Report back from

CPD Event Planning for Low and Zero Carbon Development

19th May 2010

I am pleased to say that the verbal feedback and the evaluation responses were generally favourable for this event, which confirmed our instincts to share with regional colleagues our recent experiences in Leicester.

Having said that, there was a lot of fairly technical information to be absorbed on first hearing, and this may have been more difficult for those who are less specialised or have not had much engagement in planning for sustainable energy use and low carbon futures.

The three presentations and the breakout session notes will be available via the East Midlands Improvement and Efficiency Partnership website www.eastmidlandsiep.gov.uk

THE PROCEEDINGS

Alan Gledhill, Better Buildings Project Manager at Leicester City Council took the audience through major legislative and national strategic policy developments.
The picture is changing rapidly, and even as the event was taking place, elements of the Consultation PPS document were being overtaken by the new government's announcements. Specifically, the scrapping of the Regional Spatial Strategy will require a revision and redistribution of the responsibilities allocated in the draft. Further legislation and policy are proposed, which could have an impact on planning policy or, at least, the delivery of measures.
See: Overview LZC Strategy 190510.pdf

Alison Crompton, Regional Director of AECOM Limited, gave a presentation on evolving a low and zero carbon strategy for two mixed use, housing-led (3000 and 1000 units) regeneration areas in Leicester, each of 400 hectares. The complexities of multiple site ownership, densities, varied and unpredictable development timetables, varying inception dates for regulatory standards and cost factors were having to be juggled to develop a picture of delivering low and zero carbon measures. Seven scenarios were explored to test how over time the changing carbon emissions standards could be met. This work is still in progress but so far indicates that local and national regulatory standards can be met but how well these can be cohered in a strategy and delivered in a concerted programme is as yet undetermined.
See: Brownfield LZC Strategy Leicester 190510.pdf

Richard Halsey of WYG Limited described the process of bringing forward a strategic approach to low and zero carbon energy in a greenfield situation of 140 hectares of predominantly residential development (3000 units). This has many of the variables of the brownfield sites but with most of the site in the ownership of the City Council control is simplified. It allows for setting carbon emissions performance standards by a combination of sale agreement and planning policy.
Energy from waste and recovered heat from neighbouring industrial uses have been explored. Scenarios that could include one or other or a combination of on-building and community solutions were highlighted. Uncertainty remains over the rate of development due to market conditions, and, when coupled with the lower densities of an edge of city site, community-scale solutions may only be suited to part of the development and local clusters solutions may be the best option.
See: Greenfield LZC Strategy 190510.pdf

Paul Evans of the Advisory Team for Large Applications (ATLAS) outlined the service available and gave a more comprehensive view of the generators of carbon emissions in new development. In addition to energy sourcing these ranged from building scale measures, through layout and orientation to location, access and transportation effects. Paul illustrated the possibilities with reference to case studies at differing scales, showing how good intentions and hoped for carbon reductions could be undermined by poor access and reliance on private motor transport. The connection to existing development and infrastructure are crucial to success.
See: ATLAS Planning for LZCarbon Energy 190510.pdf

Breakout Sessions

The three breakout sessions were led by the principal speakers and explored themes arising out of their earlier presentations. The notes follow:

1. **Greenfield:** Key points were highlighted by the delegates:
    a. low level of skills and knowledge at developer and planner levels to properly address the low carbon agenda and the need for improved training and expert help
    b. A need to seriously by professionals and consumers to get to grips with innovation and the impact that it will have on traditional forms and materials and our usual approach.

2. **Regeneration:**
    Challenges
    - Need to make decisions now regarding which solution to follow
    - How do we (LCC) best protect the ability to deliver/achieve the best approach in the future?
    - Land ownership. Achieving a comprehensive approach when need to influence lots of landowners.
    - Low property values in Leicester.
    - Where is the money coming from?
    - Lack of specialist skills within local authorities to enable a pro-active approach.

Possible Solutions

- Need to flexible regarding not achieving all objectives
    - LCC
    - Developers
- Understand what is required to deliver different approaches, so that no doors are closed and then take action later (e.g. protect a site for an Energy Centre even if it won't eventually be used for this purpose)
- Talk to ESCos.
- Talk to HCA
- Talk to developers
- Look to share skills after developing a core team of expertise
- Create exemplar schemes in Leicester – reflecting Leicester–focused issues, including property values.
- Look for innovative solutions to issues that increase the cost - is there a way to make the solution cost neutral?
- Political support.

3. Scale and wider development considerations:

Autonomy/small scale developments

Be careful of solving problems with ever greater complexity. Complex solutions are usually enabled by lots of energy. If energy becomes scarcer then it will be hard to maintain such solutions. Key concept – Complexity traps.

Idea of diminishing returns and inverse hockey stick graph – more complex solutions reap great yields initially but there comes a point where the return on complexity does not equal the input. A key concept in deciding which options should be implemented is where on the graph the option falls.

Idea of simple solutions at small scale level – such as a household and more complex solutions for bigger scales – such as whole towns or neighbourhoods. The input/return graph will be different depending on the scale.

Large scale developments

Edge of town/SUEs. Question as to whether these were needed at all any more. Lot of noise about housing 'need'. However food and wood production may be more important than providing more houses. The density at which people live (roomspace per person) is lower than it has ever been although it is not evenly distributed. Is there a need to redefine housing 'need'. Reserving land around cities for market gardens may be a particularly good way of providing food cheaply (through low transport cots) and food security. Livestock and grain farming can be pursued further away from cities.

Permeability has improved a lot within new developments but not between new developments and existing ones. Attitude to new development is generally hostile and hence it is difficult to connect new developments in a good manner. Footpaths and cyclepaths are generally better connected and roads generally worse.

Question as to whether low carbon agenda is being pursued at the level of individual buildings and building control and not planning/permeability.

Issue of good habits needing to be instilled from the start in a new development. For example it is very difficult to introduce congestion charging once people have the freedom to drive around a city.

Retrofitting and infill

Exemplar schemes do seem to be happening which could provide the template for the future.

Building Regs for new build are now tough therefore maybe retrofitting is the next wave.

The event was organised by Leicester City Council and made possible with funding from East Midlands IEP.

Leicester City Council

East Midlands Improvement and Efficiency Partnership