

» POLICY 16

## Looking ahead

Policymakers and business leaders on the issues facing environmentalists this year

» REMEDIATION 21

## London calling

From cleanup to construction – the UK builds the world's first sustainable Olympics

» EMISSIONS 33

## The right figures

Why absolute numbers and intensity ratios are important in measuring GHG emissions

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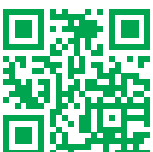
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# JANUARY

## NEWS

- 4** Water is key challenge for the UK – Defra publishes its white paper  
Government gives Environment Agency and Natural England new remit to promote “sustainable” development
- 5** Durban takes a positive step towards global carbon cuts – big emitters commit to developing Kyoto Protocol successor, but binding targets unlikely before 2020
- 6** Resource efficiency key to economic growth, says the CBI  
Fall in carbon price triggers call to withdraw EU ETS allowances from phase III  
**In parliament** Alan Whitehead MP gives his opinion on the Durban climate talks
- 8** Industry must make big cuts in emissions – carbon plan says 70% reduction needed  
**Case law** Experts at LexisPSL on the decision by Scotland’s Court of Session to endorse planning consent for a wind farm
- 9** EU maps out energy to 2050 – renewables and energy efficiency to play crucial role  
Two fines in a week for Thames Water
- 10** Defra admits breach of EU air rules  
**EIA update** The latest from IEMA on environmental impact assessment

## BRIEFING

- 13** New regulations: emissions trading, waste, energy, flooding, water, planning, natural environment, environmental protection
- 14** Latest consultations: renewable energy, water efficiency, artificial lighting, fluorinated greenhouse gases, waste management, freshwater policy  
New guidance: renewable heat incentive, green procurement, lighting, Localism Act

## IEMA NEWS

- 38** Successful IEMA members in 2011  
Revising ISO 14001  
Upcoming IEMA events
- 39** New pay and benefits poll  
**Spreading the word** The latest Guardian Sustainable Business blog by Claire Lea

## FEATURES

### 16 The year ahead

Policymakers and business leaders on the priorities for 2012, including green growth, improving resource efficiency and collaborative consumption

### 21 From brownfields to gold medals

Lucie Ponting reports on how the venues for the London 2012 Olympics and Paralympics measure up against the project’s overall sustainability goals

### 24 Hearts and minds vs carrots and sticks

Global Action Plan’s Amy Wilson and WSP’s David Symons debate the use of incentives to change workplace behaviour to achieve environmental goals

### 26 Met Office grows wild

How the enthusiasm of a few volunteers at the Met Office’s headquarters in Exeter has blossomed into an organisation-wide biodiversity action plan

### 30 A design for auditing life

UK technical expert Nigel Leehane asks whether the revised ISO 19011 will improve the quality of audits of environmental management systems?

### 33 Absolute or not!

Niall Enright on whether it is best for organisations to use absolute measures or intensity ratios, or a combination of the two, to manage greenhouse gases

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# Shifting political will

Bill Clinton signed the Kyoto Protocol in 1997, but the US Senate refused to ratify it, leaving the world's largest (at the time) emitter of greenhouse gases an outsider. Clinton's successor, George Bush, later pulled the US out of the Kyoto accord as one of the first acts of his presidency, dismissing the protocol as too costly. Canada officially endorsed the treaty in 2002 under the then prime minister Jean Chrétien's Liberal government, but in December 2011 it became the first developed country signatory to withdraw from the accord, which expires next year. Canada's current Conservative government, having declared when taking office that it did not intend to meet the country's existing commitments under the treaty, announced it had no choice but to withdraw given the economic situation, claiming the decision would save an estimated £8.6 billion in penalties.

What this overview of the North American political response to tackling climate change reveals is that

**The Canadian government's announcement that it was withdrawing from the Kyoto Protocol came just days after its negotiators in South Africa had signed up to a successor**

changes in government can often totally alter a country's stance, making a global consensus difficult to achieve and even harder to implement.

So, despite the unexpected "success" of the Durban climate change talks (p.5) in agreeing a roadmap to developing a new global treaty that would embrace all parties, including China, India and the US, and would become operational as soon as possible (by 2020), the activity and inactivity of North American politicians over the past 15 years should act as a reminder that the political will for change can quickly vanish.

The Canadian government's announcement that it was withdrawing from Kyoto came just days after its negotiators in South Africa had signed up to developing a successor, and as its annual emissions reach levels 30% higher than they should be under the original protocol. Of course, it may not be so easy to renege on a new deal that has "legal force" and includes all countries, but future prospective political leaders, mindful that some of their electorate may be unwilling to embrace the changes necessary to stem global temperature rise, will always demand an opt-out.



**Paul Suff, editor**

## Short cuts

## Sustainable generation

Young professionals aiming to become future UK business leaders see themselves as the first sustainable generation, according to a new survey by broadcaster Sky. A poll of 750 graduate trainees, middle managers and MBA students reveals that 96% plan on being involved in sustainability activities in their careers, with more than one-third confirming that they see creating social and environmental value as one of their ultimate career goals. The majority of respondents (70%) say sustainability offers new business opportunities, but just 3% agree that firms are successfully integrating sustainability into their organisations. More than 60% identify companies' unwillingness or inability to invest in sustainable products and services as the main barrier, but two-thirds argue that tough economic times should not be used as an excuse to avoid sustainability issues.

## Pollution incidents

The latest update to the Environment Agency's (EA) corporate scorecard reveals that there were 560 serious and significant pollution incidents (category 1 and 2) in the 12 months to September 2011. The agency says that 42% of the incidents were from regulated facilities, and, of these, 69% were from waste management sites, 20% from the water industry, 5% from manufacturing and 4% from agriculture. The EA is planning a significant new programme of pollution prevention campaigns, harnessing the efforts and resources of partners and targeted at regulated and unregulated sites, which is due to begin in April. The agency believes the campaign will have an impact on the level of incidents and it is also looking at other measures to identify and address their causes. The number of category 1 and 2 pollution incidents in the 12 months to September is slightly above the agency's target, which was 555. As part of its corporate plan, the EA is aiming to reduce the number of such incidents by 5% year on year.

## Water is key challenge for UK

**Water** Organisations and individuals must learn to value water and use it more efficiently if the UK economy is to adapt successfully to the effects of climate change and a growing population, Defra has warned.

In its long-awaited white paper on water ([lexisurl.com/iema11452](http://lexisurl.com/iema11452)), the environment department confirms that unsustainable water use in England and Wales has already damaged ecosystems services and that effective water management will be crucial in future as the country faces greater water shortages.

Alongside proposing that changes must be made to the way in which water is sourced, the paper argues in favour of incentivising water efficiency for businesses and homeowners. Key proposals include the introduction of variable tariffs with higher costs during times of peak demand. Following changes introduced by the Scottish government in 2008, Defra also suggests reforming the water sector to allow business customers in England and Wales to choose their supplier. According to the government,



increased competition will encourage water companies to work with customers to reduce water consumption.

While welcoming the white paper as broadly positive, the Chartered Institution of Water and Environmental Management (CIWEM) criticised the government for not being more explicit in its support for wider adoption of water meters. "To value water properly we need to measure water use accurately and then use tariffs that discourage profligacy," said Nick Reeves, CIWEM executive director.

## Agencies will have to promote 'sustainable' development

**Planning** The Environment Agency (EA) and Natural England will have to promote the government's view of sustainable development under the latest plans to implement the Penfold Review.

The review was set up to determine whether non-planning consents postpone or discourage investment and found that these consents could create delay, uncertainty and costs to business.

The business department (BIS) says the aim of the latest implementation measures is to ensure that the EA and Natural England contribute to a competitive business environment. It wants the bodies to consider the impact of their decisions on sustainable economic growth and the viability of what may be economically significant projects, and swiftly approve consents when it is appropriate to do so.

BIS says the remit will be based on the definition of sustainable development used in the proposed national planning policy framework (NPPF), which has still to be finalised, although the draft

NPPF provoked controversy among environmentalists who fear its changes to UK planning policy will simply mean that almost any kind of development will be given the go-ahead.

"By making these agencies a tool for promoting development, their critical role as champions of our landscape, wildlife and heritage is undermined. They do not exist to promote development; they are there to make sure any proposed development does not destroy our national treasures and environmental support structures," warned Neil Sinden, the policy director of the Campaign to Protect Rural England.

The draft NPPF includes a presumption in favour of sustainable development. However, a new report from the House of Commons communities and local government committee criticises the use of the phrase "sustainable development" in the draft NPPF, saying it is poorly defined and continually conflated with "sustainable economic growth".

# Durban takes positive step towards global CO<sub>2</sub> cuts

Big emitters commit to developing Kyoto Protocol successor, but binding targets unlikely before 2020

**Climate change** The 17th meeting of the United Nations Framework Convention on Climate Change (UNFCCC) in Durban has been hailed as a success after all 194 member states signed an agreement to develop carbon-reduction targets following in the footsteps of the Kyoto Protocol.

The Durban platform for enhanced action was welcomed by environmentalists and governments as an important step towards a multilateral approach to tackling climate change because it includes, for the first time, the world's largest emitters of greenhouse-gases, namely China, the US and India.

After previous meetings in Cancun (2010) and Copenhagen (2009) saw little progress, the platform commits the signatories to develop a new "legal instrument" outlining individual carbon-reduction commitments by 2015 and to implementing it by 2020. Christiana Figueres, executive secretary of the UNFCCC, said that the agreement was a positive signal for businesses and investors of the global commitment to making the transition to a low-carbon economy. "Durban has lit up a broader highway to a low-emission, climate-resilient future," she claimed.

However, the lack of detail on reduction targets, the length of the commitment period and the 2020 start date tempered the success of reaching a political consensus. "Reaction to Durban has been very positive, but in terms of a clear business signal we really have to wait for the next stage of negotiations," commented Andrew Raingold, executive director of the Aldersgate Group, a sustainable business think-tank. "Success will really depend on the detail of how emissions cuts are going to be made."

David Symons, director at WSP Environment & Energy, said that the Durban platform followed other such treaties in failing to deal with the difficult details. "The platform provides the base, but not the pinnacle. We should celebrate the global commitment, but recognise that



COP17 overrun by two days to reach a new agreement

there has been precious little agreement on actually cutting emissions," he said.

IEMA's director of policy, Martin Baxter, agrees. "With years of negotiation ahead and legally-binding requirements potentially not coming into effect until 2020, we are looking at nine years where the vast majority of global emissions will be subject to voluntary action only. With voluntary targets countries put forward last year insufficient to stabilise world temperature increases at 2°C, it seems very unlikely the new agreement will be in time to halt greater global warming."

With the Kyoto Protocol due to expire at the end of 2012, Durban also saw the EU commit to extending its commitments under the scheme for another five years.

However, after the negotiations Canada announced its withdrawal from the protocol due to the cost of meeting its carbon-reduction obligations, which it estimated at £8.6 billion. Baxter said Canada's decision to withdraw highlighted the importance of global commitment to a follow-up. "It is easier for a country like Canada to leave Kyoto when the world's major emitters aren't covered by it. If you have a globally ratified international agreement, then it would be much more difficult for countries to opt out of their commitments. But we need one sooner rather than later."

## Short cuts

### Free engagement tool

The Carbon Trust has launched a new online tool to help organisations better engage office staff with environmental issues ([lexisurl.com/iema11480](http://lexisurl.com/iema11480)). The "Empower" tool takes individuals through a visual representation of an office, sharing facts on how much energy is used and carbon emitted from everyday activities, such as leaving computer equipment on overnight and commuting into work. As well as explaining the links between energy consumption, waste creation and water use, the tool encourages individuals to pledge to adopt more sustainable behaviours, and calculates the amount of carbon emissions they will personally save. According to the Carbon Trust, effectively engaging staff could help organisations to cut energy bills by 15%, saving a typical small business more than £6,000 a year and larger businesses up to £150,000 and 500 tonnes of CO<sub>2</sub>.

### £20m extra for public sector energy efficiency

A further £20 million in loans to boost energy efficiency in schools, universities, hospitals, local authorities and other public sector buildings is now on offer for projects in England. The loans, provided by government-funded firm Salix Finance, are for efficiency projects that pay for themselves within five years through lower energy bills. Repayments are made from the money saved on bills. "Demand from the public sector for energy-efficiency improvements is enormous. This interest-free loan fund removes the barrier of having to find capital to pay for measures at a time of tight budgets," said Alastair Keir, chief executive at Salix Finance. The scheme has funded more than 7,000 projects across the UK since it started in October 2009. To take advantage of the additional £20 million on offer, projects need to be agreed by the end of March 2012. It is estimated the new money will fund projects delivering savings of around £46 million on bills and 210,000 tonnes of carbon.

IN PARLIAMENT



Durban – just another ‘event’?

Alan Whitehead is MP for Southampton Test

The crashing of successive waves of “events” on the shore of the UK’s body politic in the past year makes divining what is significant and what is not very difficult. Before you have got to grips with what the latest event or crisis means, the next one is upon you. Because of this, events get buried. It almost feels as though the relatively recent outcome of the Durban climate change conference (p.5) falls into this category. We had a meeting that everyone thought would produce nothing as far as progress on climate change action was concerned, and, oh hold on, some sort of agreement did emerge. True, it didn’t produce any results that in themselves save us from global warming, or even put us on the path to do so; but the agreement that the conference produced I think bears some scrutiny.

Effectively, prior to Durban the increasing presumption was that there was no future for any kind of law-based international treaty on climate change; the future lay in so-called “pledge and review” commitments in which countries make voluntary commitments or bilateral deals that might be more or less effective depending who did them and how.

Instead, the agreement to work towards a treaty that will succeed the Kyoto accord by 2020 – even if the road to doing so remains strewn with difficulties – overturns those assumptions. That can only be good for climate change policies and low-carbon investments in countries that might have been beginning to think that, well, if no one else will be doing it, why should we? It will be particularly important as far as the EU is concerned, which was beginning to feel that kind of pressure. It probably means that the targets for renewable energy, for example, will stay in place rather than be watered down, and that some of Europe’s more ambitious carbon-emission-cutting aspirations will be cemented and developed.

## Resource efficiency key to economic growth, says CBI

**Resources** Policymakers and business leaders need to recognise that resource efficiency makes both business and environmental sense, and will be key to the UK’s future economy, says a new report from the CBI.

Launching the report, *Made to last – creating a resource efficient economy*, at a joint CBI and Green Alliance conference on resource security, Neil Bentley, deputy director-general of the employers’ organisation, said: “There’s a business case for acting, and a threat to our growth prospects if we don’t.”

Bentley criticised the existing response of UK policymakers, saying that too many different government departments at too many different levels are coming up with their own ways of dealing with the problem of resource efficiency.

Speaking at the same event, business secretary Vince Cable called on industry to take the lead by closing the loop, so that resources are used again and again. Cable’s call was echoed by EU environment commissioner, Janez Potočnik, who said that design and finance will be key to creating a “circular” economy in Europe. “If every company



Resource inefficiency threatens strong growth, says the CBI’s Neil Bentley

could afford to carry out a proper life-cycle costing of its operations and products, and consumers were properly informed, then waste could be prevented, products recycled and reused,” he said.

Potočnik reminded the audience that some resources have no price. “This is particularly true of our natural capital, our ecosystems and biodiversity,” he said. “Some seem to find it fashionable to claim that protecting nature goes against growth, and that it is too expensive in an economic crisis. My response is this – tell that to people and businesses who have been ruined by floods because of planning decisions taken without assessing environmental impacts!”

## Price fall triggers call to halt ETS permits

**Emissions trading** Leaders of some of Europe’s largest businesses have called on politicians to take urgent action to underpin the price of EU emission trading scheme (ETS) allowances after the cost of permits plunged by almost 50% in 2011.

In a letter to the European Commission president, José Manuel Barroso, members of the EU Corporate Leaders Group, including Alstom, Kingfisher, Shell and Tesco, say the collapse in the price of ETS allowances risks the scheme’s ability to deliver Europe’s low-carbon future at the lowest cost and want permits withheld when phase III starts in 2013. The letter also warns that carbon prices could fall further as carbon-intensive companies seek to improve energy efficiency in line with the EU’s proposed energy efficiency Directive.

Several energy firms, including SSE, warned last year that the Directive will have the unintended consequence of causing the collapse of, or tremendous decline in, the carbon price.

MEPs also want to see the number of allowances curtailed, with members of the European Parliament’s environment committee voting for 1.4 billion permits to be cancelled when phase III begins. In addition, the committee says that the cap on the number of allowances should be tightened each year from 1.75% to 2.25%, significantly reducing the total number of permits available between 2013 and 2020.

Analysts say that the collapse in the price of allowances in 2011 was due to fears about the eurozone’s future and a persisting surplus of permits. In July 2011, the campaign group Sandbag forecast a 1.9 billion oversupply of ETS carbon permits through to the end of phase III in 2020. It found that 77% of installations covered by the scheme in 2011 had a surplus of permits.

At the start of 2012, allowances were trading at €6.78. The average price in the second half of 2008 was €22, having peaked at around €30 in April 2006.



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# Industry must make big cuts in emissions

**Emissions** Industry will have to reduce its emissions by up to 70% against 2009 levels if the UK is to meet its 2050 carbon-reduction targets, according to the government's first carbon plan.

Although the UK is on course to surpass its commitment to reduce carbon emissions by 34% by 2020 against 1990 levels, energy efficiency will have to increase dramatically across all sectors, including industry, if the country is to meet the goal of an 80% cut by 2050, says the 220-page document produced by DECC.

It suggests that industrial emissions reductions will come from three sources: further efficiencies in the use of energy and materials and the design of industrial processes; replacing fossil fuels with low-carbon alternatives such as bioenergy and electrification; and from carbon capture and storage (CCS) to address combustion and process emissions.

Over the next decade, climate change agreements, the Carbon Reduction Commitment Energy Efficiency (CRC) scheme and the EU emissions trading scheme will encourage businesses to reduce their energy use, says the plan. Thereafter the main cuts will come from



more companies shifting to using low-carbon fuels, such as having sustainable biomass to generate heat.

DECC forecasts that, by 2027, emissions from industry will be between 20% and 24% lower than 2009 levels. The plan makes it clear that the government will assist strategically important industrial sectors, such as steel, aluminium and cement, in maintaining competitiveness.

The EEF, the manufacturer's body, welcomed the commitment to preserving competitiveness and the pledge to focus on reducing energy intensity rather than absolute emissions. "The government's

carbon plan is a real step forward," commented the EEF's head of climate and environment, Gareth Stace. The CBI's head of energy and climate change, Matthew Brown, said: "The plan gives investors a clearer picture of how we will transition to a low-carbon economy. We now need this to be backed by consistent, long-term policies, avoiding any sudden changes of direction which put investors off."

DECC says that up to 10GW of CCS capacity will be required by the late 2020s, but there is concern about progress in developing the technology in the UK. "There is still a mismatch between government ambitions for CCS. Without funding now there is a risk the UK will lose the race to be a world leader in the development of CCS," said Stace.

His comments were echoed by the Carbon Capture and Storage Association (CCSA), which said the plan lacked ambition and could damage the sector's future by underestimating its potential. "To meet UK emissions targets by 2030, the country needs two to three times more CCS in operation than predicted by the government," said Jeff Chapman, chief executive of the CCSA.

## CASE LAW

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### Rigging rumours blown out

In May 2011, the Court of Session (CoS) in Scotland decided that the planning consent granted for a major wind farm at Fallago Rig in the Scottish Borders should stand. North British Windpower successfully defended a judicial review petition seeking the quashing of the consent by the petitioners, Dulce Packard and others. Originally the application was recommended for refusal due to concern by the Ministry of Defence (MoD) that the wind farm would interfere with its radar. Following the withdrawal of MoD objections and a second public inquiry, it received ministers' approval.

The petitioners challenged the ministry's decision, arguing that during developer/MoD discussions, ministers had "seduced" the MoD into withdrawing its objections, and thereby a bias towards a predetermined application consent existed. Petitioners further claimed there

had been no new evidence to justify reopening the inquiry and that the suspensive radar mitigation conditions attached to the consent were *ultra vires* – meaning that making the decision was beyond the powers of those involved.

A judicial review was rejected by the CoS on the following grounds:

- rather than bias, correspondence revealed an open and fair mind on the officials' part;
- decision makers are allowed to meet decision objectors;
- judicial or quasi-judicial officeholders' roles are distinct from the position of a minister – while ministers must address planning issues "fairly and on their merits", a "predisposition" is permissible;
- judicial review of the second inquiry was forbidden as the petitioners had no new information; and
- the suspensive conditions were appropriate.

The decision to grant consent to the wind farm can be viewed as a favourable outcome to help Scotland achieve its renewables targets and to benefit Scottish energy consumers. Preparatory work is already under way on the project, which is expected to provide enough energy to power around 90,000 homes once complete.

The MoD commonly objects to turbines on the grounds they can interfere with radar. It has a statutory duty to safeguard certain sites and airspace from radar interference in the interests of national security, and for the safe operation of passenger and military aviation. Wind farms can disrupt UK coastline radar systems and jeopardise Britain's national air defence. Consequently, it is best practice for windfarm developers and local planning authorities to consult the MoD about sites.

Colleen Theron and Deirdre Lyons, LexisPSL

# EU maps out energy to 2050

**Energy** The European Commission has published a roadmap to almost completely decarbonise Europe's energy production in order to achieve the target to reduce EU emissions by at least 80% below 1990 levels by 2050.

The commission's *Energy roadmap 2050* examines how EU member states can maintain a stable and affordable energy supply and lower carbon emissions, and concludes that decarbonisation is not only possible but should not cost more than taking no action at all. It contains seven scenarios combining different mixes of renewable energy, nuclear power and fossil fuels with carbon capture and storage (CCS) and energy efficiency.

Irrespective of the energy mix chosen, there are a number of common elements in all the decarbonisation scenarios, including a growing demand for renewable energy and the crucial role of energy efficiency. All the scenarios forecast that 30% of energy consumption by 2030 will be from renewables, rising to between 55%–75% by the middle of the century. Energy commissioner Günther Oettinger said that he expects binding renewable-energy targets beyond 2020 to be in place by 2014.

The roadmap also highlights the need to reduce energy consumption by 2050 by a minimum of 32%, compared with the peak in 2005/06, while all scenarios show electricity will have to play a much greater role than now, almost doubling its share in final energy demand to 36–39% over the next 40 years.

The commission says the map will help member states make the required energy choices and create a stable business climate for private investment.

But the PRIMES energy model used by the commission to reach its conclusions has been criticised by the renewables industry. "There are astounding assumptions in all scenarios such as oil prices dropping from over \$100 per barrel today to \$70 per barrel in 2050; offshore wind costing the same in 2050 as today; declining nuclear costs, and no gas or CCS infrastructure being needed in the next 40 years," said Christian Kjaer, chief executive at the European Wind Energy Association. "Despite these attempts to prefabricate the results, the scenarios confirm that a renewable-energy future comes at no higher energy cost to Europe. A high renewables and efficiency scenario would be the cheapest."

## Two fines in a week for Thames Water

**Pollution** Thames Water is to pay £100,000 in fines and costs following two prosecutions for pollution offences.

The UK's largest water company pleaded guilty to multiple breaches of the environmental permitting Regulations after sewage from two of its plants polluted waterways in Berkshire and East Hampshire in unrelated incidents in 2010.

On 8 December, Winchester Crown Court ordered the firm to pay more than £61,000 in fines and costs after hearing how effluent from its Silchester sewage treatment works killed up to 22,000 fish when it was unintentionally discharged into nearby brooks in July 2010.

The spill was described by the Environment Agency (EA) as having "catastrophic impact" on local wildlife. The court was told how it had taken EA officers five days to combat the effects of the pollution. The sewage escaped the Silchester plant after its systems were overwhelmed when an employee emptied two storm tanks full of sludge into the works instead of waiting for a tanker to



remove the waste. Thames Water faced fines of up to £50,000 for the incident, but was fined £29,985 in the end after the court took into account swift actions the firm had taken to try and mitigate the spill and its early admission of fault.

Seven days after the Silchester sentencing, the water company was fined a further £16,000 and ordered to pay costs of £8,000 by the Aldershot Magistrates' Court after workers at its sewage pumping station in Arford failed to report a smaller sewage spill in December 2010.

### Short cuts

#### Scotland's new online information source

The Scottish government has launched a new, all-embracing website dedicated to the country's environment. Described as a "one-stop hub", the site – [environment.scotland.gov.uk](http://environment.scotland.gov.uk) – aims to be the first port of call for anyone looking for reliable and accurate information on Scotland's environment from known and trusted sources. Bodies involved include the Convention of Scottish Local Authorities, Forestry Commission Scotland, Scottish Environment Link and the Scottish Environment Protection Agency (SEPA). The site provides information at a range of levels, including simple descriptions of the condition of Scotland's environment as well as more detailed information for those with a technical interest. Funding for the site and its development was secured by SEPA from LIFE+, the EU's financial instrument for the environment.

#### 50001 for Coca-Cola

International drinks giant Coca-Cola has certified Europe's largest drinks manufacturing plant against ISO 50001, the international energy management standard. The certification is thought to be the first of its kind in the food and drink sector and covers Coca-Cola's Wakefield site, which produces 6,000 cans of soft drink every minute. Adopting 50001 forms part of the US firm's plans to make the plant one of the most efficient in the world. Since 2007, the company has invested £51 million in improving the site's operations, including installing 80 energy meters and running employee engagement programmes. As a result the Wakefield plant has cut its energy use by 16.5%. Daniel Watts, management systems implementation manager at Coca-Cola Enterprises, said that adopting 50001 signalled how serious the firm is about its energy performance. "[It] will help us drive forward with new efficiencies and cut our carbon footprint – and costs – even further," he said.

Short cuts

## Two-thirds of UK firms hit by bad weather

Organisations are being urged to ramp up their efforts to adapt to climate change after 64% of UK companies confirmed that adverse weather conditions had disrupted their supply chain over the past 12 months. The results of a survey conducted by insurance firm Zurich and the Business Continuity Institute reveal that businesses across the UK, the US, Australia and New Zealand agree that storms, floods, high winds and snow are the leading cause of supply chain failures. Experts from Zurich argue that with extreme weather events more likely as a result of climate change, UK businesses of all sizes and sectors need to adapt to protect themselves. Following on from the research, Zurich has outlined a “five point plan” to help organisations assess and combat risks posed by adverse weather and called on the UK government to do more to support businesses’ adaptation efforts.

# Defra admits breach of EU air rules

**Pollution** Lawyers acting for the government have acknowledged for the first time that the UK is in breach of its obligations under the EU Directive on air quality (2008/50/EC) to lower air pollution levels.

In a High Court case brought by environmental law group ClientEarth, Defra’s representatives confirmed the UK has not met the requirements of the Directive, which sets limits on the level of nitrogen dioxide (NO<sub>2</sub>), PM2.5 and PM10 allowed in the air from 1 January 2010.

Under the Directive, member states can apply for an extension, giving them until 2015 to lower pollution levels. However, Defra’s plans to cut NO<sub>2</sub> reveal that it does not expect pollution levels to be cut in line with the Directive before 2020 in 17 of the 43 cities and regions affected. These cities include Glasgow and London, while Yorkshire and Humberside and the West Midlands are among the regions unlikely to comply until 2020.

Reacting to the publication of the plans, ClientEarth applied to the High Court challenging their legality and demanding that the government be forced to declare it was in breach of EU legislation.

Following the comments from Defra’s lawyers, Justice Mitting refused to order the government to make a formal admission, saying it would serve no purpose. He also concluded that, while the UK was clearly in breach of the Directive, it was a matter to be dealt with by the European Commission, not a UK court.

Despite failing to win its case, ClientEarth hailed the hearing as a victory. “We’re extremely pleased that our case has forced the government to admit failing in its legal duty to protect the British people from the harmful effects of air pollution,” said James Thornton, chief executive at ClientEarth. “We had hoped the issue would be resolved in the UK courts, but following Justice Mitting’s decision we expect the European Commission will launch proceedings against the UK.”

Simon Birkett, founder and director of the Clean Air in London campaign, reacted to the case by calling on European regulators to take action. “We urge the commission to waste no time in acting on the UK’s formal admission and launch infraction action before the Olympic Games,” he said.

## EIA UPDATE

iema

### Consolidated EIA Directive

A new year, a new EIA Directive? Late last year a “new” Directive on environmental impact assessment was adopted – and will shortly be published in the *Official Journal of the European Union*. This is technically a new Directive, but it simply consolidates the original EIA Directive (85/337/EEC) and the content contained in its three amendments into a single document. The practical impact will be the need to refer in future to the new the Directive. The consolidation is part of the European Commission’s ongoing review of the EIA Directive. The single legal text of the 2011 Directive will make discussions on the planned revisions easier. The commission is currently completing its impact assessment of different options for revision and will be drafting a revised Directive during the first half of 2012. As such, members can expect to see a draft of the proposals by mid to late summer.

### EIA Regulations update

**Wales:** The Welsh Assembly government plans to consult on revised town and country planning EIA Regulations in February. This will also consolidate the numerous amendments into a new, single regulation later in the year.

**England:** The launch of *EIA regulatory guidance* is now not expected until February at the earliest due to departmental sign-off processes.

### Ecosystem services in EIA

IEMA has launched an e-briefing on considering ecosystem services in EIAs. The online document is available for members to download ([lexisurl.com/iema11449](http://lexisurl.com/iema11449)) and is designed to stimulate consideration of ecosystem services in practice. It explains the concept of ecosystem services and their background before considering how to integrate them into the various parts of the EIA process.

### EIA Quality Mark webinars

IEMA has started delivering regular EIA webinars via the EIA Quality Mark scheme. So far, EIA webinars have been delivered on communications, ecology and evaluating the significance of impacts. If you missed any of these you can “listen again” by selecting the relevant event at [lexisurl.com/iema11491](http://lexisurl.com/iema11491). The next webinar in the series is: Traffic assessment – 1 March, 12.30–1.15pm.

### Effective non-technical summaries

IEMA has been concerned with the standard of some non-technical summaries (NTS) in EIAs and has therefore released a short two-page e-brief on developing an effective NTS. The document provides helpful tips on how to keep an NTS short, focused and on message. It is available for members to download at [lexisurl.com/iema11449](http://lexisurl.com/iema11449).

# Carbon (GHG) Accounting and Management

## *An IEMA-Approved 2-Day Training Course*



**Conestoga-Rovers & Associates (Europe) Ltd (CRA)** is pleased to announce the continued delivery of its IEMA-approved Carbon and Greenhouse Gas (GHG) Accounting and Management course. This two-day course is aimed at professionals responsible for measuring, reporting, and managing carbon dioxide and other GHG emissions for their organisation. Also, this course will help organisations develop accounting processes and reduction initiatives for the **Carbon Reduction Commitment**. The course modules will equip you with:

- An appreciation of the background to climate change, and the business and socio-political drivers for addressing GHG emissions
- The capability to present business cases to senior management to gain commitment for initiatives to measure, reduce and report emissions
- An understanding of the key standards and protocols for GHG measurement and reporting
- The skills to develop a carbon (GHG) accounting system and to capture your organisation's footprint
- An understanding of techniques to reduce carbon and GHG emissions

**Upcoming courses in the UK are planned for 21<sup>st</sup>-22<sup>nd</sup> February 2012 at the Park Plaza Nottingham, and May 2012 in London (date and location TBC). For more details, visit [www.cra.co.uk](http://www.cra.co.uk) or contact us on:**

**0115 965 6700 or [training@cra.co.uk](mailto:training@cra.co.uk)**



CRA's training partner, SHEMSI, delivers our IEMA-approved carbon course in Southeast Asia. For details, contact [mail@shemsi.com](mailto:mail@shemsi.com).

This course provides essential guidance on CRC Registration, Compliance and Emissions Reduction.

## CRA Europe is Recruiting

### Consultants or Senior Environmental Management Consultants (2-7 years experience)

CRA has opportunities for Consultants (2-4 years experience) and Senior Consultants (4-7 years experience). The posts will be based in the existing Nottingham office or potentially in a new office in the NW of England.

We are seeking consultants, with experience of the industrial sectors, to work on projects involving environmental permitting, EHS compliance, design, implementation and audit of environmental management systems (IEMA auditor registration will be expected), carbon accounting, CSR strategy and report verification, due diligence and compliance auditing, environmental impact assessment, and health and safety management. We are interested in hearing from applicants with experience relevant to these broad and challenging positions.

If you think you have the necessary technical knowledge, project management skills and enthusiasm to succeed, please apply by **29<sup>th</sup> February 2012** by emailing your CV and a covering letter, stating your key strengths and how you can contribute to the growth of our company to [careers@cra.co.uk](mailto:careers@cra.co.uk). CRA prefers to deal directly with genuine applicants, not recruitment agencies.

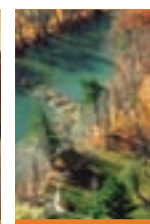


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




**[www.wata.co.uk](http://www.wata.co.uk)**

**for more information**



\*IEMA courses are delivered in association with CAMBIO


## NEW REGULATIONS

In force	Subject	Details
11 November 2011 	<a href="#">Emissions trading</a>	The European Commission decision 2011/745/EU amends decisions 2010/2/EU and 2011/278/EU as regards the sectors and subsectors that are deemed to be exposed to a significant risk of carbon leakage under the EU emissions trading scheme. <a href="http://lexisurl.com/iema11412">lexisurl.com/iema11412</a>
21 November 2011 	<a href="#">Waste</a>	The Landfill Allowances Scheme (Wales) (Amendment) Regulations 2011 amend the 2004 Regulations applying new terms. <a href="http://lexisurl.com/iema11405">lexisurl.com/iema11405</a>
28 November 2011 	<a href="#">Energy</a>	The Renewable Heat Incentive Scheme Regulations 2011 establish the renewable heat incentive scheme, under which owners of plants that generate heat from specified renewable sources receive payments at prescribed tariff levels. <a href="http://lexisurl.com/iema11406">lexisurl.com/iema11406</a>
1 December 2011  	<a href="#">Flooding</a>	The Flood and Water Management Act 2010 (Commencement No.5 and Transitional Provisions) Order 2011 brings into force measures in the Flood and Water Management Act 2010. These make provision for the Environment Agency and local authorities to carry out incidental flood or coastal erosion risk management work that may cause flooding or coastal erosion, but only if certain conditions are satisfied. <a href="http://lexisurl.com/iema11402">lexisurl.com/iema11402</a>
1 December 2011 	<a href="#">Flooding</a>	The Incidental Flooding and Coastal Erosion (England) Order 2011 relates to the powers of the Environment Agency and local authorities under ss.38 and 39 respectively of the Flood and Water Management Act 2010. <a href="http://lexisurl.com/iema11403">lexisurl.com/iema11403</a>
1 December 2011 	<a href="#">Water</a>	The Water Environment (Relevant Enactments and Designation of Responsible Authorities and Functions) (Scotland) Order 2011 sets out what is required of Scottish ministers and the Scottish Environmental Protection Agency to ensure compliance with the requirements of the water framework Directive (2000/60/EC). <a href="http://lexisurl.com/iema11254">lexisurl.com/iema11254</a>
7 December 2011  	<a href="#">Planning</a>	The Local Authorities (Contracting Out of Community Infrastructure Levy Functions) Order 2011 enables a community infrastructure levy (CIL) authority to authorise another person or their employees (a "contractor"), to exercise functions relating to the setting, charging, collection, enforcement and spending of a CIL. <a href="http://lexisurl.com/iema11407">lexisurl.com/iema11407</a>
12 December 2011 	<a href="#">Planning</a>	The Planning (Fees) (Amendment No.2) Regulations (Northern Ireland) 2011 amend the 2005 Regulations, increasing planning fees by approximately 2.9% overall. <a href="http://lexisurl.com/iema11270">lexisurl.com/iema11270</a>
20 December 2011 	<a href="#">Natural environment</a>	The Wildlife and Natural Environment (Scotland) Act 2011 (Commencement No.2) Order 2011 introduces parts of the Wildlife and Natural Environment (Scotland) Act. <a href="http://lexisurl.com/iema11408">lexisurl.com/iema11408</a>
21 December 2011 	<a href="#">Planning</a>	The Infrastructure Planning (Environmental Impact Assessment) (Amendment) Regulations 2011 amend the 2009 Regulations, and require the secretary of state to review the latter every five years to see whether they should remain, be revoked or amended. The 2011 Regulations also change the 2009 Regulations to include recent amendments to the EU Directive on the assessment of the effects of certain public and private projects on the environment (85/337/EEC as amended by 2009/31/EC). <a href="http://lexisurl.com/iema11398">lexisurl.com/iema11398</a>
31 December 2011 	<a href="#">Environmental protection</a>	The Control of Volatile Organic Compounds (Petrol Vapour Recovery) (Scotland) Regulations 2011 transpose the EU Directive on Stage II petrol vapour recovery during refuelling of motor vehicles at service stations (2009/126/EC) so far as is required in order for that Directive to be implemented through an authorisation under Part II of the Pollution Prevention and Control (Scotland) Regulations 2000. <a href="http://lexisurl.com/iema11400">lexisurl.com/iema11400</a>

## LATEST CONSULTATIONS


7 February 2012

### Renewable energy

 The renewable energy Directive (2009/28/EC) sets out targets for Europe to 2020 – an obligatory target of 20% renewable energy in gross final energy consumption as well as a 10% target for the share of renewable energy in transport. The European Commission is now consulting on whether the current policy framework remains valid to 2030 as the bloc moves towards reducing emissions by 80–95% by 2050.  
[lexisurl.com/iema11413](http://lexisurl.com/iema11413)


8 February 2012

### Water efficiency

 The European Commission is seeking views and additional information on the possible introduction of measures to improve water efficiency in buildings. The commission claims that, in some regions, up to 30% of the volume of water consumed in buildings could be saved. Although action to improve buildings' efficiency is being taken in some member states – such as BREEAM in the UK – the commission says that without further targeted actions the reduction in water used by buildings will be only about 5% in 2050 across the EU.  
[lexisurl.com/iema11272](http://lexisurl.com/iema11272)


17 February 2012

### Artificial lighting

 Defra is consulting on whether to continue to exempt certain premises in England – including airports, railway premises, prisons and bus stations – from the artificial light statutory nuisance provisions under Part III of the Environmental Protection Act 1990. The exemption means that artificial light from these premises cannot be found to be a statutory nuisance and, although a complaint regarding the light could be investigated, it is not possible to issue an abatement notice. The consultation follows a commitment made in the natural environment white paper, which was published in June 2011, to look again at existing exemptions.  
[lexisurl.com/iema11416](http://lexisurl.com/iema11416)

23 February 2012


### Fluorinated greenhouse gases

 Northern Ireland's Department of the Environment is consulting on amendments to the country's existing fluorinated gases (F-gases) Regulations. The proposals will affect the relevant F-gases qualifications-training organisations, district councils, chemical suppliers, and businesses involved with refrigeration, air conditioning, heat

pumps, fire equipment and high-voltage switchgear equipment.  
[lexisurl.com/iema11417](http://lexisurl.com/iema11417)


27 February 2012

### Waste management

 Proposals on a revised Waste Management, the Duty of Care, Code of Practice (CoP) have been put out to consultation by Northern Ireland's Department of the Environment. Article 5 of the Waste and Contaminated Land (Northern Ireland) Order 1997 imposes a duty of care on anyone who handles controlled waste. The proposed CoP is designed to provide practical guidance for everyone subject to the duty of care.  
[lexisurl.com/iema11418](http://lexisurl.com/iema11418)

28 February 2012

### Freshwater policy

 As part of its commitment to review existing legislation through “fitness tests”, the European Commission is consulting on EU freshwater policy, seeking to identify what works and what does not, and, in the case of the latter, how it can be improved. The fitness test for freshwater policy is the first by the Environment Directorate and will act as a pilot for similar reviews in other areas.  
[lexisurl.com/iema11415](http://lexisurl.com/iema11415)

## NEW GUIDANCE

### Renewable heat incentive

A Q&A ([lexisurl.com/iema11420](http://lexisurl.com/iema11420)) on the recently introduced renewable heat incentive (RHI) scheme has been published by DECC. The RHI scheme opened for applications on 28 November and, in phase I, targets big heat users in industry, business and the public sector. The Q&A includes a section on RHI eligibility and how to make applications, as well as details on the different technologies covered by the scheme.

### Green procurement

A new edition of *Buying green*, the handbook published by the European Commission with detailed guidance on how green public procurement (GPP) can be practised in the EU, has been published ([lexisurl.com/iema11421](http://lexisurl.com/iema11421)). The new edition includes: the current policy framework for GPP; updated guidance on how environmental considerations can be included at each stage of the procurement process, and examples drawn from member states of how public authorities are greening their contracts. A summary booklet has also been published.

### Lighting guide

The Carbon Trust has published a new guide ([lexisurl.com/iema11423](http://lexisurl.com/iema11423)) offering UK businesses guidance on how to choose the most energy-efficient lighting without compromising on the quality of the light emitted. The guide shows that cost-effective measures such as lighting refurbishment and sensor-based controls can lead to annual cost savings of 20% across all organisations.

### Localism Act

The Department of Communities and Local Government (CLG) has published what it describes as a “plain English” guide ([lexisurl.com/iema11419](http://lexisurl.com/iema11419)) to the Localism Act, which received royal assent on 15 November ([lexisurl.com/iema11273](http://lexisurl.com/iema11273)). The CLG document, which is only available online, summarises each of the main ideas contained in the Act, and explains the overall difference that they will make. It includes a section on the reform of the planning system.

## EVENTS CALENDAR

Date	Course	Location and details
6–7 March 2012	Hazmat 2012	NEC Birmingham <a href="http://lexisurl.com/iema11285">lexisurl.com/iema11285</a>
9 March 2012	envecon 2012: applied environmental economics conference	Royal Society, London <a href="http://www.lexisurl.com/iema11439">www.lexisurl.com/iema11439</a>
14–15 March 2012	Responsible business exhibition 2012	Business Design Centre, London <a href="http://lexisurl.com/iema11444">lexisurl.com/iema11444</a>
20–21 March 2012	CIWEM annual conference: water and environment 2012	Olympia Conference Centre, London <a href="http://lexisurl.com/iema11117">lexisurl.com/iema11117</a>
20–22 March 2012	Ecobuild 2012	ExCel, London <a href="http://lexisurl.com/iema11425">lexisurl.com/iema11425</a>
21–22 March 2012	How to manage social and environmental risk for oil, gas and mining	Thistle Marble Arch, London <a href="http://lexisurl.com/iema11445">lexisurl.com/iema11445</a>
29 March 2012	Smart utility forum	The Guoman Tower Hotel, London <a href="http://lexisurl.com/iema11424">lexisurl.com/iema11424</a>
26 April 2012	Sustainable purchasing and supply summit	OEEI Conference Centre, London <a href="http://lexisurl.com/iema11427">lexisurl.com/iema11427</a>
8–9 May 2012	Responsible business 2012 (11th annual summit)	London <a href="http://lexisurl.com/iema11426">lexisurl.com/iema11426</a>

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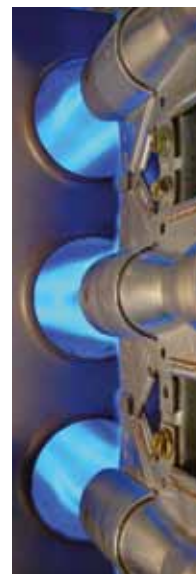
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# The year ahead

Policymakers, regulators and business leaders outline their main priorities for 2012



**Caroline Spelman – secretary of state for environment**

My ambition for Defra for 2012 is to continue to stimulate a move to green growth in the economy, while setting out a clear and credible long-term vision for the environment. Business leaders can help spread the green growth message, nationally and locally, along supply chains and to customers, to make sure the transition to a green economy is embraced, and that the UK is ready to grasp the opportunities emerging in both the developed and developing world. The role that businesses will play in this vision is critical – some of the key big retailers have embraced sustainability and are reaping the rewards. We need to work with businesses, support them and ensure they have the right frameworks to take the opportunities available to them. Defra will be launching the resource security action plan early in the year. This will help businesses manage supply chain risks and encourage better use of materials.

This financial crisis must be weathered. But we all need to recognise the opportunity it offers: the opportunity to rethink our economy, and win the argument for making growth green.



**Janez Potočnik – European commissioner for environment**

Many of the challenges facing the environment in 2012 are also opportunities to respond to the financial and economic crisis. After decades of carefree – and careless – growth, we need to pay more attention to the limits imposed by the Earth's natural resources and to the needs of future generations. An economy that derives more value from fewer materials, through smarter consumption, will help us move towards sustainable growth, bringing new jobs in areas such as ecodesign and

eco-innovation, recycling and recovery of materials. Forward-thinking businesses are already moving in this direction, enjoying the first-mover advantages familiar to early adopters.

More sustainable consumption and production patterns and improved waste management will be essential to make Europe more resource efficient. Environmental concerns must also be integrated into other policy areas such as industry, energy, agriculture, fisheries and transport. Water is our next priority and will be the subject of Green Week 2012.

2012 also marks the fifth anniversary of REACH, our powerful chemicals legislation, and will mean that all of its mechanisms to control the use of dangerous chemicals will be fully operational. As well as improving public health, this will also make materials easier to use and recycle. The cooperation of industry has been much appreciated.

Finally, we shall be working intensively to improve the implementation of all EU environment legislation in key areas such as air, waste, water, chemicals, and nature. This is essential both for a greener economy and a healthy environment.



**Dr Paul Leinster – chief executive, Environment Agency**

The past 12 months have seen major changes across the private and public sectors, driven by the difficult economic situation. These changes will continue in 2012 and beyond.

However, the Environment Agency moves into the new year confident that we will deliver across all areas of our work. We continue to develop new and innovative ways of working, ensuring we deliver more for people and the environment for every pound of funding we receive. By saying “yes, if” whenever possible, we will explore new ways of working in partnership with other organisations, communities and

businesses. We will focus on outcomes not processes. Climate change remains a considerable challenge. In 2012 the agency will work with businesses, local authorities and other organisations to help them assess and adapt to the impacts of climate change, including flood risk, water supply, water quality and biodiversity.

The Environment Agency will also continue to reduce unnecessary regulatory burdens on industry and tailor our approach to specific industries. We will have a particular focus on stopping illegal activities, to ensure there is a level playing field for legitimate businesses. We will be firm and fair, ensuring people and the environment are properly protected, including prosecuting when required.

Improving water environments also remains a priority. We will continue our extensive programme of investigations and will target measures to improve the ecological condition of the UK's water bodies. These are just a few of our priorities for 2012.



**Martin Baxter – executive director of policy, IEMA**

The coming year will present a number of policy developments and challenges for businesses and organisations.

The Rio+20 Earth summit will be a welcome reminder that international efforts to protect the environment aren't solely concerned with global climate change. There is a real opportunity for countries to set a path towards greening their economies, ensuring that they don't destroy natural capital and undermine social wellbeing.

The adoption of the *Roadmap to a resource efficient Europe* last September will be followed by a more detailed sustainable production and consumption action plan. The plan will have longer-term consequences for businesses as it filters down into national policies.

Closer to home, the government will launch a resource security action plan in February, an important step in ensuring that the UK is able to access the resources it needs to support a rebalancing of the economy. One decision expected in early 2012 is whether the government will introduce mandatory greenhouse-gas (GHG) reporting for companies. This

will, in part, be linked to proposals to restructure corporate reporting from October 2012 under the Companies Act 2006. The development of the government environmental reporting guidelines, due to be published at the end of 2012, will help to maintain a focus on corporate disclosure and transparency over the coming year.

There is also the potential for broader GHG reporting to be linked to proposals to simplify the Carbon Reduction Commitment Energy Efficiency scheme (CRC). Planning reform and publication of the National Planning Policy Framework will provide a key test of how well the government really understands sustainable development.

Finally, the March 2012 Budget will, as ever, give the clearest indication of how well we're progressing towards a green economy.



**Rhian Kelly – director of business environment, CBI**

2012 will be the year we see if we're going to take advantage of the growth, investment and jobs offered by the low-carbon transition. Decarbonisation

survived the recession but it remains to be seen if it will survive the sequel that could be coming in the wake of the eurozone crisis. We know all the economic arguments for decarbonising, but will that matter if the political will evaporates?

To ensure it remains part of the political narrative, next year will need to be about three things – investment, growth and jobs. Make the green policies solely about decarbonising and people aren't going to bite. Show how policies such as the Green Deal and the Green Investment Bank will grow the economy today and things can happen.

Following the mess made of changing the solar feed-in tariff (FIT) – which joins the previous year's blunder over the CRC scheme – there's a lot of ground to be made up in persuading businesses that the government is going to deliver a steady, predictable policy landscape in which they can plan their investments. We will need to see policies that manage the cost of decarbonising sensibly while at the same time making sure we start getting the most out of the economic benefits on offer.



**Gareth Stace – head of climate and environment policy, EEF**

2011's myriad consultations on potential climate change and environment policies will shape the policy landscape of 2012. At the same time, COP 17 [Durban, p.5] has set the pace for post-Kyoto negotiations, which will be a central theme for 2012 ahead of the end of the commitment period on 31 December. The next 12 months will therefore see a very different policy landscape to that of the preceding years. We are expecting the results of consultations on: GHG reporting and whether this will be made mandatory; whether climate change agreements will be still be administered by sectors or by the Environment Agency; what Defra will deliver from the waste policy review; and what the package of measures aimed at addressing competitive concerns for energy-intensive industries will include. In the government's drive to be the "greenest government ever", these consultations have promised to streamline policy while also reducing the burden for business. However, this hangs in the balance as we wait for the results. One thing is certain – the more consultations delivered, the less certainty business enjoys.



**Sally Uren – deputy chief executive, Forum for the Future**

The last year has been rich in new conversations, concept and practice. My prediction is that 2012 will see one of each of these break through into the mainstream. The conversation to break through will be the one around sustainable capitalism. Increasing numbers of business leaders will question whether the current form of capitalism is fit for purpose. Enter the notion of sustainable capitalism – where we factor in environmental assets, and recognise their true value.

The concept to break through is that of collaborative consumption – the rapid explosion in swapping and renting goods and services, often through peer-to-peer (P2P) businesses, such as AirBnB, a website where you can rent out your spare room. Collaborative consumption could mainstream in 2012 for two reasons: first, economic austerity will force people to cut costs, and look for cheaper ways of accessing goods and services; second, the ongoing digital revolution will increase people's ability to access these new P2P business models.

And finally, the practice of taking sustainability to consumers, rather than waiting for them to demand it, will mainstream. Pioneering companies, such as M&S and Unilever, are already saying they will try to shift what people buy and how they use their products in the home. The realisation that it is possible to drive brand loyalty through sustainability issues (as long as these issues are linked to other benefits), and that it will be increasingly impossible to be credible on sustainability issues without addressing the use phase (accounting for up to 80% of a product's impact), will mean many more brands will take sustainability to their consumers.

If we see these breakthroughs, then we stand a much better chance of seeing a sustainable future.



**David Kennedy – chief executive, Committee on Climate Change**

We have made good progress recently in developing policies to support reductions in emissions. Particular highlights are the acceptance by the government and parliament of our advice on the fourth carbon budget and electricity market reform (EMR). But there still remains much to do in order to make the step change from a broadly flat emissions trend to the 3% annual emissions reduction required over the next decade – and the actions that we take over the coming months will be crucial in determining whether we will meet carbon budgets or not. The key areas we need to get right are: the detailed arrangements for implementing the EMR; the urgent demonstration of carbon capture and storage; the introduction of strong incentives for residential energy-efficiency improvement; the deployment of renewable heat; and the development of electric vehicle markets.

We also need to set out the facts about energy bills, both as regards recent increases – due to gas-price movements – and projected increases due to financing of low-carbon investments. Where there are groups with legitimate concerns – the fuel poor and electricity-intensive industries operating in global markets – mechanisms should be introduced to ensure that adverse impacts are addressed.

With new policies in place, continued funding, and a positive public narrative on the benefits of building a low-carbon economy, the stage will be set for people and companies to respond, taking actions and investments to reduce emissions which will benefit us all.



**Peter Young – strategy director, SKM Enviro; chair of the Aldersgate Group**

I do not think history will look kindly on the environmental achievements of 2012. The growth of developed economies will be at best flaccid. At worst, failure to act on sovereign debt or resource price shocks, caused by political or weather events, could bring back the gloom of recession to much of the developed world. The almost total eclipse of the COP 17 negotiations at Durban by the efforts to save the euro show the environment is no longer front of mind.

The UK government seems increasingly influenced by climate-change deniers and backers of past economies to deliver growth. Ironically, the policies delivered by the sponsors of the "green economy", Defra, DECC and even BIS, are increasingly credible and helpful. I am hopeful of progress on the Green Investment Bank, mandatory carbon reporting, natural capital accounts and more investment in resource efficiency. But I fear more marginalisation, with the power of No.10 and the Treasury being directed towards support for the old economy and cutting as much regulation that benefits the economy as that which does not. The environment agenda will win some important battles but continue losing the war, consigning future generations to greater impoverishment – in every sense of the word. When

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will we learn to stop spending and using more than we and the planet can afford? Not in 2012. Perhaps a jolting wake-up call for our leaders, such as a massive commodity shortage due to weather consistent with climate predictions, is the best to hope for.



**Gaynor Hartnell – chief executive, Renewable Energy Association**

I'll confine myself to three "asks" for 2012. First, investor confidence in the sustainable energy sector must be rebuilt after the traumas of the first two years of the FIT scheme. The damage of retrospective action, which is how industry viewed the announcement in October 2011 to cut the tariff levels, has spread far and wide. The sooner we see regular and predictable adjustments, made in a timely manner, the better.

Second, we need to make sure the Renewable Heat Incentive does not repeat the same mistakes. This could entail pre-registering access to funding for the largest projects and having a capacity-triggered degression of tariffs for the smaller scale.

Finally, if the government wants UK companies to benefit from a renewable source of energy that needs minimal subsidy and no new infrastructure, it must get off the fence regarding biofuels. It insists on the 10% biofuel transport target, yet for years has held back from setting out a trajectory to achieve it. This is a sure-fire way of snatching defeat from the jaws of victory. Why see the UK dependent on imported biofuels, whose environmental benefits are less verifiable, when we could have domestic manufacture?



**Liz Goodwin – chief executive, WRAP**

WRAP recently published the first major study examining the environmental and economic benefits of reuse in the UK. Its findings make compelling reading. We hope that in 2012 more people will consider the benefits of reuse. Greater reuse could help reduce the UK's GHG emissions by nearly four million tonnes of CO<sub>2</sub>e (tCO<sub>2</sub>e) each year, by 2020. UK businesses and households could benefit annually by more than £1 billion as a direct result of sales through reuse exchanges, and by avoided purchase costs. Take televisions. About 1.3 million televisions are reused each year; that's 13% of all TVs reaching end-of-life. At this rate of reuse, we are collectively cutting emissions by 160,000 tCO<sub>2</sub>e a year and saving £500 million as householders sell their old sets. The numbers represent a fraction of the potential and this is why WRAP is championing reuse.

Working with industry, WRAP created a methodology to examine reuse, along with an online tool to help users understand its impacts, and to act as a guide to the most appropriate way of dealing with products that have reached their "end-of-life". We also manage the £1 million Waste Prevention Loan Fund. This supports organisations that introduce business models and processes that make more efficient use of material resources. Examples include product reuse, repair and upgrading services, and materials recovery

and reuse by the manufacturer. The fund will support organisations over the next four years. It is designed to help introduce solutions where commercial funding is otherwise unavailable, and is part of our focus on reducing waste through reuse.



**David Nussbaum – chief executive, WWF-UK**

As we move into 2012, the global environmental agenda is as congested and crucial as it has been for many years. Yet against the background and persistence of the global economic crisis, and the threat of recession in the UK and elsewhere, environmental issues struggle to get the political attention they urgently require. The world is coming to London in 2012 for the Olympics, but shortly before this, Rio+20 takes place, 20 years after the 1992 Earth summit, which set in motion some of the most important intergovernmental bodies that have driven forward action on protecting the environment and biodiversity, and tackling climate change. But pressures on ecosystems due to our consumption of resources – from freshwater to food, forest products to fish – have increased in the past two decades, not diminished, as has the rate at which we pump climate-changing gases into the atmosphere. Coming in the middle of the annual cycle of UN climate negotiations, Rio+20 could serve as a reminder of the genesis of multilateral efforts to address climate change and be a spur to action, or merely highlight how progress towards a comprehensive global agreement has stalled.

I anticipate that it will be a bit of both. But my main hope is that Rio injects some renewed political momentum – at both the international and national levels – towards a world where humans live in harmony with the natural world.



**Alan Hearne – chief executive, RPS Group**

When companies, countries and even currencies are fighting for their lives, priorities change. At the micro-policy level there are still many environmental initiatives moving forward in all parts of the world. Taken together, these could imply a growing commitment to environmental performance. I believe this would be a serious misreading of what politicians and those they represent really think.

In last year's corresponding article in *the environmentalist*, the European commissioner for the environment wrote: "a healthy environment is the foundation we need for sustainable economic growth." Few would sign up to that proposition today. It is clear that healthy public finances are necessary to enable economies to survive, let alone to grow; almost nothing else matters while the crisis continues. The pain of the global financial crisis will continue into 2012 and beyond and can only mean reducing importance and expenditure on projects that might lead to environmental improvement, other than where money can be saved in the short term.



# From brownfields to gold medals

**S**even years ago, the London 2012 bid team promised the International Olympic Committee it would deliver the “first sustainable games”. By this, it meant embedding sustainability at every stage of the games, from planning and venue construction, through to the events themselves and on to the legacy for local communities and the rest of the UK.

To achieve this ambitious goal, the London 2012 sustainability plan – launched in 2007 and revised in 2009 ([lexisurl.com/iema11435](http://lexisurl.com/iema11435)) – outlines a clear vision for the revitalisation and regeneration of one of the most deprived parts of the country. It also incorporates targets covering everything from low-carbon strategies and waste to biodiversity and healthy living (see panel, p.22). The first phase covered by the plan – “building the stage” – focuses on the design and build of the Olympic Park, other permanent venues and the supporting infrastructure, including an energy centre providing low-carbon power. This work involved not only construction of such high-profile venues as the Olympic Stadium and Aquatics Centre, but also the earlier site planning, remediation and demolition work.

For the Olympic Delivery Authority (ODA), which is responsible for the build, the brief was hugely challenging – a project twice the size of Heathrow Terminal 5 to be completed in half the time on what was a highly contaminated brownfield site, blighted by fly-tipping and poor water quality. But by July 2011, the ODA announced it had completed all the “big build” venues on time and on budget, and had met, or was on track to meet, most of its sustainability targets.

In this first phase, the project has already racked up some impressive statistics, including recycling and reusing 98.5% of the demolition material on the park, cleaning and reusing 80% of previously contaminated

## Lucie Ponting on how London 2012 is measuring up to its sustainability goals

soil on the site, and transporting 63% (by weight) of construction materials to the park by rail or water.

### Not another target

From the outset, the ODA's strategy set out stringent sustainability targets (mirroring the sustainability plan) in 12 key areas, including carbon, water, waste, biodiversity and transport. To verify these on the ground, the authority and its partner CLM have monitored performance internally, and the independent Commission for a Sustainable London (CSL) is providing external audit. As the client, the ODA required all the park's principal contractors to have a fully approved environment management plan, setting out how potential environmental effects of the works would be managed and project targets met.

“[We] set the pace and everybody then followed that because it was embedded in contracts,” explains the ODA's director of infrastructure and utilities, Simon Wright. The designers had the targets in the brief against which they bid, adopting those into their designs. The same standards then went in contractors' tender documents. “So all the way through,” he stresses, “no one was in any doubt about what we were trying to achieve, and then they themselves were held accountable for delivering their components of it.”

Kirsten Henson, director of KLH Sustainability, who was part of the CLM sustainability team on the park, found that one of the biggest challenges was breaking

## TOWARDS A ONE-PLANET 2012

The London 2012 sustainability plan spans three phases (preparation, staging and legacy) and covers five priority themes:

- **Climate change** – to minimise the carbon footprint of the games and provide a platform for demonstrating long-term solutions for energy and water resource management.
- **Waste** – to be a catalyst for a new waste management infrastructure and demonstrate exemplary resource management practice.
- **Biodiversity** – to enhance the ecology of the Lower Lea Valley and other London and regional 2012 venues.
- **Inclusion** – to host the most inclusive games to date by promoting access, celebrating diversity and facilitating the physical, economic and social regeneration of local communities.
- **Healthy living** – to inspire people across the country to take up sport and develop active, healthy and sustainable lifestyles.

down some of the entrenched views and barriers put up by designers, engineers and contractors who were used to doing things in a certain way. “I was constantly surprised by the level of reluctance to do something differently,” she says. The consulting engineers, in particular, tended to be very conservative and risk averse.

“But the most interesting thing,” she adds, “is that once people started [getting involved in] sustainability and thinking differently, they got really quite excited about it.” Over two or three years, she watched people such as design managers with 30-plus years’ experience change their whole perspective and be thrilled that there was now a new dimension to their job.

She believes – and this was reinforced by her Olympic Park experience – that to engage people effectively, it’s crucial they understand what they’re doing in terms of sustainability, and why. Otherwise, the reaction is often: “Oh no, not yet another target.”

“On the park, we [the ODA and CLM] didn’t simply say: ‘We want this and that ... so go and tick the boxes.’ People came to us for guidance, advice, ideas, information and support if they were trying to get certain things through, or if they were struggling,” says Henson. “A lot of clients don’t tend to offer that; they say: ‘Yes, we want it’, but don’t check, don’t provide guidance and don’t provide support.”

### Dig, demolish, design

The ODA’s first task was to prepare the 245-hectare park site in the Lower Lea Valley. With a higher budget than any of the individual venues, the enabling and remediation works involved clearing and cleaning the derelict site, the removal of 52 overhead power pylons, rerouting power cables into two 6km tunnels under the park, and providing new water and power networks.

Industrial contamination on-site included oil, petrol, tar, cyanide, arsenic and lead, as well as some very low-level radioactive material. Overall, there were almost 3,000 soil investigations into contamination, and a special “soil hospital” set up in the park that washed, sieved and shook the soil free from contaminants. In total, more than 80% of 800,000 cubic metres of contaminated soil was cleaned and reused on-site through soil washing and large-scale composting.

Alongside the soil work, the project treated more than 20 million gallons of contaminated groundwater using innovative techniques such as injecting compounds into the ground, and generating oxygen to break down harmful chemicals. Contractors also

had to treat and clear about four hectares of invasive Japanese knotweed, which can cause serious damage to infrastructure. Treatment techniques included in situ spraying with persistent or non-persistent herbicides, excavation under the supervision of specialist contractors, screening of excavated material, controlled incineration of knotweed cane, crown and rhizome material, and deep burial using proprietary root barriers.

In all, more than 215 buildings were demolished, as well as a number of walls, bridges and roads. The target for 90% (by weight) reuse or recycling of demolition material was exceeded, reaching 98.5% on the park. Although reuse of materials is more desirable than recycling – leading to greater reduction in waste to landfill and greater savings in carbon emissions – the general target of 90% did not include a specific target for reuse. In practice, there were high levels of recycling, and negligible levels of reclamation for reuse (an estimated 0.5%). Some of the materials reclaimed and stored for reuse were 660 tonnes of various brick types, 176 tonnes of paving material and 5,400m of kerbing.

“The reuse side of things was challenging,” remarks Henson. “Though there was definitely a commitment to reuse, in the end the users weren’t there. The industry was a bit behind in terms of there being a market for reused products.”

Based on this experience, the ODA suggests clients in future set a specific reuse target, rather than just a combined figure. Other recommendations include appointing specialist reuse/salvage contractors during the pre-demolition and demolition stages, carrying out detailed reclamation surveys, and establishing a storage area for reclaimed materials on or near site.

### Big build

Alongside the 90% demolition waste target, the other construction waste targets included: using 25% (by weight) of recycled and/or secondary aggregate for the construction of venues and park-wide infrastructure; 20%, by value, of construction materials from a reused or recycled source; and a waste management contractor committed to diverting 90% of construction waste from landfill through reuse, recycling and recovery.

To achieve these, the ODA’s construction waste management plan (CWMP) implemented a centralised waste management service with an on-site waste consolidation centre, and required every tier 1 building contractor to produce its own CWMP. In April 2011, the ODA reported that all the key targets for waste were “on track”, with the foundations for the Aquatics Centre, Handball Arena and the Olympic Stadium using concrete with more than 30% recycled materials, and at least 20% of the precast concrete units for seating terraces, temporary bridge decks and the Handball Arena created from recycled aggregate.

The built-in design features of the venues, and the associated infrastructure, such as a non-potable water system and the energy centre (which includes a combined cooling, heating and power plant), will help to ensure that London 2012 meets its sustainability commitments in phases two and three of the sustainability plan – staging and legacy.

98.5  
per cent

Proportion of on-site demolition material that was either recycled or reused



## BIODIVERSITY GOALS

The Olympic Park biodiversity action plan established targets for the park site, including a requirement to create 45 hectares of new habitat to replace the loss of previously designated sites, as well as action plans for 28 species or species groups. Activities so far include:

- translocating 4,000 smooth newts, 100 toads and 300 common lizards as well as fish, including pikes and eels;
- the creation of sand martin and kingfisher nests outside the park, and a programme of bird and bat surveys on the site; and
- a new wildlife habitat on Hackney Marshes to provide a home for insects such as the toadflax brocade moth.

Specific carbon targets include:

- each permanent venue to aim to achieve a 15% carbon dioxide reduction above Building Regulations 2006 (BR2006) Part L;
- the Olympic Village to be 25% more energy efficient than BR2006 requirements, meeting level 4 of the code for sustainable homes;
- permanent venues to achieve a BREEAM “excellent” rating in legacy (as BREEAM has never been used on major sporting venues, a bespoke rating had to be created for London 2012);
- 20% of all energy demands for post-games legacy to be derived from on-site renewable sources; and
- an aspiration to reduce the overall carbon emissions associated with the built environment in the Olympic Park development by 50% by 2013.

With the exception of the 20% renewables target, London 2012 is currently on track to meet all of these goals. “All the sustainability targets ... have proven pretty tough to achieve,” says Wright. “We deliberately set out to stretch ourselves, and the industry, so we were expecting them to be hard. But overall, we’ve been successful in delivering most of them.”

### Winning the race

Carbon reduction has proved one of the greatest challenges. In 2010, the ODA scrapped a planned wind turbine, dubbed the Angel of Leyton, after the preferred bidder’s turbine supplier pulled out. “We didn’t get the wind turbine in the end,” explains Wright, “so we didn’t get the proportion of renewables we wanted, but we did recover our position on overall carbon emissions; we adapted and re-evaluated to meet the target of 50% reduction in emissions.” This will now be through a 9% contribution from on-site renewable energy, rather than the original 20%.

Another key challenge was getting the sustainable concrete mixes and workability right. Given the high environmental impact of concrete, improving its sustainability was crucial. “To get the finish right on concrete with a high recycled-waste content has been quite tough,” says Wright. “It’s a different kind of mix to

what most of the contractors and supply chain were used to, so we needed quite a lot of work; that was hard work at the time but successful ultimately.”

Overall, the development of more environmentally-friendly concrete mixes resulted in the use of about 170,000 tonnes (almost 22%) of recycled and secondary aggregate, a saving of approximately 30,000 tonnes (24%) of embodied carbon, and the elimination of more than 70,000 road-vehicle movements. Rationalisation and efficiency of design reduced total concrete demand by 65,000 cubic metres, saving a further 120,000 tonnes of aggregate and 20,000 tonnes of embodied carbon.

The latest annual report from CSL, published in April 2011, concludes that the ODA has “done an exemplary job of sustainable construction” and “set new standards that the industry would be well advised to follow”. To capitalise on its experience, the authority has established a learning legacy programme ([lexisurl.com/iema11437](http://lexisurl.com/iema11437)), which includes sustainability as one of its 10 themes.

“The intention is to provide a library of information, details and lessons learned,” explains Wright. “It’s not a formula or a silver bullet; it’s there to give other projects an opportunity to gain an insight into what went on in the Olympic programme and to provide them with maybe a bit of a head start ... so they can short circuit to successful outcomes in their own way.”

Henson says the sheer scale of the Olympic work is what makes it different; other than that, the actual processes are identical, whatever the project. “The solutions might be different, the innovations might be different, but the challenges you face, the way the project is structured, and the approaches you need to take are going to be very similar.”

**Lucie Ponting** is a health, safety and environment journalist, and writes regularly for *the environmentalist*.

# Hearts and minds vs

Can incentives drive changes in behaviour and influence

A key part of the transformation required to slow down climate change is creating a fundamental shift in how individuals perceive the environment and their impact on it. You want staff to understand how their actions impact on your organisation's carbon emissions and to want to change their habits to reduce their impact.

However, to truly engage staff and change their behaviour, you need to understand the barriers preventing them from changing and also how to motivate them to change. Short-term bribery in the form of incentives just isn't going to cut it. You may even run the risk of devaluing the positive behaviour you are trying to embed by indicating that an individual needs to be paid to do it.

In some employee engagement programmes incentives are used to gain staff interest, for example in the form of free giveaways. These may be successful in encouraging an immediate improvement in behaviour, but building a change in behaviour on a transaction that does not engage with an individual's values is usually very vulnerable when the incentive is removed or not desired any more. In using an incentive, the individual's free choice in terms of what motivates them and what interests them is not engaged, making any change in behaviour transient and temporary.

Incentives can also be completely ineffectual where they are not desired in the first place, or where they are not considered enough of a reward to carry out the requested action. In some cases the provision of an incentive may even deter or detract from the reason behind the desired action (for example, to reduce your organisation's carbon emissions), so diluting the message you are trying to get across.

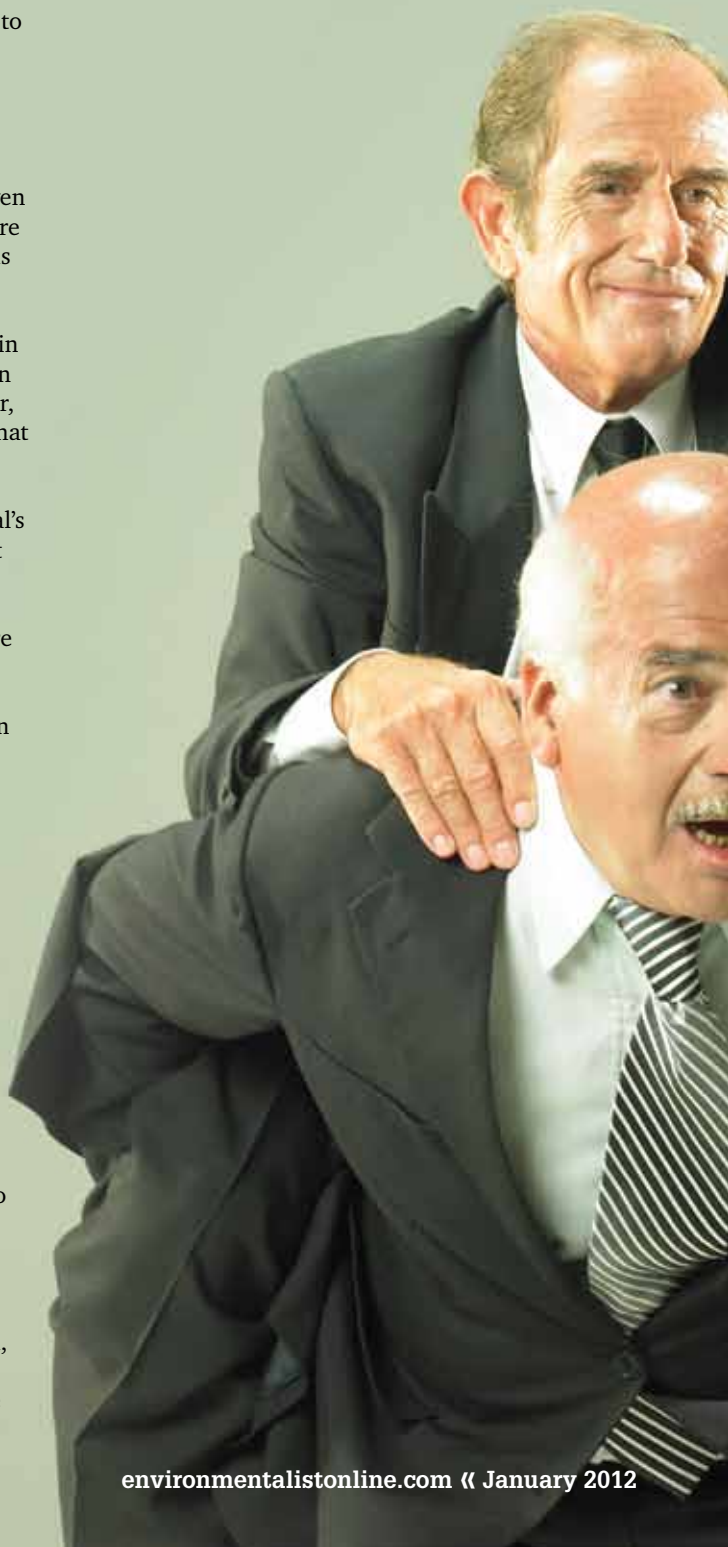
A more effective approach to driving change is to reward and showcase positive behaviour. This also avoids offending anyone who is already carrying out the positive action and as such would have missed out on an incentive scheme aimed at those who are not.

By publicly rewarding the desired behaviour you are engaging staff in a more meaningful way by clearly demonstrating what the preferred behaviour is and showing appreciation of those doing it. Staff who then follow suit and modify their behaviour are doing so for a different motivation than just to receive their prize. They are motivated to do what is deemed to be the right thing by the company. And this type of meaningful engagement around a habit is much more likely to shift values and lead to long-term change.

Changing behaviour is complex and takes time, but if you understand the motivators and barriers involved, provide accessible and relevant information and use clear messaging around what the preferred alternative is, you really can start to influence habits and values.



**Amy Wilson**  
is head of  
business at  
Global Action  
Plan



# carrots and sticks

attitudes towards the environment?

**R**achel leaves her Denver home in a hurry. In the rush she leaves on her living-room lights, but doesn't worry because it's not expensive to leave them burning. She jumps into her large family car, which is the quickest and easiest way to travel because fuel is so cheap, and heads off.

In Bristol, Marielle is at the end of her day. She drives her BMW, one of the low-CO<sub>2</sub> versions chosen to get the lowest tax bracket, and with her children in the car she can use the car-share lane between Bristol and Bath. This means her journey is quick and much nicer than the packed commuter train.

It's all about choices, the big ones and the little ones. We make decisions every day and every time we do, they are based on a rational choice. Large decision or small, our approach is broadly similar: "What will work out best for me?"

This is why incentives matter and can be effective. They can serve as a reward or as a penalty and they are everywhere. You slow down when you go past a speed camera – the incentive to avoid a fine. You shop at the January sales to get a bargain. I take the train into my London office because it's far quicker than driving, and I turn off the lights when I go out to save money and not waste electricity. If you think about it, incentives have probably influenced almost every decision you've made in the past four hours.

To be effective, incentives (and penalties) have to be designed well and be relevant. Most Groupon discounts, for example, don't appeal to me because I'm not interested in what they offer. And if the incentive is only a short-term offer, which stops before I've formed a habit, then there's a risk that I'll revert back to my old behaviour as soon as it's removed.

Environmental decisions – or pro-environmental behaviours as the industry calls them – are no different. You can change individuals' behaviours by encouraging the positive and providing disincentives for the bad. There's nothing wrong with this.

At WSP, our personal carbon-tracking programme rewards staff through their salary for keeping their carbon footprint low outside work. Our research shows this programme alone reduces participants' carbon footprints by 10% in the first year they take part. Employees tell us that they're more likely to keep their eye on the heating, turn off the lights and reduce their travel. And it's fun.

If we are committed to improving the environment, reducing the harmful negative impacts and improving the good, then using incentives will deliver our aims faster and more effectively than without. And that has to be a good thing. The alternative – just relying on persuasion – can work of course, but why ignore an approach that really does work?



**David Symons**  
is director  
at WSP  
Environment &  
Energy

# Met Office grows wild

How the enthusiasm of a few volunteers has blossomed into a biodiversity action plan

**A**s a world leader for weather and climate services, it follows that the Met Office is closely involved in promoting sustainability at home and abroad. Minimising the environmental impact of its own operations is also a corporate priority and, since 2004, its work in this area has been formally captured in a 14001-certified environment management system (EMS). This system now includes a biodiversity policy.

The organisation's biodiversity work has grown from the ground up, initiated by a few employee volunteers in 2007. Early efforts focused on individuals using their lunch breaks and other free time to nurture a wildflower meadow at the organisation's Exeter site. Four years later, this initial enthusiasm has blossomed into the creation of a formal biodiversity working group, full integration of the Met Office's biodiversity policy into its EMS, and the achievement of the Wildlife Trusts' biodiversity benchmark, a challenging award that just 15 organisations in the UK have attained.

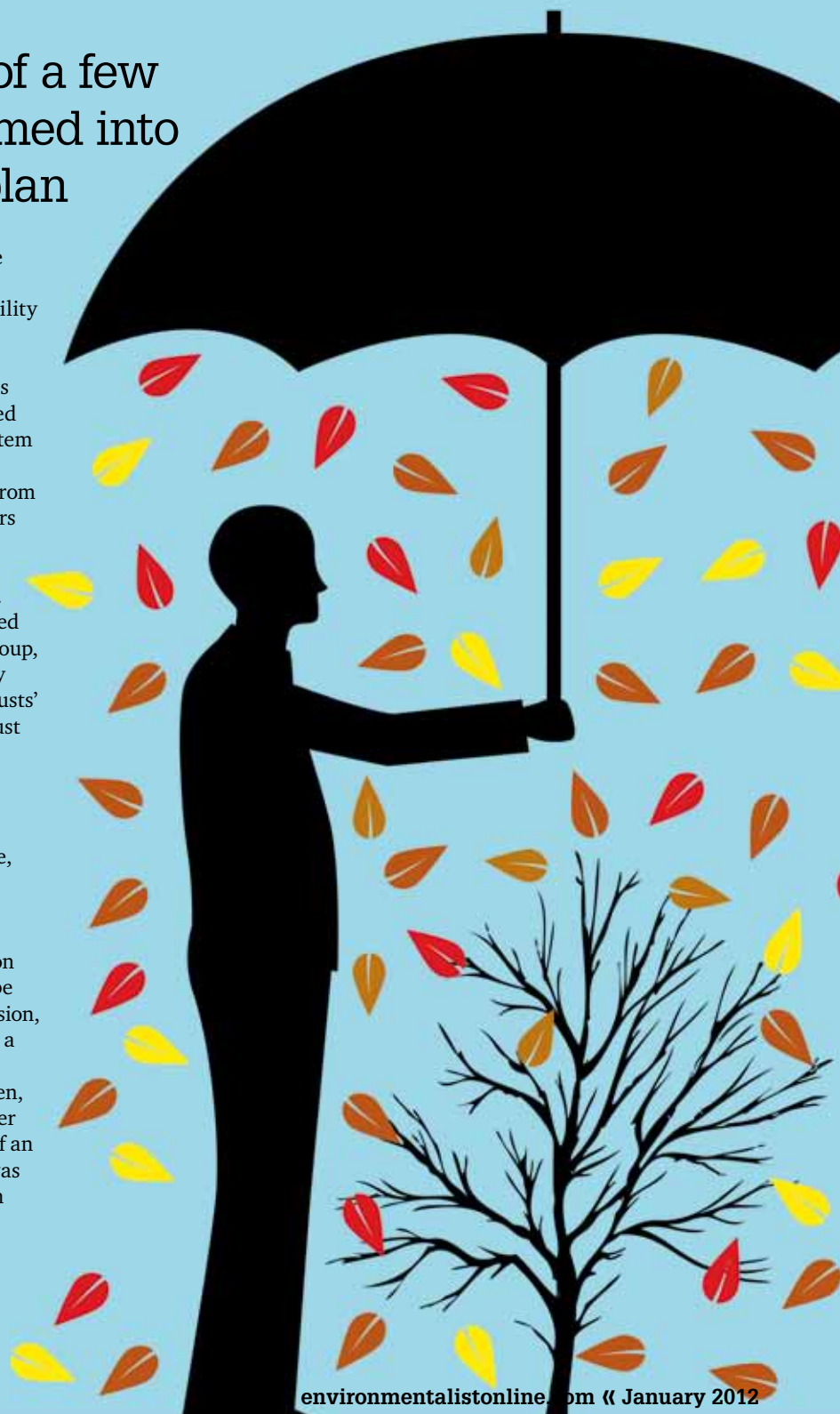
## Harnessing support

A key theme running through the Met Office's biodiversity work, and what has enabled it to thrive, is the internal and external engagement that the organisation has nurtured.

As Neal Pearce, environment adviser, comments: "It is about harnessing the enthusiasm and dedication for conservation and biodiversity that may already be present among the workforce. Tapping into that passion, as well as the expertise of external groups, has been a vital part of developing our biodiversity strategy."

Biodiversity activity at the Met Office started when, several years ago, a handful of employees at its Exeter head office asked if they could turn three-quarters of an acre of land into a wildflower meadow. The group was mindful that 97% of wildflower meadows have been lost in the UK over the past six decades.

Given the go-ahead, this small band of dedicated enthusiasts spent their lunchtimes clearing the area of invasive weeds and thistles, helping nature to re-establish indigenous plant species to support the wildlife. The volunteers also introduced a different



mowing regime, giving the wildflowers a chance to grow, flower and seed.

Even simple steps such as no longer applying fertiliser can have a significant impact on biodiversity, reveals Pearce. In the Met Office's meadow, fertiliser had drained into the ponds, increasing the nitrate content in the water. Halting its use has improved the water quality, and planting water lilies has reduced the growth of algae, encouraging the establishment of colonies of amphibians. Mowing less frequently in the two metres around the pond has also led to an increase in the number of damp-meadow wild plants growing nearby, including the very rare maiden pink.

The initial voluntary work started to attract interest from other employees who, it turned out, had considerable knowledge of a variety of niche conservation areas. For example, one of the chief forecasters contacted the environment team to offer his assistance. He had an extensive knowledge of bats, and he undertook an on-site study of the mammals using a passive audio recorder at four different locations to cover the spread of habitats.

His research identified 10 bat species, including the rare barbastelle and greater horseshoe bats, as well as three other species now identified in the organisation's biodiversity action plan. The results were shared with external bodies, including the RSPB.

It also turned out that the Met Office had a resident bird watcher working in the Exeter office, who has now identified 53 different bird species in the meadow since the project began, and another employee came forward with knowledge of ponds.

"We were able to tap into what people were doing in their own time and use their passion and knowledge to expand our biodiversity work," says Pearce. "It would not have worked if we had taken a top-down approach and imposed these projects on people, we needed to build it from the bottom up." This process of employee engagement is self-perpetuating and creates its own momentum, according to Pearce.

### Coming together

The Met Office added a degree of structure to this activity on the ground by setting up a biodiversity group in 2010. Meeting regularly, the group is chaired by one of the early enthusiasts and works closely with colleagues in property management.

The existence of the group has helped to accelerate the active management of biodiversity and its ideas have already led to improvements including the modified mowing regimes, "under planting" with wildflowers rather than bark, log piles in wooded areas to encourage creature habitats, and garden markers highlighting rare wild orchids and "work in progress".

In its very early stages, there was concern about extending the wildflower meadow project, says Pearce, with some employees thinking it might result in the site "looking untidy". That view has now changed considerably with many staff, if not actively joining in the biodiversity work, enjoying its benefits by choosing to eat their lunch on some of the benches that have now been placed in the meadow.



The wildflower meadow at the Met Office's Exeter HQ

One initiative that has really inspired widespread interest this year is the installation of beehives on-site, with the support of the Exeter Beekeepers' Association. So far, these hives have produced 30lb of good-quality honey that was jarred, labelled as "Met Office Honey", and offered on sale to staff.

This approach further engaged employees and generated a lot of internal interest in the subject, with subsequent talks to staff by the beekeepers being "packed out", says Pearce.

### Going outside

Once the Met Office's biodiversity agenda began to gain momentum and purpose, the organisation wanted to find a way to demonstrate its compliance with national and local priorities in the area, and have its work formally recognised. It applied for and became one of only a handful of organisations to achieve the Wildlife Trusts' biodiversity benchmark award. Only 15 organisations and 40 sites in the UK have met this rigorous standard, and the Met Office was the first from the public sector.

The Wildlife Trusts says that its benchmark can complement existing EMSs by integrating biodiversity into the systems of an organisation, and this is exactly what the Met Office has done.

"We have fully assimilated the biodiversity benchmark clause requirements into our EMS, as there was no point in duplicating operational procedures," explains Pearce. "It is important that we streamline our processes and management systems to make them as accessible and easy to use as possible."

The Met Office's collaboration with the Wildlife Trusts has now moved up a level, with a close partnership in the process of being formed to help deliver the trusts' "Living landscapes" project. This is the Wildlife Trusts' vision to create a network of landscape-scale projects throughout the UK, restoring and re-creating wildlife-rich spaces.

Given the Met Office's unparalleled expertise on the weather and climate change, this collaboration has the potential to be mutually beneficial, with the Met Office's growing work on biodiversity continuing to benefit from

## WORKING IN PARTNERSHIP

Engaging with external interested partners such as the Wildlife Trusts is key to effectively implementing a biodiversity strategy, says Neal Pearce, environment adviser at the Met Office.

This external engagement works on a number of different levels. On one level, it is invaluable to tap into the expertise that already exists on a national, regional and local level. This is why the Met Office engages with a wide variety of wildlife charities and bodies, ranging from the RSPB to the British Dragonfly Society.

Typically, these niche wildlife organisations are a font of specialist information. They are passionate about their area of expertise and more than happy to share their knowledge. “You will find that you are pushing at an open door,” comments Pearce. “Nearly every organisation I have contacted so far has been willing to engage and help.” Undertaking this type of stakeholder engagement can always bring benefits in terms of knowledge transfer, both big and small, he says.

On another level, engagement with external parties can help to resolve perceived barriers to biodiversity enhancement. For example, as part of its strategy to support the RSPB and Exeter City Council’s encouragement of habitats for swifts, the Met Office has installed suitable nesting boxes at its Exeter head office. Initially there were some concerns that the encouragement of additional bird activity could pose a problem to Exeter City Airport, which operates nearby the site. But by exploring the issue and through fully engaging with all interested parties, including the Civil Aviation Authority, the Met Office gained approval for the project.

It is also vital, adds Pearce, to find out what active biodiversity management is already going on in the adjoining areas to capitalise on the work already achieved and to assist in the creation of “wildlife corridors”. It also means taking into account any localised sites of significance, including designated Sites of Special Scientific Interest, and to assess the potential for supporting existing national, regional or local biodiversity action plans.

Access to East Devon County Council’s biodiversity action plan, for example, meant Pearce discovered that the common primrose (*primula rosea*) is valued in the county, from the perspective of being an “indicator” species and as an early season pollinator for invertebrates.

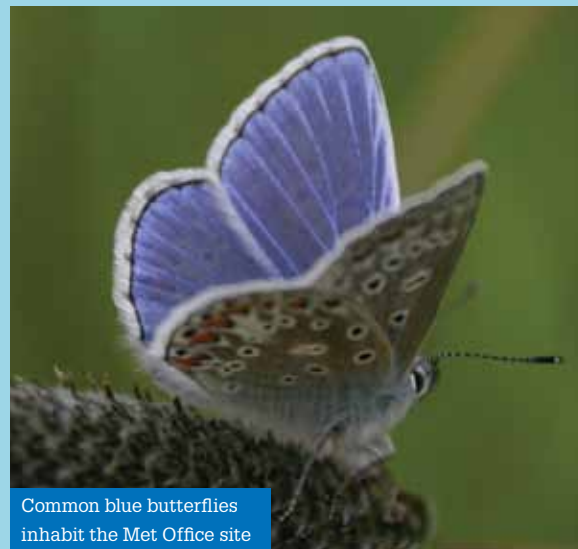
Such awareness can ensure that planting strategies can be adapted to generate suitable habitats, including identified supportive species, which subsequently can assist targeted wildlife.

A further land holding under proactive development includes a three-hectare site located near Taunton, which turned out to be set on ancient woodland. By making enquiries with the Forestry Commission and Exmoor National Park, the Met Office has discovered that work can be supported to reinstate native broadleaf trees.

Aside from its high-level partnership working with the Wildlife Trusts, the Met Office works on a local or regional level with some of the 47 individual wildlife trusts across the UK that make up the national Wildlife Trusts.

the Wildlife Trusts’ extensive expertise in this area. Under the draft strategy currently being considered, the Wildlife Trusts will offer advice and guidance for biodiversity enhancement at the Met Office’s head-office site, while the Met Office will provide valuable advice on factors, such as climate impact, which will affect the trusts’ long-term strategy for living-landscape projects.

Following the success of its work with the Wildlife Trusts, the Met Office has developed partnerships with other bodies (see panel, above).



Common blue butterflies inhabit the Met Office site

### Expanding biodiversity reach

The geographical reach of the Met Office’s biodiversity work has also flourished. As well as expanding at the head-office site itself, where active biodiversity land management now encapsulates the entire 10-hectare grounds, the Met Office’s proactive biodiversity management now extends across the UK on sites where it has land management responsibility. For example, developing biodiversity management incorporates a weather balloon launch site in Cornwall and a 35-acre site in Bedfordshire that hosts a pair of nesting peregrine falcons.

The formalisation of the Met Office’s biodiversity initiatives into a biodiversity action plan (BAP) has enabled it to be more targeted in its work. The BAP’s broad objectives include:

- increasing biodiversity performance on assigned flower-rich meadows;
- generating increased habitats within wooded areas to improve biodiversity performance;
- improving wetland habitat in on-site ponds and adjoining land to encourage diversity;
- monitoring biodiversity performance and reporting findings; and
- raising awareness and understanding of biodiversity issues among staff.

The BAP has enabled the Met Office to encourage the conservation of certain rare species or “species of principal importance in England”, such as the song thrush, the brown hare and the curl bunting. It also keeps a record of all biodiversity observations, with more than 160 different species of amphibian, butterfly, bee, moth, plant, insect, bat, bird and mammal recorded on-site at Exeter so far.

Implementing a far-reaching strategy for biodiversity has been a sharp learning curve for Pearce and his team at the Met Office. He warns that it is a mistake to develop biodiversity in isolation. “Engage with others,” he advises. “You will not have to scratch the surface too deeply before you find an abundance of knowledge and support both inside and outside the organisation.”

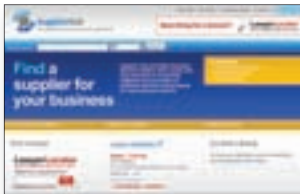


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In 2007, the International Organisation for Standardisation (ISO) balloted members on revising ISO 19011:2002, its guidelines for how to perform effective audits of quality and environment management systems. As well as acknowledging that auditing practices had evolved since 2002, ISO needed to address the relationship between 19011 and ISO 17021, a newer standard aimed at ensuring the competency of third-party certification audits. ISO also recognised the benefits of expanding the scope of 19011 to include the increasing proliferation of new management system standards for disciplines such as health and safety, information security, food safety, and energy management.

The positive responses for revising 19011 from members included recommendations for addressing new concepts in auditing, including risk-based and integrated systems auditing, and the use of information technology in audits. Members also expressed a desire for the revised standard to be more accessible to small and medium-sized enterprises (SMEs) and for the focus to shift to internal auditing. It was acknowledged, however, that the guidance in the 2002 version specific to quality and environment management needed to be preserved in some form, potentially as annexes to the new standard.

The revised standard was published in November 2011, but has the revision met expectations?

#### Internal focus

The declared aim of the new standard is to be applicable to all organisations that need to conduct internal or external audits of management systems. Its role in the ISO management systems library is to provide the definitive source of guidance on auditing principles and practice. That said, the primary focus of the revised 19011 is internal auditing.

The standard starts by explaining the relationship between certification and other forms of management systems auditing and recognises that 17021 should be viewed as the primary standard for certification auditing. While the guidance contained in 19011:2011 is also applicable to external auditing, including certification, ISO notes that in applying 19011 to such audits, special consideration must be given to the additional competencies needed.

One criticism of the 2002 standard was that it was written primarily to provide guidance for external, third-party auditing, with extensive explanations of the duties of auditors to their clients and the need for confidentiality, for example. This was seen as reducing its helpfulness for non-specialist internal auditors, especially in SMEs.

The terminology and style of the standard has not changed. Indeed, one feature in the 2002 version seen as providing clarification and simplification, the “help boxes”, has been moved into an annex.

Admittedly, the new annex provides more extensive guidance, but much of this is additional, rather than supportive or explanatory. In addition, a dedicated website is planned to provide a broader range of less formal guidance. Perhaps all of this supplementary guidance would not be needed if 19011 were a more accessible document, providing simpler guidance to non-professional auditors.

# A design

**Nigel Leehane** asks whether the revised ISO 19011 will improve the quality of audits



# for auditing life

Another much anticipated inclusion was the guidance for auditing integrated management systems. This has been addressed, but only through a statement in the introduction to the effect that an audit of an integrated system does not differ from a combined audit of one or more separate systems. This is based on the premise that, provided the audit team has the necessary understanding of the relevant disciplines and of auditing principles and practices, there are no special competence requirements for auditing combined or integrated systems. Experienced auditors of complex integrated management systems may disagree!

## Managing risk

One of the objectives of the revision was to address the emerging concept of risk-based auditing, which has become established as a fundamental element of financial auditing.

In that arena, the focus is on the potential problems arising from a lack of control over areas of financial risk (the equivalent of failing to control an environmental risk). The financial auditing discipline is also concerned with audit risk, which relates to the potential for misstatement by the auditor, in other words the risk of reaching an erroneous audit conclusion.

The 2011 version of 19011 does not provide a definition of risk-based auditing, but provides the following explanation of its approach to risk: "This international standard introduces the concept of risk to management systems auditing. The approach adopted relates both to the risk of the audit process not achieving its objectives and to the potential of the audit to interfere with the auditee's activities and processes. It does not provide specific guidance on the organisation's risk management process, but recognises that organisations can focus audit effort on matters of significance to the management system." It is introducing three risk concepts:

- Audit risk – the potential for the audit process not to achieve its objectives.
- Risk to the auditee as a result of the audit – for example, introducing contamination into a food-manufacturing process or disclosing confidential business information.
- Risk-based auditing – or focusing audit effort on matters of significance to the management system.

It is unfortunate that the standard shies away from an explicit explanation of risk-based auditing. In environmental auditing practice, it has become accepted that the planning of audits and audit programmes should focus on the key issues for the auditee and its management system. These may be inherently high-risk activities undertaken by the organisation or areas of poor

control, leading to high residual risks. Such risks may not simply be related to activities with the potential to cause significant environmental impacts, but could involve key organisational objectives, where failure could result in reputational damage.

A risk-based approach to auditing provides a greater opportunity to focus audit effort and deliver value from the auditing process. The failure of the revised 19011 to explain this explicitly is regrettable.

Instead, the standard deals implicitly with risk-based auditing, particularly in the clauses that relate to developing the audit programme. For example, it states that: "The extent of an audit programme should be based on the size and nature of the organisation being audited, as well as on the nature, functionality, complexity and the level of maturity of the management system to be audited. Priority should be given to allocating the audit programme resources to audit those matters of significance within the management system. These may include the key characteristics of product quality or hazards related to health and safety, or significant environmental aspects and their control." It also advises that the audit programme should take account of:

- management priorities;
- characteristics of processes, products and projects;
- legal and contractual requirements;
- auditee's level of performance, as reflected in the occurrence of failures or incidents;
- significant changes to activities; and
- results of previous audits.

So, the new standard provides the guidance for focusing audit programme effort on matters of significance, but fails to emphasise the benefits of risk-based auditing any more than it did in the 2002 version. The revised standard does, however, address audit risk explicitly, as indeed it should. It includes the ISO definition of risk as being "the effect of uncertainty on objectives", and focuses attention on ensuring that audits achieve their objectives.

## Auditor competence

The 2011 version of 19011 defines competence as the "ability to apply knowledge and skills to achieve intended results", and sets out a process for evaluating auditor competence, based on:

- determining the competence requirements needed for the audit programme;
- establishing the evaluation criteria;
- selecting the appropriate evaluation method; and
- conducting the evaluation.

The revised standard expands on the personal behaviours (rather than attributes) of auditors, and the generic and discipline-specific knowledge and

skills that may be needed by auditors and by audit team leaders. Where the audit team needs skills and knowledge in more than one discipline in order to carry out audits of “management systems addressing multiple disciplines” (integrated or combined systems), 19011 expects the team as a whole to have the necessary competence.

Individual auditors need only be able to audit a single discipline, for example environment or health and safety. However, audit team leaders must be able to understand the requirements of each of the management system standards being audited against and auditors must understand the “interaction and synergy” between the different systems. A new annex is provided, detailing the skills and knowledge that may be required for an audit, depending on circumstances. These expand on the list in the 2002 standard and now include:

- biodiversity;
- best available techniques;
- the waste hierarchy;
- use of hazardous substances;
- greenhouse-gas emissions and management;
- environmental design;
- environmental reporting and disclosure;
- product stewardship; and
- renewable and low-carbon technologies.

Clearly, the level of skill and extent of knowledge required will be entirely different for audits of small

organisations with simple processes than for audits of multinational organisations with wide-ranging or complex activities spread over numerous sites. The standard recognises this dilemma. Instead of providing competence criteria guidelines in the form of educational qualifications, the number of years of experience or the amount of training an individual has, it is more flexible and leaves the organisation to determine the appropriate evaluation criteria.

## Forward thinking

The revised standard has updated the guidance available to management systems auditors to reflect many new or evolving audit practices, and is now applicable to all of the ISO management system standards. The lack of guidance, however justified, for risk-based auditing and the auditing of integrated management systems may be a disappointment to some. Nonetheless, 19011:2011 is a comprehensive source of structured guidance, which will continue to provide the basis for mentoring and training in the field of management systems auditing.

**Nigel Leehane** was the UK technical expert on environmental auditing for the revision of ISO 19011. A future article will explain the strengthened guidance in the revised 19011 standard for managing audits.



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Celia Cole, 2009-10

# Absolute or not!

Is it best to use absolute emissions reduction targets or intensity ratios?

**Niall Enright finds out**

**W**hen it comes to climate change, there really is only one measure that matters – the total quantity of greenhouse gas in the atmosphere. That is why policymakers tend to favour absolute measures of emissions. The UK Climate Change Act 2008 targets set out a legal obligation to reduce absolute emissions of “carbon units” by 80% by 2050 compared with 1990 levels. This equates to approximately a 3% reduction every year for the next 40 years.

But are absolute figures the best way for organisations to manage and report emissions?

## A question of efficiency

Despite their environmental credentials, it does not take long to spot some obvious weaknesses with applying absolute emissions targets to organisations or individuals. The first issue is that of economic efficiency. Some organisations can achieve emissions reductions much more cheaply than others, and so setting a uniform 3% annual reduction target across the economy, or in an organisation, would not be the most efficient way to achieve a specific overall cut.

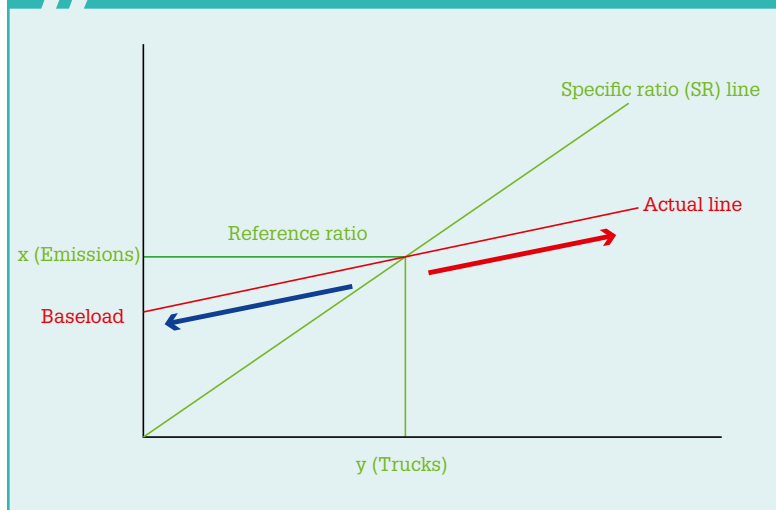
Another flaw with absolute targets is the issue of boundaries. Whereas a national frontier does not change, organisational boundaries are rarely static: acquisitions or disposals can give the appearance of better or poorer performance in absolute terms without any indication of true underlying improvement, unless there is readjustment of baseline data to account for the changes. To compound the boundary issue, there are aspects of equity ownership or control that make absolute emissions reporting at an organisational level even more complex.

This explains why the idea of emissions intensity, in which an organisation's emissions are divided by some form of activity measure – typically, a production or turnover figure – has gained widespread acceptance. Examples of emissions intensity metrics are all around us: from the grammes of CO<sub>2</sub> per km quoted for motor vehicles through to gCO<sub>2</sub> per pack used in product labelling. What's more, many companies use these to describe their emissions targets. The common use of these intensity ratios reflects their simplicity and the ease with which they can be understood.

An underlying attractiveness of intensity ratios is that they permit comparisons to be made. Knowing the g/km for a single vehicle is of relatively little value, but knowing that of a range of vehicles can inform consumer choice, help manufacturers to benchmark their performance



## THE BASELOAD EFFECT



against competitors and permit policymakers to set performance targets for different sectors of the economy. These types of intensity ratios often rely on a defined scenario to set the benchmark – for example, the UK vehicle emissions are quoted for the “typical journey cycle”. More complex industry benchmarks of energy and emissions, such as the Solomon Energy Intensity Index in the refining sector, have hugely complicated scenarios to enable comparisons to be made.

The intensity ratio suggests a linear relationship back to zero – so, if there is no production, there are no emissions. The reality is quite different

### Hidden risks

Intensity ratios can also be used for internal benchmarking, typically tracking changes in product intensity over several years, and many companies quote these rather than absolute targets as they feel it will overcome the negative effect growth would have on absolute emissions. However, there is a huge hidden risk – referred to as the “baseload effect” – in using intensity ratios as a measure of emissions performance.

A practical example helps to illustrate the problem. Several years ago I met a senior executive for a major Canadian automotive manufacturer who proudly boasted that over the previous five years his company had continuously reduced the emissions intensity of the manufacture of its trucks even as volumes increased. In fact these emissions figures formed part of the marketing of the company concerned.

I sketched out a diagram (see panel above) to explain why publishing performance in the form of an intensity ratio could entail some risk. What the truck manufacturer did to establish its intensity was to take the total emissions in a particular year and divide them by the production that year – so, x tonnes for y products.

However, the intensity ratio suggests that there is a linear relationship back to zero – in other words, if there is no production, there will be no emissions. The reality is quite different. Automotive factories in Canada use quite a lot of energy (and so generate emissions) completely independently of production, such as the lighting and heating of the assembly halls, offices and so forth. In fact it is not unheard of for the fixed-energy load in an automotive plant to approach 50% of the overall demand – reflected in the diagram by a red line.

So what does that mean for our Canadian example? As production rose through its factories, the fixed load was divided over more vehicles and so the intensity improved irrespective of the underlying performance of the plant. In effect, emissions tracked along the red line following the red arrow to the right of the reference ratio. The risk lay in the opposite effect – if volume fell below that of the reference year, then the plant would track in the direction of the blue arrow, significantly above the reference intensity, as the fixed baseload is divided by an ever decreasing volume of trucks.

So, improving intensity ratios do not necessarily reflect performance improvement and should be used with caution. A particularly dramatic example of how intensity ratios can confuse can be seen in the published environmental performance of a major UK water company. In 2006, it reported a more than 18% reduction in emissions per megalitre compared with 1990. We already know from the previous example that when the volume of production increases the baseload effect tends to improve the intensity, so some of the improvement could have been as a result of the baseload effect. However, there was another, bigger, effect at work here: energy conversion factors. In 1990, the conversion from a kWh of electricity to a kg of CO<sub>2</sub> was 0.77 kgCO<sub>2</sub>/kWh, while it was 0.52kgCO<sub>2</sub>/kWh in 2006/07 – a reduction of 32%.

The truth is that the emissions intensity of the company had improved. But the implication that this reflects underlying improvement rather than the decarbonisation of electricity supply in the UK is questionable. Because most emissions data are a product of an energy conversion factor there is an additional challenge in their interpretation, given the regional and temporal variations in these factors. If a product is manufactured in a country with a low electricity conversion factor, such as France, which has a lot of nuclear power, it will have a lower emission per unit. This does not mean to say that the French factories are more efficient than those in countries with higher conversion factors.

### Double jeopardy

If the use of intensity is problematic at a company level, it becomes doubly so as a means to measure operational performance, where different equipment and processes are driven by different variables, not just production volume but weather, for example. The most common operational modelling technique employs regression analysis to derive a formula in the form  $y=mx+c$ , where y is the expected emission, m is the emissions intensity per unit activity (x), such as production or weather, for example, and c is the baseload.

## PROS AND CONS OF DIFFERENT REPORTING METRICS

Form of emissions reporting metric	Example	Typical application	Strength	Weakness
Absolute	tCO <sub>2</sub> or MtC (million tonnes of carbon)	National or corporate reporting	Most relevant environmental assessment of impact	Difficult to apply where boundary changes are frequent or boundary is unclear
Intensity or specific emissions ratio (SER)	g/km for cars	Most often applied to product benchmarking. Also used in corporate emission targets	Easy to understand and can be applied across a product category	Comparison often requires a reference scenario. No account of underlying factors driving emissions or of “baseline” effects
Operational (regression)	A formula in the form $y=mx+c$ or product-mix algorithm (climate change agreement)	Applied within facilities or operations at a low level to track performance	Most accurate measure of performance. CUSUM can aggregate performance at higher levels	Can be complex, as multiple variables influence different sources of emissions. More applicable to historic benchmarking rather than benchmarking across facilities or products

The effectiveness of this form of modelling has been proven in thousands of monitoring and targeting (MT) programmes – a cost-saving management technique, designed to detect wasteful use of resources – where it is employed to set targets to drive operational improvement. MT targets differ from intensity targets in that they are rarely used for benchmarking, such as for different buildings, but to provide a comparison with historical performance against which corrective action can be taken. MT targets tend to work best at a very low level, such as for individual plants or pieces of equipment, and so a single facility can have many different targets using a variety of different variables, which can be complex and difficult for outsiders to understand.

Luckily, the performance can be aggregated up from these individual models using techniques such as CUSUM (cumulative sum control chart, which measures a cumulative deviation from the mean or a target value and is often used, for example, to detect changes in the average output of a machine), which can make the MT technique effective in tracking and reporting organisation-level performance.

### Pros and cons

In reality a hybrid approach, involving both absolute and intensity metrics, is emerging to manage and report emissions. As long as they achieve their absolute “caps”, policymakers are willing to incorporate more flexible intensity ratios in the “trade” element of many emissions reduction schemes. In phase III of the EU emissions trading scheme, which starts in January 2013, emissions permits will be allocated across more than 50 product categories on the basis of the average emissions intensity of the best 10% of producers.

If a company is in the top decile, then it will receive nearly all the emissions allocations it needs. By contrast, a poor performer according to the benchmark will have to buy more allocations in the market or undertake its own emissions abatement activities to compensate. The total emissions allowances remain capped – but their distribution is based on intensity ratios.

In the UK, most organisations impacted by the climate change levy, and the associated climate change agreements, have opted for an intensity-like product-mix algorithm to relate their emissions reduction target to the production output(s) of their facilities. Even in the Carbon Reduction Commitment Energy Efficiency scheme performance league table there is some concession towards growth in that from this year 15% of the score is based on the emissions intensity change per pound turnover of private sector participants.

**Absolute, intensity and operational metrics all have their pros and cons when it comes to managing emissions, so it is not unusual to see them regularly used together**

In fact the global vision for equitable emissions allocation combines an absolute goal – contraction (of total emissions) – with an intensity goal – convergence (on per capita emissions).

So, absolute, intensity and operational metrics all have their pros and cons when it comes to managing emissions (see panel above), and it is not unusual to see these used together at both a national and corporate level. Ultimately, the form of reporting with the highest environmental integrity must remain absolute emissions. But, like a balance sheet, this form of reporting rarely provides enough insight to inform day-to-day performance management. For that we need the “management accounts” of emissions – intensity or operational metrics that provide many advantages so long as we avoid potential pitfalls.

**Niall Enright** is director and founder of Sustain Success ([sustainsuccess.co.uk](http://sustainsuccess.co.uk)), a sustainability consultancy, and was formerly with ERM.

# 2011 - IEMA's Year

2011 was a busy and rewarding year for IEMA.

Armed with a rising media profile, a new magazine and the first Environmentalist magazine. We worked hard to provide over 170 events, a package of monthly public but we also introduced a number of new and improved features. Here, mo

## January



January brought the launch of the new look 'environmentalist' magazine, delivering the latest environmental news, features, debates, briefings, legislative updates and IEMA news to all members.

## February

With February came the opening of the IEMA Diploma in Sustainable Business Practice. Thirty people have already graduated from this new high-level qualification and feedback indicates that the course is demanding yet hugely rewarding.



## March



The March issue of 'the environmentalist' included its first special supplement of the year. Leading with a rousing interview from Jan Chmiel entitled "A profession on the move" the supplement featured key findings from IEMA's 2010 Practitioner Survey of pay and benefits.

## July



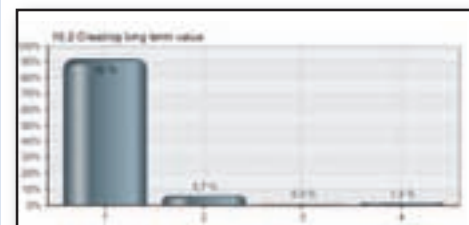
July saw the IEMA e-briefs - short, digestible guidance notes on defined areas of environmental management and assessment - become a series. Available exclusively to IEMA members, seven e-briefs have now been published with many more due for publication during 2012.

## August



IEMA's latest Special Report "The State of Environmental Impact Assessment Practice in UK" was published in August. Using contributions from IEMA members gleaned through a survey and a series of workshops the report assessed the status of UK EIA practice and establishes a vision that will shape future direction.

## September




This month all members were invited to contribute to IEMA's thought leading research on Sustainable Business Practice. A total of 1,348 responses were collected and a Special Report based on the results, along with high-level contributions from environmental and business leaders, will be published in 2012.

# Year In Review

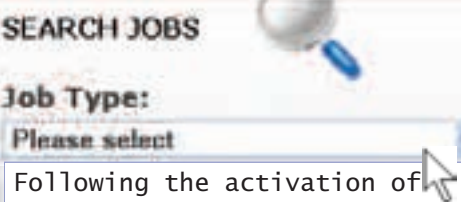
Environmental Skills Map IEMA was able to set the profession on the move. Initiatives and our full range of membership services throughout the year month by month, are some of the key highlights of IEMA's 2011.

## April



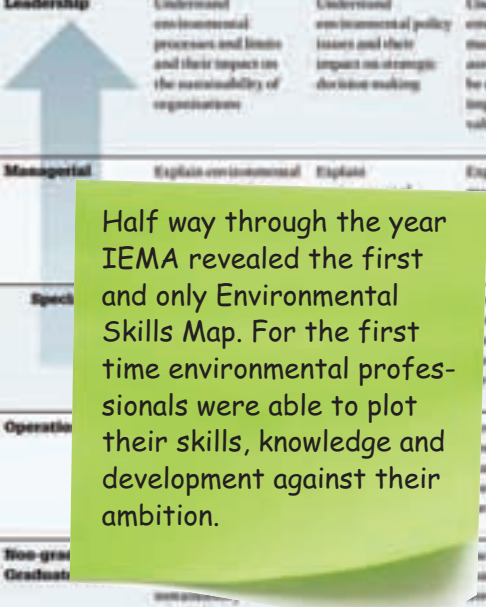
Following a pilot period the IEMA EIA Quality Mark was launched in April, establishing a new standard for organisations that carry out EIA. Through the scheme over forty registrants have made a voluntary dedication to undertaking quality practice, gauged against seven commitments to excellence.

## May



Following the activation of environmentalistonline.com, a completely revitalized jobs website joined IEMA's online resources. Featuring the latest jobs from a huge range of recruiters and with advanced search options, CV upload facilities, links to job-seeking advice and members' career profiles the site has had around 125,000 visitors since its launch.

## June



Half way through the year IEMA revealed the first and only Environmental Skills Map. For the first time environmental professionals were able to plot their skills, knowledge and development against their ambition.

## October




The IEMA Graduate Award judges met during October to find the best early-career talent. Heather Poore (centre) was named as Winner and with Charlie Symonds and Laura Duggan chosen as runners-up, they went on to be featured in the pages of a national newspaper's Careers section. A series of new Student-only events also began in October with more to follow.

## November



IEMA's flagship event for 2011, "IEMA Sustainable Business: Environmental Professionals Driving Change" sought to address the challenges that organisations are facing. The conference attracted over 300 delegates who told us that they enjoyed the line-up of outstanding speakers, meeting other members and left equipped with new knowledge.

## December



A series of seasonal socials were held around the regions in December, providing members with the chance to catch-up with others they had met during the year and end a busy 2011 on an informal and enjoyable note.

## SUCCESSFUL IEMA MEMBERS IN 2011

Following a year of exceptional upgrades in membership, IEMA would once again like to congratulate the following individuals on moving onwards and upwards during 2011.

IEMA's membership ladder and the environmental skills map ([lexisurl.com/iema11446](http://lexisurl.com/iema11446)) allows environment practitioners to map, demonstrate and verify their professional capabilities and experience to employers, clients and recruitment organisations. The people listed here have all made efforts to gain a competitive edge so if you feel inspired to follow suit and make 2012 the year when you move to Full membership or becoming a Chartered environmentalist, visit [lexisurl.com/iema11447](http://lexisurl.com/iema11447) to explore your options. Alternatively, call 01522 540069 to speak to an adviser.

### Full

John Barraclough, Anthony Bishop, Maxwell Burrell, Tim Burrows, Nigel Chalmers, Ben Coombes,



Joanne Dodworth, Jonathan Dosser, Peter Dixon, Robert Duncan, Joseph Ellis, Thomas Fischer, Dave Fitzgerald, David Forbes, Karl Fuller, Peter Gardner, Kieran Gayler, Amy Gray, Beth Gregory, Jenny Grinter, Zaur Hasanov, Justin Haves, Tom Head, Ian Hill, Katherine Illingworth, Dianne Jarvis, Alexandra Jones, Peter Jones, Melanie Kenny, Sarah Kingdom, Steven Lamb, Mark Lovett, Aradhana Mehra, Ellis Mckinnon, Thomas Newholm, Emma Nicholson, Mark Norman, Harry Parker, Ian Pennington, Nicholas Pincombe, Emma Pye, Paola Reason, Paul Reynolds, Jamie Roddie, Sarah Rose, Nicholas Ruscombe-King, Stephen Saville, Paul Seaby, Carolita Smith, Nicola Solly, Adam Stewart, Gabriella Stewart, Lorna Stork, Sarah Swan, William Syddall, Oliver Sykes, Caroline Thomson, Andrew Townsend, Ben Wallace, Simon White, Shaun Wilson.

### Dual

Nick Berry, Andrew Blake, Christopher Boak, Peter Broomhead, Sarah

Bunting, David Bunyan, Alastair Chapman, Kevin Cleary, Sharon Cornick, Adrian Dawes, Philip Delaney, Inga Doak, Deborah Dunsford, Anthony Ellis, Douglas Eltham, Lucinda Farrington, Jane Ferguson, Reece Fowler, Amanda Gore, Joe Hague, Jody Harris, Mark Hedges, Kirsten Holman, Peter Jones, Joan Ko, Maria Kolodnytska, Gavin Landeg, Laura Lane, Jackie Lavender, Matthew Locke, Robert Little, Geoffrey Massey, Bakia Mbianyor, Martha McBarron, James McIntyre, David McKenna, Bridget McNulty, Angus Middleton, Rebecca Mooney, Bruce Munro, Jenni Murphy, Timothy Neal, Daniel O'Kelly, Hema Patel, Carol Peirce, Kirsty Platt, James Pomeroy, Sarah Pratt, Andrew Reay, Stephen Ricks, Alison Rothnie, Anuj Saush, Vicky Schlottmann, Helen Seagrave, Philip Shaw, Joanna Simpson, Lucy Swan, Fiona Syme, Thomas Sek Khuen Tang, Amy Tharakan, Delyth Toghil, Gabrielle Torkington, Thomas Wells, Sarah White.

**Chartered environmentalist**  
Steven Garcia, Matthew Lee.

### Fellow

Henrietta Anstey.

## IEMA EVENTS

Date	Region	Topic
<b>Regional events</b>		
1 March	South East	Social
2 March	North West	Renewable technologies and low-carbon construction skills
8 March	South East	Green drinks (Southampton)
28 March	South West	Green drinks
<b>Membership workshops</b>		
5 March	East of England	Full and CEnv membership (Bishop Stortford)
7 March	Central Scotland	Associate open book (Edinburgh)
15 March	Midlands	Associate open book (Birmingham)
<b>Webinars</b>		
1 March	12.30–1.30pm	Traffic assessment in EIA
29 March	12.30–1.30pm	Cumulative effects in EIA

## Revising ISO 14001

**Standards** IEMA's workshop series to provide members with an opportunity to have a say in the proposed revision to the international environment management system (EMS) standard ISO 14001 is well under way. If you have not had an opportunity to participate in the workshops, don't worry; this is the start of a long process and there will be other ways you'll be able to give your view. We will also produce a summary report of the workshops, so you can find out what other members have been discussing.

The formal UK input to the revision will be through BSI British Standards. If you'd like to get more involved at a national level, contact Lesley Wilson, committee manager, sustainability, at [lesley.wilson@bsigroup.com](mailto:lesley.wilson@bsigroup.com) to discuss what's involved.

## IEMA pay and benefits poll



**Survey** IEMA launched its annual practitioner survey just before Christmas. Open to 12,101 eligible UK members (from Graduate level to Fellow), the poll monitors practitioner experiences of working in the profession. An in-depth and comprehensive piece of research, carried out annually since 2005, the Institute asked members about their qualifications, length of professional experience, earnings and bonuses, changes to circumstances, responsibilities and satisfaction levels.

The online survey closed on Monday 9 January with a total of 2,324 responses – 19% of those eligible to participate and a similar response rate to the 2011 poll.

IEMA would like to thank everyone who took the time to complete the questionnaire, as their contributions are vital to helping the Institute inform business, recruiters and the media about the value of the profession.

Early analysis reveals that more than two-thirds (68%) of respondents are Associate members, 12% are Full members and 1% are Fellows. A further 19% are either Affiliates or Graduates. The results also reveal that almost half (48%) work in business organisations or industry; just under one-third (30%) are consultants; 15% work in the public sector; and 4% work in education, academia or research. The three primary areas of work are health, safety and environment (20% of respondents); environmental management (18%); and sustainability (10%).

Last year saw the environment profession gain momentum so the results of this latest piece of research will prove vital in gauging how far it has come. An analysis of the findings will be published in a special supplement with the March issue of *the environmentalist*.

## SPREADING THE WORD

### Why green graduates deliver business benefits

In her second contribution to Guardian Sustainable Business – the online network for corporate sustainability – IEMA's director of membership strategy and development, **Claire Lea**, looks at what environment graduates, with their recently developed skills and knowledge together with their typically unbridled energy and enthusiasm, can bring to modern businesses.

The continuing economic downturn, coupled with new research from the Department for Education showing that almost 20% of 19- to 24-year-olds in England are not in education, employment or training, is a concerning picture. This figure highlights the real challenges that young people, including graduates, are facing, while acknowledging that this isn't the only group facing unemployment. It led me to think about the value that environment and sustainability graduates bring to organisations. I also considered their potential role in the transition to a sustainable green economy and in delivering long-term growth for business.

Although graduates or early career professionals lack experience, they are potentially a valuable resource for business. They are equipped with the latest knowledge on environment and sustainability, and the proactive ones will have work experience too. With this combination they can hit the ground running, they can analyse a problem, develop innovative solutions, write a business case and communicate their ideas effectively.

Young people provide a different perspective, a fresh approach and can bring the creative thinking that organisations need to develop sustainable solutions.

Recent graduate Charlie Symonds from Stannah Stairlifts – a runner-up in the 2011 IEMA graduate award – is a good example of this. With drive, determination and creative thinking he identified more than £180,000 of savings for his organisation. He puts this down to a thorough

understanding of the environmental impacts of a product throughout its life cycle – combining his environmental knowledge with business skills to deliver a sustainable solution.

Sharing his experience of graduate recruitment, Alan Fowler, principal at consultants Environ, says: "The ones that stand out are those with relevant work experience and excellent interpersonal skills." He finds that the most successful graduates are those who have travelled, especially to more challenging destinations. Fowler comments that "while we place a huge importance on technical expertise, Environ is fundamentally a consultancy business, so the most successful candidates will also show that they have a good business sense, the ability to build strong working relationships with our clients and other attributes that fit our culture."

Fowler considers that in his experience, graduates bring huge value to an organisation. "They tend to be very IT-literate and often have huge enthusiasm and commitment, which is so important in a client-focused consultancy business," he says.

There is a huge opportunity for organisations to harness the sustainable thinking, skills and enthusiasm of graduates and early career professionals to deliver long-term growth for the business and contribute to creating a sustainable green economy.

Claire's blog was originally published by Guardian Sustainable Business on 16 December 2011. IEMA members are invited to comment on the blog at [lexisurl.com/iema11448](http://lexisurl.com/iema11448). While you are visiting, why not sign up to become a member of Guardian Sustainable Business?





## Hydrogeologist vacancies in Shrewsbury and Reading

Following the opening of ESI's new office in Reading, Berkshire and a series of exciting project wins; ESI is seeking experienced hydrogeologists with excellent communication skills and a strong academic background, most likely with an MSc or PhD in groundwater science.

With a commitment to deliver work of the highest standard to demanding deadlines, an ambitious candidate will excel in our growing, dynamic, consultancy environment.

- Consultant Hydrogeologist – Shrewsbury and Reading
- Project Consultants – Shrewsbury and Reading

For further details visit [www.esinternational.com/careers](http://www.esinternational.com/careers) or email [tarahawkes@esinternational.com](mailto:tarahawkes@esinternational.com) with a covering letter and current CV.

## the environmentalist

For all your advertising needs

*"When Sustainable Commercial Solutions was in the process of forming I used the environmentalist online to advertise for two key positions, fundamental for the initial success of the business. At this point we had no logo or website, a normal pre-requisite to enable the advertisements to be processed. However, the environmentalist online worked with us closely, being extremely supportive and helpful, providing a personal and hands on service to ensure the roles were advertised swiftly and professionally. I am very pleased to say I received a large number of applications from which I was able to recruit two first class individuals. Since then, our business has gone from strength to strength and we will certainly be using the environmentalist online again to advertise for future roles."*

Christopher Bennett, Managing Director,  
Sustainable Commercial Solutions.

Contact Elle Umeh

tel: 020 8212 1984

email: [elaheh.umeh@lexisnexis.co.uk](mailto:elaheh.umeh@lexisnexis.co.uk)

## Environmental Recruitment



BREEAM Consultant £Neg South East

EIA Consultant £Neg North West

Asbestos Consultant £30,000 South East

Senior Ecologist £40,000 UK

Technical Support Renewables £30,000 Midlands

Senior Air Quality Consultant £Neg South East

Senior Acoustics Consultant £35,000 South East

Energy Consultant £28,000 UK

Geo Environmental Engineer £Neg UK

Environmental Consultant £40,000 UK

For more details call us on 0121 250 5797 or email your CV to [info@sustain-recruitment.com](mailto:info@sustain-recruitment.com)

0121 250 5797 | [info@sustain-recruitment.com](mailto:info@sustain-recruitment.com) | [www.sustain-recruitment.com](http://www.sustain-recruitment.com)

# Exciting job opportunities available in Scotland

Due to continued growth and expansion, RPS are currently recruiting for a variety of roles in the Scotland Area.

## **Field Ornithologists (seasonal) - Caithness & Sutherland/Argyll - up to £25k**

- To carry out bird survey work around northern England and Scotland
- Windfarm experience would be a distinct advantage

## **Principal Ecologist - Glasgow - circa £40k**

- Requires familiarity with Scottish habitats and species
- Project Management and Business Development experience required

## **Senior Acoustic Consultant - Edinburgh or Glasgow - £32k**

- Report Writing
- Experience of wind farm noise assessments would be a distinct advantage

## **Geotechnical Engineer - Edinburgh or Glasgow - £30k to £35k**

- Experience of Renewable Energy (wind farms, EfW etc) would be beneficial
- Project Management experience required

## **Senior Acoustic Consultant - Edinburgh or Glasgow - £32k**

- Report Writing
- Experience of wind farm noise assessments would be a distinct advantage

## **Senior Hydrologist - Edinburgh or Glasgow - £27k to £32k**

- Flood Risk Modelling
- Water Quality Assessments

## **Landscape Director - Edinburgh or Glasgow - £40k to £55k**

- Landscape Visual Impact Assessments
- Business Development

## **EIA Practitioner - Edinburgh or Glasgow - £28k**

- Project Management of EIA's
- Excellent Communication skills required

Should you wish to find out more about the roles available, please forward your CV to:

**Geoff Thorpe – Recruitment Manager**

**E: [geoff.thorpe@rpsgroup.com](mailto:geoff.thorpe@rpsgroup.com)**

RPS is an equal opportunities employer.

**NO AGENCIES**

**creativepeople**  
making a difference



# 'be here tomorrow'

## The NQA Sustainability Assessed Mark demonstrates:

- ▶ Transparent sustainable practice
- ▶ A commitment to customer requirements
- ▶ A corporate conscience and ethical standards
- ▶ Use of a sustainable business model.

**People, Planet, Profit**

### What do our customers think?

*"It will provide tangible proof that we practice what we preach."*

**Frank Olchowski,**  
Director - Denovo Design

*"It is imperative that we demonstrate the highest sustainability credentials"*

**Gary McFarlane,**  
Director - Chartered Institute of Environmental Health