



Can Zero-Carbon Task Force achieve goal of zero carbon schools?

Department recognises that its school building programmes must support government's aims to reduce carbon emissions, and has appointed Task Force to pursue ambition that all new school buildings will be zero carbon by 2016.

At every international motor show, there is at least one concept car on display. It certainly won't look much like the kind of vehicle that will take a family of five down to Cornwall next summer, and there is not much likelihood of its taking to the track in a Formula 1 event. But it is there to show what can be achieved; the product of a car designer's fertile imagination rather than a viable production machine.

When Howe Dell Junior School opened at Hatfield in Hertfordshire back in September 2007 and claimed to be the first eco-school in the UK, was that the concept car of the education sector?

The fact that it could claim the world's first implementation of a technique for storing heat from the sun underneath the school made the establishment appear even less mainstream; an object to be visited and admired by architects and teachers and journalists.

We look in more depth at that school elsewhere in this edition. If no other eco-school were built in the UK, it would not diminish the achievements of Howe Dell. But it would be an opportunity lost.

The Zero-Carbon Task Force that was set up by Ed Balls in the Summer of 2008 has been charged with ensuring that schools are well on the road to becoming zero-carbon operations by 2016. It is not intended that every

school should be re-built in the image of Howe Dell, of course: that would be unrealistic, impracticable and certainly uneconomic. The activities of the task force are targeted specifically on achieving zero carbon emissions – just one element of a more broadly-based eco-portfolio. Would that suggest that its remit has been drawn too narrowly?

Realistic brief

The group's chairman, the eminent architect Robin Nicholson, appeared to be comfortable with the brief. "While a case can always be made for assessing an organisation's progress towards complete sustainability, I am satisfied that - by focussing on carbon emissions - schools will be slip-streaming behind what has been happening to carbon emissions from new houses and on the further education front. Those sectors have done a large part of the

Remit for Task Force allows a school to be described as being carbon neutral when immediately accessible renewable energy such as biomass and waste-fed generators is taken into account.

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Robin Nicholson CBE, Chairman of the Zero-Carbon Task Force (right)



ground work from which the schools sector can derive real benefit.”

The DCSF Task Force is working to a more generous, and potentially more readily attainable definition of carbon neutrality than some other sectors. The Green Building Council, for example, has agreed with the Department for Communities & Local Government (DCLG) that there must be zero carbon emissions from individual dwellings when new houses are to qualify for the status.

“We accept that a school could be described as being carbon neutral when immediately accessible sources of renewable energy are taken into account”, Nicholson noted.

Schools part of eco-community

Those external sources could be combined heat and power plants taking in biomass materials or local waste and there is the prospect, therefore, of schools becoming an important component of a community ‘eco-system’.

“Heat and power are going to be produced by those plants at times when there is no other local demand, and the presence of a school reduces the risk of those resources being wasted. This strengthens the need for collaborative community projects to be planned carefully. Local authority planners need to broaden their perspective from the purely spatial view that they take at present, into a more holistic understanding of the heating and power implications of such projects.”

Reference is made in this edition to the fact that at least 20% of energy can be saved in a school by taking simple, non-invasive actions. Utility monitoring, a technique which we have explored in the context of our Hertfordshire analysis – is intended to help identify where energy waste is occurring.

Robin Nicholson was quick to support that approach “Reducing the demand for energy is a large step towards achieving zero carbon status and energy monitoring makes an important contribution by increasing awareness.”

Long way to go after first 20%

According to the chairman, “There will still be a long way to go after the ‘easy’ savings have been achieved, and it will take considerable effort to eliminate the final 20%.

“But there are successful precedents for this. The Code for Sustainable Homes had a magical effect in terms of concentrating minds in the housing sector, and I am sure that there is scope for similar initiatives in the schools sector.”

As the chairman would be the first to observe, determining where energy is being wasted is a different proposition from being able to take the steps to solve the problem. “It is a fact that many schools have been poorly designed from an energy perspective. The switches and controls which could limit some of that waste are often inaccessible, for example, making it difficult to reduce consumption.

“We have also discovered policies which contribute to wasted energy. In one instance, the lighting was being left on in a new, well-designed school 24 hours a day for ‘security reasons’.”

Not limited to new schools

Noting the terms of reference of the Zero-Carbon Task Force, it might appear that its work will only be with new school buildings.

The fact that such schools will be designed to meet the zero carbon target means that the goal can be achieved more easily with those properties, but the task force is committed to exploring the potential for achieving zero carbon across the complete schools’ property portfolio.

The zero-carbon target will influence both new-build and refurbishments under the government’s Building Schools for the Future (BSF) programme. Partnership for Schools, which is responsible for delivering BSF, is represented on the new task force. §

Chairman makes the case for collaborative community projects to be planned carefully, arguing that architects need a more holistic understanding of the heating and power implications of such projects.