

Climate Change Training for Planners: Questions and Answers

Module 1: LDF/plan making evidence base and Implementation of the Yorkshire and Humber renewable and Low Carbon Energy Study, 2011

Thoughts on achieving CO2 savings through sustainable construction rather than renewables as developers are currently trying to do.

This will be covered in later modules – 4, 6, and 7. There are great opportunities to achieve savings through insulation and building materials.

Our local policy requires a percentage of on-site renewable energy. House builders state they wish to reduce carbon through fabric which are for lifetime of the dwellings and cheaper. How do we secure renewable energy?

Remember the energy hierarchy – the ideal is that only when you have reduced emissions to the minimum possible through the fabric of buildings is it then sensible to ask for renewables on site? e.g. if you are able to produce zero carbon development through passive haus design then this is better than bolt on renewable – however, most developers are not currently reducing emissions to that degree.

Are you aware of any examples of retrofitting for adaptation?

Bristol are doing this in significant quantities in older housing stock. I believe in terms of emissions reduction – but not sure if it includes renewable.

Kirklees are looking at including retrofitting policies in their Local Plan, which will mean that when submitting a planning application to build an extension on a house the efficiency of the whole building would need to be improved. However this is mitigation, not adaptation. Kirklees plan to consult on their emerging Core Strategy later this year, this will include a draft of the retrofitting policy.

Module 2: Introduction to climate change policy and context

Would like more evidence about the % of carbon from food – as evidence suggest it is higher than the pie chart makes out.

The Food Climate Research Network has produced a wide range of documents on food security.

<http://www.fcrn.org.uk/research-library>

Of particular interest are the following documents:

- **The Future of Food and Farming (2011)** Executive Summary, The Government Office for Science, London.
- Work on the carbon footprint of food.
- **Cooking up a storm: Food, greenhouse gas emissions and our changing climate**, Food Climate Research Network Tara Garnett Centre for Environmental Strategy University of Surrey, September 2008.
- **The relative greenhouse gas impacts of realistic dietary choices**, Berners Lee, 2011.

All these documents are attached.

Is there any information about the effect of the recession on carbon emissions?

There is some evidence that carbon emissions decreased due to the recession. They then began to increase again in 2010. The reasons behind the changes in carbon emissions are wide ranging and the document below produced by the European Environment Agency provides information on this for Europe:

<http://www.eea.europa.eu/publications/ghg-retrospective-trend-analysis-1990-2008>

Module 3: Climate Change Planning for Renewable Energy

Example of RE/Low carbon policies in LDFs supported by Inspectors

An example policy is included in slide 33 of the Module 4 slides. Some example low carbon policies that have been found sound are included under Module 5.

Good practice examples of LA and sub regional renewable/low carbon assessments from around the country would be helpful

Coming soon

Is Development Management in a position to make a difference?

Yes, although the efforts need to be focused on what will make a difference e.g identifying areas of opportunity for renewables or for enhancing or improving Green Infrastructure as part of carbon offsetting.

The answer depends on the particular scheme which is being planned, but for starters the following services could be involved:

- Development management and policy teams – normally have the key coordination role at the early stages.
- Housing estates managers – owners of large heat loads
- Council facilities and estates managers – can provide information on Council energy requirements and the potential to use Council buildings to site energy centre
- NHS and other public sector organisations – owners of large heat loads
- Major developers and landlords – these will provide new heat loads and will be under obligations to reduce carbon in new development
- Highways departments – most pipework will run under streets
- Council procurement departments – who will help to procure contracts

On exercise 2 relating to wind turbine application, how was the conflict resolved with the objection from local air traffic control?

The route involved the appointment by the developer of a technical specialist in air traffic communication systems. He prepared a technical report on the potential impact on ATC systems which accompanied the planning application. The local airport lodged an objection at an early stage (which is normal practice) and this was followed by quite a few meetings between the developer and the airport.

The local authority did not take an active role in these discussions but monitored them through regular dialogue with the developer. However, the local authority did seek to encourage the airport to work to resolve its concerns rather than stonewall the application.

The Civil Aviation Authority did not provide material support in terms of a mediation role. Through the detailed discussions I understand a package of mitigation measures was agreed, including micro-siting adjustments by the developer and technical modifications to ATC systems which led to the eventual withdrawal of the objection.

Module 4: Climate Change Planning for Construction

Is there a reason why “environmental weightings” don’t vary according to building type/use and location?

The environmental weightings aren’t varied by building type as they are a reflection of how important the issues are as opposed to how able a building is to affect the issues. There is variation by building type on the number credits within each category which effectively alters the credit weighting as opposed to the category weighting. They don’t vary by location simply because BREEAM and Code for Sustainable Homes are national standards so there’s a need for consistency.

More information on preparing for allowable solutions as the national picture becomes clearer.

A handout was provided on allowable solutions for module 1, this can be found on the download list for module 1.

Module 5: Climate Change Planning for Green Infrastructure

How to drill down from policy to delivery of the individual development level.

A policy that sets general Green Infrastructure priorities and also quantum of on or off-site open space will allow individual development to be targeted.

Where possible green infrastructure strategies can identify priority areas for green infrastructure supported by the evidence gathered. The strategic and evidence stages can feed into policy that identifies green infrastructure functions that might be prioritised in different areas, e.g through design objectives and policies relating to landscape, flood risk, and open space (so further than open space only) and relating to a proposals map/key diagram. On an individual development level, it will be important to identify how green infrastructure, and green infrastructure functions, can be connected on and off-site. Priorities could be set out as appropriate to the individual development. The first two points below are likely to be appropriate more often than the creation of new green infrastructure;

1. Protection/enhancement/restoration
2. Connecting of existing Green Infrastructure assets
3. Creation of new Green Infrastructure assets.

Natural England’s green infrastructure guidance (2009; page 57) recommends the use of concept statements, effectively development briefs to distil high level green infrastructure principles, for specific sites prepared by the local authority or developers see <http://www.idea.gov.uk/idk/core/page.do?pagelD=7407660>

The Natural England guidance also includes some questions to guide the delivery of green infrastructure for an individual development (see pages 61-64). <http://publications.naturalengland.org.uk/publication/35033?category=49002>

Development management tends to focus on small scale for bulk of work and therefore focus needs to be on protecting and providing things like gardens and street trees. Are there any policies that have been successful in providing for these issues?

Sheffield have been developing Biodiversity through the Urban Gardens project <http://www.bugs.group.shef.ac.uk/>

Aside from that it is important to consider more than just street trees which would have a lower biodiversity value than connected green corridors.

Green Infrastructure in city centres best practice – any good examples?

In relation to Sheffield, the policy on green infrastructure in the adopted Core Strategy encourages the incorporation of green roofs within all major developments. Design considerations include;

1. Incorporating a minimum depth of growing medium of 70mm to meet Sheffield conditions;
2. Enabling a roof load of 120kg/m² for extensive green roofs;
3. Assessing the whole life costs of the development;
4. Considering the implementation of a green roof at the outset;
5. Establishing the appropriate type of green roof for the building;
6. Providing access to the roof for community/educational buildings;

A number of links on green roofs are available through the Green Roof Centre in Sheffield. <http://www.thegreenroofcentre.co.uk/>.

There are some good and diverse case studies in the Landscape Institutes publication, Local Green Infrastructure; http://www.google.co.uk/url?sa=t&rct=j&q=landscape%20institute%20green%20infrastructure%20examples&source=web&cd=1&ved=0CFAQFjAA&url=http%3A%2F%2Fwww.landscapeinstitute.org%2FPDF%2FContribute%2FLocalGreenInfrastructurewebversion_001.pdf&ei=UXHoT_3tBKqk0QXv9MWKCO&usq=AfQjCNGNjBpWtcdTX0ppJnym6D3aC8IX1Q

General GI question: How do you reconcile the arguments for GI increasing property prices with the need for affordable housing? We don't want only "well off" areas to be well served with GI

There is a conflict as it is likely that by improving or creating a green space or linking an area to an existing green space property prices may increase. This may result in some impact on the levels of affordability, but will generally create better places. The importance of green infrastructure as a regeneration tool could be through linking areas of wealth and deprivation. For example, the Green Viaduct Initiative in Leeds aimed to connect communities to the west e.g Armley to the city centre www.concourse.org.uk.



Sources of information into policy development and best practice for GI in light of NPPF, CIL changes to S106 etc

The PAS forums are a useful tool:

<http://www.pas.gov.uk/pas/forum/discussions.do>

Slide 39 of the Module 5 includes information on the GI policies set out in the NPPF.

The PAS website has useful information on CIL charging schedules:

<http://www.pas.gov.uk/pas/core/page.do?pagelid=1103726>

The Department of Communities and Local Government (DCLG)

<http://www.communities.gov.uk/planningandbuilding/planningsystem/communityinfrastructurelevy/>

What is the difference between ecosystems services and GI. Rory Canavan suggested (perhaps not) that there isn't one. So why do we have these two synonymous terms? What cultural background or need is there for two terms?

The comparison relates to the two slides; the 'Landscape of GI' and the 'Landscape of Ecosystems Services' – Ecosystems Services are the actual services which deliver the benefits gained from GI. The GI typology is a useful method of determining the asset and their associated benefits. So in many instances there is a direct overlap between the service and the GI benefit/function. However traditionally we tend to talk about GI in a hierarchical sense – i.e. delivering multiple functions across an urban environment – the point was made in the presentation that we need to start thinking about Ecosystems Services when we consider GI.

Sources of knowledge, best practice, contact details, perspectives from other subjects

Key GI Resources:

Microeconomic Evidence for the Benefits of Investment in the Environment - review (Natural England Research Report NERR033)

<http://publications.naturalengland.org.uk/publication/32031>

Natural England GI Pages

<http://www.naturalengland.org.uk/ourwork/planningdevelopment/greeninfrastructure/default.aspx>



North West Green Infrastructure guide (hands on guide how to develop GI strategy).

<http://www.greeninfrastructurenw.co.uk/resources/GIguide.pdf>

Supplementary technical document: green Infrastructure mapping method on the steps of data mapping, functionality and needs assessment

http://www.greeninfrastructurenw.co.uk/resources/A_Green_Infrastructure_Mapping_Method.pdf

Green Infrastructure by design –adding value to development (partnership production including Natural England, 2010)

http://www.naturalengland.org.uk/Images/MKSM%20GI%20by%20Design%20Guide%20Single%20Page%20Spread%20Web_tcm6-19781.pdf

The essential role of Green Infrastructure (in partnership with TCPA and DCLG, Sep 08)

http://www.tcpa.org.uk/data/files/etws_green_infrastructure.pdf

Local Green Infrastructure - Helping communities make most of their landscape (Landscape Institute Sep 2011)

http://www.landscapeinstitute.org/PDF/Contribute/LocalGreenInfrastructurewebversion_000.pdf

Green Infrastructure to combat climate change (summary) (Community Forests NW) – a good overview/introduction to subject

http://www.greeninfrastructurenw.co.uk/resources/NW_CCAP_flier.pdf

Green infrastructure to combat climate change - A Framework for Action in Cheshire, Cumbria, Greater Manchester, Lancashire, and Merseyside (Community Forests NW; March 2011)

http://www.greeninfrastructurenw.co.uk/resources/framework_for_web.pdf

Forestry and climate change (Forestry Commission 2010). This document presents the Forestry Commission's key messages on climate change. It draws together the information available from the Forestry Commission, Forest Research and other relevant organisations, to explain in one document the role of trees, woods and forests in tackling climate change.

[http://www.forestry.gov.uk/pdf/eng-trees-and-climate-change.pdf/\\$FILE/eng-trees-and-climate-change.pdf](http://www.forestry.gov.uk/pdf/eng-trees-and-climate-change.pdf/$FILE/eng-trees-and-climate-change.pdf)

Module 6: Achieving climate change mitigation and adaptation in masterplanning

How do architects and designers persuade developers to do more than the minimum?

Ultimately the only way of controlling this is through up-to-date adopted planning policies, which provide the framework for developers to do more than the minimum. However given the focus placed on deliverability and viability in the NPPF there will also be a mechanism for developer to not meet sustainability requirements. The stepping up of building regulations will help deliver better standards, and hopefully eventually the cost benefits of providing innovative solutions will result in developers choosing to be innovative.

NPPF – how do we interpret the use of the term ‘radical’ in relation to climate change adaptation and mitigation

The term radical could be trying to stress the need for a step change in climate change adaptation and mitigation. For example the need to plan proactively for renewable energies and consider policies that increase provision, whilst considering viability of policies.

How do you resolve permeable drainage with the need to provide oil interceptors in policy areas?

The appropriateness of permeable paving/drainage depends on the type of development. Permeable paving can be used for car parking, however oil interceptors must be placed in the systems to stop oil reaching ground water and soil. Where there is a strong likelihood of contamination, permeable paving would not be appropriate, and a decision needs to be made in partnership with the Council about whether an oil interceptor is needed on developments where contaminations is extremely unlikely. The type of soil will also affect infiltration. For example if the soil was very sandy it could be argued that any contamination would be filtered out before the water entered the water table. It would really need to be looked at on a case by case basis. Although a policy generally supporting permeable paving could be placed in the Local Plan.

How much notice do developers take of planners at the masterplanning stage?

This really depends what sort of development is being pursued. For example if an outline consent is being sought, then ultimately it is down to the parameters set out, and the masterplan provided would probably be indicative. There is quite often a conflict between good design and the finances of a development, although ultimately a well-designed scheme would hold its value longer than a poorly designed scheme. The difficulty with this is that developers often only have a short term interest in a scheme, which does not result in the masterplanning being fully considered.

Viability/economics of CHP



Details of the costs and CHP – including a detailed spreadsheet where CHP costs can be calculated was discussed in Module 3: Renewable Energy. For further details on this please email Stephen Cook at Stephen.cook@arup.com.

Are there opportunities to explore delivery of these modules with developers and their agents?

This will be discussed with the client team.

Module 7: Achieving climate change mitigation and adaptation in small scale development

To be added when module is complete.

Module 8: Climate Change and viability

To be added when module is complete.

Module 9: Historical Assets and Climate Change

To be added when module is complete.

Module 10: Regulation regimes, likely policy changes and implications for planning requirements, monitoring and enforcement

To be added when module is complete.