SustainSuccess Ltd – extract of UKGBC consultation responses.

Two Tier Definition Agree (4)

Quantification of embodied carbon will be unrealistic unless broader standards such as Environmental Product Declarations in line with ISO 14025 are widely available. A possible intermediary step would be to identify Carbon content form some of the most common building materials (concrete, steel, brick, slate, plasterboard) which, through QS data can provide a rough estimate of embodied carbon. However the main reason for tracking embodies carbon must surely be to influence design, which the simple approach described would fail to do.

Net Zero Carbon Hierarchy Strongly disagree (1)

There are real problem with offsite renewables and offsets if these rely on Renewable Electricity Guarantees of Origin (REGOS). Far too many property companies are buying "green electricity" at no incremental cost and claiming to be zero carbon. Not only is this double counting (as the same emissions reductions contribute to UK grid-average emissions factors) but the very low, or zero, incremental costs associated with the REGOS does not pay for the development of the renewable generation in the first place as this is paid for by all electricity users as part of their tariffs, and so additionality is not demonstrated. We would suggest the first three elements of the hierarchy followed by a fourth "Verified offsite solutions demonstrating additionality". Such solutions *could* include offsite renewables where the cost of implementation has been borne by the developer (such as private wire solar generation). Getting the criteria for these offsite options wrong will serve to undermine the objectives of the whole Net Zero concept if the easiest/cheapest route to compliance is simply to cheaply commandeer some "green electricity" which has already been paid for out of the purses of all consumers.

Verification Strongly Agree (5)

Verification is essential, but the effort needs to be proportionate. As a minimum the GHG Protocol's Location Method should be required (not the "market method" which allows green electricity to be claimed in the absence of additionality). This categorizes emissions in the now well-established Scope 1, Scope 2 and Scope 3 categories.

1.1 Disagree (2)

I would refer to the problems with procuring green electricity without proven additionality. I would propose an adjustment along the lines of: ""A net zero operational building should emit no carbon dioxide emissions associated with its operational energy use on an annual basis. This should be achieved by meeting minimum levels of efficiency in the building and by producing green energy on-site. Where zero onsite emissions are not possible, the residual emissions may be reduced through verified offsite emission reductions attributable to the building's operator and which would not otherwise have taken place (i.e. actions which demonstrate additionality).”

1.2 Agree (4)

The "location based" grid conversion factors should be used (i.e. UK grid average) for all offsite electricity (as is the case for other reporting regimes such as the CRC) to avoid building operators procuring "green electricity" to reduce their apparent emissions (when in fact they have not paid for it).

1.3 Strongly disagree (1)

Care needs to be taken in respect of claiming "exported" renewable energy if that is in receipt of FIT/CFD/ROC payments since this electricity is contributing to the UK grid average conversion factor (and so recording this against the building would lead to double-counting) and is being paid for by parties other than the building owner (the basic principle being that organizations should only take credit for that which they have made happen). Please see the comment on offsetting - only verified offset projects demonstrating additionality should be permitted. Assuming the current layout is chosen, then Line 3, "Renewable - offsite (imported)" should be removed and "Renewable - onsite (exported)" should be changed to "Renewable - onsite (exported, no subsidy)" and "Offsets" should become "Offsets (verified additionality)". Otherwise the temptation will be to reduce line 1 "Energy" by switching to line 3 "Renewable - offsite (imported)" which would completely undermine investment in energy efficiency and renewables onsite if the incremental cost of "green electricity" is as low as it has been for many years. Finally, not sure how the first line "Energy" can include gas - sure gas can only be consumed onsite? The only occasion where there is ambiguity involves district or communal heating schemes. All in all, I would propose an alternative to this table and the adoption of the GHG protocol's reporting categories, which are well understood (and for which there are also good conversion factor data, for example). Line 1 could be "Scope 1 Emissions - Onsite Fossil Fuels", Line 2 could be "Scope 1 Electricity - from onsite renewable sources", Line 3 could be "Scope 2 - Imported Electricity (grid average factor)", Line 4 should be "Scope 2 - Imported Heat and Coolth - (equipment factor)", Line 5 could be "Scope 3 - Offsite Solutions (verified additionality)". This would leave the room open for future reporting of refrigerants as "Scope 1 - emissions related to refrigerant leakage" and "Scope 3 - Embodied emissions in materials (current year only)".

1.4 Disagree (2)

A more practical extension of the reporting would be to include emissions due to refrigerants (which is a requirement for larger systems to monitor under the EPBD). Additionally it would also make sense to require buildings to report on the "conditioned floor area" of the property as this would provide transparency in organizations wishing to benchmark themselves against peers. A definition of "conditioned floor area" would be required.

2.1 Strongly Agree (5)

Progressive building owners may wish to promote their approach to efficiency, thus it would make sense for the building reports to incorporate a "narrative" section on energy efficiency measures where adoption of schemes such as ISO 50001 or BREEAM In Use could be described along with key performance data such as the seasonal average efficiency of major equipment (such as boilers and chillers - these data are already a requirement under EU Ecodesign regulations).

2.2 Strongly Agree (5)

Agreed, this is outside the Zero Carbon scope.

2.3 Strongly Agree (5)

It need not be that complex for new builds which have a SAP rating. It is not difficult to assess that a building exceeds the PART 2013 L SAP rating by 30% (i.e. uses 30% less energy than required by the rating). This and the other points in this section make a somewhat arbitrary distinction between "fabric efficiency" (e.g. insulation, orientation etc) and "energy efficiency". In practice these are both intimately linked and maybe we should look at "building energy efficiency" as an all encompassing term.

3.1 Strongly Agree (5)

Following on from my earlier comments, ONLY offsite renewable energy demonstrating additionality should be allowed. This would preclude "simple" PPAs or buying\retiring REGOS\EUETS allowances\CERS etc.

3.2 Strongly disagree (1)

Not if it is in receipt of subsidy. Exported energy *paid for by others* cannot be attributed to the building owner or occupier. An important point of this renewable energy generation must also be the ownership of the generation asset. You could have a situation where Building owner A installs solar PV in Building B and claims the generation as an offset to Building A's emissions. At the same time Building B could claim the generation from the solar PV as onsite renewables *and* as net exports. So there needs to be clear guidelines (as in PAS 2050:2011, which states that only one entity can make a green claim in connection with an instance of emissions reduction).

3.3 Strongly Agree (5)

Yes, every site is different. If we make offsite renewables and offsets *genuinely additional* then the business case for onsite investments in reducing carbon (fabric, efficiency and renewables) are strengthened. In these circumstances we should then rely on the expertise of the building owners and designers to determine the optimum mix.

4.1 Strongly Agree (5)

Only offsets which have clear and demonstrable additionality should be permitted. In other words the emissions reduction must be as a result of the intervention (aka funding) by the building owner and not otherwise have happened. A case in point, there are plans for a Northern Forest for which organizations like the woodland trust are receiving grants - if building owners were able to "buy into" these existing tree-planting schemes on the cheap, then the result could be no additional trees (or many fewer than they were claiming). I would anticipate that many local authorities will establish some form of Carbon Fund (and possibly private operators) which would incorporate verification and additionality, so this is not an onerous principle. The bottom line is that, if offsite solutions are too cheap, then there will be no incentive for on-site action.

4.2 Strongly Agree (5)

Assuming additionality can be proven. In practice I would expect the providers of offsite projects to offer multi-year verification statements aligned with the lifetime of the project. Thus, if we imagine an offsite measure is to provide insulation to public sector buildings beyond that required in the conventional refurbishment (thus proving additionality) then an assessment could be made that the measure will deliver x tonnes CO2 reduction for each of the next 10 years, say. It would not be sensible to survey the insulated building every year - however a verifier could, if they choose, on a sample based approach, inspect the offset project on an occasional basis.

4.3 Agree (4)

A - agreed - emissions reductions should be made as early as possible as the emissions embodied in the materials will already have been discharged to atmosphere. B - as mentioned earlier, offsite renewable exports should only be credited where no subsidy has been received, so we would not favour that option.

5.1 to 5.4 Neutral/don’t know (3)

Not familiar with this standard - so cannot comment.

5.5 Strongly Agree (5)

Yes that is reasonable. There may be some measures which would be directed to achieving "net zero operational carbon" where aspects of the whole-life performance may be considered, e.g. insulation. In these circumstances we may suggest that building owners may wish to assess the embodied carbon arising from efficiency improvement measures and choose to include these in their current year's carbon report to be mitigated or offset offsite as appropriate, as a matter of "best practice".

5.6 Agree (4)

Yes, but with the proviso that there is an appropriate *deminimis* in place to ensure that the process is not overly demanding. Thus impacts that have th ability to influence a buildings energy performance by, say 10% or more, should be assessed on a whole life basis.

Verification Neutral/don’t know (3)

I cannot locate the report referred to so do not fully understand this illustration

Market Mechanisms Strongly disagree (1)

These schemes are not designed to verify zero carbon construction or operation. Indeed, the purpose of this consultation is to create a definition/standard which can be verified against. It is important to note, that whatever definition/standard is agreed may become a requirement for planning authorities, so needs to be sufficiently robust and detailed for a third party to be able to assess compliance (it could end up in court). The only benefit of the above schemes is that they will have captured some of the data that may be needed to demonstrate conformity to Net Zero Building. The exception is that of the GHG Protocol, which *should* form the basis (location method only) for categorizing emissions as this is the de facto international standard and is widely used by organizations for other reporting requirements (e.g. disclosure as part of Streamlined Energy and Carbon Reporting regulations).

*and*

The single most significant mechanism will be incorporation of the standard into planning approval. This should also be coupled with the numerous "Carbon Funds" which are being developed by Local Authorities around the country and probably will form the basis for the "Offsite solutions" mentioned in earlier responses.

Policy Opportunities

This appears to be a fairly comprehensive list. Ideally "net zero" will be mandated through the planning process and existing policies will align.

Local policy options

The local policy options will be determined by national policy. However I do expect local planning requirements to align local "carbon funds" with the "offsite solutions" described previously.