

Report on CIBSE Republic of Ireland Conference

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Sustainable Design in Building Services - Applications in Ireland

Report by Tim Dwyer

As an academic and an active member of CIBSE, IMechE and ASHRAE I see more than my share of conferences across the world. This was first opportunity that I had had to attend such a meeting in the RoI and was not sure what to expect since the incredibly modest conference fee and the strong involvement of Dublin Institute of Technology led to preconceptions of a 'budget' event – learned but utilitarian. And so it was with anticipations of a 'keen but lean' conference I drew up outside the surprisingly majestic Clontarf Castle, tucked away in Dublin commuterland.

The keen greeting by CIBSE RoI Chairman Brian Geraghty and his team was the first indication of the vigour of the day ahead – soon to be confirmed by the opening and keynote addresses. The organisation appeared faultless with the impressively large and knowledgeable crowd of delegates having been registered with great deftness. The delegate packs contained informative pre-prints (I recommend that if you were not there it would be worth getting hold of a copy) and the not so sustainable but obligatory conference bag (what do people do with all these bags when they get home??).

The opening address by Minister Dick Roche set an upbeat theme. His report on the impressive number of new homes being constructed and the apparent awareness of the public to the impending Energy Performance Certificates was heartening. Not being a resident of RoI maybe I was more naïve as to the political messages being given by Roche but the recent positive legislation that he outlined to provide exemptions from planning permission for 'micro renewable technology' (solar panels, heat pumps, wind turbines and wood pellet burners) looks to give Ireland a real lead in the development of low carbon technology. In his Keynote Address James Pike, RIAI President, followed on with a surprisingly illuminating overview of the development of sustainable housing in Ireland starting with his own bungalow from the 1960s through to passive technologies in Carrigeen, and then bang up to date with the low energy homes of Newcastle, Co Dublin. Anyone looking at the rather lacklustre preprints of Pike's paper would fail to get any flavour of his passion and lifetime dedication to the creation of quality sustainable housing – not just in energy terms but also in terms of creating a truly sustainable community.

By this time I was disabused of any notion that I might have had that the day was to lack technical interest. The high point set by the early addresses set a standard that the rest of the speakers then worked hard to meet. In the most part, from my partisan viewpoint, I think that they met and in several cases exceeded those expectations. It would be invidious and wholly unfair for me to judge the quality of the presenters (particularly so as I was one of them!) but there were some real crackers that I will just touch on - the omission of others is by virtue of lack of space and is no indicator of their quality!

Declan Meally of Sustainable Energy Ireland (SEI) – the main conference sponsor – showed how the flood of EU cash has produced some tangible results in the development of the Dundalk Sustainable Energy Zone. Working with local

employers, the community, the hospital and the college together with an international hotel group the scheme aims to provide 20% renewable energy by 2010. As importantly it aims to improve the energy performance of existing buildings by 40% - an area that is key for a low energy future. The Office of Public Works appears to have a world leading scheme of monitoring buildings across Ireland. OPW's Conor Clarke showed an impressively accessible web based reporting system that not only looks good but provides easily readable diagnostic information of energy usage. The data from individual buildings than can be, and is used to provide real time analysis to identify faulty equipment and control regimes and to provide real data for improved future designs. For example using such data allows a proper comparison of naturally ventilated buildings against mechanically controlled counterparts.

Sadly I missed a couple of the sessions but I understand from my fellow CIBSE ASHRAE Group member and presenter David Arnold that the extensive talk by John Dolan of the Department of Education and Science showed exemplar techniques used in the design of schools. His presentation evidenced that Ireland is out in front in the design of quality schools that holistically embrace practically achievable sustainable design.

A common challenge across not only Ireland but the rest of the world is how to square the use of supermarkets with the need to reduce carbon emissions. Mike McNerney of Tesco Ireland showcased some of the system improvements that were being employed in their stores – much down to good house keeping and control. He showed some interesting results of energy reductions particularly in refrigeration and lighting. Measures ranging from simply adding a low level glass screen in refrigerated display cabinets to reduce cold air spillage to variable lighting profiles to suit customer densities have given low cost but energy effective solutions.

CHP has been recognised for years as having great potential but as shown by Michael Conlon of DIT there are still very few units in Ireland –a combined electrical output of just 150 MW (in 2004). He indicated that there were a number of battles to win to get greater adoption – including lack of awareness, immature supply chain and planning issues - maybe the legislation previously referred to by Roche will ease the way.

Together with the remaining papers (that I have no space to cover here) these presentations provided an excellent insight into the possibilities, as well as the practice of sustainable design in Ireland. I wholeheartedly congratulate the team of dedicated volunteers who planned and executed this highly successful event. With over 60 sponsors (who had discrete, but appropriately noticeable, recognition throughout the meeting) together with the energetic input of organisers and speakers the value of the day was far, far more than the modest conference fee would have suggested.

I look forward to third CIBSE RoI conference in 2008!

Tim Dwyer, Chairman CIBSE ASHRAE Group