

Hertfordshire takes every opportunity to get its sustainability message over to the education sector

The Director for Children, Schools and Families, John Harris, is working with head teachers to explore what it means to be running a sustainable school

Fortunately for the consumer, Trades Descriptions Acts have reined in the worst excesses of false advertising; of claims that are meant to mislead; of benefits that a purchase will never provide. Unless, of course, it would be clear to any right-thinking person that the statements were so far over the top that they were not meant to be taken seriously. Then there are the grey areas. Claims of 'sustainability' and of 'carbon neutrality' are ones that will probably never be tested in a British court, certainly so long as the subject remains mired in controversy.

While there may be few doubts that climatic conditions are changing, the linkage between levels of carbon emission and the specifics of climate change has yet to be determined beyond question.

And at the least rigorous end of that environmental scale is the question of carbon offsetting, a way of compensating for emissions with an equivalent carbon saving. Offsetting involves calculating carbon output and then purchasing 'credits' from emission reduction projects. The Government's own jury is out on this one: claims by those peddling offset solutions should be seen more as broad brush approximations than cast-iron guarantees of carbon neutrality until we have discovered a level playing field on which the alleged gains and losses can be compared. That may take some time.

How Education must react

While the debate continues on all these fronts, how is the world of education meant to respond? Students cannot fail to be aware of the climate change vocabulary: it seems that every second adjective is preceded by 'eco-', and the word 'carbon' is assuming a demonic status poles apart from its role as the elemental building block of life.

Probably the best way to cut through the dour politics of climate change is to educate by example. Operate schools which are energy-efficient so that

whatever the climate 'linkage' of carbon dioxide emissions is claimed to be, tangible financial savings are already being achieved. Use materials wherever possible which will be replaced naturally. Install technologies which conserve natural resources such as water. Extract energy from materials which would otherwise go to waste – quite literally. Instill a culture of awareness at every level within education and amongst everyone engaged there. And apply the most appropriate method available to communicate that culture to anyone prepared to listen.

Hertfordshire initiative

If that is a specification for promoting sustainability in education, does it have any exponents, or is it an ideal being constrained by bureaucratic process, a lack of funds, or a combination of the two?

One of the reasons why Hertfordshire has been selected for this focus on sustainability is that enough indications have emerged from the County Council to suggest that those responsible have been doing rather more than paying lip-service to Whitehall's edicts on climate change strategy.

The County, for example, hosts a pioneering eco-school, Howe Dell, which we consider in greater detail on page 25. A catalogue of claims has been made about that school: there is evidence to sustain all of them.

The same County administration has invested heavily in projects to help it understand better the routes it can follow in reducing energy consumption across the whole of its asset base. And in March 2008 it awarded a contract for the remote data monitoring of gas, electricity and water in up to 1,000 of its buildings; more than half of that target figure are Hertfordshire's schools. That particular project is assessed on page 12.

Securing top-level involvement

When The Informed Executive examined the Carbon Trust's Local Authority Carbon Management (LACM) Programme, the first step which every authority joining the scheme had to take was to secure the 'buy-in' of the most senior executive.

In the case of education in Hertfordshire, that executive is John Harris, more formally the Director of Children, Schools and Families for the County.

It soon becomes apparent that the initiative to promote sustainability throughout the education network is directly 'sponsored' by him and his colleague Tony Comer, the Director of Property Services. That powerful support has been rolled out like a viral network right across the tiers of education for which he is responsible to the Council.

Communicating strong message

Mr Harris has taken every opportunity to communicate a strong and consistent message to the schools. "We hold annual residential conferences for head teachers; one each for the



junior and secondary sectors. The participants have been using those events to explore what it means to be a sustainable school and have called in specialist speakers.

"Working towards that goal of sustainability is a team effort; a holistic approach involving the schools, our department and Property Services, which has a responsibility for the school buildings throughout the County. "But schools are more than just the buildings, and it is the responsibility of head teachers and governors to look at sustainability in the round."

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Learning framework enables focus on sustainable schools as a concept



The financial management of schools has devolved over the past decade from County Hall to School Governors. It might be assumed that this measure of 'independence' would mean a reduction of operational influence exercised by the Council.

John Harris was keen to describe that process more in terms of a shift in budget responsibility than schools becoming autonomous institutions.

"We have a role as a local authority to monitor schools, support them in their improvement, challenge them to do better and intervene if they are not succeeding. Schools are expected to be self-managing, however, and to handle their own improvements.

"The relationship is established through the Hertfordshire Learning Partnership. This is a framework in which we work collectively and that enables us to focus on sustainable schools as a concept, and provide a framework where schools are receptive to the kind of initiative which we have been developing with Property Services.

"I am confident that we have encouraged a sense of being part of a single team whether you are a head running a self-managing school or someone working directly with the local authority."

But does it work?

Nothing that John Harris has set out so far could be faulted as a strategy. But how are those ideals being turned into practice? "We expect to find that sustainability is part of each school's curriculum.

"Developing the sustainability component of the curriculum should be a school initiative involving the whole school and the activities it undertakes every day.

"We are trying to promote the idea that sustainability is not just about purchasing and waste – it is very much broader. We would expect a secondary school, for example, to have a sustainable approach to school meals policy, the way it maintains its buildings and grounds, and its school travel plan. How does sustainability impact upon its purchasing contract and how it manages waste?"

Harris argues that the strategy should be encompassing. "No less important is that policy's social dimension which should ensure inclusion and participation for children of all abilities and backgrounds. And we look for a strong engagement with parents and the community, and for evidence that children can understand much more about the global dimension of sustainability."

Astley Cooper School in Hemel Hempstead is a wholly typical UK teaching establishment. With 760 pupils, and premises built 40 years ago, it has been facing exactly the same challenges over its use of energy as perhaps another 80% of all schools in Britain. It has made extensive changes to its heating, lighting and the way in which its energy consumption is monitored.

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Effective communications increase the benefits from Education strategy



Taking Mr Harris' concept to its logical limit, he is rolling out sustainability policies which feed back into society through the children across the County, who provide an interface between the school and the community of which they are a part.

Pointing to real savings

Plans are easy to set down on paper: the goals might be no more than aspirational, so what is the evidence that Hertfordshire's efforts are having an effect out in the community?

The Director was ready to cite several examples of the policies which had been implemented successfully. When the County changed its whole approach to school meals, it raised issues of higher quality and more nutritious meals leading to improvements in the standard.

"As a result, we have seen quite an increase in the take-up of school meals. The reason for that is not just the specifications set out for the meals contracts, but more about the way in which schools engage with their children in talking about healthy food and healthy meals. It engenders a culture of thinking about diet and what would be a more appropriate diet in the school."

Internal communications would appear to be playing an important role. Mr Harris indicates what he believes are very good examples of the way in which schools actually talk with the children about the decisions they make for the future direction of the school. Schools councils provide an effective medium for that.

"There are also very good examples of the way in which schools work with the local community and engage parents in their activities. Through our Children's Centres programmes we promote early education and a portfolio of community-centred services.

"Those Centres are mandated to provide an analysis of the community they serve, and engage directly with parents and other groups to establish their needs and how they can be brought into the programme."

Identifying opportunities

It is increasingly clear from exposure to Hertfordshire that collective responsibility for sustainability is taken very seriously, each of the Directors identifying the opportunities which fall logically within their remit.

Mr Harris has already demonstrated his commitment to promote sustainability within each school's curriculum. In the case of the

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Using remote energy monitoring to cut costs and stimulate sustainability in the curriculum

eco-school Howe Dell, for example, there is feedback from what is effectively a real-time laboratory straight into maths and physics teaching.

Ever keen to ensure that the sustainability programmes are running on the right lines, Hertfordshire County Council has sponsored research at the University of Hertfordshire to track changes in attitude and understanding which is coming out of the Howe Dell curriculum.

Collecting consumption data

Data is critical to Hertfordshire in helping the County Council manage carbon emissions from its property portfolio, of which the schools represent about half of the total number of buildings involved.

Tony Comer, Director of Property Services for the County, describes in some detail on page 18 the technology that has been taken on board to provide remote data monitoring.

The same system – from Optimal Communications – provides an internet-based reporting mechanism which allows everyone who can influence energy consumption within a school to view that consumption and take corrective action. When those actions are displayed in terms of the resources to which they could be applied – new books, extra sports equipment or additional staff, perhaps – there is a powerful incentive to make changes.

Schools are a natural target for this technology given the opportunities which exist in such environments for energy and water to be wasted. After a round of pilot installations across the County, the Council awarded a contract in March 2008 which would provide for the system to be installed in the Councils non-teaching establishments and be offered directly to the schools.

Consistent with the relationship between the Department and its schools, the schools are being recommended to accept the offer.

John Harris took up that point. "It will enable schools to avoid excessive energy consumption, spot water leaks and identify risks where relatively simple actions can be taken to achieve larger changes.

"This is a far more effective approach than committing to unnecessary and costly replacement of boilers, for example. Schools taking part in the pilots have already benefited from cuts in their water consumption through waste which they could not easily have known was occurring."

The same technology has a role in the school curriculum where it can contribute to a number of disciplines including mathematics and lessons on sustainability. The ability to monitor and report on a school's utility consumption down to five minute intervals means that students can investigate first-hand the effect of switching off utility-consuming appliances in part of their school.

The impact of those changes is apparent in real-time. It helps students to understand more clearly how quite small modifications to human behaviour can impact significantly upon the environment.

Greater involvement of technology

As the 'patron' of Howe Dell school and the promoter of advanced solutions like Optimal Monitoring, John Harris is clearly comfortable with the greater involvement of technology right across schools from administration through to teaching and its impact on sustainability. "I support the view of Whitehall's Department for Children, Schools and Families that ICT used flexibly is a core of sustainability."

Harris recalled a comment by the French architect Le Corbusier that a house is a machine for living in. "I would draw a parallel in that a school is a machine for learning in." It would appear that the 'machines' in Hertfordshire are on the road to sustainability. §

Schools are a natural target for installing remote data monitoring technology given the opportunities which exist in such environments for reducing the wastage of gas, electricity and water.
