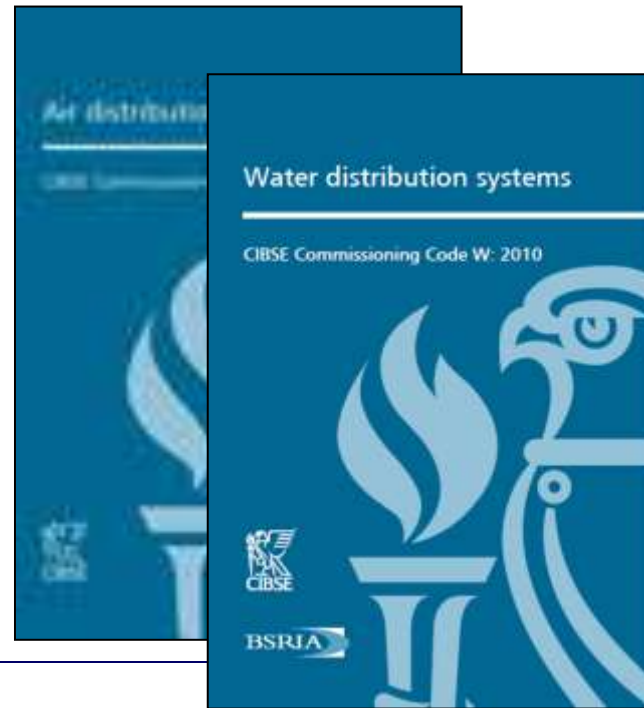
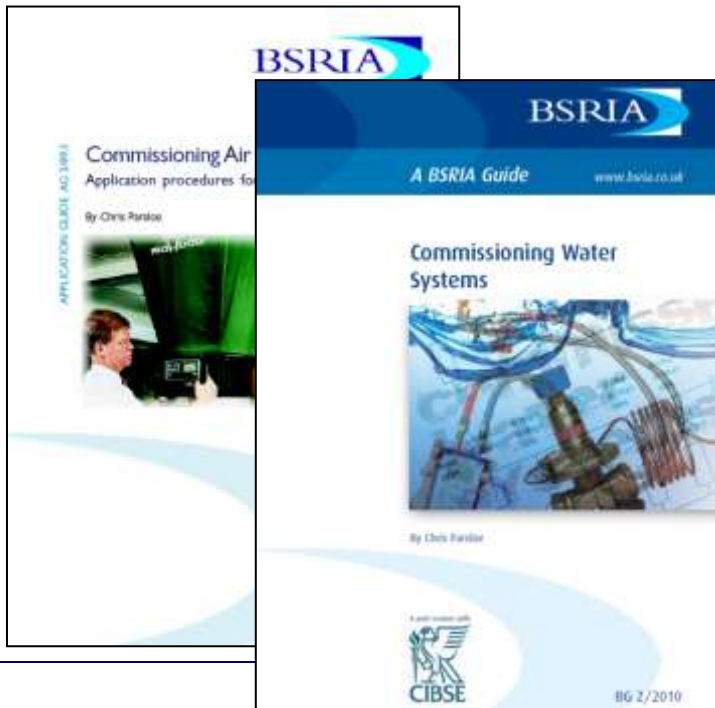


**David
Bleicher**

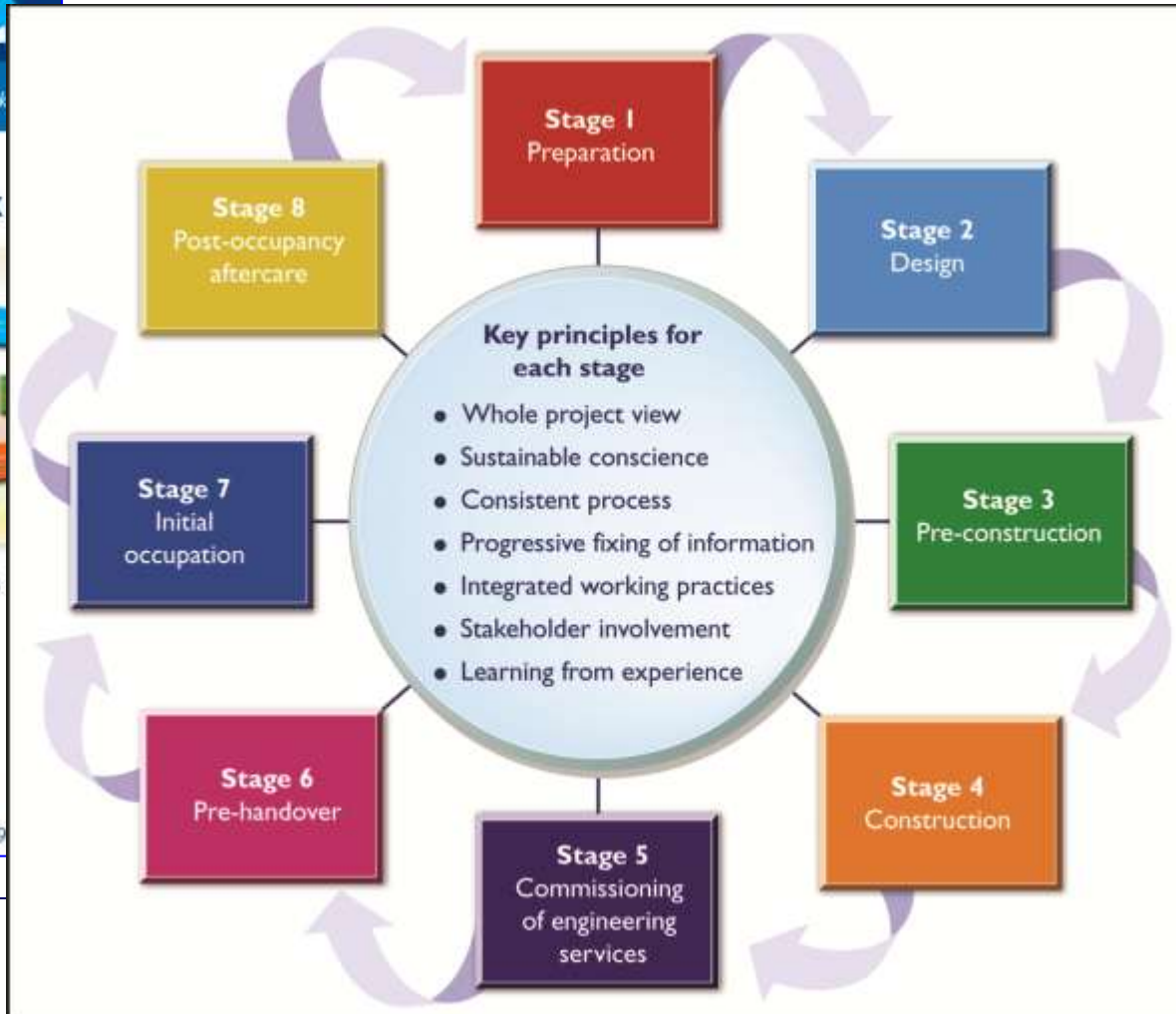
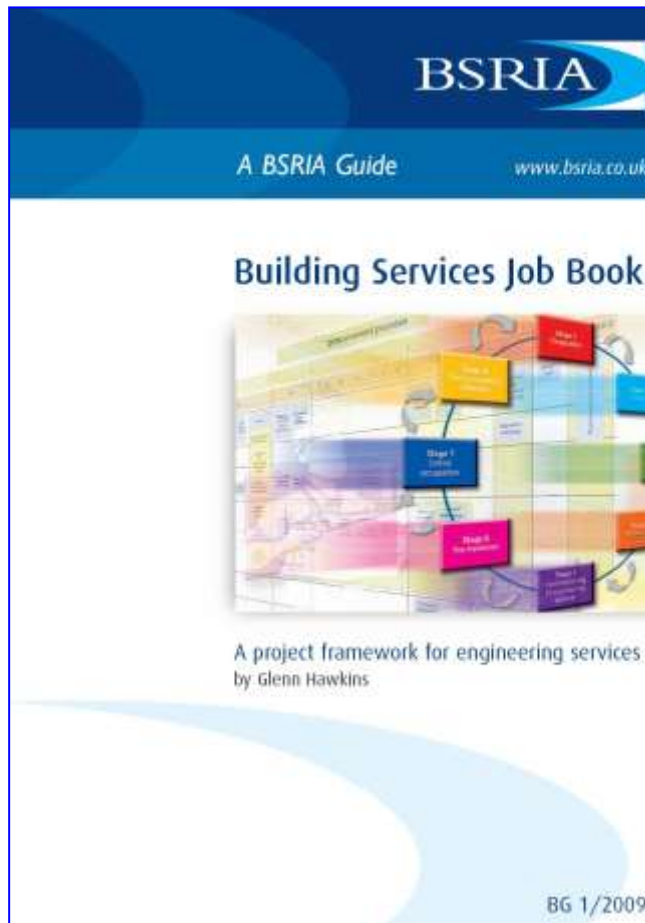


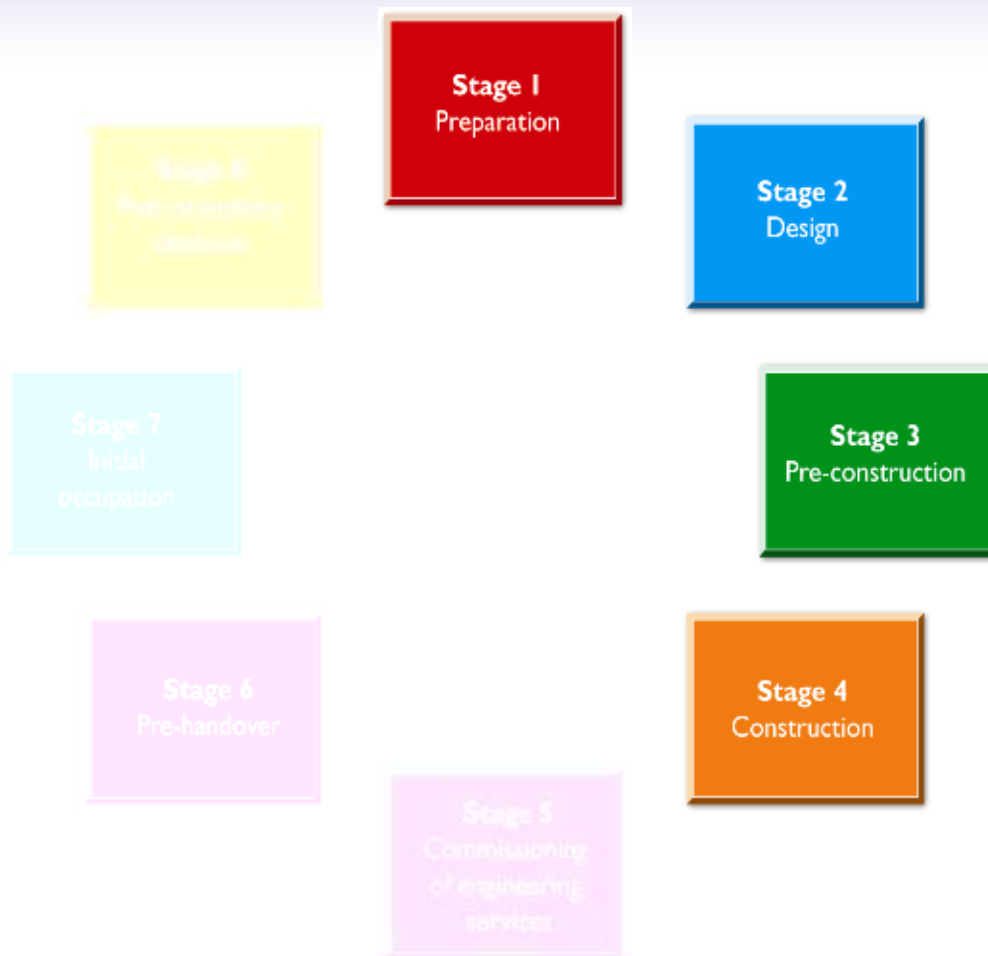
What is Commissioning?

- “The advancement of an installation from the stage of static completion to working to specified requirements”
- A requirement of Building Regulations for purposes of “Adequate Means of Ventilation” and “Conservation of Fuel and Power”

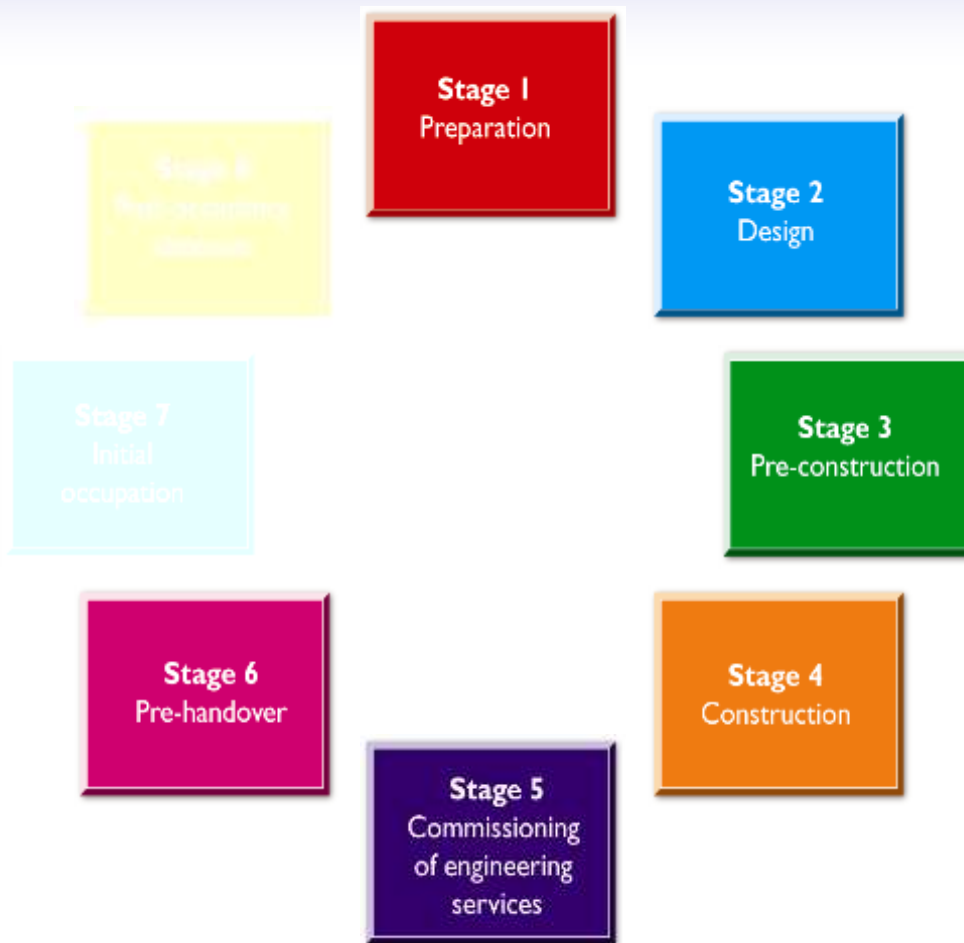


Commissioning needs to be considered at various stages during the project

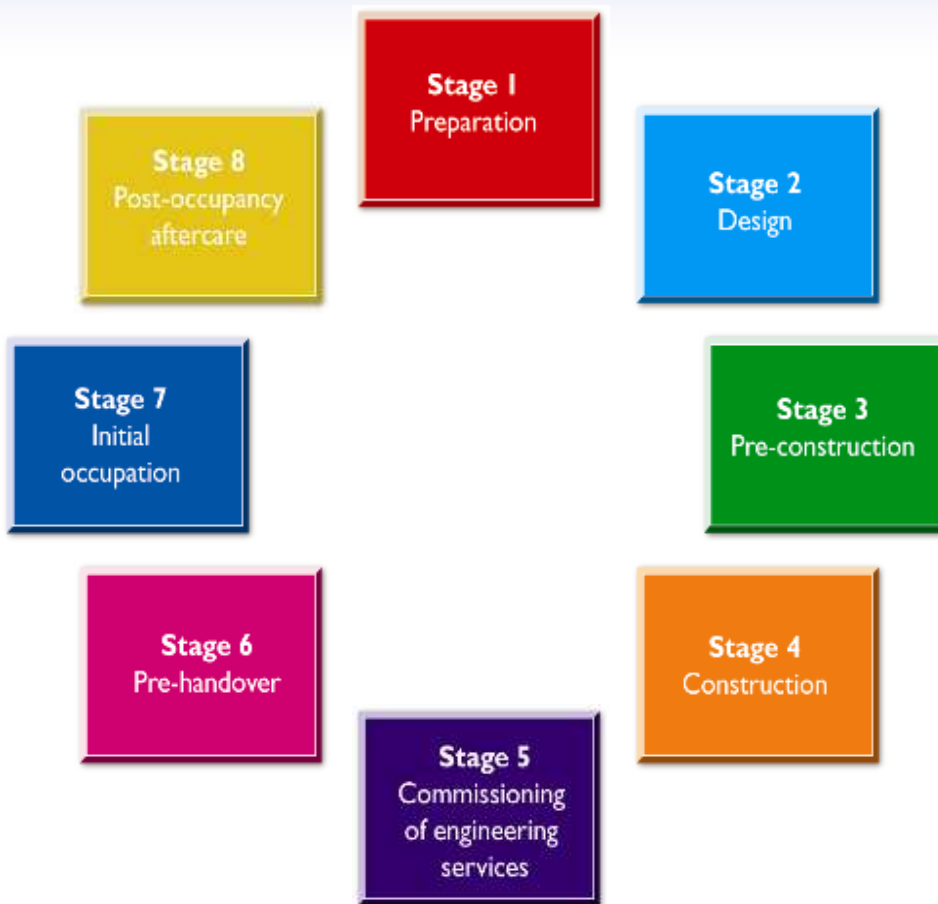




- Form a Commissioning Team
- Client stakeholder consultation
- Produce a commissioning plan
- Perform commissioning-focused design reviews
- Continual monitoring of construction process to avoid compressing the commissioning stage



- System Regulation, performance tests etc.
- Involvement of FM personnel
 - Commissioning report
 - O&M manual
 - Log book
 - Building user guide
 - Training, familiarisation and demonstration



- Observe occupant use of the building and fine tune systems where necessary
- Update handover information
- Produce a lessons learned report about project delivery
- Carry out seasonal commissioning

What is Seasonal Commissioning?

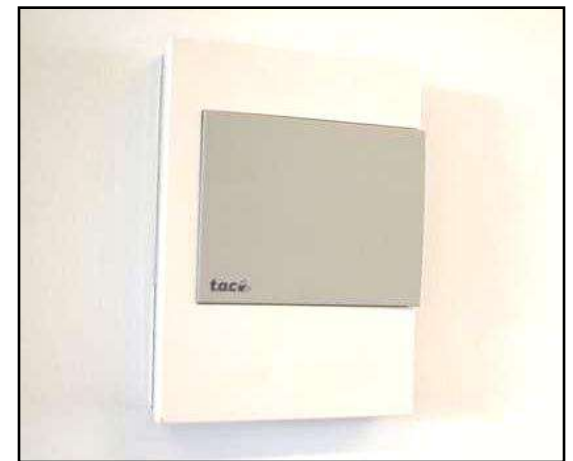
“The testing of a building and its engineering services under full load conditions during peak heating and peak cooling seasons, as well as part load conditions in the spring and autumn, and under various occupancy conditions”

- An optional BREEAM credit
- It's performance-related – temperatures and occupant comfort criteria, not just air/water flow rates
- It should be undertaken in accordance with:
 - Approved commissioning method statements
 - The commissioning specification
 - The day-to-day needs of the building's users and operators

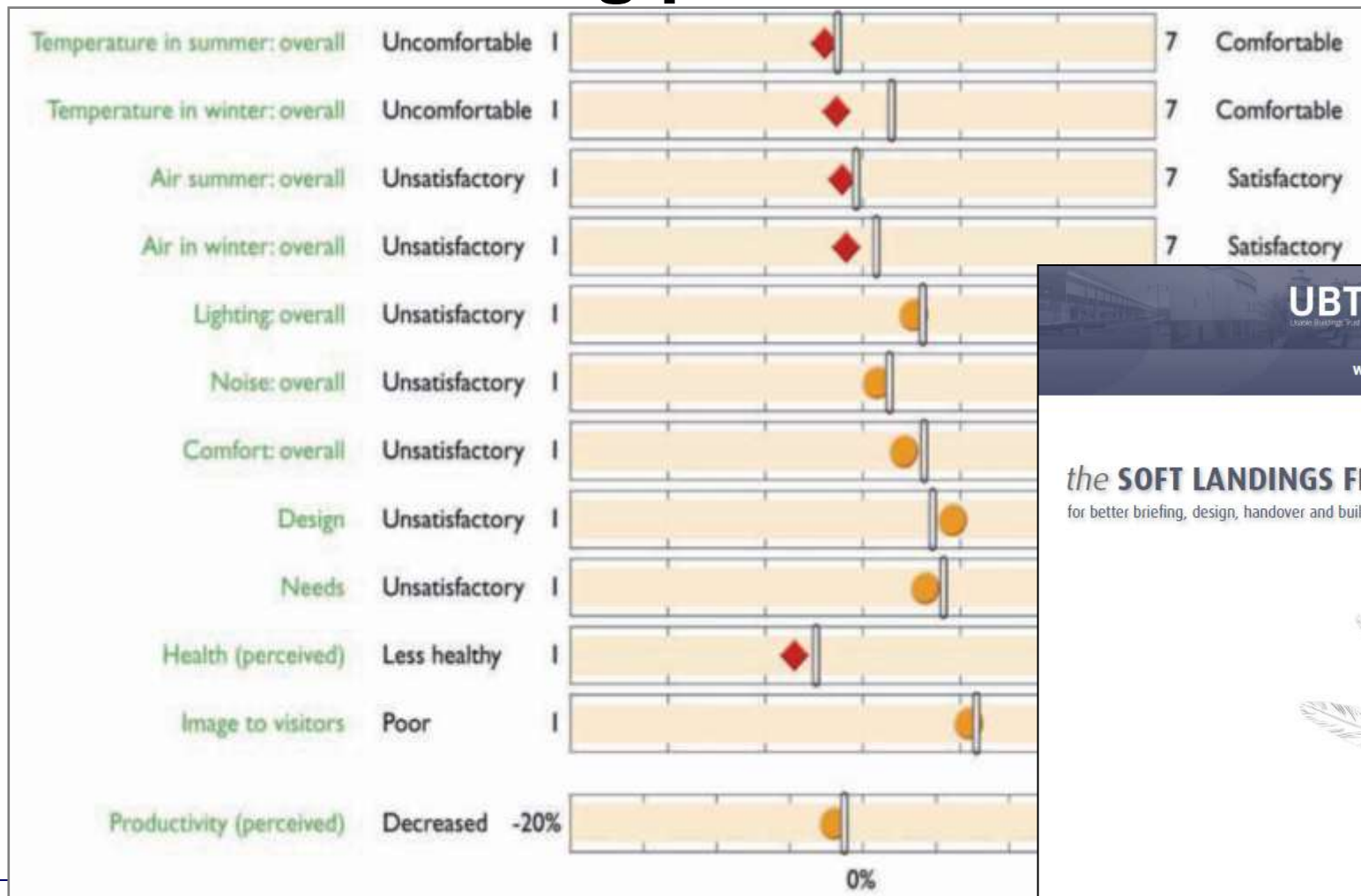
Seasonal Commissioning



The Ceredigion County Council building in Aberystwyth uses demand-controlled natural ventilation



Collect and review evidence about building performance



UBT BSRIA
 www.softlandings.org.uk

the **SOFT LANDINGS FRAMEWORK**
 for better briefing, design, handover and building performance in-use

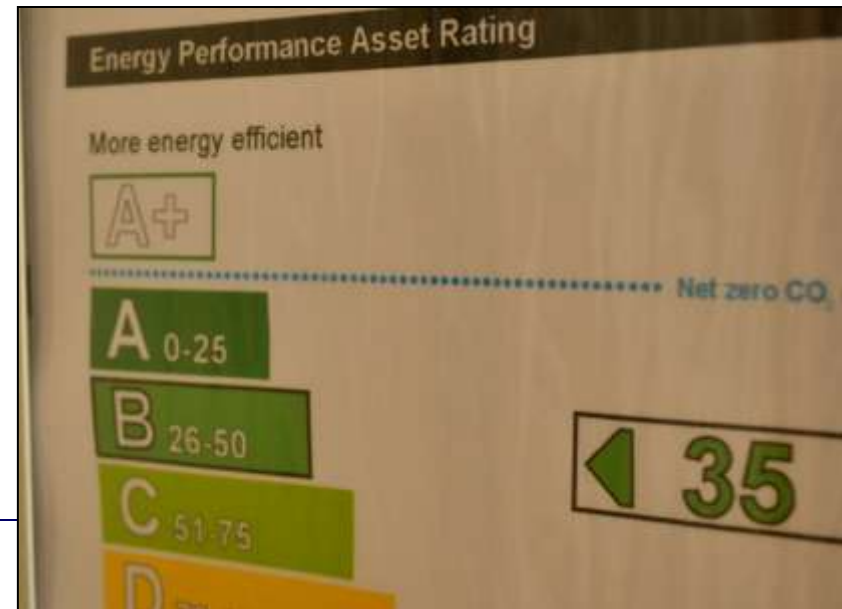
BSRIA BG 4/2009

Energy Certificates

- In England & Wales, this bit of EPBD was implemented through the *Energy Performance Regulations*
- There are two types of certificate:
 - Energy Performance Certificates (EPCs) – these contain an asset rating and must be provided when a building is built, sold or rented out
 - Display Energy Certificates (DECs) – these contain an operational rating and must be displayed in buildings occupied by public authorities and regularly visited by members of the public
- People producing EPCs & DECs must be qualified and accredited for that type of work

Energy Performance Certificates (EPCs)

- The EPC provided on sale or rental must be less than 10 years old
- The assessment is carried out using the National Calculation Methodology i.e. same as for meeting Part L of the Building Regulations, but the “reference building” is not the same as the “notional building”
- A recommendations reports is provided alongside the EPC



EPCs: How to get a better rating

- Fabric Improvements – roof insulation, cavity wall insulation, dry lining, double glazing etc.
- Reducing solar gains – solar shading, glazing films
- Energy efficient lighting & controls
- Energy efficient plant, especially boilers and chillers
- Renewables
- Document it all – otherwise the assessor may assume the worst!

EPCs for Non-Dwellings

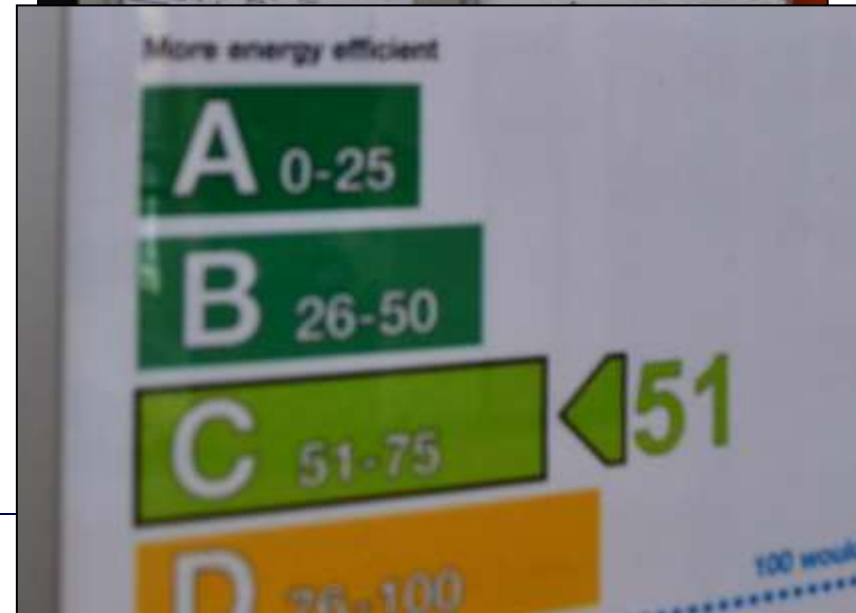
There is a guidance document entitled “Improving the energy efficiency of our buildings: A guide to energy performance certificates for the construction, sale and let of non-dwellings” that can be downloaded from:

<http://www.communities.gov.uk/documents/planningandbuilding/pdf/nondwellingsguidance.pdf>



Display Energy Certificates (DECs)

- The DEC contains an operational rating based on actual energy use for the past year, compared against a national benchmark
- DECs are required for schools, hospitals etc. over 1000m², but not central government offices as they are not regularly visited by members of the public
- DECs are valid for 1 year, but the supporting Advisory Report is valid for 7 years



DECs: How to get a better rating

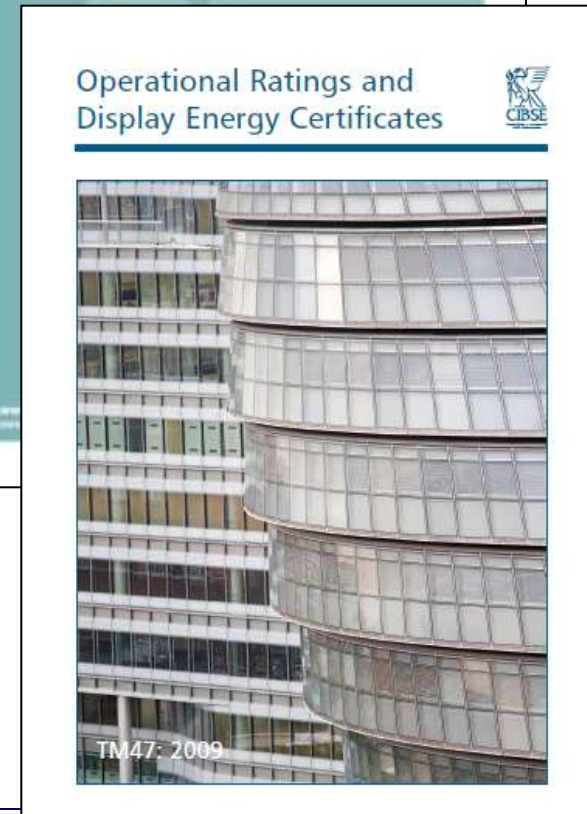
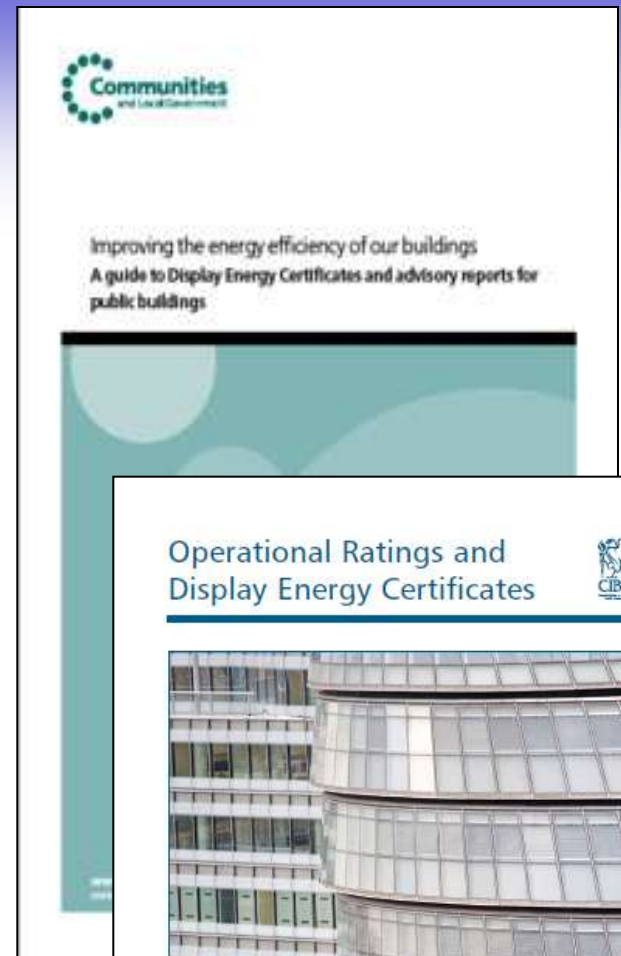
- All the same things that get a better EPC rating
- Proper Commissioning
- Energy Management:
 - Appoint an energy manager and write an energy policy
 - Monitoring and Targeting – if you don't know how much you're using, you won't know where to make savings
 - Awareness campaigns: engage staff, customers, pupils etc.
 - Produce an energy strategy: prioritise measures according to capital cost and energy savings

Display Energy Certificates (DECs)

There is a guidance document entitled “Improving the energy efficiency of our buildings: A guide to Display Energy Certificates and advisory reports for public buildings” that can be downloaded from:

<http://www.communities.gov.uk/documents/planningandbuilding/pdf/20.pdf>

In addition, there is a CIBSE publication TM 47 “Operational Ratings and Display Energy Certificates”



Display Energy Certificates (DECs)

- Under EPBD 2:
 - The threshold for public buildings requiring DECs will be reduced from 1000m² to 500m² initially and to 250m² in July 2015
 - EPCs will be required to be displayed in private buildings over 500m² that are frequently visited by the public where one has already been produced on construction, sale or rent
- In March-May 2010, the government consulted on a proposal to require DECs for all non-dwellings from 2017. 93% of respondents said “yes”.

EPCs and DECAs

Under EPBD 2:

- The recommendations report will have to be displayed alongside the certificate
- It will be strengthened:
 - Recommendations must be technically feasible
 - Recommendations must include cost information
 - Information must be provided on how to implement the recommendations
 - The report will also need to include sources of further information and financial incentives.

Thanks for Listening!

Feel free to ask me questions:

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