

# Part L – Consultation Workshop

## Group 1: Calculations (facilitated by David Bleicher)

**Do you agree in broad terms with the proposed process for considering the introduction of new technologies into SBEM via an ‘Appendix Q’?**

In broad terms, the group agrees, however there are some issues:

- Systems such as waste heat recovery from refrigeration equipment are unlikely to get included because they are made up of numerous components and control strategies rather than a single piece of equipment. There is no manufacturer or group of manufacturers with an incentive to go through the Appendix Q approval process.
- It’s not clear whether such a system would even be eligible, since it is recovering heat from an unregulated load (refrigeration) for use in reducing regulated loads (heating and hot water).
- This brings up the wider issue of whether energy efficiency methods that benefit unregulated loads will be “allowable solutions”. This is a relatively minor issue in 2013, but will be much bigger in 2016 and 2019.
- It also brings up the issue of how the government intends to address unregulated loads. As regulated energy use is driven down, unregulated energy use becomes a larger slice of the pie. In a supermarket, for example, they may be 60% of site energy use.

**Do you agree with the proposal to include the Lighting Energy Numeric Indicator (LENI) methodology as an alternative way of meeting the minimum energy performance requirements for lighting installations? (See attached supporting information)**

- LENI is good as alternative for larger or more complex spaces, but designers should be able to mix & match between LENI for some zones and Lm/W standards for others.
- LENI may help with encouraging more efficient light sources in continuously lit spaces

### **Do you have any issues with the proposed changes to the National Calculation Methodology?**

- No specific comments on the changes
- It has been reported that DSMs can give a more favourable result than SBEM – some consultants will try both and go with whichever is more favourable. Convergence has not occurred yet, but results are within about 10%.
- Who's to say which gives a more realistic result?

### **Group 2: Raising Standards (facilitated by Ant Wilson)**

#### **Should the Aggregate improvement in CO2 emissions targets for new building be 11 or 20% or something else?**

- Why is a 15% improvement not under discussion? 20% will be needed if we are going to meet the targets. But with no stimulus how it is going to be achieved?
- Compliance is an issue. If we set a higher target would it affect the cost of compliance?
- EU targets are driving this, if we go with 20% it will still be not enough. More detailed cost analysis would be required to go above 20%.
- Could post construction assessment to assess compliance be used? How we do this with 'No net cost' increase may be difficult to achieve.
- PV integration was identified as the most cost effective way in the consultation but this should not be in as a recommendation for every installation as there will be site issues may prevent useful integration. Roof space is at a premium in places like London. Accommodating 1.6% PV area could be a problem.
- High performance buildings will not benefit as it will not affect the asset values or rental values.

#### **Do the proposed 2013 notional buildings seem like a reasonable basis for standards setting?**

- It should be noted that the notional building definitions are not the backstop values in the table - the backstops are more onerous.
- The notional building is broken into zones, which is confusing, especially for building control? It should be made it less complicated.
- Floors should be as challenging as possible as there is little scope to improve after installation.
- Curtain walling is a modelling issue, solid walling or framing factors. The way you model it impacts on the outcome, should that be allowed?
- Why should an air conditioned building pass but a passive building fail at the same ER? Should we go back to absolutes?

**What information do you have on how the proposed changes in standards for new non-domestic buildings might have different impacts on different categories of building?**

- A lot of weight is put on modelling but we get different answers from different software packages. Differences are unacceptable.
- It is felt that these improvements will get lost in the noise from software to software. Marginal abatement curves are too variable.
- Could two extremes be added - NCM value with upper and lower limits? Building regs pass or fail would be based on the mid value.
- **Proposal to raise performance standards for non-dom extensions?**
  - Yes, but could be problematic... Where does this fit in with the green deal?

**Group 3: Consequential Improvements (facilitated by Andrew Eastwell)**

**Do you agree with the proposal to introduce consequential improvements upon extensions or increases in habitable space in non-domestic buildings under 1000m<sup>2</sup>?**

*The same 'white van man' will do both, so why distinguish between dom/non-dom. The rules must be the same for both. Also, professionals need to be engaged with this.*

Items discussed included: the proposed change is too complex, we are really talking about changing the carbon footprint of a building – so this is the real trigger, that professionals could be driven underground (if they are even involved at this level), the community might not be able to afford it – and therefore changes could be prohibitive to business. Who decides if an improvement is 'technically' viable? There is a lack of definition for this.

**The consultation explains that the regulatory requirement for consequential improvements upon non-domestic extensions and increases in habitable space would be limited to measures which were 'technically, functionally and economically feasible', with guidance setting out a value for the consequential works. Should this be set as:**

- **A maximum of 10% of the value of the principal works**
- **A minimum of 10% of the value of principal works**
- **Another % value**
- **Another approach**

*Possibly d. How is the value of 10% identified? Perhaps we should use the EPC to trigger this – so target the worse buildings first.*

Discussion: difficulty of demonstrating the economic value at this scale, but 10% could sound quite expensive. I believe the group also discussed at this point that the changes could be too tough on

buildings which are already performing well – and therefore could be tied to an EPC. As 80% of offices are leased, who gets the benefit of the consequential improvements?

**Subject to further work on specific triggers, do you agree with the concept of introducing consequential improvements on replacement of certain fixtures or fittings in non-domestic buildings under 1000m<sup>2</sup>?**

*No - this is ungovernable.*

- *The professionals will go underground.*
- *Generally, new products are better than older ones (for example if you buy a new boiler), so there is a natural improvement anyway.*
- *Explore (more radical) alternative routes. For example, the domestic ban on letting out buildings with poor EPC ratings. This may require a longer trajectory i.e. 10 year timescales.*

Discussion: market forces should drive this – but perhaps the current rate of change is not deemed fast enough. Hence, the EPC suggestion– at present rental properties are possibly the only buildings that are restricted in this way, but perhaps domestic is easier. If professionals go underground or if people don't have the capacity, interest, or will, then this will only make things worse.

**Do you agree that the current requirements for consequential improvements on initial provision of a fixed building service or increase in capacity of a fixed building service in buildings larger than 1000m<sup>2</sup> should be retained unchanged?**

*The 1000m<sup>2</sup> limit should be removed. Also see the answer to Q1.*

Discussion: we don't look at the bigger picture i.e. embodied carbon (we're more interested in the economics i.e. assured fuel supply, than carbon!). Look at improving buildings in other ways i.e. use of occupied buildings. For example, a previously unheated building being heated by tenants.

**Are there any other specific replacement works which could be used to trigger consequential improvements for non-domestic buildings?**

*Yes, for example roofing.*

Discussion: Upgrading insulation whilst re-roofing is an easy option.

Additional comments/overarching themes:

- 1) How will Building Control assess this i.e. do they have the resources or capacity?

Notifications are too complex and we need a new process.

- 2) Feasibility of self-assessment (i.e. for a designer) or for boiler installation. Consider self-certification (would more certification make services too expensive)?
- 3) Use EPC as the medium for change.

Additional consequential improvements notes from group 1:

- Funding should be made available for all consequential improvements (not just ones that attract green deal funding)
- Can green deal funding be made retrospective?

#### **Group 4: Compliance , Education, Training and the Future of Building regulations (facilitated by Richard John)**

##### **Compliance**

Issue:

- Anecdotal evidence implies significant differences between non domestic as built and design energy use.
- Part L compliance certificate not seen as a must have, and limited sanctions if not produced.
- Limited ability of Building Control to check compliance given need for in depth expertise, so highlighting importance of self-certification
- Plenty of opportunities to “cheat” Part L compliance because limited on site presence of building control. Differences between SBEM and real life performance. Opportunities for modellers to “play games” with SBEM and DSM to achieve required outcomes within professionally accepted practice.

Solution:

- Agree with consultation document on giving Building Control more powers. However comment is that there is a limit as to what Building Control can do, and on some civil sanctions (eg Stop Notices), some question as to whether these would be a practical proposition.
- Suggested that Building regulations allow a less demanding CO2 target where soft landings, appointed persons and similar initiatives are followed – create an incentive for “good practice”.

##### **Education & Training**

Issue:

- Training and education usually take place in construction where there is a clear market “pull” driver for energy efficiency / carbon reduction.

- Need to have greater awareness of Part L compliance, and associated benefits of energy efficiency / low carbon at all levels of the property and construction supply chains.
- Skills needed particularly with: site management; additional competence of Building Control to reflect new powers.

Solutions:

- Proposed competency levels for appointed persons should be initially set at a high level.
- Education & training strategy outline produced in consultation document was accepted, with the observation that historically there has been a failure to link up training initiatives across Government bodies, and that success is more likely if there are a clear set of metrics which identify progress. Need to monitor and assess progress.

### **Future of Part L**

Issue:

- Practically achieved energy use is significantly different from Part L intent – there is a potential that a radical change in standards, could lead to services solutions which are complex, and hence in practice energy / carbon reductions are not made.
- Part L focus, if combined with poor implementation including a failure to maintain complex systems can be expected to lead to IAQ issues with subsequent impacts on health and productivity.
- “Zero carbon” still not well defined (allowable solutions)
- Depending on nature of definition of zero carbon, there is a balance between ensuring UK meets its long term carbon goals, which requires strong action now, and the current economic issues which suggest that action is taken more gradually.

Solutions:

- We should be moving towards performance based standards – recognising practicality issues
- More research on the effectiveness of Part L in achieving zero carbon, including unintended consequences on IAQ and productivity.
- Soft landings – should become the norm. How could this be included as a requirement?
- Need to move towards regulations which make requirements on actual energy in use.

Additional compliance notes from group 1:

- Part L is not evenly enforced
- Approved inspections are generally stricter than local authority building control when it comes to Part L compliance.

- If Appointed Persons are introduced, this will make little difference to projects with an approved inspector, as the AI works very closely with the client, designers & contractors anyway.
- Clarity is needed on the extent of liability of Appointed Persons, particularly with regard to Part L. If a building uses more energy than predicted at design stage, can the Appointed Person be held liable?
- Clarity is also needed on how responsibilities of the applicant and of building control will change with the introduction of Appointed Persons.