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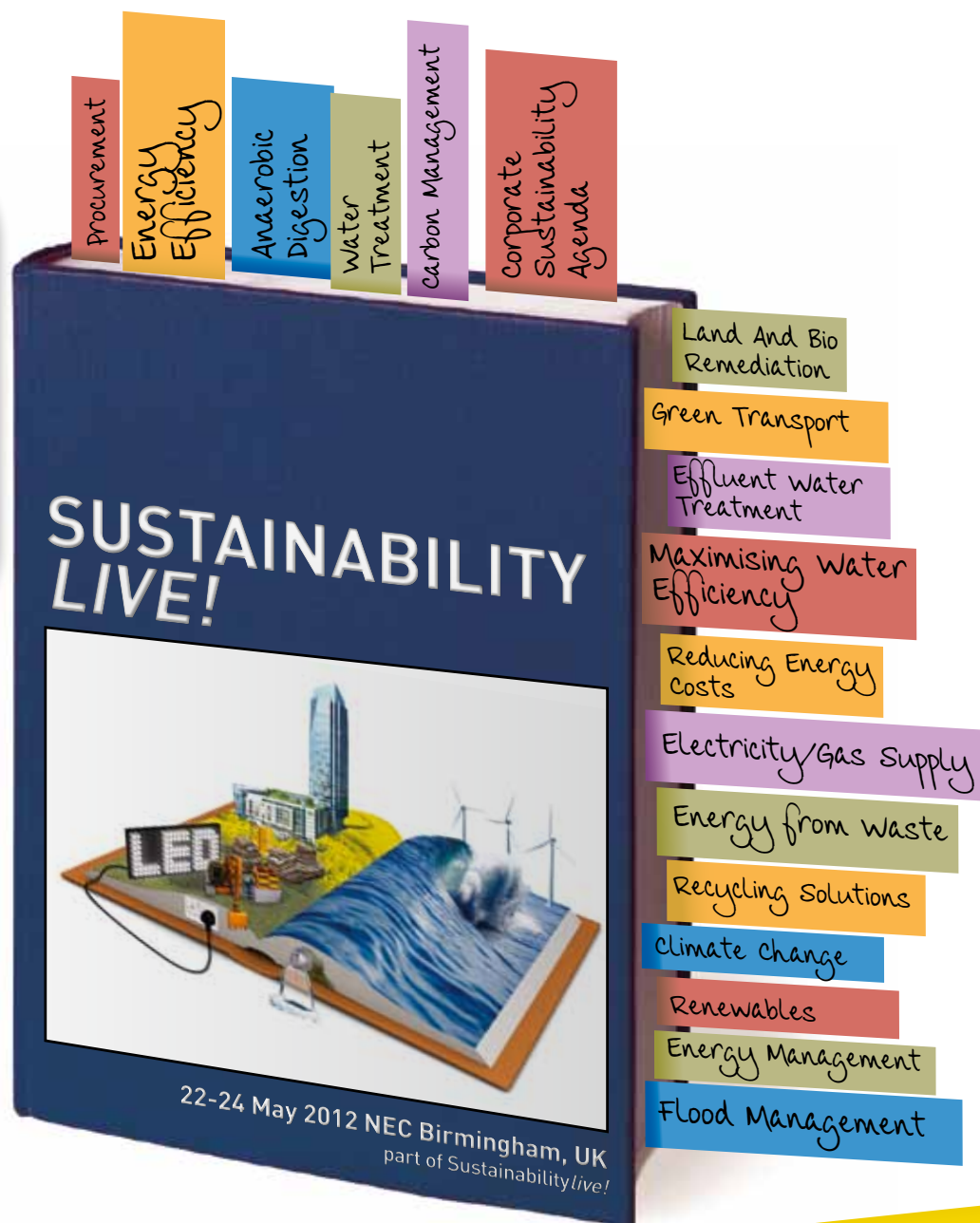


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#### IEMA

St Nicholas House  
70 Newport  
Lincoln LN1 3DP  
tel: +44 (0) 1522 540069  
fax: +44 (0) 1522 540090  
info@iema.net  
www.iema.net

#### Editor

Paul Suff  
paul.suff@lexisnexis.co.uk

#### Deputy editor

Sarah-Jayne Russell  
sarah.russell@lexisnexis.co.uk

#### Managing editor

Louis Wustemann  
louis.wustemann@lexisnexis.co.uk

#### Senior sub-editor

Adella Peyton

#### Group advertising manager

Sophie Wright  
tel: +44 (0) 20 8212 1913  
sophie.wright@lexisnexis.co.uk

#### Recruitment advertising

Elaheh Umeh  
tel: +44 (0) 20 8212 1984  
elaheh.umeh@lexisnexis.co.uk

#### Senior marketing executive

Victoria Newman  
victoria.newman@lexisnexis.co.uk

#### Design

Jack Dougherty  
jack.dougherty@lexisnexis.co.uk

#### Advertisement production

John Woffenden  
john.woffenden@lexisnexis.co.uk

#### Director of content

Simon Collin  
simon.collin@lexisnexis.co.uk

#### IEMA communications coordinator

Katrina Pierce  
k.pierce@iema.net

#### Advertising, subscription and back-copy enquiries to

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# In praise of regulation

Emissions from new cars purchased last year in the UK averaged 138.1g of carbon per km – a 27% reduction since 1997 (p.12). Good news for the environment, certainly, and confirmation that emissions from cars are heading in the right direction.

Whom do we have to thank for falling emissions? The Society of Motor Manufacturers (SMMT), the voice of the UK car industry, gives automotive companies a big pat on the back for the improving environmental performance of vehicles. “Industry can be proud of the progress it has made in reducing CO<sub>2</sub> emissions,” said its chief executive, Paul Everitt. You could be forgiven for thinking that he is not referring to the same industry that failed to achieve its voluntary commitment to reduce carbon discharges from new vehicles to an average of 140g CO<sub>2</sub>/km by 2008 and which lobbied hard against legally binding EU targets to cut emissions. Yes, automotive manufacturers have reduced average emissions from their fleets, but only under

**Car manufacturers have reduced average emissions from their fleets, but only under pain of financial penalty. The main reason emissions are falling is European legislation**

pain of financial penalty if they did not. The main reason emissions from vehicles are being driven down is European Commission legislation, agreed in 2008. It requires emissions from 65% of car makers' fleets to average 130g CO<sub>2</sub>/km this year – 120g CO<sub>2</sub>/km when other improvements, such as better tyres are factored in – rising to 100% from 2015. Manufacturers that fail to achieve the standard are fined, on a rising scale, for every gram they overshoot the target.

That has got automotive manufacturers moving; hence the 7.7% fall in emissions from new UK cars between 2009 and 2011. Driving down emissions from new cars has been accelerated further in the UK by changes to vehicle excise duty and the rules governing company cars, which now favour “greener” models.

Falling emissions from cars are evidence that regulation can work where voluntary efforts fail. Similar EU regulation will be phased in for light commercial vehicles from 2014. And, looking at the latest UK figures, new vans in 2011 emit an average of 199.2g CO<sub>2</sub>/km, significantly higher than in 2000 – it can't come soon enough.



**Paul Suff, editor**

Short cuts

## Renewable heat plans

Less than a month after DECC confirmed that measures to control the costs of the renewable heat initiative (RHI) will be introduced from July and that the domestic RHI scheme has been delayed again, the department has published a new strategy document examining how the UK must decarbonise heating systems by 2050. In the publication, DECC outlines how heating is generated currently and how it needs to evolve, identifying the changes required, such as improving energy efficiency, greater use of biomass and the potential of carbon capture and storage technologies to reduce emissions from industry. While the paper does not identify any specific policies, it will be the framework the government will use to develop policy in future. DECC is asking for feedback on the paper up until 24 May ([lexisurl.com/iema12416](http://lexisurl.com/iema12416)). In the document, DECC pledges to publish a list of policy measures over the next 12 months to accelerate the deployment of low-carbon heat.

## £110m for green firms

DECC and the business department (BIS) have confirmed more than £110 million of support for companies developing energy-efficient technologies and greener waste infrastructure. The energy secretary, Ed Davey, has announced the creation of a new £35 million energy entrepreneurs fund to help small businesses create new products that will improve the energy efficiency of buildings and generate low-carbon energy. The three-year scheme will offer firms the opportunity to apply for up to £1 million to design and demonstrate new technologies. Meanwhile, business secretary Vince Cable revealed that BIS's precursor to the Green Investment Bank, the UK Green Investments (UKGI) initiative, had allocated its first round of funds to support improvements to waste infrastructure. The UKGI has allocated £80 million to two fund managers to be invested in waste reprocessing, pre-treatment, recycling and energy-from-waste projects.

# Commercial green deal delayed

**Finance** Companies hoping to take advantage of the green deal to finance energy-efficiency measures will not be able to apply for funding when the scheme launches this autumn.

Despite being consistently labelled as an initiative to help both businesses and homeowners, DECC has now confirmed the commercial side of the green deal will not roll out alongside the domestic scheme due to start in October.

A DECC representative told *the environmentalist* the delay was to allow regulators and firms offering green deal services time to address additional complexities thrown up by applying the scheme to commercial properties, for example where a business is billed for multiple sites, but only improves one. "We want to make sure that when we launch something it is right and it's ready to be used," said the spokesperson.

While agreeing that holding off until there is clarity is sensible, Tom Nolan from the British Chamber of Commerce said that the delay could have been avoided. "If DECC had put the same amount of thought into how to apply the scheme for businesses as [it] did for households,



then they would be in a position to launch it," he said. According to Nolan, the delay highlights a bigger issue of how the government is communicating the scheme. "The number of firms that know about the green deal and what it offers them is very low. The government has a huge task ahead to raise awareness, because it's the best policy measure out there to help small and medium-sized firms improve their energy efficiency."

The postponement will affect medium-sized firms most, as small firms operating from homes will qualify for the domestic scheme. DECC is yet to confirm the length of the delay, but states the commercial green deal will start soon after the homeowner scheme.

# UK must consider embodied CO<sub>2</sub>

**Emissions** The energy department is risking the UK's climate change ambitions by failing to consider the greenhouse-gas (GHG) emissions generated overseas in making imported products and services, according to the energy and climate change committee.

In a new report, MPs warn that by not including emissions related to the consumption of goods made outside the UK, DECC is portraying a false account of the country's impact on GHG production globally, which could result in more emissions being offshored in the future.

DECC's calculations, which only count GHGs physically created in the UK, estimate that emissions dropped by 19% between 1990 and 2009; however, Defra figures for the same period reveal that consumption-based emissions rose by 20%.

"Successive governments have claimed to be cutting climate-changing emissions, but in fact a lot of pollution has simply

been outsourced overseas," argued Tim Yeo, chair of the committee.

"We get through more consumer goods than ever before in the UK and this is pushing up emissions in manufacturing countries like China."

The report ([lexisurl.com/iema12423](http://lexisurl.com/iema12423)) concludes that emissions savings calculated by DECC have been the result of the move from coal to gas-fired power stations and the relocation of manufacturing facilities outside the UK, rather than from more sustainable production and consumption patterns.

It argues that DECC must consider consumption-based emissions alongside territorial emissions to create a true picture of the UK's global impacts. Acknowledging the embodied carbon of imports, it states, could give the government greater power to lever improvements in emissions overseas and help to tackle negative consumer behaviour.



# Wind key to economy, says PM

Cameron gives his backing to wind power, as campaigners warn of damage to environment

**Energy** The prime minister has told policymakers that greater development of the wind energy sector is vital to the UK economy.

In a speech to the UN's third Clean Energy Ministerial, held in London, David Cameron spoke of the crucial role wind, in particular offshore farms, would play in providing low-carbon energy as well as being an area of industrial growth and job creation.

The UK, he said, had the opportunity to become a world leader in offshore wind and confirmed a further £5 million of government funding to help the sector to cut costs. "We need to make [renewable energy] financially sustainable," he said. "Solar costs have halved in two years. Onshore wind costs are falling too. And we are stepping up our efforts with industry to bring down the cost of offshore wind. But we can get these costs down further ... Mature renewable technologies can be among our cheapest energy sources within years, not decades."

He announced the creation of a new government-industry initiative to develop a major energy hub in the North Sea, which will see companies such as ScottishPower and Danish wind turbine manufacturer Vestas collaborating with National Grid to maximise the area's potential for power generation.

Cameron highlighted new wind energy developments, including EDF's scheme to build an offshore project near the Isle of Wight powering 600,000 homes, and E.ON's award of a £736 million contract to Balfour Beatty to install cables connecting its Humber Gateway wind farm to the grid. However, turbine maker Doosan has abandoned its plans to build a £170 million development centre in Glasgow due to poor economic conditions and falling confidence in the sector.

Nonetheless, Cameron's positive outlook was echoed in figures released by the European Wind Energy Association, which revealed the bloc's wind sector grew at twice the rate of the EU economy as a whole in 2010, generating €32 billion. In a separate report, the Renewable Energy Association confirmed that in 2010/11 wind power had the greatest turnover of all the renewables sectors, at



more than £4 billion and the highest value of exports at nearly £500 million.

Meanwhile, a new report from the Campaign for the Protection of Rural England (CPRE) warns that the increasing number of onshore wind turbine developments is "damaging valued landscapes" and that more accountable local development strategies are needed.

Shaun Spiers, CPRE chief executive, said: "We accept onshore wind in the right places as part of the energy mix required to meet the UK's CO<sub>2</sub> reduction targets, but we are seeing more and more giant turbines sited in inappropriate locations. We must find a way of reconciling climate change mitigation and landscape protection."

The report highlights the growth in the number of large turbines completed, in construction, or awaiting approval in England from 685 in 2009, to 3,442 at the start of 2012, and the trend of siting such developments in remote areas, close to national planning designations.

The CPRE argues that following the revocation of regional spatial strategies, which it says helped to ensure a "landscape-sensitive" distribution of turbines, the government needs to develop a new approach to onshore wind that considers the cumulative impacts of developments and is clearer on the total number of turbines to be built.

Gordon Edge, director of policy at the wind industry body RenewableUK, agreed that protecting the landscape was important, but called the CPRE's concerns misplaced. "The CPRE claims that more layers of bureaucracy are needed in the planning process, but the current planning system already provides environmental safeguards which are among the most stringent in the world," he said.

## Short cuts

### Droughts will continue

Despite heavy rains and flash floods in April and early May, the Environment Agency (EA) has warned that much of the UK will remain in drought for the rest of the year, and has again urged businesses to improve how they manage water now, to prevent serious shortages next year. In March, large areas of the southwest and the Midlands joined East Anglia, south-east England and Yorkshire in being designated as officially in drought. While the recent downpours improved soil moisture and river flows, groundwater levels remain low, and are unlikely to improve unless there is steady rain this winter, says the agency. With UK rainfall 60% below average between October 2011 and March 2012, Trevor Bishop, the EA's head of water resources, confirmed: "A longer-term drought, lasting until Christmas and perhaps beyond, now looks more likely. While we've had some welcome rain recently, the problem has not gone away, and we would urge everyone to use water wisely."

### £60m for Met Office

DECC is investing £60 million in the Met Office Hadley Centre's Climate Programme to help maintain the UK's place as a global leader in climate research and modelling. Most of the money, almost £50 million, will fund a programme of research and modelling up to 2015. DECC says outputs from the programme will help the government, businesses, local authorities and other organisations to understand better the threats and opportunities of climate change and assist them to identify where to take appropriate action. The remainder of the money (£11 million) will fund a new high-performance computing system to underpin the research. "The Met Office Hadley Centre has helped to make the UK a world leader in climate science and this investment will significantly improve its capacity to produce the ground-breaking robust evidence for which it is internationally renowned," said energy and climate change minister Greg Barker.

IN PARLIAMENT



Another fine mess

Alan Whitehead is MP for Southampton Test

I suggested in this column a year ago that building a new generation of nuclear power plants could pose considerable difficulties for the government. And its plans are now unravelling fast.

Last year it suggested that as much as 20% of electricity could come from new nuclear in the early 2020s, rising to perhaps 40% by the late 2030s. Much of this would be new build because most of Britain's present nuclear fleet will have been decommissioned by 2022.

But there are now major problems standing in the way of this goal. Nuclear power takes a long time to commission, plan, build and operate – perhaps 10 years per plant – so building should be already under way; but it isn't. And the coalition agreement declared that new plants should be built with “no public subsidy”, a tall order in the light of experience across the world where not one plant has yet been built wholly on that formula. This has led to some difficult contortions for the government. The package of reforms to the electricity market is arguably built around several implicit subsidies for existing and new nuclear plants without actually saying so. But despite these measures and a multitude of encouragements, only one investor has actually stepped forward.

One consortium recently pulled the plug on its plans, and another has effectively put its plans on hold. The remaining consortium may not be one much longer as junior partner Centrica looks likely to leave. The prospect now is that one energy company, EDF – which already runs all existing UK nuclear power plants – will stand alone with plans to produce just two reactors initially and up to four by 2025.

The crisis of disappearing nuclear capacity surely points to an urgent rethink. Will nuclear now play just a peripheral role in future UK energy policy, and if so should all the effort and potential market distortion that has gone into procuring such a lame result be directed elsewhere?

## SEPA and the MoD agree to examine radioactive beach

**Pollution** The Scottish Environment Protection Agency (SEPA) and the Ministry of Defence (MoD) have published plans to further investigate the radioactive contamination of Dalgety Bay in Fife ahead of remediation action.

Radioactive particles have been found in the area, the site of a former wartime airfield, since the 1990s, and last November part of the beach was closed after an object measuring 10 megabecquerels – a measure of radiation – was discovered.

At the time, SEPA set deadlines for the MoD to provide a credible remediation plan to prevent the need to designate Dalgety Bay as radioactive contaminated land, the first such designation in the UK. Work by the Scottish regulator subsequently revealed that the situation at the beach was more complicated than initially believed, and more investigation was required.

The headland area where radioactive particles have been discovered is reclaimed land using waste materials following the decommissioning of the airfield. The additional investigative work should be completed by May 2013.



“SEPA should then be in full possession of all technical issues, including dumping areas and the distribution of the hazard posed by radioactive contamination, together with ownership history and therefore the responsible party or parties,” said the regulator's radioactive substances unit manager, Dr James Gemmill.

He expects remediation to start once the investigation is complete, as the next 12 months will also be used to review options to decontaminate the area.

The MoD has confirmed that if it is found to be a responsible party the ministry will work with SEPA to carry out voluntary remediation where appropriate.

## Puma tops sustainability performers

**Strategy** German sportswear company Puma is a global leader on sustainability, according to a study of the world's 2,000 biggest companies. And, as a whole, UK companies are performing best.

The assessment of firms' performance by analyst EIRIS finds that, although many are making sustainability a key part of their future plans and strategies, a significant number are making only limited progress. It also reveals that UK and European companies are outstripping their US and Asian counterparts on sustainability performance, and that some sectors – notably oil, gas and mining – need to refocus their businesses to offset negative impacts.

Three UK firms – FirstGroup, GlaxoSmithKline and Go-Ahead Group – make the top 10, while 20% of all UK companies score an “A” rating for their

sustainability performance. By contrast, 12% of European companies receive an A grade, and just 2% of US firms and 1% of Asian businesses score as highly.

“Tighter sustainability legislation in Europe and more public awareness contributes to this difference,” said Mark Robertson, report author and head of communications at EIRIS.

High-profile brands, such as Apple, McDonald's and Google, receive a D rating, just ahead of oil companies such as BP, Chevron and ExxonMobil, which score an E, the lowest rating.

Puma received the top accolade for its strong environmental record and for improving labour standards. Last year, the company published its ground-breaking environmental profit and loss statement, which valued its environmental impacts during 2010 at £124 million.



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Short cuts

## New BATs for IED

The European Commission has unveiled new “best available techniques” (BATs) for iron and steel, and glass production ahead of the implementation of the Industrial Emissions Directive (2010/75/EU) (IED) at the start of next year. It has also published the full BAT reference notes, known as BREFs. The implementing decisions on BAT conclusions on industrial emissions from iron and steel, and glass production are the first to be adopted under the IED. Like its predecessor, the Directive on integrated pollution prevention and control (96/61/EC as amended), the IED requires some 50,000 installations across the EU to operate in accordance with permits set by national regulators such as the Environment Agency or the Scottish Environment Protection Agency. Permit conditions are based on the use of BATs, with the BAT conclusions agreed by the commission serving as a reference for setting permit conditions.

## Atmospheric CO<sub>2</sub>

A study published in the *Journal of Geophysical Research* (lexisurl.com/iema12432) has identified a way of distinguishing between CO<sub>2</sub> in the atmosphere from the burning of fossil fuels and those from natural resources. It measures a type of carbon, known as 14CO<sub>2</sub>, no longer present in fossil fuels but found in plants. Using data from samples gathered by aircraft over two sites in the US over a six-year period, the researchers, led by scientists at the National Oceanographic and Atmospheric Administration’s Earth System Research Laboratory, were able to pinpoint the ratio of 14CO<sub>2</sub> or natural CO<sub>2</sub> compared with CO<sub>2</sub> from fossil fuels. They found the ratios change over the year, indicating seasonality of emissions. Although the method is limited and might not be able to effectively identify CO<sub>2</sub> emissions from a particular site or installation, the researchers believe that it is a valuable additional tool in understanding how carbon is released and distributed.

# EMS helps cut resource use

**Waste** Environment management systems are crucial to more sustainable production and consumption practices, according to the UN Environment Programme (UNEP).

In a new report examining the actions taken by companies and policymakers to improve resource use, UNEP describes environmental management standards, such as ISO 14001, as “vital tools”, saying that they provide practical frameworks to help reduce environmental impacts while generating cost savings.

The report, which consists of 56 best-practice case studies featuring Nestlé and Sainsbury’s, comes ahead of the Rio+20 summit in June, where improving resource efficiency will feature highly.

“Realising a low-carbon, resource-efficient and employment-generating green economy is the challenge for world leaders when they meet in Rio,” said Achim Steiner, UNEP executive director. “This report underlines that governments are not starting from zero. Rio+20 offers the opportunity to accelerate and scale up these policies and projects.”

Publication of the UNEP report comes as a new study from the Royal Society,

entitled *People and planet*, warns that consumption levels between developed and developing nations must be rebalanced, and population levels stabilised.

“The world now has a very clear choice. We can choose to address the twin issues of population and consumption. We can choose to rebalance the use of resources to a more egalitarian pattern of consumption, to reframe our economic values to truly reflect what our consumption means for our planet and to help individuals around the world to make informed and free reproductive choices.

Or we can choose to do nothing and to drift into a downward vortex of economic, sociopolitical and environmental ills, leading to a more unequal and inhospitable future,” said Sir John Sulston, fellow of the Royal Society.

At the same time, Re|Source 2012, a new initiative created by the University of Oxford and the Rothschild Foundation, has been launched. It calls on global businesses and the finance community to take the lead in solving resource scarcity as population growth and economic development put greater strains on the planet’s resources.

## South West Water fined £24,000 for ‘avoidable’ sewage spills

**Prosecution** South West Water has been fined £24,000 after failings at two of its plants resulted in sewage polluting waterways in Devon and Cornwall.

In separate incidents in 2011, a combination of equipment failures and a lack of action by staff resulted in hundreds of thousands of litres of raw sewage being discharged by one plant, and another breaching its environmental permit.

Problems with pumps at the company’s Droskyn sewage pumping station near Perranporth beach, in Cornwall, in June 2011 caused a second nearby station to become overwhelmed as untreated waste backed up, resulting in crude sewage being released into the Boleing stream.

The site supervisor claimed there would not have been enough time to organise tankers to remove the sewage, but the Environment Agency (EA) said there had been sufficient warning to take measures to stop the discharges.

Four months earlier, water samples taken at the Camels Head treatment works in Plymouth revealed that effluent was not being processed properly.

The site had long-running issues with equipment, damaging the effectiveness of the treatment process, which had been exacerbated by other broken machinery and vandalism. An investigation revealed that problems had been occurring for at least a week before the samples were taken, and that the company failed to notify the EA about the pollution for six days.

“There were many symptoms of problems that South West Water should have acted on,” said the agency’s Sarah Taylor. “The pollution could have been avoided [and] this lack of action resulted in a nearby special area of conservation being put at risk.”

The company was fined £16,500 for the Camels Head incident and £7,500 for the spill in Cornwall.



# Fracking set to continue

Scientists set limits on drilling near water sources

**Energy** New research confirms the controversial “fracking” technique used to extract shale gas triggered the minor earthquakes in Lancashire in 2011, but concludes that the process is safe to be rolled out in the UK as long as seismic hazards are assessed prior to proceeding.

The DECC-commissioned study reviewed evidence from Cuadrilla Resources, which operates the only shale gas mine in the UK, near Blackpool. The company acknowledged last November that the use of fracking, or hydraulic fracturing, at its Preese Hall mine on the Fylde coast was the likely cause of the minor seismic tremors in April and May last year, and the energy department’s independent assessment agrees.

The review team, which involved experts from Keele University and the British Geological Survey, found that it is safe to resume hydraulic fracturing provided the operators follow recommended procedures, including the introduction of a “traffic light” system that would see fracking halted if it triggers tremors of 0.5 or above on the Richter scale. Tremors measuring 2.3 and 1.5 were recorded in 2011.

Hydraulic fracturing involves the intentional injection of fluids – water, sand and chemicals – at high pressure to create new fissures and release gas deposits that have been locked in shale rock formations for millions of years.

Cuadrilla Resources welcomed the findings of the DECC report. “We are pleased that the experts have come to a clear conclusion that it is safe to allow us to resume hydraulic fracturing, following the procedures outlined in the review,” said the firm’s chief executive Mark Miller, adding that the company had already started to implement a number of the recommendations.

Campaign group Friends of the Earth criticised the review for focusing only on seismic activity. “Earth tremors aren’t the only risks associated with fracking – it’s also been linked to air and water pollution



and produces gas that causes climate change. There should be a full scientific assessment of all the impacts,” commented executive director Andy Atkins. WWF agrees. “The issue of earth tremors is an admittedly worrying distraction. The real concern is the use of fossil fuels,” it said.

The energy and climate change department has given interested parties until 29 May to comment on the review. It will then make a final decision on whether to restart hydraulic fracturing operations at Preese Hall, which have been suspended since the 2011 tremors.

Meanwhile, separate scientific research suggests that fracking should not take place within 600m of aquifers that supply drinking water. According to the study, published in *Marine and Petroleum Geology*, the probability of fractures extending more than 350m is just 1%, and that fracking to 2km or 3km below the surface was very unlikely to lead to contamination of water supplies, something that campaigners claim in the US, where there are extensive shale gas operations.

Professor Richard Davies, director of the energy institute at Durham University, said: “Based on our observations, we believe that it may be prudent to adopt a minimum vertical separation distance for stimulated fracturing in shale reservoirs. Constraining the maximum vertical extent of hydraulic fractures is important for the safe exploitation of unconventional hydrocarbons such as shale gas and oil.”

He confirmed that with Cuadrilla’s shale gas exploration scheme near Blackpool 3km down, it would not affect water supplies in the area, which are around 300m below the surface.

## Short cuts

### Olympics on track

The London 2012 Olympic and Paralympic games are on course to be the most sustainable ever, according to the pre-games sustainability report. It highlights progress to date, and includes details on cleaning up the site prior to creating the Olympic Park; how the 2012 games will be the first to measure its carbon footprint over the entire project term and that the target to reduce emissions for the built environment by 50% will be exceeded by 2013. It also confirmed that 99% of demolition materials were reused or recycled and that 100% of wood products supplied to the Olympic Park site were certified as “legal and sustainable” by the Forest Stewardship Council and the Programme for the Endorsement of Forest Certification project. Jonathon Porritt, chair of the London 2012 sustainability ambassadors, commented: “The scale of ambition involved in what will undoubtedly be the world’s most sustainable games to date is gobsmacking.”

Look out for the supplement on the Olympics in the July issue of *the environmentalist*, which will examine its sustainability goals and the IEMA members who helped deliver them.

### Young consider carbon

One-third of adults aged 18–25 are willing to pay more for a product that has a smaller carbon footprint than its competitors, according to new research from the Carbon Trust. The poll of 2,500 young consumers from Brazil, China, South Africa, South Korea, the US and the UK also reveals the majority would be more loyal to brands making efforts to reduce CO<sub>2</sub> emissions, with the trend particularly strong in Asian countries – 83% of respondents in China, compared with just 55% in the UK. Meanwhile, 60% of young adults in China, and 35% in the UK, said they would stop buying a product if its maker refused to cut its carbon footprint. Consumer electronics manufacturers were cited most often as the industry sector that could do most to cut emissions, followed by clothing companies and healthcare brands.



# Government opens new CCS competition

**Emissions** The opportunity to demonstrate viable carbon capture and storage (CCS) technology in the UK is to get a second chance after the energy and climate change department unveiled plans for a new £1 billion competition.

The previous CCS competition, which was launched in 2007 by the former government, collapsed last year when DECC decided not to provide further funding for a demonstration plant at the Longannet power station in Fife. The 2,400MW generating facility, which is owned by ScottishPower, was the only one left in the competition.

Industry bodies fear the new competition, the CCS Commercialisation Programme, details of which were first revealed in the *Official Journal of the European Union* in February, could also end in failure. "The government must learn lessons from its previous competition, which took too long and was eventually abandoned. This time around the competition must be simpler and completed as quickly as possible," said Rhian Kelly, director of business environment at the CBI.



Her warning echoes the findings of a recent report from the National Audit Office on the original competition. It concluded that DECC must learn the lessons of the earlier failure if further time is not to be lost, and value for money achieved on future projects.

Despite the lack of success in the past, energy and climate change secretary Ed Davey believes the UK can still create a world-leading carbon capture sector. "This is a really exciting time for the fledgling CCS industry. Our offer is one of the best anywhere in the world. We

have £1 billion available to support the upfront costs of early projects," he said.

DECC also says further funding may be available through "contracts for difference" – which will guarantee prices for low-carbon electricity generated by energy companies. This type of contract forms a key plank of the planned electricity market reform and will

replace the Renewables Obligation. In addition, DECC is providing £125 million to fund research and development, including creating a new £13 million CCS research centre.

The funding announcements were accompanied by a roadmap, setting out the framework to enable long-term investment in the industry, with up to 30GW of power generation subject to CCS by 2030, and the creation of a CCS cost-reduction taskforce, headed by Dr Jeff Chapman, chief executive of the Carbon Capture and Storage Association.

## CASE LAW

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### Appeal court reverses landmark judgment on nuisance

The Court of Appeal has handed down its judgment in the test case of *Barr & others v Biffa Waste Services Ltd* [2012] EWCA Civ 312, reversing the landmark judgment last year by the High Court that compliance with an environmental permit could defeat a claim in nuisance.

Prior to this judgment the law on nuisance had been in a state of flux pending the appeal. The facts of the case involve a landfill site that is situated close to a housing estate – the Vicarage estate, in Ware, Hertfordshire.

Thirty claimants, including Barr, brought a nuisance claim against Biffa – the operators of the landfill site – for smells arising from the operation.

Biffa had been granted a waste-management permit for tipping "pre-treated waste" in 2004. The permit was subject to detailed conditions that included requirements that Biffa comply with a defined

working plan and measures to "control, minimise and monitor" odours.

Complaints began within one week of tipping operations beginning in 2004 and problems of smell continued despite efforts by Biffa, encouraged by the Environment Agency, to find a solution to the problem. In June 2005, the agency prosecuted Biffa for breaches of permit conditions, which resulted in convictions in October 2007 on four charges. Despite the prosecution, complaints continued, culminating in a nuisance court case and the High Court finding in favour of Biffa.

Lord Carnwath stated in his decision on appeal that the case was governed by the conventional principles of the law of nuisance. He found that the common law of nuisance has coexisted with statutory controls since the 19th century and, short of an express or implied statutory authority to commit a nuisance, there is no basis for using a statutory scheme to cut down private law rights. The permit did not authorise the emission of the new

type of emission smells. The court also stated that there was no requirement for the claimants to allege or prove negligence or breach of condition; it would be for Biffa to prove compliance. The common law rights and duties remain unaffected.

The appeal succeeded, remitting the case to an appropriate forum to complete the assessment.

Companies' activities that could lead to complaints are still vulnerable to nuisance claims whether or not they are in compliance with their permits. The practical effect of this is that if they try to determine their potential liability they will have to assess many different factors, such as the character of the neighbourhood and the timing, frequency, duration and intensity of emissions. Lawyers carrying out due diligence enquiries for their clients should bear these issues in mind.

Colleen Theron and Deirdre Lyons, LexisPSL

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# New cars continue to drive down CO<sub>2</sub>

**Transport** Carbon emissions from new cars in the UK fell a further 4.2% in 2011, reaching a record low of 138.1g CO<sub>2</sub> per km, according to the Society of Motor Manufacturers and Traders (SMMT).

Although lagging slightly behind the EU average of 136.1g CO<sub>2</sub>/km, the SMMT confirms that new cars in the UK emit 27% less CO<sub>2</sub> than in 1997, and are 18% more fuel efficient than their used counterparts.

According to its annual sustainability report, more than 46% of new cars bought in 2011 meet the EU's 2015 emissions target of 130g CO<sub>2</sub>/km, up from just 38% the year before. Sales of ultra-low-carbon cars – producing less than 100g CO<sub>2</sub>/km – also saw dramatic increases, almost doubling to 65,000 and accounting for 3.4% of all new cars bought last year. “Industry can be proud of the progress it has made in reducing carbon emissions and improving fuel efficiency,” said SMMT's chief executive, Paul Everitt.

SMMT also reports that company and fleet cars are more efficient than new cars bought for domestic use, with the former averaging 137.1g CO<sub>2</sub>/km compared with 139.5g CO<sub>2</sub>/km for the latter.



Emissions from light commercial vehicles are going in the opposite direction, however. SMMT reveals that emissions from such vehicles increased by 18% between 2000 and 2010, with businesses buying larger, more cost-effective vehicles. And while emissions have been cut by around 2% annually since 2009, the average UK van emits 199.2g CO<sub>2</sub>/km, significantly higher than the EU 2014 target of 175g CO<sub>2</sub>/km. In addition, just 75 new vans powered by alternative fuels, such as electricity or hydrogen, were registered on the SMMT's

low-carbon database in 2011.

In a new joint report outlining the government's bioenergy strategy, DECC, Defra and the transport department highlight the important role of biofuels in decarbonising transport. “For as long as we use fossil fuels, sustainable first-generation biofuels ...

offer a cost-effective contribution to reduced emissions from transport,” the report states.

However, Clare Wenner, head of renewable transport at the Renewable Energy Association, warned the transition was likely to be slow and need support. “The government needs to craft stable policy to support the first generation biofuels market, to enable the key players to build up their markets. They will then be in a position where they can afford to invest in the research and development required to make these future technologies viable.”

## EIA UPDATE

iema

### EIA and fracking

The European Commission has published two short advisory notes related to environmental impact assessment (EIA). The first outlines the commission's views on how, and when, EIA should apply to the exploration of unconventional hydrocarbons, including the process known as fracking, which is used to extract shale gas (see p.9). The second highlights the views of the commission on the application of EIA to ancillary and associated developments, where a core project is undergoing an assessment. Both notes are available to download at [lexisurl.com/iema12440](http://lexisurl.com/iema12440).

### Welsh EIA Regulations

The Welsh Assembly government has still not issued its consultation on revisions to the planning-related EIA Regulations, but has indicated they will launch in the near future. IEMA members have the opportunity to get an early insight into the issues that

will be covered in the consultation by downloading an exclusive Welsh government presentation at [lexisurl.com/iema12442](http://lexisurl.com/iema12442).

### IEMA and the new EIA Directive

This summer the European Commission will launch its proposals for a new EIA Directive. IEMA understands that it will focus on making the process of EIA work more effectively with other EU assessments (such as strategic environmental assessment and the Water Framework Directive), and harmonising it between member states, particularly around screening developments for EIA.

IEMA is currently developing criteria to allow it to assess the likely influence of the proposals on EIA practice domestically and to feed the views of the profession into UK responses and discussions in the European Parliament. The Institute wants your input into this process and is running a week-long EIA

roadshow, visiting the following five cities in the UK:

- **London** – 2 July, 1.30–5pm.
- **Cardiff** – 3 July, 9.30am–1pm.
- **Birmingham** – 4 July, 9.30am–1pm.
- **Manchester** – 5 July, 9.30am–1pm.
- **Edinburgh** – 6 July, 9.30am–1pm.














To attend, go to [lexisurl.com/iema12441](http://lexisurl.com/iema12441).

### Quality Mark resources library

To mark the first anniversary of the EIA Quality Mark scheme and to celebrate the contribution that registered participants are making to improving the practice of EIA in the UK, IEMA has launched a library of resources available to all members ([lexisurl.com/iema12469](http://lexisurl.com/iema12469)). The resources include: short articles and thought pieces on practice; case studies of lessons learned from EIA projects; pdf copies of presentations made at EIA events across the UK; and access to previous EIA-related webinars.




## NEW REGULATIONS

In force	Subject	Details
21 March 2012 	Energy	The Energy Act 2011 (Commencement No.1 and Saving) Order 2012 brings into force the provisions of Chapter 1 of Part 1 of the Energy Act 2011, which relate to the green deal. It also includes measures relating to upstream petroleum infrastructure, downstream gas-processing facilities and carbon dioxide pipelines, as well as bringing into force s.118 of the Act – which concerns the amendment and repeal of measures relating to home energy efficiency. <a href="http://lexisurl.com/iema12327">lexisurl.com/iema12327</a>
1 April 2012  	Environmental protection	The Environmental Protection Act 1990 (Commencement No.19) Order 2012 repeals s.1 of the Refuse Disposal (Amenity) Act 1978 (c.3), which was contained in s.162(2) of, and Part 2 of Sch. 16 to, the Environmental Protection Act 1990. <a href="http://lexisurl.com/iema12331">lexisurl.com/iema12331</a>
1 April 2012 	Waste	The Landfill Tax (Amendment) Regulations 2012 amend the Landfill Tax Regulations 1996 by changing, from 6.2% to 5.6%, the maximum credit a landfill site operator may claim against annual landfill tax liability. <a href="http://lexisurl.com/iema12332">lexisurl.com/iema12332</a>
6 April 2012 	Emissions	The Smoke Control Areas (Authorised Fuels) (England) Regulations 2012 consolidate six sets of regulations which declare fuels to be authorised for the purposes of Part 3 of the Clean Air Act 1993. At the same time, the Smoke Control Areas (Exempted Fireplaces) (England) Order 2012 revokes and replaces with amendments the 2011 Order. <a href="http://lexisurl.com/iema12335">lexisurl.com/iema12335</a> ; <a href="http://lexisurl.com/iema12336">lexisurl.com/iema12336</a>
6 April 2012  	Environmental protection	The Environmental Permitting (England and Wales) (Amendment) Regulations 2012 amend the 2010 Regulations. Changes include: clarifying the position relating to single-site permits for certain radioactive substances and activities; changing the procedure for transferring environmental permits in certain situations; and reducing the regulatory requirements for those who operate some anaerobic digestion installations. <a href="http://lexisurl.com/iema12036">lexisurl.com/iema12036</a>
6 April 2012 	Environmental protection	The Contaminated Land (England) (Amendment) Regulations 2012 amend the 2006 Regulations, including the circumstances set out in reg. 3 (pollution of controlled waters) in which contaminated land affecting controlled waters is required to be designated as a special site. The 2012 Regulations also limit the application of reg. 11 (modification of a remediation notice) of the 2006 Regulations to appeals commenced prior to 6 April 2012. <a href="http://lexisurl.com/iema11741">lexisurl.com/iema11741</a>
6 April 2012 	Environmental protection	The Contaminated Land (Wales) (Amendment) Regulations 2012 amend the 2006 Regulations. Changes include the circumstances in which contaminated land affecting controlled waters is required to be designated as a special site and alterations to Sch. 2 to the 2006 Regulations to reflect the changes brought about by the Transfer of Tribunal Functions (Lands Tribunal and Miscellaneous Amendments) Order 2009. <a href="http://lexisurl.com/iema12030">lexisurl.com/iema12030</a>
6 April 2012  	Flooding	The Flood and Water Management Act 2010 (Commencement No.6 and Transitional Provisions) Order 2012 brings into force provisions of the Flood and Water Management Act 2010, specifically the removal of some powers from the Environment Agency in relation to ordinary watercourses. <a href="http://lexisurl.com/iema12330">lexisurl.com/iema12330</a>
6 April 2012  	Waste	The Controlled Waste (England and Wales) Regulations 2012 classify waste as household, industrial or commercial waste for the purposes of Part 2 of the Environmental Protection Act 1990 so as to determine the meaning of “controlled waste”. They also prescribe the household waste that may attract a collection charge. <a href="http://lexisurl.com/iema12045">lexisurl.com/iema12045</a>

## LATEST CONSULTATIONS

31 May 2012

### Natural resources

 The Welsh Assembly government is consulting on changes to the governance and delivery of the management and regulation of the environment in Wales, as part of its Living Wales strategy. The proposals are based on an ecosystems approach to ensure the country's nature, land, water and air is put to best and most sustainable use. [lexisurl.com/iema12054](http://lexisurl.com/iema12054)


1 June 2012

### Environment policy

 Environment action programmes have guided the development of EU environment policy since the 1970s and, with the sixth programme in its final year, the European Commission has issued a consultation on the make-up of the seventh programme, which will run to 2020. [lexisurl.com/iema12344](http://lexisurl.com/iema12344)

1 June 2012



### Smart meters

 DECC has issued several consultation documents on the government's plans for every home and small business in the UK to have smart

electricity and gas meters. They are: the smart energy code ([lexisurl.com/iema12346](http://lexisurl.com/iema12346)); the draft DCC Licence and Licence Application Regulations ([lexisurl.com/iema12347](http://lexisurl.com/iema12347)); data access and privacy ([lexisurl.com/iema12348](http://lexisurl.com/iema12348)); and consumer engagement strategy ([lexisurl.com/iema12349](http://lexisurl.com/iema12349)).


6 June 2012

### Industrial emissions

  The Industrial Emissions Directive (2010/75/EU) comes into force at the start of 2013. It recasts seven existing directives, which cover: integrated pollution prevention and control (96/61/EC as amended), large combustion plants (2001/80/EC), solvent emissions (1999/13/EC), waste incineration (2000/76/EC), and the production of titanium dioxide (78/176/EEC, 82/883/EEC and 92/112/EEC). Defra is now seeking views on transposing the Directive in England and Wales. [lexisurl.com/iema12344](http://lexisurl.com/iema12344)

7 June 2012


### European waters

 As part of its work on developing a blueprint for safeguarding Europe's

water resources – due to be published later this year – the European Commission is consulting on how water management can be improved so supplies are available to all users and the natural environment. [lexisurl.com/iema12345](http://lexisurl.com/iema12345)


18 June 2012

### Marine Directive

 Defra and the devolved governments are jointly consulting on the implementation in the UK of the EU Marine Strategy Framework Directive (2008/56/EC), which requires member states to achieve or maintain good environmental status – protecting the marine environment, preventing its deterioration and restoring it where practical, while using marine resources sustainably – for their seas by 2020. [lexisurl.com/iema12350](http://lexisurl.com/iema12350)

21 June 2012

### Flood management

 The Scottish government has issued a consultation clarifying the responsibilities of authorities, including SEPA and under s.1 of the Flood Risk Management (Scotland) Act 2009. [lexisurl.com/iema1238](http://lexisurl.com/iema1238)

## NEW GUIDANCE

### CRC

The Environment Agency and its Scottish (SEPA) and Northern Irish (NIEA) counterparts have published new guidance for phase I (April 2010 to March 2014) participants in the Carbon Reduction Commitment Energy Efficiency (CRC) scheme ([lexisurl.com/iema12354](http://lexisurl.com/iema12354)). It consolidates key elements of the 31 original guidance documents produced on specific aspects of the CRC. Although the new document contains no substantive changes to the guidance already issued, the agencies say the consolidation process has allowed them to clarify topic areas where participants had identified that previous wording was unclear. It also sets out the requirements of the new CRC Allocation Regulations and gives information on how to comply with them. The agencies say they are likely to regularly update their CRC guidance.

### Standard permits/waste

The Environment Agency has updated its guidance on standard permits for the following industries, sectors and sites: low-impact Part A installations ([lexisurl.com/iema12356](http://lexisurl.com/iema12356)); combustion of biogas in engines at sewage treatment works ([lexisurl.com/iema12357](http://lexisurl.com/iema12357)); composting biodegradable waste ([lexisurl.com/iema12358](http://lexisurl.com/iema12358)); composting biodegradable waste in open and contained systems ([lexisurl.com/iema12359](http://lexisurl.com/iema12359)); composting in open systems ([lexisurl.com/iema12360](http://lexisurl.com/iema12360)); and composting in closed systems ([lexisurl.com/iema12361](http://lexisurl.com/iema12361)). It has also issued guidance on the amendments to the environmental permitting regime – the Environmental Permitting (England and Wales) Regulations 2012 – that came into force on 6 April ([lexisurl.com/iema12363](http://lexisurl.com/iema12363)). In addition, the agency has published updated guidance on when electrical and electronic equipment is considered waste and the controls that apply ([lexisurl.com/iema12362](http://lexisurl.com/iema12362)).

### Climate change and health

A briefing paper on climate change and health has been produced by the Scottish parliament ([lexisurl.com/iema12355](http://lexisurl.com/iema12355)). It highlights how climate change is considered a “threat multiplier”, amplifying pre-existing health problems and inequities. Although it acknowledges that the impact on Scotland, as a developed country, will be smaller than on other, less developed countries, it points out that some parts of the country's population are particularly vulnerable to the health impacts of climate change, including those with generally poorer health and the elderly.

## EVENTS CALENDAR

Date	Course	Location and details
29–31 May 2012	Climate leadership programme seminar	Madingley Hall, Cambridge <a href="http://lexisurl.com/iema12321">lexisurl.com/iema12321</a>
12 June 2012	Water and ecosystem goods and services	Hamilton House, Mabledon Place, London <a href="http://lexisurl.com/iema12325">lexisurl.com/iema12325</a>
12–13 June 2012	Shaping the future – CIWM 2012 conference	Royal College of Surgeons, London <a href="http://lexisurl.com/iema12403">lexisurl.com/iema12403</a>
13–14 June 2012	Global offshore wind 2012	ExCel, London <a href="http://lexisurl.com/iema12322">lexisurl.com/iema12322</a>
15–16 June 2012	Eco-technology show 2012	The American Express Community Stadium, Brighton <a href="http://lexisurl.com/iema11759">lexisurl.com/iema11759</a>
21 June 2012	Base London	Grange Hotel, Tower Bridge, London <a href="http://lexisurl.com/iema11761">lexisurl.com/iema11761</a>
21 June 2012	Waste to energy city summit	London Chamber of Commerce, Queen Street <a href="http://lexisurl.com/iema12326">lexisurl.com/iema12326</a>
4 July 2012	Pollution response in emergencies – marine impact assessment and monitoring	SOAS, London <a href="http://lexisurl.com/iema12150">lexisurl.com/iema12150</a>
4–5 July 2012	UK AD and biogas 2012	NEC, Birmingham <a href="http://lexisurl.com/iema12324">lexisurl.com/iema12324</a>

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# Does yellow and blue make green?

After two years in office, **Tim Yeo** and **Peter Young** consider the progress of the coalition on meeting its pledge to be the greenest government ever

**T**he second year of the coalition government has seen some progress on the environmental front in several areas, including the publication of the natural environment white paper, the pioneering national ecosystem assessment, the resource security action plan and approval of the fourth carbon budget (from 2023 to 2027). The government has also made funding available to kick-start the green deal energy-efficiency scheme, provided money to support the manufacture of equipment in the UK for the wind energy sector and introduced a package of measures to encourage industrial energy-efficiency.

Year two was also notable, however, for the continued fiasco over the feed-in tariffs (FITs) for photovoltaic solar panels, the delay in deciding whether to introduce mandatory greenhouse-gas (GHG) reporting, further confusion over the future of the Carbon Reduction Commitment Energy Efficiency scheme and controversy over the national planning policy framework. Not forgetting the less-than-enthusiastic support shown for the green agenda by some senior government ministers, which came to the surface in 2011 when the chancellor promised the Conservative party conference in the autumn that the UK was not going to cut its carbon emissions faster than its European competitors.

So, following the mixed messages of the past 12 months, is the government on course to meet its pledge to be the greenest ever? Last year, *the environmentalist* gave the coalition a C– for its first year’s performance, describing it as “very disappointing” and demanding it improved, particularly its policies supporting investment in low-carbon technologies. This year we invited Tim Yeo MP, chair of the energy and climate change committee, and Peter Young, chair of the Aldersgate Group, to discuss progress.



### Pluses ...

"There are pluses and minuses in the government's performance," says Yeo. "But these are still very early days. We are only two years in, and little of what the government has done will have started to have much of an effect. By 2015, we will know what the government has achieved, but now is too soon to judge."

The Conservative MP for South Suffolk lists his "pluses" as the green deal and the approval of the fourth carbon budget as set out by the committee on climate change (CCC). "The green deal is a great concept and if implemented successfully it will be a massive step forward in terms of making our residential built environment more energy efficient," he says.

"And one of the most significant things the government did last year was to accept the fourth carbon budget. The CCC set very challenging targets and these were accepted. For me that was the litmus test of 2011 and I was really pleased with the outcome."

Peter Young agrees that support for the fourth budget was a good test of the government's environmental credentials, but fears the review planned for 2014 has created uncertainty. "I agree with Tim that accepting the fourth budget was key. The trajectories that have been set are quite impressive," he comments. "As long as they remain constant, then investors are more likely to invest in low-carbon technologies."

Yeo, however, is not too concerned by the planned review, which was reportedly agreed at the insistence of the chancellor, George Osborne, and the business secretary, Vince Cable. "There would be an opportunity, whether there is a formal review or not, for the government to get out," he acknowledges. "I think that because the whole environmental movement considers this one of the key tests for the government it would be an extraordinary, retrograde step if it decided to back off following the review."

Young, a member of the government's green economy council, identifies other positives from the past 12 months. "For me, the publication of the natural environment white paper and the creation of a natural capital committee are particularly good moves," he states. "If we can use what we've learned to get the natural capital committee [NCC] to operate in a similar way to the CCC, and try to embed its aims in the Treasury, that would be fantastic. The structure that has been created for the NCC is a very positive one and could be a really good legacy of the coalition government."

Young is also pleased that climate change adaptation is finally appearing on the government's radar with the publication by Defra of the first assessment of the risks posed to the UK economy by a changing climate, and the Environment Agency receiving additional funding to provide advice to businesses and local authorities on preparing for change. "This is really, really helpful, particularly as we're probably going to have to adapt more than we initially thought we would have to," he declares.

He also sees merit in the government's examination of environmental regulation as part of its red tape challenge. "I don't have a problem with the principle of reviewing environmental regulation. You wouldn't design the whole environmental regulatory framework to mirror what we have now if you were starting again from scratch," he concedes.

"But the government needs to signal that it's about genuine efficiency and improvement rather than eroding environmental standards."

Yeo agrees. "It is right to have an overhaul, but I think that we also have to make the case for good regulation," he says. "Businesses can benefit. One example is the automotive industry, where engine emissions have been cut significantly due to regulation, but car companies aren't selling fewer cars as a result. So the industry has not been disadvantaged by the regulatory drive."





### ... and minuses

Despite some positive movement, both Yeo and Young are worried about the lack of progress in other areas.

Young is particularly concerned that the government has delayed its decision on mandatory GHG reporting, which he believes is due to a desire to not introduce new regulation. "There is strong support for reporting among the business community. Lots of companies are already doing it, so they are keen to make it mandatory so it is more efficient and provides greater transparency to promote good practice and goad laggards to take action," Young says. "But the government is sitting on its hands and refuses to make a decision."

"I don't think it's necessarily because the government is against it in principle, but they just don't want to be announcing a new regulation. I think that mind-set is getting in the way of some of the good stuff it wants to do and that's irritating. It's like we've got right to the door but can't quite get through."

He also cites the troubling changes to FITs – which saw the government lose its legal case against implementing cuts of 55% to tariffs before consultation on the changes had ended. "It was a complete fiasco and undoubtedly damaged an emerging industry," he states. "I hope lessons have been learned by DECC."

Yeo puts the problems down to a management failure. "DECC had set the incentives for small-scale photovoltaics at a very generous level and then failed to monitor take-up by consumers," he explains. "If the department had been looking at the figures carefully, as a business looks at its weekly sales figures, through May, June, July 2011 it would have seen demand was going through the roof and would have realised then that the payments were unsustainable."

"And, if DECC had announced the consultation at the end of July instead of the end of October the problems would largely have been avoided. So I think there was a serious management failure in DECC for which I blame both department officials and ministers."

"I agree with that," Young says, adding: "I hope the energy and climate change committee [which Yeo chairs] can continue to monitor FITs because I don't have the confidence that DECC can do so effectively."

The lack of effective oversight of the FITs leads Young to criticise the decision to scrap the Sustainable Development Commission (SDC), which he believes has left a void in overseeing government policy. "While I concede that the SDC had largely outlived its usefulness, the absence of a similar organisation makes me nervous," he says. "I think an SDC-type body is the kind of thing we need to provide the momentum for change beyond what the core departments can achieve by themselves. It would provide a degree of scrutiny of policy."

"I know the energy and climate change committee and the environmental audit committee try to play this role, but wonder if it would be better if we had an independent body, to bring the government to account on some of the key issues."

Yeo believes DECC will need to up its game if the green deal is to achieve its promise. "It's a hugely important task and quite complex to deliver," he warns. "DECC has started some big stuff with the green deal



There is strong support for GHG reporting among the business community. But the government refuses to make a decision

and electricity market reform," acknowledges Young. "It has bitten off quite a lot, and there is a question mark at the moment as to whether it can actually 'chew' all of that and deliver!"

Young considers the failure to make progress on areas such as GHG reporting to be the result of the lack of influence wielded in government by the core environment departments, Defra and DECC. "I have most contact with Defra and the issue has always been that the environment department lacks influence," he claims. "That's not down to lack of commitment from Defra ministers, just where the environment department sits in the government hierarchy."

"Like DECC, Defra has a lot on its plate, but it's hard to see these departments influencing the overall government agenda. And, while they are failing to sufficiently influence government, there is a feeling that other departments' attention is drifting away from the green agenda."

Young sees the recent misleading media reports that rising energy prices are wholly due to environmental levies as a sign that DECC and Defra are losing the battle to put the environment at the heart of government. "There is now a fairly widespread view





The benchmark of being the greenest government ever isn't very hard to achieve. We have never had a very green government in the UK

that the main reason energy prices are rising is because the UK is investing in 'expensive' renewable energy, when, in reality, the increases are due to climbing fossil fuel prices," he says. "There is a similar issue with some of the government procurement processes, where short-termism is taking precedence and, as a result, poor decisions are being made. That's where the environment loses out. There just isn't a strong enough voice. I think the agenda has suffered quite a lot from the lack of attention by DECC and Defra."

"I agree with Peter; you've only got DECC and Defra really championing the environment in government, and it isn't enough," Yeo says. He acknowledges that DECC, for instance, is less influential than it should be, which, following the change of secretary of state – Ed Davey replaced Chris Huhne in February – is a situation that is likely to get worse. "DECC is a small, new and relatively weak department," declares Yeo, "and was very unfortunate recently to have to change its secretary of state."

"Ed Davey has come in and, as the newest member of the cabinet, is going to find it very difficult. There are a lot of big decisions pending and there is a sense that DECC is now behind on the agenda: the Energy Bill has

yet to be published and we're still awaiting clarity on electricity market reform."

Yeo also concedes that the environment is not a top priority for the transport, communities and local government or business departments, for example. But he notes that some senior government ministers and other departments are focused on green issues.

"Oliver Letwin, who has a sort of cross-government role [he is Cabinet Office minister responsible for coordinating government policy], is quite focused on the green agenda; he understands it and is influential in government, so is helpful," says Yeo. "Perhaps surprisingly, the Foreign Office is also doing stuff. John Ashton, the foreign secretary's special representative for climate change, is very clear that, under [secretary of state] William Hague, the Foreign Office's commitment to green issues has actually strengthened. That is really encouraging."

### Power struggle

Yeo believes that the lack of delivery so far on the environment is partly down to the government's determination to reduce the budget deficit, which is preventing it from taking some decisions that would encourage the transition to a low-carbon economy. He would like to see the chancellor and the Treasury adopt a more long-term approach, rather than just engage in firefighting.

"The economies that will be really well placed in the 2020s will be the ones that decarbonise their infrastructure. The investments to achieve a low-carbon electricity and transport system and built environment need to be made now, not in the next decade. Countries that invest now in low-carbon technologies will be at an enormous advantage," he explains.



## ABOUT THE PARTICIPANTS

**Tim Yeo** has been Conservative MP for South Suffolk since 1983 and was minister for the countryside and environment in the last Conservative government. He is also chair of the energy and climate change committee.

**Peter Young** is strategy director at consultants SKM Enviros and chair of the environmental business body the Aldersgate Group. He is also a member of the green economy council, established in February 2011 to ensure the government and industry work together to support the transition to a green, low-carbon economy.

"If the Treasury is looking ahead," Yeo goes on, "it would accept that argument. You can see why the Treasury's focus is on the deficit, and that's only right; but it shouldn't ignore long-term success."

Young agrees, and fears recent comments by George Osborne will undermine investment. "The deficit is not an excuse for the chancellor's argument that we should go no faster on reducing emissions than our competitors," he comments. "The irony is that, while the Treasury sees everything in terms of deficit reduction and cutting back, the private sector has money to invest."

"What investors need is the right kind of noises coming out of the Treasury so they can have confidence that they can put money into long-term investments that do not provide an immediate return. They're not looking for a quick buck. But they want the surety that there will be returns in five or 10 years' time. There isn't the understanding of the impact a few misconceived

remarks can have. It's not that the chancellor is actively campaigning against the green agenda, but that a few ill-chosen words can have a massive adverse affect. The cost of capital, according to green investors, went up several base points after the chancellor's speech to the Conservative party conference last year."

### The benchmark

Given the mixed performance in 2012, do Yeo and Young believe the coalition will meet its pledge to be the greenest government ever?

"I do think the benchmark of being the greenest government ever is not very hard, as we've never had a very green government in the UK," remarks Yeo. "Tony Blair talked a great game but didn't deliver very much. So, in a sense, this government can claim to be the greenest one even if it doesn't do a great deal. And, to be fair, after only two years my verdict would be 'not proven'. But there's a chance it might be."

The former environment minister fears, however, that powerful forces in the government may scupper progress. "There are some worrying signs. If you've got the most powerful department in Whitehall, the Treasury, not entirely convinced green issues should be top of the agenda, that's not helpful."

"The government needs to exercise more discipline over its rhetoric, because anything negative can have a deterrent effect on investors. On electricity alone we're going to be investing £200 billion over this decade, so a 1% increase in the cost of capital is £2 billion a year. That's an extra £160 a year on the electricity bill of a family of four. So a few careless speeches could cost every family in the country £3 a week."

Young agrees that the government will not have to work too hard to be considered the greenest, but he'd like to see the pace of progress increase. "The key point is that while the government will be greener than many past governments, it will not be as green as it needs to be," he comments. "The issue for me is around the pace of change. The prognosis for the long-term infrastructure is good – it's the short-term delivery that's the problem."

He also believes that any more poorly judged speeches could hinder investment in low-carbon technology. "Discipline of rhetoric is really, really important. Both capital and businesses are very mobile. One of Europe's, and the UK's, main strengths is that it has always been very stable. But with the current euro crisis, it is now looking less stable, so we'll have to try even harder to make sure some of our policies and regulations actually make us attractive."

Young would also like to see more support for the green agenda across the entire government, with environmental concerns not championed only by the environment departments. "One other thing about the greenest government issue is that it is a whole-government issue: you can't measure it by just looking at what Defra and DECC are doing," he warns.

"For me it is about what every single department does. Until that is addressed, the coalition will not achieve its goal, even though technically I think it will be the greenest government ever."



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# In praise of PVC

**Mark Everard** reports on how the European plastics industry has been cleaning up its act

**N**ecessity, as they say, is the mother of invention. Just as there is no one more eager to grasp a helping hand than a drowning man, so too there aren't any more eager to learn about sustainable development than those facing potentially ruinous consequences of unsustainability.

In 1999, at a meeting with senior representatives of the two polyvinyl chloride (PVC) manufacturing companies in the UK, I was asked whether PVC had a future. The industry had taken a battering from environmental groups and experienced negative media coverage, so the question was sincere. The companies could either make changes in how PVC was produced or they could invest in alternative materials.

The easy answer would have been to go with the momentum of the day and cease PVC production. But this would have been ignoring two rather important things. First, PVC is a widespread and versatile material with many beneficial applications. And, second, it was not clear that potential substitute materials were automatically more sustainable.

At the time I worked as a representative for the sustainable development charity The Natural Step (TNS) and we decided to work with the sector to improve its environmental performance using a TNS science-based tool to analyse issues and identify solutions.

## The challenges

It was possible to envisage PVC in a sustainable future provided five challenges were progressively addressed. These were that the industry:

- makes a long-term commitment to becoming carbon neutral;
- commits itself in the long term to a controlled-loop system of PVC waste management;
- ensures that releases of persistent organic substances from the whole life cycle do not result in systematic increases in concentration in nature;
- reviews the use of all additives consistent with attaining full sustainability; and
- raises awareness about sustainable development across the industry.

For a carbon-intensive industry, both in terms of material and energy inputs, and in a society where products were routinely disposed of rather than recovered for recycling, these challenges were massive. Add to this the fact that the PVC polymer may comprise as little as 50% by weight of some PVC applications, such as floor coverings, and it was clear that a whole complex of additives also had to be tackled along with supply chains. It is hardly surprising that the challenges were seen as daunting, and remain so even though significant progress is being made.

The TNS study coincided with development of a Europe-wide initiative setting a range of voluntary commitments looking ahead to 2010. This industry-led programme, Vinyl 2010, signed in March 2000 and covering companies in the pre-enlargement EU-15, contained many elements consistent with the challenges outlined by the TNS research.

## Into 2010

Vinyl 2010 was not cheap. Over its 10-year lifespan, investments under the initiative totalled more than €57 million, although investment in energy efficiency and large reductions in the potential for the generation of hazardous chemicals in the manufacturing process both had direct paybacks.

Other significant investments were made in creating the infrastructure and markets for controlled-loop recycling, including post-manufacturing and end-of-life take-back schemes under the Recovinyl, Vinyl Foundation and Roofcollect programmes, the Vinyloop and Texyloop processes, and the creation of new PVC product lines across the EU PVC converting industry.

By the completion of Vinyl 2010, many successes were recorded where targets had been exceeded, including:

- 72% in the EU-27, exceeding the 10-year target of 50% across the EU-15.
- All members of the European Council of Vinyl Manufacturers were subject to a final verification, achieving 94% compliance with industry charters.
- Continued research by the plasticiser industry, reflecting regulatory and market demand but also progress towards sustainability targets.
- Engagement of trade associations, representing makers of windows, pipes, roofing, flooring and PVC-coated fabrics, in tackling these challenges.
- Continuing dialogue with stakeholders, involving TNS to develop a successor sustainability initiative.
- Independent auditing and verification of outcomes by external third parties.

## Moving on

Some critics argue that Vinyl 2010 was a cynical move to avoid regulation. However, for many in the sector, addressing the challenges highlighted by the TNS and meeting the Vinyl 2010 commitments represented a genuine attempt to both make true progress with sustainable development and to profit from the process.

There is no conflict between these twin aspirations.

A commitment to sustainable development implies a clear strategic direction, not merely acting when driven by bottom-up regulation or bad PR, so as to anticipate likely future development of public concern, regulatory responses and market drivers. It is not merely about profitability in the short term, but

about anticipating future markets. Those industries and companies that achieve this in an increasingly sustainable way are investing in a more secure business and should enjoy sustained profitability.

The pursuit of clearly articulated, long-term sustainability targets and medium-term commitments has, undeniably, spurred industry-wide innovation and cooperation in ways that would not have occurred if its disparate players had simply waited for regulatory compulsions or market pressure.

The ambitious 10-year programme of commitments under Vinyl 2010 took the industry through to 2010, but is the job done? The five key TNS challenges relate to the longer-term future when the full conditions of sustainability, as defined by science-based TNS principles, have been fully met. The industry, at European level, has agreed on a new programme of commitments to take it forward through the next decade.

The new set of voluntary commitments, known as VinylPlus, was launched on 22 June 2011. It establishes a set of intermediate challenges to which the many players in the complex PVC supply chain have committed to address. These are:

- controlled-loop management;
- reduced organochlorine emissions;
- sustainable use of additives;
- sustainable energy use and climate stability; and
- sustainability awareness.

Targets under the strategy include recycling 800,000 tonnes of PVC annually by 2020; replacing lead

**More than 260,000 tonnes of post-consumer PVC waste was recycled by the European plastics industry in 2010 – 220,000 tonnes more than in 1999**

- Recycling of post-consumer PVC waste reached 260,842 tonnes in 2010, an increase of 220,000 tonnes on 1999 volumes and exceeding the 10-year target of 200,000 tonnes.
- Phase-out of cadmium stabilisers, completed in the EU-15 by 2001 and in the EU-27 by the end of 2007.
- Substitution of lead-based stabilisers running well ahead of schedule, with a total reduction of around

## PLASTIC PRODUCTS

As a relatively lightweight, strong and corrosion-resistant material, with excellent thermal and electrical insulation properties, and one that is very malleable and easily modified, plastic is increasingly used in a range of industries, including packaging, building and construction, transport, medical and health, electronics and agriculture.

Across Europe, 50% of goods are packaged in plastics, although it only accounts for 17% of all packaging weight. In 2010, the European building and construction sector consumed 9.54 million tonnes of plastics – 21% of total European plastics consumption – making it the second largest plastic application after packaging.

Plastic components are increasingly used by the automotive sector, as they typically weigh 50% less than similar components made from other materials. According to the EU plastics industry, for every kilogramme of weight reduction, a car will emit 20kg less CO<sub>2</sub> over its operating life.

Electrical goods such as flat-screen televisions are also common, as liquid crystalline plastics (LCD), for example, use 65% less power than ordinary screens with cathode ray tubes, while the use of plastics in the medical and health sector ranges from pill capsules and hearing aids, to orthopaedic devices and stitches.



additives across the EU-27 by 2015; and launching a VinylPlus label by the end of 2012.

### Going wider

In the 13 years since dialogue was initiated between TNS and the UK PVC industry, great changes have been seen. There is now only one UK manufacturer of PVC, subsuming the former two companies, and society is more literate about sustainable development. PVC has remained a target for some environmental campaigning groups; but it also promotes practical engagement with sustainable development challenges, which has resulted in the industry becoming a hotbed of innovation and learning.

Over the years it has become increasingly clear that the five testing sustainability challenges set by TNS for the PVC industry apply to pretty much all manufactured materials. Incautious manufacture or disposal of non-PVC materials is not automatically less likely to generate problems even if they do not contain chlorine. One of the reasons for this is that chlorine – from salt, animal and plant material and other natural and man-made sources, including as contaminants of sorted materials – is abundant in waste streams relative to the minute traces necessary for the formation of dioxins and other problematic substances. So, even in “clean” waste streams, chlorine is rarely, if ever, a limit to the formation of complex and persistent substances during uncontrolled combustion.

Like many other conflicts highlighted by the TNS sustainability challenges for PVC, the issue of generation of persistent organochlorine substances relates to the entire life cycle of these materials – specifically how they are used and disposed of by society and not simply the manufacturing processes that have become increasingly rigorously controlled.

Some persistence of substances is also being seen as an asset to sustainability rather than a liability. One example is durable water pipes and electricity conduits, which may have a 100-year design life and which can then be recovered for recycling for further life cycles to provide significant material efficiency, an important benefit in a resource-constrained future. Such longevity also addresses issues associated with the waste arising from, and disruption caused by, the replacement of shorter-lived and potentially less recoverable materials, such as ductile iron water pipes.

The same is true in many long-life construction applications such as window frames, in which PVC averts the need for periodic application of potentially harmful and labour-intensive paints or other preservatives during life. Equally, the use of persistent substances in some short-lived applications may be wasteful as well as potentially contributing to sustainability concerns

if waste separation and recovery is impossible. Industry is more discerning today about the contribution of durable materials, as long as other sustainability challenges such as recovery are addressed.

We also live in an increasingly globalised world. This means that some of the PVC in products consumed in Europe may not be manufactured where VinylPlus operates. Users therefore need to be mindful of the provenance of PVC in products, regardless of requirements under the EU REACH Regulation (1907/2007) pertaining to some substances in imported products. Branding and product differentiation is important, recognising the potentially very different

**Labelling one material uniformly bad, while another is automatically seen as good, without examining their full life-cycle impacts, is not the way forward**

sustainability “footprints” of sources of PVC (or other materials) that may ostensibly seem similar but actually arise through different processes.

### The journey continues

Labelling one material uniformly bad, while another is automatically seen as good, without examining their full life-cycle impacts, is not the way forward. The UK and the European PVC industry today is a different beast from that which existed in 1999, although far from perfect. Its constituent players are as heterogeneous as in any other industry, but they are making progress and, in many instances, are far more pioneering.

The holy grail of full sustainability remains far distant in a world of burgeoning populations, declining resources and few easy answers. PVC may not top a list of environment-friendly industries, nor is it likely to do so any time soon, but it has certainly grappled with some daunting challenges and made tangible progress. It has also set future commitments in advance of regulatory requirements, and openly acknowledges the continuing challenges on the path ahead.

**Dr Mark Everard** is visiting research fellow at the University of the West of England and author of a number of books, including *Common ground: The sharing of land and landscapes for sustainability*.



# Catching the rays

Southampton City Council has installed more than 700 solar panels to its buildings as it seeks to reduce energy costs and cut carbon



**K**arl Limbert, director for infrastructure and strategy, makes it clear that Southampton City Council is a progressive organisation and sustainability is high up on its agenda. “We want to lead by example in the community,” he says. His statement is backed up in practice by the range of sustainable technology projects the council has initiated to generate renewable energy, reduce CO<sub>2</sub> emissions and save money on fuel bills.

Southampton was, for example, the first council in the country to develop an industrial-scale geothermal plant, in 1986, and, together with energy produced by the local authority’s CHP (combined heat and power) scheme, around 40 buildings now benefit from this form of renewable technology. More than a quarter of Southampton’s 80-plus schools tap into some form of renewable energy and the council will soon be leading the way by powering every street light in its communities through energy-saving LED lighting.

## Here comes the sun

The council’s most recent sustainable technology project involved the roll-out of solar photovoltaic (PV) panels on schools and other council-owned buildings across the city, including the civic centre, a grade II listed building.

The project has been a great success, but has not been without significant challenges – the main one being the uncertainty surrounding the government’s feed-in tariff (FIT) scheme and the sudden bringing forward of the deadline for registration under the FIT (see panel, p.30). This meant that the council and its solar supplier had to move project milestones at the last minute and there was a race against the clock to install the solar panels before the new 3 March deadline to receive the higher tariff rate for the next 25 years.

Although the FIT scheme was a key impetus for the council’s solar PV ambitions, it was not the only one. Southampton City Council had already embraced the former Labour government’s sustainable schools initiative and, from 2009, seven schools under the local authority’s control were fitted with solar panels as part of the Low Carbon Buildings Programme. The FIT scheme was viewed by the council as an opportunity to extend solar PV technology on a wider basis across the city.

The council was clear from the start that it did not want to be involved in any “rent-a-roof” schemes, whereby the installation company typically pays for the panels to be fitted and maintained, and the connection charges – and picks up the FITs and any income generated from exporting electricity to the national grid. As Limbert says: “The council wanted to be the investor and we felt we were able to manage the technical and financial risks involved in procuring and installing the panels in time to receive the FITs.”

## Scoping the project

A dedicated team – led by Ian Davies, project manager, energy and heating – started scoping out the solar PV venture in early 2011, deliberately spending a great deal of time on this early research phase, to ensure that the later procurement and installation phases ran smoothly. Limbert says that it is the type of resources, rather than the number, that





is crucial to running this type of project effectively. In addition to having an experienced project manager to lead, the team worked closely with its existing external strategic partner, Capita, on most of the technical aspects of the project, as well as key council functions, such as planning, legal and procurement.

The initial phase included undertaking feasibility studies to identify suitable buildings for solar PV installation. The council and Capita worked together to carry out detailed structural surveys of the roofs and a range of other pre-installation work, including orientation of the roof to the sun, and mechanical and electrical, health and safety, and asbestos-related surveys. Accurate studies had to be completed on how much additional weight each roof could potentially withstand – for example, if it snowed – and a number of other elements also had to be factored in, such as the effect of the wind on a roof fitted with solar panels.

A number of schools and housing blocks were eliminated from the programme at this early stage, although some buildings were included until very late in the project plan and a decision taken at the 11th hour to remove them from the programme. For example, the adaptations needed for one school would have been too extensive to justify fitting the panels. And on one housing block the roof would have needed replacing in five years, rendering it unsuitable for this particular programme.

The final portfolio of buildings was deliberately diverse and covered eight schools, one housing block and the civic centre.

#### Procuring a supplier

Seventy-four requests for prequalification questionnaires were received by the council from companies showing an interest in tendering for the contract to be its solar supplier. Thirty-four were completed and the council whittled these companies down further to a short list of five, measured against the following three key criteria:

- **price** – overall cost of installation and maintenance;
- **programme** – the completion of the installation was timebound, given the changes to the FIT scheme and the cut-off dates for registration; and
- **quality** – the performance and efficiency of the solar panels.

Both Limbert and Davies were familiar with the renewable-technology field, but they had to very quickly acquire, alongside their technical partner Capita, a detailed understanding of the solar PV market and the different types of panel on offer – and their expected yield – to make informed decisions about the third criterion on the procurement list.

The quality and cost of panels cover a wide spectrum, they discovered. The council started the procurement process in July 2011 and, even though it followed an accelerated procurement process in line with EU legislation, the contract winner, Solarcentury, was not announced until November 2011.

Just before this decision, however, the government announced that the FITs cut-off date would be brought forward to 11 December 2011. This meant that the council had to renegotiate the terms of the contract at a crucial point in the procurement process. Inevitably, some potential



Bringing forward the  
FIT cut-off date  
meant the council  
had to renegotiate  
contracts with  
suppliers





## FEED-IN TARIFF SCHEME

Introduced in April 2010, the government's feed-in tariff (FIT) scheme aims to encourage deployment of small-scale (less than 5MW) low-carbon electricity generation. Homeowners and businesses can be paid a FIT for both the generation of electricity and for supplying unused generated electricity back to the national grid.

The FIT scheme was a key impetus for Southampton City Council's solar PV installations, but, less than a year into the scheme, the government announced that support for larger-scale PV installations (over 50kW) would be reduced. Then, in October 2011, DECC proposed further cuts of 32%–55% to the incentives for installations over 250kW, effective from 12 December 2011. However, campaign group Friends of the Earth and two solar companies (Solarcentury and HomeSun) mounted a successful legal challenge to the timing of the cuts, which would have come into effect before the end of the government's consultation.

Before DECC's announcement, it was believed that any changes to the rate of FITs would only apply on or after 1 April 2012. Although the High Court judgment – affirmed by the Supreme Court – meant that the government could not make the change effective from 12 December, the cut-off date for organisations to receive the higher tariff for the full 25 years was moved to 3 March 2012.

suppliers could not meet the revised, shorter timescale for fitting the panels and had to drop out.

### Installation: the "easy" bit

Davies says that the work to install the solar panels began "before the ink was dry on the contracts" and, compared with the lengthy planning and procurement processes, the installation itself was relatively quick and straightforward.

The work on four schools was completed within four weeks (before the 12 December deadline), for example, and the fitting of the panels on a secondary school was deliberately arranged to coincide with a school holiday so as to cause minimum disruption.

Fitting solar panels to the civic centre, a grade II listed building, which opened in 1932, was more complex. But even in this case the complications were more with the planning side of the project than with the installation itself. The technical aspects of the work were not that different to fitting panels on a flat school roof, says Davies. The building had 24kWp (peak) PV panels fitted – or 130 panels at 190-watt electricity load each.

"It was always the council's desire to try and fit the civic centre with solar PV if possible – situated in the middle of the city, the building is an important

landmark for the council and a very visible example of its commitment to sustainable technology," says Limbert.

Although the installation phase of the solar panels is complete, the work on the project is far from over and won't be for the next quarter of a century. The next stage, which involves setting up the monitoring and data systems to record the amount of solar energy produced, has already started. Recording the yield from the panels and submitting quarterly readings is a prerequisite for receiving the feed-in tariff revenue from the government. This will be taken care of in-house by the council.

### The return on investment

The cost of fitting solar panels to all the sites was estimated at around £700,000, although the council has not spent the full amount yet, given that the programme was subject to some turbulence, not least because of the unexpected changes to the FIT scheme.

To date, 730 solar PV panels (172kWp) were fitted during this installation programme, which is projected to save more than 100 tonnes of CO<sub>2</sub> and generate FIT and export payments in excess of £55,000 each year – £1.4 million over the next quarter of a century. This income will be in addition to savings of more than £800,000 in energy costs alone over the next 25 years. This is well worth the investment, says Limbert.

"We need security of energy supply and that means moving away from reliance on fossil fuels, so this is a long-term strategy – the cost of not doing anything to develop renewable energy sources is much greater than our investment on this project," he comments.

The most significant challenge for the council on its solar PV project was, undoubtedly, the government continually moving the goalposts when it came to the cut-off dates for the FITs.

The period where the council had already produced draft contracts and then had to renegotiate them was, says Limbert, "ridiculously difficult – you can't run a project effectively when the rules change halfway through, and it meant that the companies weren't bidding for the contract that they thought they were."

In his view, the strict rules governing public sector procurement also need to be taken into account in schemes like this, and sufficient time allowed for public sector organisations to plan and see any projects through to completion.

One of the key learning points for other organisations planning a similar project is to spend a lot of time upfront scoping out the work and evaluating the pros and cons of different courses of action, says Davies.

"We invested a lot of time and money in carrying out the preparatory work – but we were very glad we did as it saved us a lot more time and money further down the line," adds Limbert.

The current project at Southampton City Council is now complete, and considered a success, although the authority's future plans for solar PV will depend partly on what happens to the FIT scheme. The council's renewable-energy plans do not rely solely on solar PV, however, and it already has plans to develop other sustainable technologies for its offices and communities.

# A new dawn for planning?

Stephen Tromans finds the final NPPF better than the draft, but says that questions remain



**Stephen Tromans**  
QC, 39 Essex  
Street

**T**he new national planning policy framework (NPPF) for England has been published, and follows considerable adverse comment by environment groups about the draft that appeared last year. The NPPF replaces 44 existing policy documents and will necessitate the review and possible revision of existing development plans to take into account the policies in the framework.

As with the draft version, the achievement of sustainable development (SD) is central to the NPPF, but at least some attempt has now been made to define that concept by reference to the five “guiding principles” in the UK sustainable development strategy.

Understanding what is meant by SD is important because, like the draft version, the NPPF retains the presumption in favour of sustainable development. However, it does not seek to make clear how the five guiding principles are relevant. Rather, it sets out what is regarded as SD first by reference to 12 “core planning principles” (para. 17) and then under a series of 13 topic headings, such as “building a strong, competitive economy” and “meeting the challenge of climate change, flooding and coastal change”.

A major concern of critics of the draft NPPF was that its tenor favoured economic growth over other aspects of SD. The final NPPF makes it clear that the three “dimensions” of sustainable development (economic, social and environmental) are each reflected in roles of the planning system, which are not to be undertaken in isolation, as they are mutually dependent. It also makes it clear that pursuing SD involves seeking positive improvements in the quality of the built, natural and historic environment, as well as in people’s quality of life.

It will be for local planning authorities to work out what that means in practice, but plans should meet objectively assessed needs for development unless adverse impacts would “significantly and demonstrably” outweigh the benefits, or where specific policies in the NPPF indicate development should be restricted.

The main restrictive policies are those relating to the green belt, possible flood risk, the reuse of previously developed brownfield land, the conservation of biodiversity, landscape and scenic beauty in designated areas, conservation of the historic environment, and the avoidance of unacceptable pollution risks.

The “default yes” to development, which was so controversial in the draft NPPF, is therefore still present but is qualified and weakened. The default setting is positive and proactive, in that “local planning authorities should look for solutions rather than problems” (para. 187). It is also clear that local planning authorities are going to have to ensure not only a five-year supply of specific deliverable sites for new housing but also an additional buffer of 5% to ensure choice and competition in the market – rising to 20% where there has been “a record of persistent under delivery of housing”.

The emphasis on neighbourhood planning means the NPPF is intended to be consistent with the Localism Act 2011. Although neighbourhood plans will have to be aligned with the strategic needs and priorities of the area and should not promote less development than set out in the local plan, neighbourhood plans are intended to have the ability to shape and direct sustainable development – and indeed will take priority over non-strategic policies in the local plan (para. 185).

Another example of possible localism in action is the “local green space” designation, under which local communities will be able to rule out development other than in very special circumstances. The government is no doubt mindful that this could be a powerful tool for local resistance to development, and therefore the NPPF emphasises that such designation should only be used where specific criteria (para. 77) are met, and “will not be appropriate for most green areas or open space”.

The NPPF will not mark an end to dissension between those favouring development and those who would prefer their locality to remain as it is. Indeed, during the transitional 12 months allowed for local authorities to get their houses in order in terms of local plans that are consistent with the NPPF, there is likely to be much argument over the weight to be given to the existing plan in cases where there is a “limited degree of conflict” with the NPPF (para. 214).

Another major question mark is how well and how effectively neighbouring local planning authorities will cooperate in matters such as planning for biodiversity across local authority boundaries (para. 117) and identifying suitable areas for renewable and low-carbon energy development, such as wind farms (para. 97).

# Power supply

Voltage management can help to cut energy consumption if applied correctly. **Sarah-Jayne Russell** investigates

**I**n the past decade, voltage management has gone from an unknown quantity to a burgeoning part of the energy-efficiency market, with firms offering technologies to “reduce”, “regulate”, “stabilise”, “condition” and “optimise” electricity input. But what do these terms mean and how does the technology behind them cut energy use?

## Back to basics

While most energy-efficiency measures take effect at the point of demand, through light-emitting diode (LED) lighting, for example, voltage management is about controlling the electricity supply before it reaches electrical equipment.

Electricity is billed in kilowatt hours (kWh) – power (kW) × time (h) = energy (kWh). In this equation, power represents the amount of electricity being supplied, or the current. Voltage refers to how the current is supplied. To use a common analogy: if the electrical circuit were a series of pipes, the current would be the amount of water in the pipes and the voltage is the pressure pushing the water through the pipes.

Basically, voltage management technologies are transformers lowering the voltage of the electricity supplied to a building. This reduces the amount of energy being consumed because much of the electrical equipment used in the UK can operate at a lower voltage than it is being supplied with. Under EU legislation introduced in 1995, member states must supply electricity through their national grids at 230 volts (V), give or take 10%. Historically,

however, the UK required the supply to be 240V (+/- 6%) and the voltage remains much higher than in other EU countries. So, while counterparts on the Continent are receiving electricity at 220–230V, in the UK the average rate is 242V. Manufacturers, therefore, design their products to operate when supplied with 10V or 20V less than they receive in the UK. Furthermore, most equipment does not use this extra energy to operate, but gets rid of it through heat or vibration.

## A variety of options

Installation of voltage management technologies is relatively simple. They are units installed where the mains power supply enters a building, before the distribution board. For large properties, such as hospitals, there can be more than one point of supply and units need to be installed at each. The building's size and the amount of electricity being supplied also impact on the complexity of the unit; however, once built it generally takes two or three days to set up a unit, with the electricity switched off for no more than a couple of hours. For organisations with critical demand needs, such as medical equipment, generators can be brought in to cover the installation period.

There are a number of technologies on the market, falling into three levels of sophistication. At the most basic level are voltage reduction units. These units cut the voltage of supply at a specified level, for example 20V. This is fine if your mains supply remains constant, but electricity from the grid often fluctuates. If, for example, the mains supply drops to 210V it will cut supply to the building to 190V, which could leave equipment struggling to operate if the unit cannot be bypassed.

More sophisticated “stabilisation” and “regulation” technologies counteract this problem by monitoring the incoming mains power and automatically bypassing the unit if the voltage drops below a certain level. This technology can also smooth out any sudden spikes and drops in supply (or transience). Jeremy Dodge, head of marketing and technical services at cable trunking manufacturer and energy management firm Marshall Tufflex, explains: “Our main manufacturing plant is full of machines that are very sensitive to changes in power supply. When a supermarket was built between us and the mains supply, we were getting power dips that would knock out our machines.

“After installing our Voltis units, we don't have the same problem. The units detect if there's a voltage dip or spike and will switch between mains power or voltage saving mode. They connect with one supply before disconnecting with the other, allowing a seamless switchover, so our machines don't react.”

The most sophisticated technologies “condition” the supply as well as reducing the voltage





and smoothing out peaks and troughs. Electricity is delivered on a sine wave, which can be distorted as it is transported along the grid. Conditioning technologies help to suppress the distortion or “harmonics”. Angus Robertson, chief executive of powerPerfector, explains: “If you don’t have a clean sine wave, it’s a bit like putting dirty petrol in your car; your equipment doesn’t work as efficiently and uses more power.”

For big electricity users such as hospitals, supermarkets and manufacturers, voltage management offers a quick way of reducing electricity use. Robertson confirms: “The more power you use the more benefit you will get. Tesco, for example, is saving £16 million a year. That’s a huge financial and CO<sub>2</sub> saving.” However, he advises: “Unless an organisation is really committed to investing in the technology for CO<sub>2</sub> reduction, the returns on investment start coming in at £20,000.”

While payback times vary depending on the type of building and the amount of electricity consumed, installers can achieve a 33% return on investment, according to Robertson. With users’ electricity bills cut by 10% on average, supermarkets can see payback in as little as 18 months, with other large commercial buildings achieving payback in three to four years.

#### Know your load

The cost and CO<sub>2</sub> savings voltage management offers are dependent on the type of electronic equipment

installed. For example, while buildings with incandescent lighting will see a marked difference in the electricity consumed, the same is not true of those with LED lights, which have the same power demand regardless of the voltage supplied. It’s a similar story with electric motors, with savings not possible from those with variable speed drives. With many IT technologies too, the savings can be negligible.

For any firm considering voltage management it is important to analyse the technology being used in the building and electricity consumption patterns. An analysis of half-hourly data, from at least the previous year, should be undertaken and for those without an in-house expert it is best to get independent advice on the savings to be expected. Reputable voltage management firms will analyse your load and estimate the savings possible, with some offering performance guarantees. However, you should have an agreed measurement verification protocol in place to ensure the proposed savings are statistically sound.

Another important consideration is your firm’s wider energy-efficiency plans. If, for example, you are considering replacing incandescent lighting with LEDs, then that will impact the savings possible through voltage management. To avoid creating a situation where you are robbing Peter to pay Paul, it is important to understand the interaction between all of the energy control measures you are putting in place.

## the environmentalist

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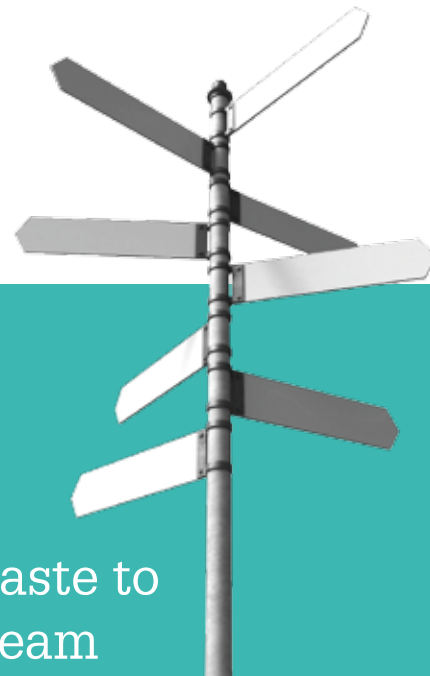
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# Turning trash into treasure

Andrew Maguire reveals how he cut waste to landfill and created a £250k revenue stream



Andrew Maguire  
MIEMA

**R**ealising our waste isn't actually waste, but another firm's raw material, has been the real key to the successes I've had in helping my company, Kepak Convenience Foods, redirect hundreds of tonnes of waste from landfill each year.

While you may not recognise the name Kepak, you will have definitely seen the convenience foods we make in your local supermarket. Each week the Lancashire plant where I work produces the equivalent of two million burgers, wraps and panini, under the brand names of Rustlers, Zugo's and Big Als.

As the company's health, safety and environment manager, I've got a few hats to wear. Alongside managing the site's compliance to our pollution prevention and control permit and our integrated food safety, health and environment management system, I'm also at the forefront of our sustainability efforts.

## Waste not, want not

For the past four years, much of my focus has been on how we reduce the amount of waste we send to landfill. As a rapidly expanding company, keen to lessen our environmental impacts, and with the costs of landfilling increasing to £80,000 a year, improving our recycling rates and avoiding waste creation has become a priority.

One of the first areas to consider was, of course, food waste. While meat products can't go to landfill, we were still sending a significant tonnage of other foods, such as bread and cheese. Now, all this waste is composted, creating financial savings and a better environmental outcome. Another food waste that has become lucrative for us is the fat left over from cooking burgers and a fatty sludge recovered in our on-site water treatment plant. These fats are now made into biodiesel, and that is liquid gold, contributing significantly to the £250,000 a year we now make from diverted waste streams.

While we have been fortunate that revenues for some waste have gone up significantly in recent years, in other areas we've had to push hard to find new ways of dealing with waste. We already recycled cardboard and some plastic, but a lot was still going to landfill. The main challenge has been finding the technology needed to deal with mixed plastic; however, things are improving and what wasn't financially or technically viable a few years ago is now becoming available.

Networking through organisations such as the National Industrial Symbiosis Programme and working

with organisations like Envirowise (now part of Wrap), has been really important in helping us keep a close eye on technological developments and in finding companies that could take our waste.

## The journey

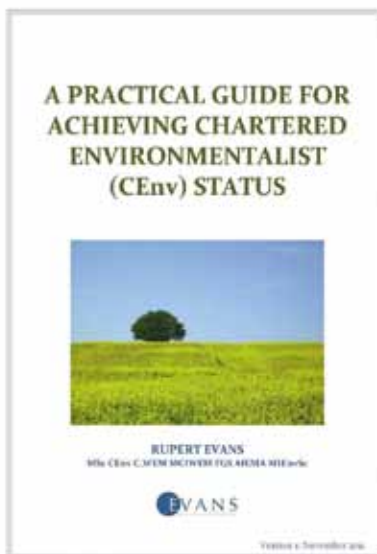
It's been a long journey, which is still not over, but working with waste contractors and our suppliers has helped us to improve disposal rates considerably. Our successes include finding a firm to take the laminate plastic waste from packing trimmings, which has taken 10 tonnes a month out of landfill.

We've also switched from single-use cardboard packaging for meat products during the production process to a multi-use alternative, a suggestion that came from the shop floor. After trials to ensure the new packaging wasn't going to fall apart after we used it twice we made the switch, reducing waste and, despite the packaging being more expensive, creating a £100,000 cost saving.

Getting our staff onside has been crucial in enabling us to turn waste from a cost into a saving. As well as being a source of ideas, our operators are the linchpin in ensuring our waste is of good enough quality to become a revenue stream. Just as we would reject materials from a supplier if they weren't right, our waste contractors will not pay for contaminated recyclate.

Much of the plastic we recycle comes from the bags our bread buns come in. In the early days, we had issues with the contamination of sesame seeds, where workers weren't shaking out the bags properly. The key to overcoming such problems has been in engaging all 400 of our staff with the idea that waste isn't rubbish, it's a by-product. It's taken a couple years to embed this in the culture, but now every new employee, on their first day, is given a lot of environmental information, including the importance of avoiding contamination of waste.

Our next step is to become zero-waste to landfill – something we aim to do by the end of 2012 – by sending our remaining waste to an energy-from-waste plant. However, we still have a lot of plastic waste that we would rather recycle because that's the better option for the environment. So, we will continue to look for new developments and new partners. Waste management is a constantly moving field and the technology out there now is completely different from what was available a decade ago. In another five years, who knows what we will be able to recycle?

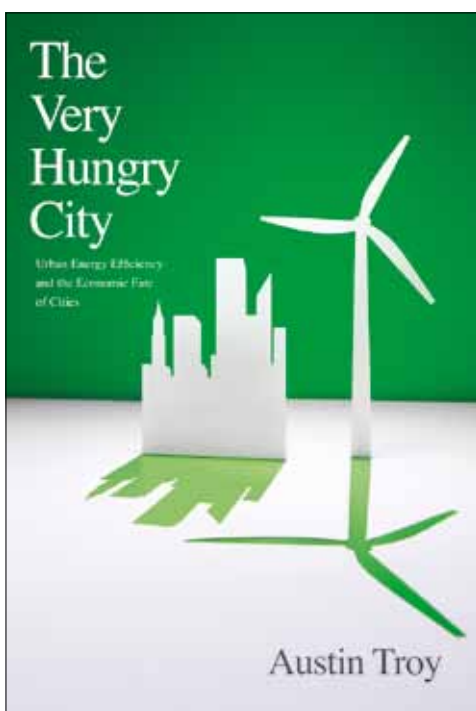


### ***A practical guide for achieving Chartered environmentalist status***

Rupert Evans / Kindle edition (file size: 350KB) / £4.14 / ASIN: B006913KVA

**BOOK** There are many ways to become a Chartered environmentalist (CEnv) via an array of “environmental” institutions, including IEMA, that are licensed to award CEnv status by the Society for the Environment. This is a guide through the application process provided by the Chartered Institution of Water and Environmental Management (CIWEM). The e-book is a very easy read and it is a cross between a manual and a self-help guide. At the same time the author’s enthusiasm for the environmental profession shines through. For those with no colleagues who have gone through the CEnv process to help them, this is an ideal overview to accompany the application guides the respective institutes and institutions provide. I reviewed this publication on a Kindle and while the book was presented well, the small text on the diagrams and some of the tables were virtually unreadable. This is not a criticism of the author but of the way diagrams are loaded as pictures and then cannot be made bigger, as they might be able to be on other e-reading devices such as in an iPad. Evans has identified this issue and does reference them so that a reader can overcome the problem by accessing various websites. In conclusion: this is excellent, essential reading for the would-be CEnv – via any application route.

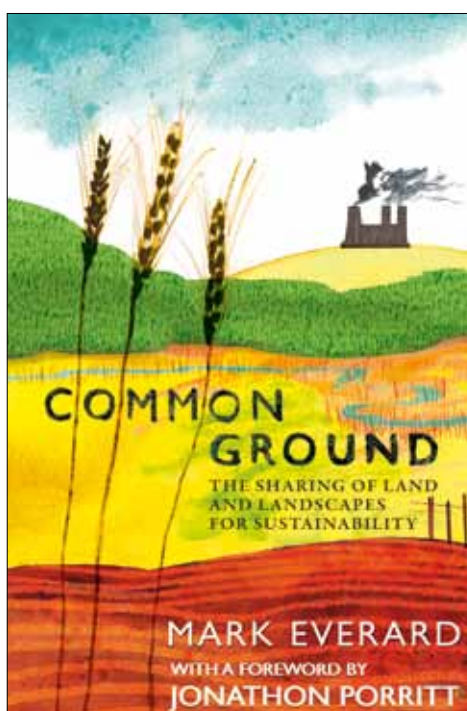
Review by Andrew Fletcher CEnv



### ***The very hungry city – urban energy efficiency and the economic fate of cities***

Austin Troy / Yale University Press / Hardback £25 / ISBN: 978-0-300162-31-8

**BOOK** Did you know that the average American uses six times more electricity than a European, 13 times more than a South American, 36 times more than someone in China, and 238 times more than a Tanzanian person? Furthermore, 88% of US citizens commute to work by car, and 87% of these journeys are made alone. Yes, America is an energy-guzzling country and the cost of that energy keeps on rising. In this book, Austin Troy, an associate professor of environment and natural resources at the University of Vermont, paints a picture of the energy-inefficient American society and what might happen to some of its great cities should energy costs spiral out of control. Can Phoenix Arizona, for example, survive as the cost of pumping its water supply over mountains rises? Troy looks for answers elsewhere to find examples that show how US cities can be weaned off their dependence on costly energy. He discovers that in Copenhagen, 90% of residents own a bicycle and only 53% own a car, while Stockholm is designed around mass transit. He doesn’t offer any silver bullets, but he does discover some interesting solutions to problems that in the future will, inevitably, affect more than just those living across the pond.



### ***Common ground – the sharing of land and landscapes for sustainability***

Mark Everard / Zed Books /  
Paperback £18.99 /  
ISBN: 978-1-84813-962-6

**BOOK** A regular contributor to *the environmentalist* and author of the opening chapters of *The IEMA handbook*, Dr Mark Everard in his latest fascinating book examines humanity’s relationship with the land. With an insightful introduction about how humans have historically considered land – colonising, buying and exploiting it, particularly in the West – Everard’s book details the shifts in societies’ attitudes towards their landscape and gives context to the increasing awareness of ecosystems services and their value. Everard discusses the urgent need to shift to more sustainable lifestyles, and how this can be accomplished, punctuating his book with examples from across the globe of initiatives aimed at protecting land and ecosystems. He highlights in particular the challenges in ensuring adequate food supplies in future and how we must move away from our historic perceptions of land to create “living landscapes” capable of supporting us. Alongside new market frameworks to account better for our impacts on the land, Everard also explores the moral and spiritual imperatives for placing greater value on Mother Earth.



## Developing EIA: one year on

### Forum to celebrate first anniversary of launch of Institute's EIA Quality Mark

**QMark** A forum entitled "Developing EIA: the Quality Mark one year on" was held on 17 April in London and featured presentations from Environ, RPS, Savills, SLR Consulting and Temple Group.

Chaired by Peter Cole of the London Borough of Tower Hamlets, more than 80 members, including some from the 43 Quality Mark registrants heard presentations on a range of environmental impact assessment (EIA) related topics, including mitigating measures for environment statements, renewable energy in planning and the Rochdale Envelope approach to pre-planning. The event also included a remote presentation from IEMA's policy and practice lead for EIA, Josh Fothergill, who provided an update on the review of the EIA Directive.

A lively question and answer session added an extra dimension to the day and resulted in the formation of a working group to develop and write an e-Briefing on considering iterative design in environment statements, which will be available to IEMA members later in 2012.

IEMA would like to thank K&L Gates LLP for the kind use of its venue at One

New Change, which made hosting this event possible, as well as the time donated by the five speakers and the chair.

As the event marked the one-year anniversary of the Quality Mark, it served as a timely reminder of what the scheme has delivered for the wider IEMA membership. Since April 2011, the library of non-technical summaries, articles, case studies, presentations and webinars has consistently grown. There are now hundreds of useful downloads available ([iema.net/qmark](http://iema.net/qmark)). As the scheme's commitments require registrants to regularly provide materials and information for the benefit of IEMA members, this resource hub will continue to expand and become ever more useful.

Fothergill is delighted with what the EIA Quality Mark now offers.

"When the initiative was first launched we knew that it would enable EIA professionals to communicate what they were doing to other members," he says. "But the EIA Quality Mark has become much more than that and April's event really demonstrated how rich and dynamic the scheme is."

#### Short cut

### GHG accounting for green power

How organisations account for grid-delivered "green" electricity in their greenhouse-gas (GHG) footprints can prove contentious. Opposing views exist, with some choosing not to follow UK guidance. So what is this disagreement about and what, if anything, should be done? IEMA's Nick Blyth explores the opposing views on accounting for GHG emissions from renewable electricity at [environmentalstonline.com](http://environmentalstonline.com). He notes that UK guidance states that all purchased electricity supplied via the national grid should be accounted for in an organisation's GHG footprint by using a grid-average-emission factor. The same applies for any electricity sold as generated from UK-based renewable sources. Some critics, however, favour the use of lower or zero-carbon emission factors, stating this would ultimately contribute demand-side funding for UK-based renewably generated electricity. Others suggest that emission factors should simply be attributed to identified generation sources. To read more go to [lexisurl.com/iema12472](http://lexisurl.com/iema12472).

## Progress on the skills map

**Development** The project to develop the layers and usability of the IEMA environmental skills map is continuing, with a series of introductory webinars and research events.

The first webinar to introduce the skills map project was held on 3 April. Hosted by project officer Tara Cox, close to 50 delegates attended the webinar, with many following up with interesting comments and questions.

A workshop was subsequently held on 17 May, which carried out a needs analysis of volunteer stakeholders, to determine the usability of the map and practical steps individuals and organisations have taken to embed it.

This analysis will be used to ensure IEMA continues to offer the correct information and support into the future. A follow-up webinar will be held in

the coming weeks to finalise the needs analysis and demonstrate to the volunteers what will be happening next.

We are still seeking more members who are willing to be interviewed about their knowledge and skills as part of the research element of this project.

Members do not need to have particular experience or knowledge of the skills map to be an eligible interviewee or to take part in the webinars. We want to hear from members of all levels of environmental knowledge, understanding, experience, familiarity with the map and membership types. Minimal time is required to participate and any contact will be timed around when you are available.

If you are interested in contributing to the further development of the skills map, please contact Tara Cox at [t.cox@iema.net](mailto:t.cox@iema.net) or call +44 (0)1522 540069.

## NEW MEMBERS

IEMA would like to congratulate the following individuals on achieving Full and Dual membership.

### Full (MIEMA)

Stephen Clark, DS Smith  
Mairi Dorward, BP  
Sharon Harley, Interserve Project  
Claire Kirk, IEMA  
Elizabeth Lambert, Cardiff Council  
Mary Lisk, Shetland Island Council  
Donna Murphy, Groundwork  
George Royston-Bishop, Sellafeld  
John Willmott-French, Runnymede Borough Council

### Dual (MIEMA and CEnv)

Christopher Esbester, BAE Systems  
Fiona Nicholls, Sustainable Change Co-operative

## Sustain-affinity webinars

**Communication** IEMA is supporting and collaborating with a forward-thinking communications organisation to deliver a series of sustainability-focused webinars aimed at marketing and environment professionals.

The brainchild of green marketing and corporate social responsibility (CSR) specialist Leigh Tymms, the “Sustain-affinity” series from Clarity Sustainability aims to improve engagement with sustainability among the marketing, communications, PR and social media communities. The series is free to IEMA members and open to anyone interested in green marketing and CSR.

The first of the five webinars – entitled “Driving sustainability” – took place on 17 May and looked at identifying where environmental savings can be easily made, and how to integrate them into management systems and gain buy-in. Michelle Campbell-Robson from IEMA’s approved training provider Environmental Academy led the 40-minute session.

Tymms is optimistic that the series will prove useful. “We hope that all of the attendees will be able to take away some practical insights. We are also encouraging participants to connect through Twitter by using the #sustainaffinity hash tag at the time of each webinar so they can share their own comments, questions and experiences.”

IEMA members are invited to join any of the remaining four webinars as a “crash course in sustainability communications” and to gain insight into leveraging engagement and building a CSR brand. Topics and dates for the webinars are:

- 24 May, 4pm – Improving the sustainability of offerings: innovative product and service design methods.
- 31 May, 4pm – Effective green marketing: tools to reduce waste, boost return on investment, eliminate greenwash and focus communications.
- 7 June, 4pm – Broadening the marketing message: applying PR and social media to sustainability communications.
- 14 June, 4pm – CSR people can engage with: how to make sustainability resonate with your audience.

Visit [lexisurl.com/iema12474](http://lexisurl.com/iema12474) to register.

## Does an EMS satisfy regulators?

**Research** Can certified environment management systems (EMSs) play an effective role in improving UK regulation and, if not, what needs to change to create better alignment? These are questions new research is seeking to answer, with the help of IEMA members.

Over the course of 2012, a team led by Planet & Prosperity’s Lucy Candlin, FIEMA and CEnv, will be undertaking an evaluation of the outcomes of third-party certification audits performed by UKAS-accredited certification bodies.

“The team will study how certification aligns to the outcomes of compliance checks from a regulator’s perspective,” explains Candlin. “The focus will be on UK companies and accredited bodies undertaking audits in this country, and we are calling on IEMA members to share their experiences.”

The outcomes of the research will inform a position statement from the UK’s environment agencies on how they

will treat certified EMSs in relation to permitting and regulation. It will also inform how UKAS approaches the accreditation of certification bodies as well as generate case studies on companies’ journeys to legal compliance through the implementation of a certified EMS.

The research, funded by Sniffer, and supported by UKAS, IEMA and the UK’s three environment agencies, will involve interviews, document and data reviews, online surveys and discussion.

IEMA members interested in being part of the research can contact the research team at [research@pp-sustainability.eu](mailto:research@pp-sustainability.eu). In your email, please include details of your location and whether you are an auditor for a certification body, an environment auditor registered with the International Register of Certificated Auditors, an auditee company representative, or an independent stakeholder. Contact details must also be provided.

### IEMA EVENTS

Date	Region	Topic
<b>Regional events</b>		
23 May	North East	Shotton surface mine visit
31 May	North East	Pollution prevention
7 June	South East	Social
27 June	North East	Shotton surface mine visit
29 June	South West	National Sailing Academy visit
<b>Membership workshops</b>		
11 June	East of England	Full and CEnv membership workshop – Ipswich
15 June	North West	Full and CEnv membership workshop – Manchester
18 June	Scotland North	Full and CEnv membership workshop – Aberdeen
<b>Consultation workshops</b>		
23 May	Yorkshire & Humber	DECC simplification of CRC Energy Efficiency scheme – Leeds
24 May	South East	DECC Simplification of CRC Energy Efficiency scheme – London
29 May	East of England	DECC Simplification of CRC Energy Efficiency scheme – Cambridge
<b>Webinars</b>		
31 May		The Water Framework Directive and environmental impact assessment

# Survey results: the future of 14001

**Systems** Additions and enhancements are needed to future proof ISO 14001 and help organisations manage their impact on the environment. That is the central message from IEMA members in a survey on the proposed revision to the international standard for environment management systems (EMSs).

The survey findings will contribute to IEMA's position on the revision to 14001, which must be prepared ahead of the next international working group meeting in June. A total of 1,651 members responded to the online poll, which was open from 4–18 April. The main findings include:

- practitioners find the current version of 14001 to be a flexible and effective standard, but additions and enhancements are needed;
- environment professionals believe 14001 should require organisations to link the EMS to the strategic decision-making processes – 95% agree with the need for such a requirement, which would ensure that environmental considerations are accounted for at an early stage and across all areas of an organisation;
- the majority of respondents believe that 14001 should require organisations to consider the impacts from a changing environment on the business, in addition to its impacts on the environment (86% in favour). This is important for maintaining the resilience of the business against, for example, challenges from climate change and resource security;
- practitioners want new requirements introduced for evaluating progress, such as the use of self-determined key performance indicators, and the demonstration of continual improvement to help organisations achieve further improvements in their environmental performance;
- the introduction of maturity matrices as a guidance tool to help evaluate and plan the development of the EMS is supported – IEMA is in the process of developing one with practitioners; and
- an EMS is a key aspect of the role of 78% of respondents.

ISO 14001 has been used by more than 250,000 organisations around the



## Respondents' views on the IEMA poll

"As a newcomer to IEMA and a life-long member of the Chartered Institute of Building, I am amazed at the level of interaction IEMA has with its members. The position IEMA is taking on this ISO revision is commendable."

"I am very grateful to IEMA for allowing me to voice my views."

"IEMA are of great assistance in briefing and updating members on EMS developments and this is much appreciated."

"IEMA gives members the opportunity to have a democratic voice in contributing towards improving the standard."

"IEMA has exhibited and implemented high professional standards to assist business with regard to the revision process."

"It is important for bodies such as IEMA to be involved with revision processes for such centrally important standards and tools as ISO certifications, which are recognised as global and trustworthy benchmarks."

"Thank you for the opportunity for IEMA members to contribute to the debate!"

"Thank you IEMA for your effort and representation!"

world to improve their environmental performance since its inception in 1996. Feedback by respondents reveals that IEMA's activities to ensure that EMS users are given the opportunity to outline their expectations from the review of the standard are appreciated. Examples of comments by members can be found in the panel (above).

Contributions from the IEMA member survey, consultations, the Institute's workshop series report ([lexisurl.com/iema12458](http://lexisurl.com/iema12458)) and the high-level roundtable hosted by *the environmentalist* ([lexisurl.com/iema12459](http://lexisurl.com/iema12459)) will all help to inform the overall UK position on the revision.

IEMA's position will be presented to the ISO mirror committee – the

body that develops consensus on what changes should be implemented – by IEMA's executive director of policy, Martin Baxter, who is the UK's appointed representative on the international 14001 revision group, on behalf of the British standards development body (BSI).

IEMA would like to thank all of the IEMA members who contributed to this research. The 1,651 respondents will be among the first to see the IEMA position, which will also be published for all members to read in the June issue of *the environmentalist*.

Further updates on the ISO revision will continue into 2012 through to the eventual implementation of the revised standard in 2015.



# Your route to Associate membership

**Standards** Recent issues of *the environmentalist* have highlighted some of the significant changes occurring to the Associate membership and the methods for assessing professionals seeking the standard. Here is an update on what is happening over the next two months, and how you can become an Associate member.

As the demand for practitioners working at Associate level increases in line with growing recognition by businesses that environment skills and knowledge can help them to save costs and make the most of environmental opportunities, IEMA has had to ensure that its standards and systems remain modern and effective. So the Institute has reviewed and updated the Associate standard, appointed a new chief

examiner, and introduced a new online Associate entry examination ([lexisurl.com/iema12462](http://lexisurl.com/iema12462)) that can be taken at any time, from anywhere in the world. All of these changes maintain IEMA's high standards and guarantee that Associate members have the right knowledge to make change happen in their organisations.

The new Associate entry exam went live on Tuesday 1 May and the first candidates have now taken the assessment and submitted their answers for marking. They will have their results in less than six weeks, as will any future candidates.

While this is a new assessment method, it does

not necessarily replace the other routes to Associate membership. The open book assessment will run one last time, in June, and there is still time to register for anyone who wishes to take the two-week open book exam.

The registration deadline for the last open book assessment is 25 May and it will run from 11–25 June. Go to [lexisurl.com/iema12463](http://lexisurl.com/iema12463) to find out more about the assessment, and for registration details.

Once the last open book assessment has passed, the online entry exam will not be the only route to Associate membership as the Institute is continuing to provide options and support. But if you are currently a Student, Graduate, Affiliate or even a non-member, which route is best for you?

## Best way forward

IEMA's professional development adviser, Victoria Douch, says that anyone who is looking to upgrade to Associate level needs to consider which route is best for them based on several factors, including previous experience and level of existing knowledge. Once these have been considered, this will lead practitioners to either the self-study route with the new online exam assessment, or an IEMA-approved Associate certificate course – see panel, left, for more details.

"The two routes to Associate membership are designed to meet the needs of our members, whatever their level of knowledge and experience," explains Douch.

"If you want to demonstrate that you have a clear understanding of the principles and practices of environment management and assessment, and are looking at achieving IEMA Associate membership, I would advise that you initially have a look at our Associate membership standard [[lexisurl.com/iema12464](http://lexisurl.com/iema12464)] to check your current level of knowledge to see if it already meets the necessary standard.

"From that point you'll know whether you are ready to go for the self-study route or whether the training route may be best for you."

## Two routes to Associate membership

### Self-study

"If you already have a good level of experience of environment management and assessment issues across the Associate standard, then the self-study route is the most appropriate route for you," says IEMA's professional development adviser, Victoria Douch. "This is for individuals who have perhaps done an environment degree, or have undertaken an environmental training programme. We recommend that you spend up to 80 hours on self-study using our suggested materials before you sit the exam."

Douch explains that IEMA wants its members to feel supported through the new assessment process, and has put together some guidance on how to prepare for the Associate entry exam, including advice on how to organise and plan revision effectively ([lexisurl.com/iema12465](http://lexisurl.com/iema12465)). There is also a list of available resources ([lexisurl.com/iema12466](http://lexisurl.com/iema12466)) that focus on the new areas that have been introduced to the standard. In addition, a series of webinars supporting these areas will also be available in the near future for free download.

### Associate certificate course

"If you have an introductory level of environment knowledge and understanding and would like to increase it to Associate level, or if you have studied environment management in the past and need some refreshment, then the Associate certificate course is probably best for you," says Douch. "This course is delivered by IEMA-approved training providers and consists of a minimum of 80 hours' learning and study."

The Associate certificate course is delivered in several formats – including distance learning, applied learning, intensive delivery and e-learning – and at the end of a course most candidates sit an IEMA exam, either a paper one or online.

Candidates on applied learning or academic programmes are assessed by portfolio as part of the ongoing course assessment. If the Associate certificate course is your preferred route, go to [lexisurl.com/iema12467](http://lexisurl.com/iema12467), where you can look through a list of IEMA-approved course providers and select a course that meets your learning needs. "Be sure to look for the IEMA stamp of approval when selecting your course!" advises Douch.

If you need further guidance, simply contact Victoria Douch at [v.douch@iema.net](mailto:v.douch@iema.net) or phone +44 (0)1522 540069.



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Cheryl Harvey, Human Resources Manager – Operations at [cheryl.harvey@portoftyne.co.uk](mailto:cheryl.harvey@portoftyne.co.uk)

Closing Date for applications: Friday, 8 June 2012

## the environmentalist

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Christopher Bennett, Managing Director,  
Sustainable Commercial Solutions.

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Contact Elle Umeh  
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Institute of Environmental  
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## Environment Professionals

## Driving Change...

### Non Executive Directors

The Institute of Environmental Management and Assessment is dedicated to creating a sustainable future through environmental skills, knowledge and leadership. As organisations are transforming their business models to adapt, survive and succeed in a low carbon, resource efficient and sustainable economy, the role of skilled environment professionals is becoming more important. IEMA is leading the way in supporting its members to deliver environmental and organisational improvements.

To support this change, IEMA is seeking applications from IEMA members who are suitably qualified to act as Non Executive Directors to join our Board. In particular, we are looking for people in a business leadership/development role who can support IEMA to grow and enhance the profile of the profession. Applicants should ideally be at least a Full Member (MIEMA) of IEMA (or in the process of applying).

Board meetings are normally quarterly. The posts are not remunerated, however all expenses will be paid.

**To apply**, send an application form (available from [www.iema.net/director](http://www.iema.net/director)) and a CV marked Private and Confidential to the Company Secretary, IEMA, St Nicholas House, 70 Newport, Lincoln, LN1 3DP by noon on Friday 8<sup>th</sup> June 2012.



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