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April 2013

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IEMA works alongside government, the media and industry to enhance the recognition of the profession and promote the importance of practitioners in combating climate change, working towards a low-carbon economy and building a sustainable future.

IEMA

Saracen House
Crusader Road
City Office Park
Triton Road
Lincoln LN6 7AS
tel: +44 (0) 1522 540069
fax: +44 (0) 1522 540090
info@iema.net
www.iema.net

Editor

Paul Suff
paul.suff@lexisnexis.co.uk

Deputy editor

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

Managing editor

Louis Wustemann
louis.wustemann@lexisnexis.co.uk

Sub-editors

Mike McNabb, Brenda Morris
Angela Partington

Advertising sales executive

Jodie Fletcher
tel: +44 (0) 20 8212 1989
jodie.fletcher@lexisnexis.co.uk

Recruitment advertising

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

Marketing campaign manager

Victoria Newman
victoria.newman@lexisnexis.co.uk

Design

Jack Witherden
jack.witherden@lexisnexis.co.uk

Advertisement production

John Woffenden
john.woffenden@lexisnexis.co.uk

Director of content

Simon Collin
simon.collin@lexisnexis.co.uk

IEMA communications coordinator

Katrina Pierce
k.pierce@iema.net

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Damning statistics

Preliminary figures from Decc show that UK greenhouse-gas (GHG) emissions were 3.5% higher in 2012 than in 2011, and CO₂ emissions, which account for more than 80% of the country's overall GHG output, were 4.5% higher.

Coal is largely responsible for the increase. The latest energy statistics, also from Decc, reveal that electricity generators, attracted by its low price, simply burned more coal than gas. Total demand for coal in 2012 was 64 million tonnes, more than 24% up on 2011 levels, while consumption by power companies was 31% higher.

The rises recorded in 2012 reverse a long-term trend that has seen UK emissions fall almost every year since 1990 – the baseline for major GHGs like CO₂. So, are the 2012 figures just another of the occasional blips experienced over the past two decades as UK edges towards a low-carbon economy? The answer to that question is probably yes, with many of the UK's older coal-fired power stations, which are due to close by 2016, taking advantage of cheap fuel – the price they paid for coal in 2012 was 17% down on 2011 levels.

But whether the increase in emissions is a temporary deviation or not is neither here nor there when it comes to climate change. The CO₂ pumped into the atmosphere last year will remain there for

many years and affect the climate over the next few decades and beyond, leading to extreme weather events, including floods, droughts and storms, occurring more frequently. The government's outgoing chief scientific officer, John Beddington, recently told the BBC that weather patterns over the "next 20 or 30 years are going to be determined by what's up there now".

Decc's GHG data refer only to emissions produced in the UK, not the emissions from all the goods and services we consume in the UK. Like most major developed countries, the UK is a net importer of embodied carbon emissions. The latest figures from the office for national statistics (ONS) suggest that such emissions may also be rising. ONS calculates that the UK deficit on traded goods – transactions in general merchandise; goods for processing and those procured in ports by carriers; repairs on goods; and non-monetary gold – in 2012 was £106.3 billion, the highest on record.

Mark Twain famously said: "There are three kinds of lies: lies, damned lies and statistics." Unfortunately, the latest data on emissions, energy consumption and the trade deficit are not falsehoods and reveal just how far we still need to go to decarbonise the UK economy.

The latest statistics on GHG emissions, energy consumption and balance of payments reveal just how far we still need to go in order to decarbonise the UK's economy



Paul Suff, editor

Short cuts

Future EU carbon policy

The European Commission has published a green paper to gather views on developing a new framework for EU climate change and energy policies up to 2030. Under the 2050 low-carbon economy and energy roadmaps, which were published in 2011, the bloc needs to reduce greenhouse-gas (GHG) emissions by 40% on 1990 levels by 2030, to reach a cut in GHGs of 80-95% by 2050. This reduction is necessary in industrial nations to limit global warming to 2°C. The new framework would replace the current EU one, which runs to 2020. Early agreement on a structure for the next decade is necessary because long investment cycles mean that infrastructure funded in the near term will still be in place in 2030, says the paper. It also notes that clarifying the objectives now for 2030 will help to create demand for efficient and low carbon technologies. In addition, a revised framework would inform the EU position ahead of negotiation on a new legally-binding international climate agreement. Consultation on the green paper runs to 2 July 2013 (lexisurl.com/iema15018).

London lite licence

The Greater London Authority (GLA) has become the first local authority to apply to Ofgem for a "lite licence". The electricity supply licence that will allow the GLA to buy excess power generated by public bodies, such as individual London borough councils, and resell it to other public sector organisations. Under the licensing conditions of the Energy Act 1989, electricity suppliers must comply with industry codes of practices, which until now have been prohibitively expensive for small distributed energy schemes (DESS). Since revisions made in February 2009, new lite licences can be granted, essentially passing responsibility for compliance to the supplier rather than the DES. If granted, the licence will help to raise investment in local generation projects, says London mayor Boris Johnson, who has set a target for the city to produce 25% of its energy locally by 2025.

Regulators may be given economic growth remit

The business department (BIS) is consulting on proposals that would require regulators to consider how their activities affect the finances of the businesses they regulate.

According to BIS, a "growth duty" will enable regulators like the Environment Agency and Natural England to respond more comprehensively to the challenge of stripping back regulatory "burdens" to the minimum and proactively support economic growth by incorporating it into their forward planning.

"The government's priority is to promote growth in the economy. The regulatory climate is a key factor that impacts upon the willingness of businesses to invest and grow," commented Michael Fallon, whose ministerial portfolio now straddles BIS and Decc.

The consultation, which closes on 19 April, states that supporting growth is "at best a secondary concern" for some regulators, and that clarifying in law that they "should be" considering the economic



Regulators may have to consider the economic consequences of enforcement

consequences of their actions will create a "regulatory environment conducive to growth" (lexisurl.com/iema15046).

The proposals follow Lord Heseltine's recommendations on boosting growth in the UK, published in November 2012. Nearly all of his suggestions were formally adopted by the government last month, including the requirement that regulators publish the costs and benefits to business of changes to policy and practices ahead of their implementation.

IEMA says revision of EIA Directive needs more work

The European Commission's proposals to overhaul rules on environmental impact assessment (EIA) will not deliver more proportionate EIAs or ensure better environmental outcomes, says IEMA.

In its position statement on the proposed revisions to the EIA Directive, the Institute reveals it is unconvinced that all of the proposed changes will benefit EIA practice. In particular, IEMA questions the value of requiring all annex II projects to undergo screening and mandating a scoping process led by planning authorities.

While welcoming the commission's overall aims to ensure high-quality EIAs across the bloc, the Institute argues that some of the revisions are unclear and that others may result in unnecessary burdens without equivalent environmental benefits.

The response, which IEMA drafted after consulting its members, concludes that the changes to screening requirements, for example, could result in hundreds of thousands more screenings in the UK each year for fewer than

100 additional full EIAs. It urges the commission to ensure that changes to screening minimise additional burdens on those involved in EIA and deliver "at least commensurate improvements in environmental protection".

The Institute also rejects planned changes to article 5 on scoping, arguing that having planning authorities determine the scope and level of detail in an EIA will prevent a more iterative approach to design. IEMA says responsibility for scoping would better sit with the developer, informed by the outcomes of a mandatory pre-application public consultation process.

Other recommendations include: ensuring new monitoring requirements are linked to a clear purpose and that the data collected are reported to the appropriate bodies; and greater clarity on changes to procedural elements, such as the maximum timeframe for determining applications, to neutralise risks of legal challenge.

IEMA's position statement on the revisions can be downloaded from iema.net.

14001 is 'raising its game'

Draft standard confirms new requirements

Revisions to ISO 14001 will ensure that environment management systems (EMSs) offer greater value to organisations and that the environment is considered at the strategic level, according to IEMA's Martin Baxter, after ISO's publication of the draft standard.

The committee draft, which is out for consultation, includes changes recommended in a 2010 report on the future challenges for EMS. These include: requiring that EMSs are integrated into business processes and that organisations consider environmental impacts across value chains. "The new standard pushes the links into organisational strategy and top management much more, and it requires environment management to be integrated into the core organisational process, rather than sit on the side," confirmed Baxter, IEMA's policy director and the UK representative on the ISO working group revising 14001.

"Another positive change is the focus on risks and opportunities, particularly the enabling side of an EMS and how it can add value to the business, not just manage negative impacts. These are all areas which are aimed at raising the game of 14001 in organisations," he said.

Greg Roberts, a member of the ISO group revising ISO 14004, which provides guidance on the implementing, maintaining and improving an EMS, and a consultant at EEF, agreed: "The draft standard is definitely a step forward. The changes are going to make 14001 more outward-looking, more strategic and more important for businesses. Practitioners will be able to use it to really add value to their organisation and demonstrate the business case behind 14001."

Additional requirements in the draft standard include: ensuring that environmental performance is considered in the organisation's strategic plans; identifying stakeholders and their needs; determining the external environmental risks that can have an impact on the organisation; and controlling or influencing the significant environmental impacts of products and services across their life cycle.

14001 is also the first core management systems standard to be revised in line with ISO's new high-level structure. Roberts warned that the new standard might come



Martin Baxter, IEMA

as a shock to some organisations. "It looks and feels quite different from the current 14001. Those organisations that use one person to manage their EMS will struggle to meet the new requirements on senior leadership and implementing the EMS throughout their organisation."

However, Baxter said that firms employing environment professionals should be prepared. "IEMA members contributed what they wanted to see in the revision and, for the most part, those are the changes that are in the new version.

"There will be issues for those companies that only use 14001 as a tick box – where they have it because it is a customer requirement, but don't actually use it to drive environmental performance. These are the firms that will find it difficult to transition to the new standard."

Initial reaction from practitioners has been positive, confirmed Baxter. "The feedback we've been getting from our members is that this is going in absolutely the right direction. We've run a number of workshops and people like most of the features in the proposed revision and can see their benefits. Whether it's engaging with stakeholders; pushing environment into strategic planning or taking a life-cycle perspective, these are seen as really useful and have a lot of support."

IEMA members can download the committee draft from iema.net and have until 22 April to email their comments to technical@iema.net. Feedback from all of ISO's members will be discussed at the next 14001 technical committee meeting in Botswana in June. The revised standard is expected to be published at the beginning of 2015.

Short cuts

New power plants

Deca has given the green light to plans for two new nuclear reactors at Hinkley Point in Somerset. The plant will be the first nuclear power station to be built in the UK since 1995. NNB Generation, a subsidiary of French-owned energy company EDF, will operate the plant, which will be one of the largest in the UK generating up to 3.2GW of electricity. The energy department has also endorsed the recommendation of the Planning Inspectorate to grant permission for the proposed Brechfa Forest West wind farm in Carmarthenshire, Wales. RWE npower Renewables will operate the facility, which will consist of 28 turbines and have a capacity to generate up to 84MW. It is the first onshore wind farm to be consented under the Planning Act 2008. Meanwhile, the Scottish government has granted permission to develop the European Offshore Wind Deployment Centre in Aberdeen Bay. It will consist of 11 wind turbines and their connecting cables, and generate up to 100MW of electricity.

Changes to REACH fees

The European Commission has outlined new charges for registering chemicals under REACH, lowering the cost of compliance for small and medium-sized enterprises (SMEs). While standard registration fees are to rise by approximately 7%, discounts for SMEs have increased. Under the changes, which are expected to come into force soon, medium-sized firms (with up to 250 members of staff) will receive a 35% discount, compared with the current 30% reduction; small firms (with up to 50 employees) will receive a 65% discount; and micro firms (with 10 employers or fewer) will get a 95% discount. The standard charge for registering a substance of one to 10 tonnes, for example, is set to rise from €1,600 to €1,714. However, medium-sized firms will pay €1,114, compared with the €1,120 they pay now, and small firms will pay €600 rather than €640. Similar changes will apply for charges related to authorisations and appeals.

In Parliament



Broken up in
Bangladesh

It's high tide. The captain orders "full speed ahead" and another enormous ship ploughs up a beach in Bangladesh or elsewhere in Asia. It's broken up with no thought to hazardous materials or pollution. Little heed is paid to the safety of bare-footed workers avoiding shards in the sand or the metal that rains down as torches cut through the hull. In this way owners secure the top price for their "old" vessels.

Exporting waste from the EU is illegal, yet each year more than 300 European ships end up like this instead of being recycled to high standards. At the end of their lives they are "reflagged" out of EU ownership. It is a massive loophole and, under international marine law, there's nothing we can do about it. Standards would be raised if the 2009 Hong Kong Convention was ratified by all countries, but that is unlikely to happen soon.

A financial incentive is needed to encourage ship owners to do the right thing. The European parliament's environment committee voted last month to create a recycling fund into which all large ships will pay a contribution every time they call at an EU port. The fund will subsidise the difference in cost between having a vessel recycled in an EU-approved yard and being broken up on a beach.

Ports are complaining about the idea, fearing increased shipping charges and loss of business. No-one likes the idea of imposing additional costs on the consumer, although over the typical 20–30 year lifespan of a ship the expense of safe disposal born by any single container of goods will be hard to detect. And I have yet to hear any critic propose a credible alternative.

The European parliament will vote on the proposal shortly. The current Irish presidency of the EU is keen to explore common ground between MEPs and ministers before the summer. Let's see what progress can be made.

Chris Davies is Liberal Democrat environment spokesperson in the European parliament.

Leading firms considering natural capital

Companies are adopting a more strategic approach to natural capital to offset the risks posed by degrading ecosystems services and resource scarcity, according to a new study. The research was carried out for TEEB, the global initiative focusing on the economics of ecosystems and biodiversity.

The study of 26 companies – 60% with revenues of at least \$10 billion – highlights how each one is working to make "natural capital management" an integral part of its business in the next three years, to ensure they can compete in a resource-constrained world.

The findings suggest that firms are on track to raise internal awareness of the business benefits of managing natural capital within 18 months. They expect to begin implementing projects and policies related to ecosystems services in the next two years, says the report.

Access to natural resources and ecosystems services are to become increasingly important to the success



of their business, say participants, with access to freshwater and renewable energy predicted to be of high or critical importance within five years.

The study also reveals that the biggest barriers to incorporating natural capital into decision-making processes lie in clearly identifying its relevance to the business. The lack of agreed methods to measure and prioritise natural capital compound this problem, states the report.

Study lists adaptation priorities

New hospitals, schools, offices, railways and roads must be designed to cope over their entire lifetimes with potential changes to the UK's climate, warns a new report from the Grantham Research Institute on Climate Change at the London School of Economics (LSE).

The report outlines 12 priority actions the government should take as part of its national adaptation programme for England, which Defra plans to publish this year. Among the priorities identified by researchers are measures to ensure that major new developments, such as infrastructure, buildings and land management, support rather than hinder long-term resilience. This includes supporting natural ecosystems, something the authors claim can be achieved through regulation and private markets.

According to the report, the government needs to avoid "locking in" vulnerabilities by ensuring that all new investments are robust against climate change in the long term. The research also concludes that routine maintenance of existing public infrastructure must

include retrofitting to improve their climate resilience and control costs.

"Acting early to implement programmes for existing public infrastructure can minimise costs by enabling retrofits to be part of routine maintenance," states the report.

"The [priority] list includes many measures that aim to prevent vulnerability from becoming greater," commented the authors. They also suggest that many of the priorities for adaptation involve refining existing regulation and policies rather than implementing major new investment programmes. The government could reassess whether current water regulation promotes long-term resilience to a changing climate, for example.

The LSE report comes as the newly-formed green investment bank announced that it would provide 50% of the funds needed to build a low-carbon energy centre that will save Cambridge University Hospitals NHS Foundation Trust almost 30,000 tonnes of CO₂ each year. Private investment firm Aviva Investors has matched the bank's £18 million investment.



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Osborne rolls out support for fossil fuels

The fledgling shale gas industry in the UK was one of the “winners” in George Osborne’s fourth budget, with the chancellor announcing that he will introduce a “generous” new tax regime to support the exploration of unconventional sources of gas.

“Shale gas is part of the future. And we will make it happen,” declared the chancellor. He promised that new planning guidance on shale gas would be available by the summer, and that an effective planning system would be established by the end of the year to help develop the industry.

Osborne also pledged to bring forward, by the summer, specific proposals to ensure that local communities benefit from shale gas projects in their area.

Cuadrilla Resources, the first company to explore shale gas reserves in the UK, welcomed the plans. “The government’s decision to introduce tax reforms for shale gas will greatly incentivise companies such as Cuadrilla that are undertaking and investing in exploration work,” commented chief executive Francis Egan.

Companies using large amounts of energy also received a boost from the chancellor, who told MPs that he will introduce exemptions from the climate change levy (CCL) for energy used in metallurgical and mineralogical processes from 1 April 2014. “Creating a low-carbon economy should be done in a way that creates jobs rather than costing them,” he said. Osborne also promised further measures in the next spending round to help energy intensive industries (EIIs) cope with rising energy costs.

New analysis by Decc reveals the impact of the government’s energy and climate change policies on companies’ energy bills. Medium-sized businesses currently face energy costs that are, on average, 21% higher as a result of such policies, said the energy department. Energy costs for large energy-intensive



users are currently between 1% and 14% higher, on average, and could be 36% higher by 2020.

Energy secretary Ed Davey said the exemptions from the CCL announced in the budget and plans by the government to compensate EIIs for some policy impacts would help address rising prices. “Nothing would be gained from forcing industry, jobs and emissions abroad,” he said.

Budget short cuts

CCS projects capture Decc’s backing

The chancellor confirmed in the budget that two carbon capture and storage (CCS) projects had been selected for the next stage of the UK’s £1 billion CCS commercialisation programme.

The Peterhead CCS project is a joint venture between Shell and SSE, and involves retrofitting a 340MW post-combustion capture installation at an existing gas-turbine power station in Aberdeenshire. The other selected project, White Rose, proposes to install an oxyfuel CCS process to capture emissions from a new 304MW coal-fired power station on the Drax site in North Yorkshire. The project involves Alstom, Drax and BOC in cooperation with National Grid.

The government now plans to agree terms by the summer for front-end engineering design (FEED) studies – technical requirements and an estimate of costs – with the two preferred bidders. The FEED stage will last up to 18 months, and the government expects to make a final decision on investment in early 2015.

Accelerating support for low-carbon vehicles

Changes to the company car tax regime announced by George Osborne in the budget include an increase in incentives for the take-up of ultra-low emission vehicles (ULEVs). The chancellor will introduce two “benefit-in-kind” bands (0–50gCO₂/km and 51–75gCO₂/km) from April 2015. Under the plans, appropriate percentage of a car’s list price subject to tax in 2015/16 will be 5% for cars emitting 0–50gCO₂/km and 9% for cars emitting 51–75gCO₂/km.

The chancellor also revealed a further extension, until 2018, of the 100% first-year capital allowance available for businesses purchasing ULEVs. However, the emissions threshold for the allowance will reduce from 95gCO₂/km to 75gCO₂/km from 1 April 2015. A full review of the emissions thresholds beyond 1 April 2018 is planned for the 2016 budget. Osborne confirmed that, in future, changes to company car taxation rates would be announced three years in advance.

Funds to develop ‘greener’ aircraft take off

Ahead of the budget, the business secretary, Vince Cable, unveiled a new package of funding to support the aviation industry in the UK.

This includes £1 billion of public money to help establish the country’s first aerospace technology institute (ATI). The business department says the ATI will allow industry and academic researchers to develop technology for quieter, more energy-efficient aircraft. It estimates that improvements to aircraft technologies developed through the ATI will lead to a reduction in CO₂ emissions of more than 100 million tonnes each year from the next generation of planes.

At the same time, the transport department has published an aviation strategy that aims to reduce aircraft noise through technology; the creation of noise “envelopes” around airports; and further use of noise abatement operational procedures. It also sets out how the aviation sector in the UK will help reduce global emissions from aviation.

Firms to test products' impacts

The publication of research looking at the greenhouse-gas (GHG), waste, water, energy and resource impacts of traditional grocery goods throughout their life cycles has signalled the start of trials by the Co-operative, Nestlé and Sainsbury's to improve the environmental performance of some of their products.

The three companies will pilot projects known as "pathfinders", to target their efforts where many of the biggest environmental savings can be achieved.

The decision to launch the trials follows research from the Product Sustainability Forum (PSF) – a collaboration of more than 80 organisations, including grocery and home improvement retailers, suppliers, representatives from NGOs and the UK government – which identified the groups of products with the greatest potential environmental impacts.

It is estimated that, together, these "top 50" product groups comprise about 80% of the GHG emissions associated with the production, transportation and selling of all grocery products consumed in the UK.

The Co-operative and Nestlé will look at waste prevention and resource-efficiency measures across their potato, milk and chocolate supply chains, while Sainsbury's will focus its activity on its meat, fish, and poultry products as well as fresh produce.

"This [project] will allow us to identify areas where we can make environmental savings while still delivering great quality products," commented Iain Ferguson, environment manager at the Co-operative.

Liz Goodwin, CEO at Wrap, which published the PSF report and is coordinating the pilots, said: "By gaining a better understanding of the products that matter in the context of UK consumption, we can help businesses to prioritise their efforts to improve the environmental performance of their products in areas that will generate the biggest economic and environmental savings."

The PSF research examined product life-cycle data from more than 150 published studies as well as from members. Wrap plans to adopt a similar methodology to review the electrical and home improvement markets.

Shock as EPC fees double

Energy assessors have criticised the government for giving just three weeks' notice of dramatic increases in the costs of registering energy performance certificates (EPCs).

On 6 April the fee for registering a non-domestic certificate rose to £11.81 – more than double the previous charge of £5.36 – and the costs for registering domestic EPCs increased 45%. However, the communities department (Dclg) only informed firms offering EPC assessments of the changes on 15 March.

The Property and Energy Professionals Association (PEPA) called on the government to postpone the price hike until October, arguing that assessors did not have time to prepare for the changes.

"Three weeks is completely inadequate to allow companies to update processes, amend prices and apply these to ongoing work," said PEPA chair Stephen O'Hara.

The price increases, which were labelled "excessive" by assessors, are necessary because a shortfall in registrations has resulted in the cost of running the registration scheme

exceeding the amount of funds being raised, confirmed Dclg. Almost seven million fewer EPCs have been registered than were predicted, while "enhanced services", such as the creation of the EPC adviser tool, have further increased costs. As a result of these shortfalls, government funds were plugging the deficit.

However, Jon Steward, commercial director of EPC producer Niche Communications, argued that Dclg's failure to deal with property owners that were failing to comply with the legislation was to blame for the lower than expected registrations. "Non-compliance is common and clear leadership from Dclg to tackle this issue has not been forthcoming," he said. "It is for this reason that volumes have not reached anticipated levels. Rather than addressing this issue, Dclg wants to take the easy way out and pass on the cost of its incompetence."

O'Hara commented: "It is a great shame that Dclg hasn't taken the time to properly understand why registration numbers are down and has instead chosen to implement a very crude and hasty price increase."

Short cuts

Step-by-step EMAS

A new user's guide setting out the steps organisations need to take to participate in EMAS – the EU eco-management and audit scheme – has been adopted by the European Commission and published in the *Official Journal of the European Union* (lexisurl.com/iema15021). The guide outlines the main elements and stages of the EMAS standard and registration process. The commission says the new document aims to deliver clear, simple advice for those interested in the voluntary scheme and encourage more organisations to adopt the management system that was first developed for companies in industrial sectors in 1995. Since 2001, the scheme has been open to all organisations, both public and private. The revised EMAS Regulation (1221/2009) came into force on 11 January 2010. Currently, more than 4,500 organisations, and about 7,800 sites are EMAS registered. By contrast, there were 267,457 environment management systems certified against ISO 14001 at the end of 2011.

BREEAM winners

The prime minister's residence and the Co-operative Group's new head office, were among 17 buildings honoured at this year's BREEAM awards. Prizes were presented to the highest-scoring buildings certified under the scheme during 2012. The Co-operative's new Manchester head office, One Angel Square, scooped the top prize for offices after achieving an "outstanding" rating and a total score of 92.25%. The 15-storey block will use a combined heat and power plant run on waste cooking oil, greywater recycling systems and low-energy IT equipment. The 10–12 Downing Street complex, meanwhile, was presented with a special prize for being the most improved building in BREEAM's in-use category. The listed Georgian terrace is undergoing refurbishment and the improvements made so far, such as the installation of voltage optimisation, waste heat recovery and controlled lighting systems, have boosted its BREEAM rating from "good" to "very good".

Carbon (GHG) Accounting and Management

An IEMA-Approved 2-Day Training Course

CRA Europe is pleased to announce new dates for 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 future introduction of mandatory GHG reporting. 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



The next courses in the UK are planned for 14th-15th May 2013 in Nottingham and 17th-18th September 2013 in London. For more details, please visit www.cra.co.uk or contact us on: 0115 965 6700 or training@cra.co.uk.

How Will You Respond to the Major Changes Planned for ISO 14001?

ISO 14001:2004 is being revised. When published, ISO 14001:2015 will have a new structure and "common text". It will also address the recommendations from the ISO "Future Challenges" study, for the adoption of various new approaches and methods in the field of EMS, and to meet the needs of stakeholders in the future. This is a fundamental revision of the standard, with new requirements for:

1. Top management to understand the organisation's environmental issues, support the EMS and champion improved performance;
2. Strategic consideration of the organisation's environmental context and the interests of stakeholders;
3. Making specific commitments to sustainable development and social responsibility;
4. Extending environmental influence into the supply chain, with implications for procurement;
5. Embracing opportunities for using environmental design as a tool for improvement;
6. Demonstrating an understanding of the organisation's environmental compliance status; and
7. Using performance indicators to track improvement.

CRA is publishing a series of seven articles explaining the key themes of the revision. To access these articles, please visit www.cra.co.uk/category/news. CRA's Nigel Leehane is one of the UK's technical experts appointed to the ISO working group revising 14001. Please contact him on 0115 965 6700 or nleehane@cra.co.uk if you would like to know more about the changes to ISO 14001 and the implications for your organisation.



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Tel: 0115 965 6700 Fax: 0115 965 5282 Email: info@cra.co.uk

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Recent Prosecutions

Fish kill will cost chemical company

Peterborough crown court will decide the size of the penalty to be imposed on Safapac after the chemical and packaging company pleaded guilty at a magistrates' court to polluting the River Nene in June 2012. Magistrates sent the case to the crown court because they felt that their sentencing powers, which are limited to fines of £20,000 per offence, were insufficient.

Thousands of fish died when 5,000 litres of agricultural chemicals leaked into the river from the Safapac site in Orton Southgate, Peterborough.

The court heard that some of the fish were bleached and others leapt from the water and died along a 50km stretch of the River Nene. The cost of the pollution to the Greater Wash Fishing Industries Group is estimated at more than £216,000.

The company, which specialises in wet milling, flammables, toxics and other chemical liquid blending operations, as well as packing liquid and solid substances, reported the spill to the Environment Agency. An investigation revealed that three substances – an insecticide, a fungicide and a disinfectant that are known to be toxic to aquatic organisms and can cause burns, drowsiness or dizziness in humans – had entered a surface water drain that discharged to the river.

Anne-Lise McDonald, prosecuting for the agency, told magistrates that Safapac's high-level risk assessment had failed to identify vandalism as a risk but that on the morning of the incident staff arrived at the site to find that taps on the storage containers had been opened and a ladder which had been used to gain entry. Police records show that since 2010 Safapac had made five reports of criminal or anti-social behaviour directed at the company or in the immediate area involving youths causing damage to its property or trespassing.

McDonald argued that the pollution could have been prevented if the chemicals had been stored securely. "Bulk containers containing the chemicals were stored in external bunkers near to the road. There was no bunding and no secondary containment in case of spills," she said. McDonald also reported that there was an open drain in the storage area and another just outside.

The company says that chemicals at the Orton Southgate site are now stored in locked shipping containers.

£16k fine for pollution at Bulldog Bash

Allowing effluent to discharge from a chemical toilet and pollute a tributary of Gran Brook at Long Marston, near Stratford-upon-Avon, has resulted in Orchid Investments being fined £16,000 and ordered to pay costs of £9,367.

Leamington magistrates' court heard that Orchid had supplied sanitation services for the annual motorcycle event, the Bulldog Bash, in August 2011. Sealed holding tanks are normally used to contain effluent from portable toilets, but this time Orchid used a "lagoon" type facility within the watercourse, which the firm wrongly assumed was lined. The mistake meant that effluent was discharged directly into the watercourse, causing pollution along a 3.7km and killing more than 300 fish.

The company, which was charged under the Environmental Permitting Regulations (England and Wales) 2010, pleaded guilty.

Pumping station fault costs £22k

A mechanical failure at Anglian Water's Filby pumping station in Great Yarmouth, which caused sewage to pollute a site of special scientific interest (SSSI), has cost the firm £22,896 in fines and costs.

The incident, on 7 February 2012, followed attendance at the site by a contractor to clean the pump's wet well. Telemetry records show that no alarms were transmitted from the pumping station on that date between 11.58am – after routine maintenance – and 5.35pm, when a field technician arrived on site and found that the duty pump had failed. Although the standby pump was running, it was not pumping, allowing sewage to be discharged to Ormesby Little Broad, which is part of the Broads National Park and an SSSI.

The agency said Anglian Water was aware of the potential of the Filby station to overflow, but had failed to take measures to prevent such incidents.

Case Law

Brazil waste case breaches UK and international laws

Five defendants have been sentenced for illegally shipping waste from the UK after what the Environment Agency describes as the biggest waste crime investigation and prosecution to date. In *Da Costa and others v Environment Agency*, the defendants were convicted for exporting more than 1,500 tonnes of contaminated household waste to Brazil in breach of the Transfrontier Shipment of Waste Regulations 2007 and the OECD Decision on transfrontier movements of hazardous waste. Company directors and officers were held liable in addition to their businesses.

The agency's investigation involved environmental crime officers, forensics experts, intelligence agents and surveillance specialists, and discovered contaminated items, including nappies, syringes and catheter bags.

The waste was shipped via two Swindon-based companies, which are now dissolved. Two directors were sentenced after pleading guilty; a third remains at large. Julio Da Costa was given a two-year conditional discharge and a £500 fine and Juliano Da Costa an 18-month conditional discharge and a £500 fine. The pair had previously denied any role in the illegal export of 89 40ft containers of prohibited waste to Santos and Rio Grande do Sul.








Some of the containers were loaded at a site in Essex run by Edwards Waste Paper Limited. It was fined £45,000 and ordered to pay £40,000 in costs. In addition, company director Simon Edwards was fined £10,000 and ordered to pay £10,000 costs, while sales manager Jonathan Coombe was conditionally discharged for two years and fined £250.

Hayley Tam and George Hobson

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New Regulations

In force	Subject	Details
28 Jan 2013 	Green deal	<p>The Green Deal (Acknowledgment) Regulations 2012, which apply in England and Wales, and the Green Deal (Acknowledgment) (Scotland) Regulations 2012 make provision for the requirement to secure an acknowledgment of a green deal plan where there is, or may be, a change of electricity bill payer at a green deal property. The Green Deal (Disclosure) Regulations 2012 make provision for the requirement to disclose information about a green deal plan where a property is being sold or let. The Green Deal Framework (Disclosure, Acknowledgment, Redress etc.) (Amendment) Regulations 2013 amend the Green Deal Framework (Disclosure, Acknowledgment, Redress etc.) Regulations 2012. Changes include: requiring information about a green deal plan stored on the Energy Performance Certificate Register to be updated in certain circumstances; and new provisions on updating the disclosure document. The Consumer Credit (Green Deal) Regulations 2012 enable green deal creditors to receive compensation from a debtor.</p> <p>lexisurl.com/iema13069; lexisurl.com/iema13066; lexisurl.com/iema13070; lexisurl.com/iema14613; lexisurl.com/iema13928</p>
2 Feb 2013 	Built environment	<p>Three regulations amending provisions of the Town and Country Planning (Scotland) Act 1997 (TCP Act) have been published. The Planning etc. (Scotland) Act 2006 (Supplementary and Consequential Provisions) Order 2013 amends the TCP Act following amendments made to it by the Planning etc. (Scotland) Act 2006. The Public Services Reform (Planning) (Pre-application consultation) (Scotland) Order 2013 amends section 35A of the TCP Act so that applications made under section 42 are not subject to pre-application consultation. The Public Services Reform (Planning) (Local Review Procedure) (Scotland) Order 2013 amends section 43A(8) of the TCP Act to extend the period a planning authority has to review a case if the person determining the application has not done so in the timescales prescribed.</p> <p>lexisurl.com/iema14614; lexisurl.com/iema14615; lexisurl.com/iema14616</p>
7 Feb 2013 	Waste	<p>European Commission Regulation 57/2013 amends Regulation 1418/2007 concerning the export for recovery of certain waste to non-OECD countries, which came into force on 28 December 2007. The change relates to exporting hard zinc spelter to Malaysia.</p> <p>lexisurl.com/iema14624</p>
10 Feb 2013 	Pollution	<p>The Pollution Prevention and Control (Designation of Directives) (England and Wales) Order 2013 designates 22 directives as relevant for the purposes of paragraph 20(2)(c) of Schedule 1 to the Pollution Prevention and Control Act 1999.</p> <p>lexisurl.com/iema14584</p>
15 Feb 2013 	Chemicals	<p>European Commission Regulation 35/2013 amends annexes II and III to Regulation 396/2005 as regards maximum residue levels for dimethomorph, indoxacarb, pyraclostrobin and trifloxystrobin in or on certain products. Commission Regulation 73/2012 amends annexes I and V to Regulation 689/2008 on the export and import of dangerous chemicals so that several substances, including 2-naphthyloxyacetic acid, acetochlor, alachlor, aldicarb, asulam, chloropicrin, diphenylamine, endosulfan, flufenoxuro, naled and propargite are added to the lists, while others, such as bifenthrin and metam, are removed. Regulation 73/2012 applies from 1 April 2013.</p> <p>lexisurl.com/iema14617; lexisurl.com/iema14585</p>
18 Feb 2013 	Energy	<p>The Energy Performance of Buildings (Certificates and Inspections) (Amendment) Regulations (Northern Ireland) 2013 amend the 2008 Regulations to implement measures contained in the recast EU Directive (2010/31/EU) on the energy performance of buildings.</p> <p>lexisurl.com/iema14581</p>
20 Feb 2013 	Energy	<p>The Kentish Flats Extension Order 2013 grants Vattenfall Wind Power permission to construct, operate and maintain a wind-generating station with an installed capacity of up to 51MW 7.8km off the coast of Kent.</p> <p>lexisurl.com/iema14596</p>

To find new regulations by jurisdiction visit environmentalisonline.com/search and enter your search criteria

Latest Consultations




29 Apr 2013

Waste prevention

 To inform its planned publication in December 2013 of a waste prevention programme for England, Defra has issued a call for evidence to stakeholders that have an interest in greater resource efficiency and reducing the amount of waste being produced across the economy. The environment department says the programme takes forward a commitment in the government's review of waste policy in England, which was published in 2011, and fulfils a requirement of the revised Waste Framework Directive (2008/98/EC). The devolved administrations are developing their own waste prevention programmes separately.
lexisurl.com/iema14943

10 May 2013


Exporting waste

 Defra is consulting on the proposed Transfrontier Shipment of Waste (Amendment) Regulations 2013, which would update the 2007 Regulations and are due to come into force this summer. Changes include setting up a legal "gateway" to allow HMRC to disclose relevant export data to competent authorities (CAs); clarifying the role of

the CAs in the transit of waste and the marine area; allowing the UK border force to stop and detain suspect containers; setting new fees for the import and export of waste to and from Northern Ireland; and making alterations as a consequence of the establishment of the new Welsh CA, the Natural Resources Body for Wales.
lexisurl.com/iema14941



26 May 2013

Environmental inspections

 The European Commission is collecting views from stakeholders on possible changes to the framework of inspections to ensure member states are complying with EU environment legislation. Supervision of compliance through inspections is one tool among others, but it is a key one, says the commission, enabling authorities to collect information on activities that affect the environment; identify gaps in implementation; and detect breaches of legal obligations. The consultation seeks stakeholders' views on ideas for the design of a new binding instrument on environmental inspections, which the commission, subject to the conduct of a full impact assessment, intends to propose later in 2013.
lexisurl.com/iema14948

6 Jun 2013

Sentencing guidelines

  Draft sentencing guidelines for environmental offences have been issued for consultation by the Sentencing Council. The document outlines a framework for magistrates to determine sentences for waste disposal, environmental permitting and statutory nuisance offences, under the Environmental Protection Act 1990; the Environmental Permitting Regulations (England and Wales) 2010; and the Control of Pollution (Amendment) Act 1989. Under the proposals, magistrates would impose fines based on the level of harm caused, the level of culpability – whether the offence was committed deliberately, recklessly or negligently – and the size of the organisation. The Sentencing Council is proposing that magistrates make more use of the highest levels of fines for more serious offences. It would mean, for example, that large firms that deliberately breach legislation and cause substantial harm to the environment could face fines of up to £2 million. However, the council says it does not expect fines for less serious offences to rise from current levels.
lexisurl.com/iema14949

New Guidance

Climate risk assessment

The Environment Agency has issued new versions of two climate risk assessment tools: the adaptation wizard (lexisurl.com/iema14951) and the BACLIAT – the business areas climate impacts assessment tool – (lexisurl.com/iema14952), which helps organisations complete step three of the adaptation wizard. The tools have now been refreshed so that they can be used by organisations other than business enterprises.

Meanwhile, the Welsh government has published a policy statement, entitled *Preparing for a changing climate* (lexisurl.com/iema14953), which provides technical advice on assessing climate risks and developing adaptation plans. The guidance uses a model created by Canada's ICLEI, and modified by Adaptation Scotland, providing a step-by-step approach to developing a planned response to the threats and opportunities presented by climate change. The Welsh government says the guidance is intended to aid organisations, but warns that a successful adaptation is most likely to occur in those organisations that commit sufficient time and resources to the work, and where there is ongoing commitment from senior decision-makers.

Radioactive substances

The UK's three environment regulators have jointly published new guidance (lexisurl.com/iema14643) for industrial activities involving naturally occurring radioactive material ("NORM" industrial activities). The publication explains how to comply with the radioactive substances exemption regime. The regulatory regime governing radioactive materials applies only to naturally-occurring radioactive substances that meet two criteria: they must arise from NORM industrial activities specified in the legislation, and they must contain concentrations of radionuclides above specified values (NORM "out of scope" values). The document provides guidance on both of these criteria.



Laying down the law

Safeguarding secrets

Ross Fairley on how access to environmental performance data could disclose commercially sensitive information



For some years there have been moves to improve access to information revealing organisations' environmental performance and to encourage greater public participation in the environmental sphere. Access to environmental information is enshrined in international conventions, as well as EU and UK laws. However, there is a natural tension between transparency in decision-making and businesses wishing to protect commercially sensitive information.

Over the years, the ability of companies to argue that information provided to public bodies should not be disclosed more widely has been eroded. The law concerning when exceptions to disclosure can be relied on continues to evolve, and environment managers and businesses need to fully understand the risks and opportunities in this area.

The Freedom of Information Act 2000 and the Environmental Information Regulations 2004 (EIR) contain a number of exceptions where information can be withheld from public disclosure. Two areas of the EIR would, on first reading, give businesses a degree of comfort that their commercial information would not be disclosed to competitors and others. These areas are: where disclosure of information would adversely affect intellectual property rights and where it would affect the confidentiality of commercial or industrial information.

Recent case law should heighten concerns, however. In *Roy Jones (on behalf of Swansea Friends of the Earth) v Information Commissioner, Environment Agency and SI Green (UK) Ltd* [2012] UKFTT 2011/0156, Jones requested detailed information from the Environment Agency Wales on the

financial security provisions that SI Green had negotiated with the regulator in relation to a landfill permit. When Jones was supplied with various documents with the financial information redacted, including a performance agreement and a bond, he took action. The Information Commissioner agreed with the agency not disclosing financial information, but the First-Tier Tribunal (FTT) overturned this decision, despite SI Green's argument that the data, if supplied, could be used by competitors to calculate the company's business model.

The FTT applied a very narrow test of what is confidential information in law. Many lawyers have looked at this case and pointed out that the tribunal's decision is at odds with other similar cases. The case is currently on appeal and is likely to be heard soon. Whatever the outcome, the *Jones* case provides a stark warning to those who are providing financial information to public authorities.

In relation to the intellectual property exception, the Court of Appeal (CoA) decided in a 2009 case – *The Office of Communications v Information Commissioner* [2009] EWCA Civ 90 – that a list of all mobile phone base stations held by Ofcom, which was provided by the mobile network operators (MNO), could be disclosed. This was despite the fact that the CoA was aware that the contemplated use of the information by the applicant (in this case for epidemiological research) would likely constitute an infringement of the MNO's intellectual property rights.

Businesses providing a public authority with information related to intellectual property are clearly at risk of the details finding their way to a third party via freedom of information rules. Of course, the occupant who successfully applies to receive that information may not have the strict legal right to use it, but that is of little comfort to the firm affected because it is often difficult to enforce intellectual property rights when there has been disclosure to a wider audience.

So what should a company do? The obvious answer is to take care in disclosing any potentially confidential or commercially sensitive information. Public authorities are sensitive to the needs of businesses, but have to comply with the law: if legitimate requests are made to disclose information they have little, or no, choice but to comply. There are, however, a number of practical issues organisations should consider taking, including clearly labelling confidential information as such, thinking about what information is disclosed and providing contact details to the public authority so they can get in touch with the business if a disclosure request is made. Requiring the return of documents if the public authority no longer needs them should also be considered.

Freedom of Information Act 2000

The Freedom of Information Act 2000 provides public access to information held by public authorities in the following ways: authorities are obliged to publish certain information about their activities; and members of the public are entitled to request information from authorities.

The Act covers recorded information held by a public authority in England, Wales and Northern Ireland, and by UK-wide public authorities based in Scotland. The Freedom of Information (Scotland) Act 2002 covers information held by Scottish public authorities.

The Environmental Information Regulations 2004

The Environmental Information Regulations 2004 and the Environmental Information (Scotland) Regulations 2004 implement the EU Directive (2003/4/EC) on public access to environmental information. Both sets of Regulations came into force on 1 January 2005. Environmental information includes data on air, water, soil, land, flora and fauna, energy, noise, waste and emissions, as well as details about decisions, policies and activities affecting the environment.

Ross Fairley is a partner at Burges Salmon. Contact him on +44 (0)117 902 6351 or at ross.fairley@burges-salmon.com.



Raising the bar

Paul Suff on how the Locog sustainability team ensured London 2012 surpassed its targets

Delivering the most sustainable Olympic and Paralympic games ever was a key objective for London 2012. And, in November 2012, the Commission for a Sustainable London 2012 reported that the games had largely achieved this ambition.

Locog, the body responsible for planning and delivering the games, issued its assessment in December 2012 and highlighted some notable achievements, including diverting all operational waste from landfill, reusing or recycling 99% of waste generated from installing and decommissioning venues, and saving 400,000 tonnes of carbon dioxide equivalent against the reference footprint.

The sustainability team at Locog – which numbered 34 at its peak and included secondees from the National Trust, Transport for London and Wrap, for example – was instrumental in ensuring London 2012's sustainability aspirations were met. The systems and processes they developed, implemented and managed have set the standard for future Olympic and Paralympic games, as well as for the wider events industry. The approach the team adopted also provides transferable learning for other sectors.

During the games, Locog had a workforce of about 200,000 – comprising 6,000 staff, up to 70,000 volunteers and more than 100,000 contractors. The organisation worked with hundreds of suppliers, 70% of which were small or medium-sized enterprises, to deliver goods and services. “The scale of the operation

was unprecedented and the sustainability team was involved in every aspect, from design and procurement to staging the events and dismantling the temporary venues,” says Phil Cumming, who was Locog's corporate sustainability manager.

A system that delivers

Locog's sustainability management system (SMS) underpinned its sustainability strategy, and evolved as the organisation matured and grew. The SMS was first certified to BS 8901 and later its successor ISO 20121, but, as Cumming points out, London 2012 provided the opportunity to develop an SMS largely from scratch.

“The bid documents contained lots of sustainability commitments, but very little on how to deliver them. Establishing an effective management system was the only way to deliver on our sustainability commitments,” comments Cumming. However, the idea of adopting a conventional management system standard, such as ISO 14001, was rejected. Cumming says the global environment management standard currently lacks the flexibility necessary for an organisation like Locog, which would undergo a massive change over a very short time. He also believes that 14001 fails to effectively drive delivery of sustainability objectives or sufficiently inform performance.

Cumming joined Locog in 2006 and was responsible for developing the SMS. At the time, 8901 was not available – it was published in November 2007 and revised in September 2009 – so he looked elsewhere



Nothing wasted

Minimising the impact of the waste attributable to the games was one of the key challenges in fulfilling Locog's promises on sustainability. Targets set for the games' temporary venues included zero-waste to landfill; ensuring that 90%, by mass, of waste generated onsite was reused, recycled or composted; and that 80%, by mass, of materials and products brought to site were returned for reuse in the hire market or reused in a permanent facility offsite.

To achieve these goals, Locog developed a set of guidelines for temporary materials. These provided a

framework for the engineering, design and procurement teams on managing the sustainability impact of materials used in temporary venues. Potential suppliers had to specify the materials they would be using, whether these would be coming from existing stock or newly manufactured, and what their end use would be. Sustainability adviser Kate Chapman says the sustainable credentials claimed by some manufacturers and suppliers did not stand up to scrutiny.

Reuse was specified as the preferred disposal route in procurement contracts and, overall, 17% of total waste

generated by event operations was reused. Chapman reports that many of the materials and commodities used at temporary venues have been donated to schools, community groups and projects.

For example, sand from the beach volleyball venue at Horse Guards Parade has been donated to six sports clubs and community groups for use in new beach volleyball courts. Sections of one of the hockey pitches, meanwhile, have been installed at two primary schools to provide all-weather playing surfaces, and the other pitch has found a home at Sheffield Hallam University.

for inspiration. Cumming had been involved in the Sigma project – a collaborative initiative involving the BSI, AccountAbility and Forum for the Future, which developed the “sustainability integrated guidelines for management” in 2003 – and he relied heavily on the guidelines, as well as BS 8900 (guidance for managing sustainable development), to build the Locog SMS. “Sigma contains a lot of good information and excellent signposting for a management framework,” he says.

The scope of the SMS covered all key activities over which Locog had direct control and were considered material to delivering its 10 sustainability objectives. These included:

- delivering a low-carbon Olympic and Paralympic games and showcasing how the games are adapting to a world increasingly affected by climate change;

- delivering a zero-waste games, and demonstrating exemplary resource management practices and promoting long-term behaviour change;
- optimising sustainability through procurement, licensing and sponsorship deals;
- influencing behaviour change and promoting sustainable living; and
- embedding sustainability in the planning and delivery of Locog venues and operations

Cumming says that, from the outset, the SMS was seen as a series of interventions to ensure action in key areas. “It provided a structured approach to delivering our sustainability strategy and associated objectives,” confirms Cumming, “triggering questions like: where do we intervene and where do we focus our activity?”



Locog had to procure 1.8 million items of sports equipment

Delivering sustainability

To ensure sustainability was embedded throughout the delivery of the games, Locog made sure the concept was included in all standard contracts. “It was one of the first things we did,” comments Cumming. “Even before we’d developed our plans and policies we put sustainability into contracts.”

Locog spent around £1 billion on products and services for the Olympics and Paralympics. These included 1.8 million items of sports equipment; 200,000 temporary seats; the catering to provide 15 million meals; 5,000 flower bouquets for medal winners; 122km of security fencing; and more than 2,000 buses and coaches to move athletes, officials and VIPs.

Amanda Curtis (née Aukett), who was the lead sustainability manager for venues, wrote the procurement policy, which asked prospective suppliers product- or service-related sustainability questions. On seating, for example, the questions focused on materials, transport and their use after the games.

“We didn’t want sustainability to be an add-on, but part of the process from the very start,” she says.

Tenders for contracts considered high risk – such as those across several venues; those for products potentially containing environmentally damaging substances, like HFCs; or those involving high energy/fuel use or significant vehicle movements – included

more detailed sustainability questions and were very carefully managed.

The sustainability team operated a scoring system for suppliers and contractors, which resulted in a red, amber and green traffic light ranking. A red light meant the product or service should not be used owing to significant sustainability risks, while amber signified that more information or further clarification was necessary. Products and services receiving a green signal met the initial sustainability criteria.

Contracts also contained milestones that would trigger payment, so there was a financial incentive to deliver against the sustainability criteria. “We did withhold payment a few times,” says Curtis.

Principal contractors also had the authority to issue a red card to Locog suppliers, which in effect ended their involvement. “It was applied where a contractor was taking a cavalier attitude towards health and safety or environment management, for example,” says sustainability adviser Kate Chapman.

All contracts worth at least £50,000 had to be signed off by Locog’s deal-approval group, which included head of sustainability David Stubbs. “The group acted as a back stop,” explains Curtis. “If any of the sustainability requirements were not adequately addressed by the functional departments at Locog, the group would delay approval and bounce it back to the team for checking.”



the environmentalist meets some of the Locog sustainability team

Kate Chapman

During her nine-month stint at Locog, sustainability adviser Kate Chapman was responsible for overseeing, implementing and evaluating sustainability initiatives across eight of the London 2012 venues, including Horse Guards Parade.

She pinpoints trying to change the culture in the events sector to embrace sustainability as the main challenge in her work. "The industry is very much about putting on the event and leaving. Traditionally, there is little focus on the amount of energy used or the waste generated; it's all about putting on a great event. We had to challenge that and get them to take sustainability seriously." According to Chapman, end users of facilities, such as the media, were often more reluctant to change than suppliers.

Chapman is now director at the Earth to Ocean consultancy. She is an AIEMA and has an MSc in responsibility and business practice.

Libi Jardine

Libi Jardine was seconded from Wrap to Locog for one year as its recycling communications manager. Initially, her role centred on engaging waste managers in local authorities across the UK before and during the Olympic and Paralympic torch relays, to promote and share best practice. During the games, Jardine was responsible for delivering a stakeholder engagement programme to media personnel and dignitaries. She also planned and delivered Locog's recycling communications strategy.

Jardine is now events project manager at Wrap and believes the knowledge and skills she developed at London 2012 have benefitted her employer. "I have brought my games experience to several high-profile projects that are central to Wrap's event industry work, including developing digital tools and best-practice guidance."

Jardine is an AIEMA and holds an MSc in ecotourism and a BSc in zoology.

Susie Tomson

Sustainability adviser Susie Tomson was responsible for ensuring sustainability goals were achieved at a number of London 2012 venues during construction of temporary overlay, staging the event and subsequent deconstruction and reinstatement. She was also responsible for delivering the energy management plan across all venues, which generated savings of more than £2.5 million.

Tomson believes that embedding members of the sustainability team in venue teams – one member of the team generally worked across five venues – was crucial to their success. "Working closely with the people at a venue allowed us to develop a relationship that helped secure support for what we were doing," she says.

Tomson is a director at consultancy Earth to Ocean and has an MSc in water and environmental resources management and a PhD in integrated coastal management. She is an AIEMA.



Amanda Curtis

Amanda Curtis (née Aukett) joined the Locog sustainability team in 2009, leading the delivery of sustainability at London 2012 venues. Her role included developing and implementing the sustainability strategy for the design, procurement, build, staging and removal of more than 100 venues; creating and managing the sustainable procurement programme for contracts worth £500 million; and managing contracts with core suppliers, including Aggreko, EDF and ISG.

Curtis says agreeing a strong commitment to the sustainability agenda from senior management at the beginning of the project was key to its success. "Management backing ensured we stuck to the strategy and we were able to resist any pressure to water down our demands," she says. The biggest challenge for the team was getting all 600 suppliers to embrace the sustainability targets, reveals Curtis: "Large suppliers tended to understand our sustainability strategy, but some smaller ones [70% of suppliers were classed as SMEs] initially found it difficult to grasp. We had to work hard to bring everyone up to speed."

Curtis is a full member of IEMA and a chartered environmentalist. She is also a qualified Prince2 project management practitioner and has a BSc in environmental science.

Phil Cumming

Corporate sustainability manager Phil Cumming spent six years helping to develop and manage the delivery of the sustainability

strategy for Locog, working with all the main stakeholders, including the Olympic Delivery Authority and the International Olympic Committee. He was responsible for developing the games' sustainability strategy and supporting management system, which achieved third-party certification to BS 8901 and ISO 20121. Cumming was also responsible for workforce and financial planning for the Locog sustainability team.

Although Cumming concedes that, in hindsight, more could have been achieved, he believes the sustainability team did an incredible job. "The systems we developed to manage carbon, labour standards and waste, as well as our sustainability management system (SMS) and reporting structure, were crucial to the overall success of Locog on the sustainability front," he says. "There's no way we would have achieved what we did without the SMS and management review system in place."

Cumming is an AIEMA, chartered environmentalist and IEMA-registered auditor. He was also head of the UK delegation on the technical committee that was responsible for developing ISO 20121 – the event sustainability management standard.

Locog's energy management plan saved £2.5 million

Full of energy

Locog set itself an ambitious target to cut energy use across London 2012 by 20% against forecast energy consumption. In the event, sustainability adviser Susie Tomson says, the total kWh consumed in the run-up to and the staging of the Olympic and Paralympic games was 25% less than predicted. This resulted in a financial saving of £2.6 million. At the same time, consumption of generator fuel was 40% less than forecast, leading to a further £1.2 million saving. Tomson says a significant part of the savings can be attributed to energy conservation

measures. Overall, the building of the temporary venues and the staging of the games consumed 90 million kWh of electricity (grid and temporary).

Effective operational management at several venues helped to reduce energy consumption. For example, the floodlights at the warm-up track were turned off during the Paralympic games owing to good weather, which, combined with reduced broadcast requirements, saved an estimated 170,000kWh of energy.

Tomson explains that forecast energy consumption often far exceeded what was eventually required. Actual demand

for grid electricity was 55% less than predicted, and for temporary generation was 69% less.

At the rowing and canoe venue at Eton Dorney, for example, operating demand never reached more than half of the infrastructure capacity – typical demand was 4,965kVA, while infrastructure capacity totalled 10,865kVA.

During the games, the venues consumed 49 million kWh of electricity. Of this total, 38 million kWh was from the grid-supplied electricity; 11 million kWh from temporary generation; and 154,161 kWh from renewable sources.

Curtis acknowledges that the events industry generally lacked robust policies on sustainability issues and confirms that the sustainability team spent a lot of time working with suppliers, providing guidance and support. “Companies in the industry didn’t tend to have 8901 or 20121. Sustainability was new to many suppliers. We did a lot of awareness training and ‘hand-holding,’” she says. Many suppliers subsequently went on to adopt sustainability in their businesses, she adds, providing a lasting legacy from the games and one of its biggest success stories.

Lesson learned

In addition to the SMS, the majority of the other systems and processes put in place at Locog to ensure London 2012 was the most sustainable games ever were also developed from scratch.

The carbon footprinting methodology is one further example. “We didn’t want to continually reinvent the wheel, but there simply was nothing suitable to measure our footprint,” says Cumming. “Most existing methods were retrospective, but we had to understand where our focus should be, so developed a project-based carbon footprinting methodology that forecast where we needed to channel our efforts.”

BT and Coca-Cola are two companies – both official London 2012 partners – that have now adopted the Locog methodology to look at their own carbon footprints.

Locog also developed its own reporting framework. “Management reviews in most organisations are conducted annually. This would not have worked in our case given the fast-paced nature of the programme, evolving issues and the need to keep tabs on everything,” explains Cumming. The Locog process involved quarterly formal reviews to check performance against objectives and targets. And, in line with 8901 and 20121, and unlike the current 14001 standard, the reviews had a more strategic focus. “They concentrated on moving the organisation forward and went further than just assessing whether we were meeting our objectives.”

Cumming is adamant that other organisations, irrespective of their size or industry, can learn from the Locog experience. “People often regard Locog as either a one-off that can’t be replicated or an event organiser whose experience is irrelevant to their business or sector,” he says. “The reality is that Locog was a hybrid organisation. It was a massive buyer, akin to a major retailer, and its venues were its stores, buying and selling stuff. Staging the events combined logistics operations and infrastructure construction. What we learned from 2006 to the end of 2012 is applicable to any reasonably large business.”

As a part of the London 2012 learning legacy, a series of documents detailing its approach to sustainability are available to download from learninglegacy.independent.gov.uk.

Business case

Can an EMS learn a new language?

Greg Roberts explores how environment management practices can be reinvigorated by corporate responsibility approaches

Critics often accuse environment management systems (EMSs) of being insular, anonymous and stagnant. Corporate responsibility (CR) and sustainability practices, on the other hand, are lauded for delivering success. Marks & Spencer's Plan A, for example, delivered a £105 million net benefit in 2011/12, while the sustainability strategy adopted by Dutch electronics firm Philips resulted in "green" products accounting for 45% of its turnover in 2012.

Uptake of CR and sustainability initiatives has increased dramatically in recent years. Corporate Register, the online resource for CR reporting, says that 5,000 more reports were published on its website in 2011 than in 2001. And, while the original driver for embedding sustainability was to meet the expectations of investors, organisations are increasingly recognising the value of being transparent, accountable and better able to manage medium- and long-term risks. Research conducted for Business in the Community in 2010, for example, revealed that publicly listed companies that manage and measure their CR activities financially outperformed those that do not.

The ISO technical committee overseeing the ISO 14001 revision process (p.5) is looking at whether EMS practice can learn from the wider sustainability approach, and be more outward looking, accountable, strategic and deliver real business value. The committee has also been asked to promote the role of EMSs in providing the "green pillar" of sustainability.

Companies that are integrating sustainability into their operations will often be using an EMS to deliver the environmental underpinning. And, for those firms looking to begin incorporating sustainability into their organisation, a starting point could be to reinvigorate an existing and perhaps underperforming EMS.

From the top

The first observation to make about organisations that are successfully embedding sustainability is that it tends to be led at the board level. Often it is the chief executive officer who publicly promotes sustainability, such as Ian Cheshire at Kingfisher, which operates

Materiality

Stakeholder
engagement
and senior
leadership
buy-in

Learning sustainability's tricks

Business case – reevaluate the business case for your environment management system (EMS). What extra benefits, other than the badge, can it bring? How will it deliver real value to the business?


Leadership – use the business case to get a senior leader's buy-in so that they actively champion the EMS.

Integration – cross-department and value chain involvement will help to deliver a step change.

Risk management – consider the risk of the environment to the business to make the EMS a fundamental part of your organisation's risk-management process.

Engagement – do not develop your objectives and targets in isolation; listen to those who hold your licence to operate.

Communication – maximise the benefit of your efforts, communicate what you want to do and what you have achieved.



B&Q. These figureheads buy into the need to do things differently to ensure that social inequalities and environmental degradation do not constrain the firm's long-term viability.

By contrast, environment management systems often have little support from top management. This is largely down to the business case for EMS not being fully understood or articulated beyond the need to have the 14001 "badge". Too frequently, after certification has been achieved the system is left to stagnate. Without senior leadership, the EMS does not become fully integrated throughout the organisation and can be left to just one or two people to manage. Successful sustainability, on the other hand, is the responsibility of many, including the procurement, HR, finance, health, safety and environment, marketing and sales teams.

Sustainability is increasingly about recognising the importance of looking beyond the factory gates or the office doors to understand the upstream and downstream impacts associated with the use and disposal of products and with their supply chain. Unilever, for example, uses the value chain approach and has discovered that its biggest greenhouse-gas impact is not in manufacturing, but with its suppliers and consumers. For this reason, Unilever is encouraging consumers to wash clothes at lower temperatures, so consuming less energy.

Meanwhile, without senior leadership, environment management systems tend to concentrate on incremental, operational improvements rather than

looking at the step change required to ensure the business is future proofed. While it would be naive to claim that all organisations working to embed sustainability are making revolutionary changes, there are examples of firms beginning to evolve their business models to become less reliant on resources. Outdoor clothing firm Patagonia is one such business. The company has created what it calls its "common threads partnership", which encourages customers to mend, reuse and recycle their garments before buying new ones. And customers of flooring manufacturer Interface can now rent its carpet tiles rather than buy them.

Given that some of the biggest advantages of integrating sustainability into a business are around the environmental pillar – reduced resource costs, new green products and increased risk management, for example – why is the business case for EMS frequently missed? The simple answer is that it is often poorly researched and communicated.

Environment practitioners are not always experienced in wider business matters and can struggle to develop a business case that resonates with the managing or the finance director. The opposite is often true of sustainability leaders. According to a recent report from analysts Verdantix, a significant portion of corporate sustainability leaders come from a business background, potentially providing them with the skills to effectively articulate the tangible business benefits of sustainability. Things are changing, however, and the environment sector is looking to cultivate the skills and knowledge needed to develop the business case. IEMA's environmental skills map addresses such issues and is a major step forward for the profession.

Managing risk

14001 requires an organisation to prioritise risks through the "significance of environmental aspects". A significant aspect is one that has, or could have, considerable impact on the environment. Sustainability practices, meanwhile, apply the concept of "materiality" to determine significance. It is a term originating in accountancy to mean issues important within the context of a financial report. For example, "material information" is data an investor would analyse first when deciding whether to invest in a firm. Using "materiality" to describe environmental and social risks allows the senior management team to consider these issues alongside financial risks.

The revision of 14001 is considering requiring organisations to account for the impact the environment can have on their operations. This would make the EMS more valuable as a business risk tool, and bring it closer to the way companies consider sustainability risks.

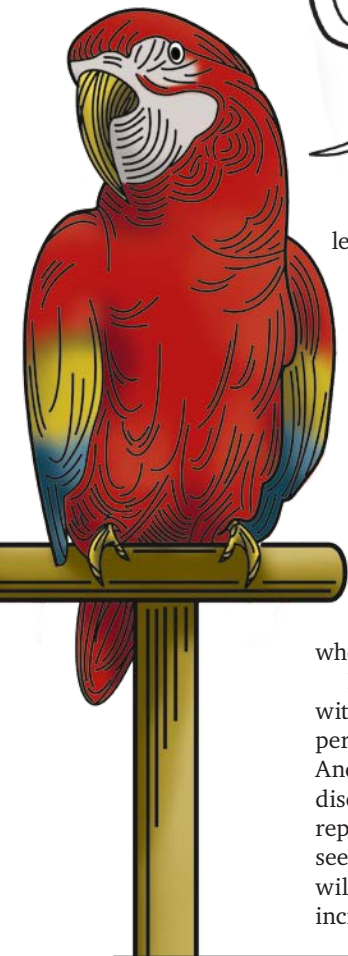
Isolated

A major disadvantage of 14001 is that the standard does not require organisations to engage with stakeholders, other than to manage incoming communications. This leads to a very insular and defensive EMS. Meanwhile, the best sustainability strategies are based on broad stakeholder engagement. Such an approach allows an organisation to design its sustainability strategy, and ideally its business strategy, so as to consider the needs and expectations of those affected by its operations.

Coca-Cola illustrates how this works in practice. The drinks company used stakeholder engagement to identify its "Big themes", the key areas of its CR strategy. These include: water stewardship, sustainable packaging, healthy living and working with local communities. It talked to consumers, staff and other stakeholders in 2009 and 2011 about their concerns with its products and operations and found that nutrition was the ranked as the top concern, followed by environmental issues such as water and energy use.

Given the wide range of stakeholders a typical organisation can potentially engage with, it is often not a simple task. This is where using the concept of "materiality" can help to prioritise issues. Nonetheless, a stakeholder-led approach makes perfect sense; why would any firm develop a strategy that does not

Financial risk



consider what customers want, employees require and local communities expect?

Unfortunately, many EMSs are developed without understanding who their stakeholders are, let alone considering what they want.

The revision of 14001 is looking to address this by requiring organisations to identify stakeholders – or “interested parties” – and their needs and expectations. This could be a simple desktop exercise using existing knowledge to develop a list of stakeholders and their needs. The outcomes could then be used as criteria to identify significant aspects. As the EMS matures, more sophisticated techniques could be deployed, such as interviews, surveys, online platforms and focus groups.

Reviewing a customer’s sustainability report, polling employees and meeting local residents could all make an EMS more relevant to those who, ultimately, ensure the viability of an organisation.

It is worth noting that many companies engage with the sustainability agenda to publicly disclose their performance and to be accountable to stakeholders. And yet 14001 does not require any form of public disclosure. However, with mandatory greenhouse-gas reporting for publicly-listed firms starting this year, it seems likely that disclosing environmental performance will become an issue of regulatory compliance for an increasing number of companies in future.

The revised 14001 standard is likely to require organisations have a communication strategy. And, in line with the principles of continuous improvement, this would need to mature over time to engage in providing stakeholders with more information. Greater communication would be a positive step, as reporting how well a firm is doing in reducing packaging, for instance, will appeal to customers.

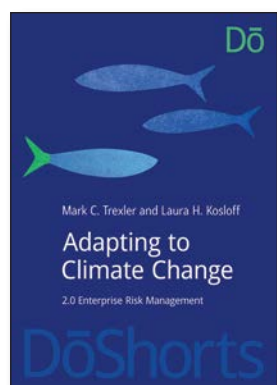
Early days

While learning from sustainability practices can help to improve an ailing EMS, it should be remembered that sustainability is still in its infancy. By contrast, EMSs are well established and have the potential to be the basis from which organisations progress into sustainability. The first step in doing so will be to reinvigorate these undervalued engines for environmental improvement so they are able to deliver to their true potential.

The new version of 14001, due in 2015, is likely to go some way to incorporating the benefits of the sustainability approach, but organisations should not wait to start making their EMS more outward looking and, ultimately, able to deliver real business value.

Greg Roberts is an environmental consultant at EEF and the UK expert on the ISO technical committee revising ISO 14004, which provides guidance on establishing, implementing, maintaining and improving an EMS.

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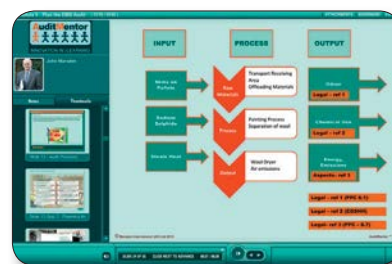
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Dealing in efficiency

Green deal assessor
John Barwise provides his
low-down on the scheme



According to Decc, carbon emissions from homes and workplaces need to fall by 29% and 13% respectively if the UK is to meet its legally-binding carbon budgets – which require UK emissions to be cut by 34% by 2020. Analysis by the government suggests that the country could save 196TWh of energy by the end of the decade through cost-effective investment in efficiency measures, saving around 41 million tonnes of carbon dioxide. The government's flagship policy, the green deal, which opened for business at the start of the year, has to work to help secure such savings, but will it?

Stemming the leaks

The green deal is a key element of the Energy Act 2011 and part of the UK's response to the recently updated Energy Performance of Buildings Directive (2010/31/EU), which requires all EU member states to improve the efficiency of their building stock. The green deal was officially launched on 1 October 2012 and became operational on 28 January 2013.

Under the scheme, finance is available to install a range of energy-saving measures in domestic properties. There are no upfront costs to customers, the loan is attached to the property not the consumer, and a so-called "golden rule" principle has been put in place that ensures the cost of installing the suggested measures is less than – or, at least no more than – the savings made on energy bills over the lifetime of the loan. Financial packages to pay for the installation of the energy-efficiency measures are offered by green deal providers.

There are currently 45 improvement measures that can be financed through the green deal and more will be available as new products become approved. The categories include:

- Heating, ventilation and air conditioning – condensing boilers, underfloor heating, heat recovery, mechanical ventilation, flue gas recovery.
- Building fabric – cavity wall insulation, loft and internal/external wall insulation, floor insulation and energy-efficient glazing.
- Lighting – fittings and controls (energy-saving lights are not available under the domestic green deal).

- Water heating, water-efficient taps and showers, and innovative hot-water systems.
- Microgeneration – ground and air-source heat pumps, solar thermal and photovoltaic panels, biomass boilers and micro combined heat and power systems.

A new energy company obligation (ECO) provides additional subsidies for properties that are hard to treat and do not meet the golden rule because the cost of installing various measures is higher than the likely financial savings in energy bills. Older properties are likely to benefit most from the ECO, particularly in rural areas, which tend to have higher heating costs than newer houses in urban areas. The ECO is financed through a general levy on all customers' fuel bills, similar to the carbon emissions reduction target (CERT) and the community energy saving programme (CESP), which expired in December 2012. The total funding available through ECO will be £1.3 billion a year; much less than the £2.4 billion previously available through CERT and CESP. Most of the subsidy on offer is likely to finance insulation measures, including solid wall insulation, loft and cavity wall insulation and heating systems.

Quality control

Only those providers, assessors and installers meeting quality control standards can deliver green deal services and display the scheme's quality mark. This approach aims to provide assurance that the energy assessment, the energy-saving products and the installation process will be carried out to the highest professional standards.

The green deal oversight body manages the authorisation scheme and maintains a register of approved providers, certification bodies, advisers and installers. The main players in the green deal include:

- **Assessors** survey properties and produce a green deal advice report (GDAR) based on the energy performance of the building and the actual use of energy by the occupiers. The GDAR will set out

various options for improving energy efficiency that qualify under scheme.

- **Advisers** are the organisations through which assessors work. Only UKAS-accredited organisations can certify green deal advisers and installers.
- **Providers** are the firms offering customers a green deal finance package to pay for the costs of installing various measures as recommended in the GDAR.
- **Electricity suppliers** collect payments through electricity bills under a green deal arrangement agreement with the provider. Payments are passed to the provider on a proportionate basis over the life cycle of the scheme. The repayment plan stays with the property not the customer.
- **Installers** are responsible for installing energy-efficient measures and systems. Installers must be certified as meeting PAS 2030 by a green deal accredited certification body.

Decc reported in March that 40 firms had been authorised as providers and that a further 629 were registered to carry out installations. At the same time, 619 individuals were registered to offer assessments.

Non-domestic buildings

The green deal works in much the same way for commercial properties as it does for domestic ones. However, commercial properties are more varied in building types and occupancy criteria, which may have an impact on the upper finance limits and the terms under which schemes are implemented.

The assessment process is also more complex for commercial properties. While domestic properties are assessed against standard assessment procedures to deliver an energy performance certificate (EPC), commercial properties are assessed against the simplified building energy model, which will generate a commercial EPC. Commercial green deal arrangements include occupancy as part of the assessment, and assessors need to undertake occupancy assessment training to become certified as non-domestic energy assessors under the scheme.

All the energy-saving measures available for domestic properties under the green deal are available to commercial properties, and there are also some additions, such as low-energy lighting, air-conditioning systems and water dispensers. The government has said it will create more flexibility in the non-domestic sector by allowing for specialist assessments to provide more detailed savings plans.

Money, money, money

One problem for commercial properties at the moment is the reluctance on the part of providers to fund commercial green deals. The Green Deal Finance Company (GDFC) is a not-for-profit consortium with more than 50 members, including energy suppliers, manufacturers, distributors, local authorities and others. It was set up to be the main source of funding

for green deal providers. In March, the GDFC announced a £244 million funding package for the setting up, financing and administration of green deal plans. But while the GDFC provides finance for domestic schemes, it has so far declined to finance the commercial element of the green deal.

A spokesperson for the company told *the environmentalist*: "Our focus is on financing plans for domestic bill payers. As a result, the GDFC has no current finance options for commercial properties and has no plans to do so in 2013."

Finance for commercial properties under the green deal is more complicated than for domestic properties. The range of energy-saving measures is more extensive and potentially more expensive to install on an industrial scale, which may deter many businesses from taking advantage of the scheme even though the golden rule still applies.

On a more positive note, non-domestic customers may see additional benefits in installing energy-saving measures alongside cutting energy bills, such as reducing the costs of the complying with the carbon reduction commitment energy efficiency scheme.

Energy solution?

It is too early to say whether the green deal can deliver the energy and carbon savings the government hopes for in the long term. Data from Decc, which were released on 15 March, reveal that there were 1,803 green deal assessments in the first month of the scheme. But there remains a question mark over whether it will have an impact on even a small proportion of the 26 million homes that could benefit from improved energy efficiency. And, partly owing to the limited finance currently available from providers, it is unlikely that owners of the 1.8 million non-domestic buildings in the UK will use the green deal in the numbers needed to cut emissions in line with the country's carbon budgets.

The government is currently offering cashbacks to early domestic green deal takers – a total of £125 million is available – and says it expects the scheme to build up over time as property owners, both domestic and commercial, become more aware of cost savings that may be available. However, it could be that alternative funding mechanisms will be more attractive to the owners of non-domestic properties. The Royal Bank of Scotland, for example, launched a £200 million carbon reduction fund in December 2012, which will soon offer finance for a range of sustainable energy projects, including retrofitting commercial buildings with more energy efficient heating and lighting. Funding is also available through the green investment bank for non-domestic energy-efficiency projects.

Nonetheless, if emissions from homes and workplaces are to be reduced sufficiently to meet the UK's 2020 target, time is of the essence and the financial barriers associated with the green deal must be overcome speedily.

John Barwise, MIEMA CEnv, is a director at environmental management and communications consultancy QoL.





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Auditing at full power

Neil Marshall provides tips on how to get the most out of internal audits of environment management systems

Organisations that adopt and implement a robust environment management system (EMS) and policy not only reduce their impact on the environment, but in many cases save money and improve resource efficiency. However, without an effective internal auditing regime organisations cannot hope to get the most out of their EMS. Key to the success of management system audits is clarity of purpose and skilled auditors.

First, and most important, an organisation must be clear about the intended outcome of an internal audit. This requires careful planning and attention to detail, as well as setting a theme for the audit. An assessment may be planned for a number of reasons, including:

- to ensure that a standard has been implemented;
- to check procedures are being adhered to;
- to make sure employees fully understand their responsibilities and the potential consequences of not adhering to systems and procedures; and
- to determine the level of compliance with legal and other requirements.

If a clear objective is not set out ahead of the audit, then the outcome is likely to lack coherence.

Once a theme has been chosen, a programme of audits must be planned that assesses operations under normal, abnormal and emergency conditions to ensure that the risk of pollution, prosecution and financial penalties is minimised. Auditing emergency preparedness will test understanding of procedural requirements, the availability of emergency equipment and ensure necessary corrective actions are being recorded and implemented. Observing staff behaviours and practices in such situations is critical to establishing the level of risk posed to the organisation and to minimise potential impacts on the environment.

Competent auditors

Good communication skills and the ability to work across all levels of a business are essentials in the internal auditor's skills set. Assessors also need a comprehensive understanding of the industry in which the organisation works, attention to detail and knowledge of appropriate legislation.

ISO 19011 provides a framework for best-practice auditing and offers guidance on fundamental principles, such as: how to manage an audit programme; how to conduct audits; and how to evaluate the competence of individuals involved in the audit process.

Having assessors trained in line with 19011 can help to ensure their effectiveness. Meanwhile, qualified lead assessors, with graduate or postgraduate qualifications in environment management, earth sciences and chemistry, are often able to determine regulatory compliance in a more analytical fashion.

To build an internal assessor skills base in your organisation, it is best to team new assessors with experienced ones to develop skills and improve internal practice. Placing inexperienced assessors with facilities management employees, for example, tends to broaden the new assessor's knowledge and understanding of the "source-pathway-receptor" concept, an approach that helps to protect human health and the wider environment. Facilities management employees often have a good understanding of the inputs and outputs of processes, along with their associated controls. They also tend to have an appreciation of the main impact areas, such as waste management, effluent discharge and air emission abatement processes.

One of most important skills needed by internal auditors is the ability to interview colleagues. The key to success with interviews is preparation. If the interviewee does not understand what the audit process involves or what the aim of the interview is, for example, then this can lead to conflict. Putting people at ease is the first essential requirement. An informal chat is a good place to start, and providing positive feedback on successes and observations of best practice is recommended.

When asking people to show examples of forms or reports, auditors should be aware of those who try to change the subject or produce alternative documentation to divert attention. This often happens because the interviewee cannot find the paperwork the





assessor has asked for. Internal auditors should also watch out for open files that are suddenly shut. Often this means that the interviewee has found an error or nonconformity. The best way for assessors to get the information they require is to develop a positive relationship with the teams they are auditing.

The auditor's aim should be to create a good rapport with a group, so that it is happy to give impartial "all areas access" for the benefit of the business.

Ensuring compliance

Environmental legislation often requires records to be held or specific practices to be adhered to. An audit evaluating compliance with the Waste (England and Wales) Regulations 2011, for example, should ensure that the required documents are completed correctly, are retained on file for a defined period and stipulated practices are witnessed. The internal auditor must know exactly what needs to be recorded on the waste notes. Failing to spot an error could result in the regulator issuing a civil sanctions order or notice, both of which could harm the organisation's reputation.

When evaluating compliance with legal requirements, a detailed audit report should be developed to a level where the audit trail information could be used to defend the organisation should it be challenged by a regulator. This, in turn, reduces the risk of prosecution and damage to corporate reputation.

When assessing compliance with complex areas of legislation, such as verifying greenhouse-gas emissions, some organisations supplement their internal auditing skills base with external experts.

Employing outside professionals with specialist regulatory knowledge can help to address potential high-risk areas where a breach could potentially result in prosecution and fines. Analysing air emission reports is one such area as this can be very confusing to the less experienced assessor. Specialists, by contrast, will be more aware of the common pitfalls in establishing whether emissions outputs meet permit requirements.

Report and review

The audit report should record all findings, whether these are nonconformities that require corrective action, observations where systems could potentially break down in future or opportunities for improvement, such as simplifying the system and removing unnecessary duplication. Responsibility and deadlines for corrective actions should be clearly defined, and then monitored to ensure the required actions are implemented and effective.

The report should be designed to deliver the maximum impact. It is a good idea to present the highest-risk findings at the start of the report as part of the summary. Top management teams need to know the level of risk being taken by the organisation to avoid damage to corporate reputation. Reports generally start with major nonconformities, before outlining minor ones and opportunities for improvement. It is also very important to disclose the positive findings of the assessment because other areas of the business may be able to implement similar processes.

Once the report is completed, the internal audit schedule should be amended based on the perceived risk of not adhering to the standard, procedures or regulations. High-risk areas of the system – those where nonconformities are more common or prosecution would severely impact the organisation – should be audited more frequently than low-risk areas.

One of the most common difficulties faced by internal auditors is in ensuring the audit programme addresses the whole management system. Most organisations start off with good intentions, assigning personnel to complete audits and making sure colleagues are going to be available. However, keeping to the programme is often extremely difficult: business priorities can take over and the schedule start to slip.

Some organisations also struggle to reach agreement on the actions that need to be taken to address nonconformities. Setting and monitoring deadlines for the implementation of actions can feel like a thankless task, so it should be assigned to someone with tenacity. One way to overcome such issues is to ensure that the EMS is adopted throughout the organisation, from the boardroom to the shopfloor, that way its true value is understood and buy-in to the audit process is easier.

To summarise, internal audits should be planned, themed, delivered effectively and the findings communicated widely. Audits must be conducted in an impartial and objective manner following a documented procedure.

The purpose of an internal audit is to gather facts and determine the degree to which requirements of a standard, such as ISO 14001, or regulations and contractual requirements are being met. Putting a spotlight on the business in this way is not only an opportunity to highlight areas for further improvement and enhance business performance, but also a chance to reward best practice and celebrate success.

Neil Marshall is a technical expert on environment management systems at BSI.

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Thinking outside the box

the environmentalist reports on the award-winning precycling approach used by Less Packaging to minimise waste for its clients

The Less Packaging Company (Less) is a consultancy that advises large companies on how to optimise their packaging to benefit the environment and commercial interests. Less, which has design facilities in Bishop's Stortford, Hong Kong and Delhi, was founded in 2010 by two people who had worked in the packaging industry for 20 years and wanted to promote an ethos of sustainability in the sector.

"Every person in the UK spends more than £470 a year on packaging – about £28 billion in total – and we dump more than 10 million tonnes of packaging waste each year. That's why Less was set up," says client relations director Ian Bates. "The Less mantra is: love packaging, hate waste."

Less works with leading retailers, such as John Lewis, Marks & Spencer, Tesco and Toys R Us, to help them reduce packaging without the changes having any negative impact on products, brand performance and value. The Less mission cuts across the grain of what has been accepted methodology in the packaging industry, however. Like the rest of the sector, its two founding members had previously operated on the basis that the more packaging sold, the more profit the suppliers would make. Now, Less works with the principle that reducing packaging can actually help to enhance organisations' profitability, by improving resource efficiency and cutting costs associated with transport and storage.

The Less view is that, although consumer packaging is an essential component of everyday living, it should be designed to avoid unnecessary waste across the whole supply chain.

The value of packaging

Packaging plays a vital role in protecting and transporting goods from factory to point of use by the consumer, but the value chain of a product is often long and complex and is not purely functional. Packaging has to fulfil a complex mix of requirements for retailers, brand owners and consumers, including sensory appeal, high-level branding and perceived value. As Bates explains, packaging holds certain "value triggers" and consumers typically attach more worth to a product with a large amount of packaging. Manufacturers and retailers are obviously motivated to sell more products and so cannot ignore the aesthetic aspect of packaging.

Other factors influencing the way products are packed include the growth of supermarket and home shopping over the past 20 years, which has seen a rise in packaging to enable products to be delivered with minimal damage. The drive towards retail-ready packaging to ease the unpacking process and retailers' ability to sell multiple products has reduced costly in-store handling, but is also driving the need for more packaging if it is not designed optimally, according to Less.

Branded packaging design often sits in the marketing area of a business and, because of this, aesthetics can have a higher priority than production and supply-chain efficiency. "Brand awareness and creative design often take precedence over standardisation and sustainability in packaging," says Bates. "Without packaging, life would be a lot messier and less exciting, but it can often be done more efficiently, reducing environmental impacts and consumers' frustration."

Packaging principles

Less focuses on packaging optimisation by removing waste in the design of packaging products and throughout the supply chain. It is not a manufacturer, but designs packaging solutions for clients. Typically, the consultancy works with the customer's suppliers to help them create packaging products based on Less designs. With design facilities in several countries, Less is able to support its clients globally.

Bates says the best kind of packaging is minimal, sustainable, recyclable and, where possible, reusable. "Anything made from non-renewable materials or those that are difficult to recover and recycle, is ultimately going to place a burden on society," he says.

According to Less principles, the components of packaging should be easy to separate – for example, plastic should not be glued to cardboard if possible. In an ideal world, plastic would not be used for packaging at all, but many products need a window for visibility. There are, however, more sustainable options than the traditionally used PVC, confirms Less, including PET (polyethylene terephthalate), which is more recyclable.

Weight has been the most common metric for packaging optimisation so far, and still is, but Less promotes a more holistic approach throughout the supply chain. Pack size, material source, use of space and productivity are all equally important, says Bates, as are material source, waste and energy recovery.

Scoring the sustainability of packaging, and understanding what good packaging looks and feels like, requires more in-depth analysis. To this end, Less promotes a more sophisticated and sustainable approach to packaging. It is a member of the advisory committee for packaging, an independent body that advises Defra on matters relating to packaging and packaging waste, and acts as an adviser to Wrap.

Cradle to cradle precycling

Less applies a simple philosophy to its packaging designs, called precycling, using foresight rather than hindsight to design out packaging waste before it happens. Precycling is a process as well as an ethos, and instils a "cradle-to-cradle" approach into design activities to ensure that the environmental impact of packaging is taken into account throughout the life cycle of a product. For example, as part of the design process, Less measures the impact of the energy used to produce different packaging materials so that an informed decision can be made as to which has the least embedded carbon.

Taking a holistic approach means that designers do not consider the packaging in isolation, but analyse the product and packaging as a whole. Less has put this technique into practice many times. One example is where the consultancy worked with a client to redesign the packaging for a piece of lighting. The packaging was large and cumbersome, partly because of a protuberant part of the lamp. Less advised the client to change the product design so it could be packaged much more efficiently, and the manufacturer did so.

Another example comes from the packaging of fireplaces made in China. Less advised the client to

ship the product in two parts rather than pre-assembled as one piece, which considerably reduced the amount and size of the packaging that was needed.

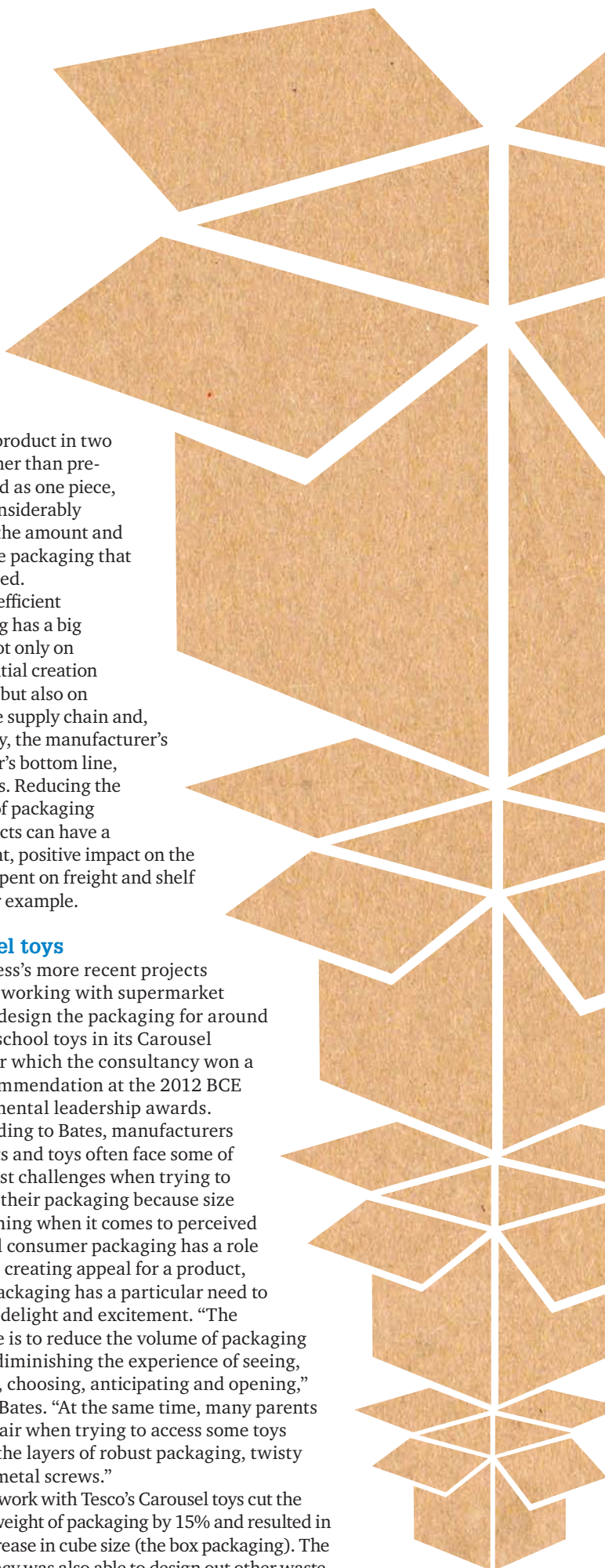
More efficient packaging has a big impact not only on the potential creation of waste, but also on the whole supply chain and, ultimately, the manufacturer's or retailer's bottom line, says Bates. Reducing the amount of packaging for products can have a significant, positive impact on the amount spent on freight and shelf space, for example.

Carousel toys

One of Less's more recent projects involved working with supermarket Tesco to design the packaging for around 100 pre-school toys in its Carousel range, for which the consultancy won a major commendation at the 2012 BCE environmental leadership awards.

According to Bates, manufacturers of gadgets and toys often face some of the biggest challenges when trying to optimise their packaging because size is everything when it comes to perceived value. All consumer packaging has a role to play in creating appeal for a product, but toy packaging has a particular need to generate delight and excitement. "The challenge is to reduce the volume of packaging without diminishing the experience of seeing, touching, choosing, anticipating and opening," explains Bates. "At the same time, many parents will despair when trying to access some toys through the layers of robust packaging, twisty ties and metal screws."

Less's work with Tesco's Carousel toys cut the average weight of packaging by 15% and resulted in a 5% decrease in cube size (the box packaging). The consultancy was also able to design out other waste,



including metal screws, plastic ties and plastic windows, while making the packs more supply-chain and consumer friendly. "The new packaging is eye-catching, easy to navigate, minimal, safe, secure, frustration-free, sustainable and recyclable," says Bates. Less estimates that it can take up to four minutes to unpack a typical toy; the brief from Tesco was to reduce unpacking times to 45 seconds. The Less design replaced the fiddly metal and plastic ties with cardboard engineering techniques to keep the toys securely in their presentation boxes. This approach ensured that the toys retained their "touch me, try me" tactile appeal to children and consumers, but significantly reduced the impact of the packaging on the environment.

The Carousel toys and packaging are manufactured in the Far East where Less's Hong Kong team partnered with Tesco's local sourcing office and their supply base to ensure that the packaging was designed and produced "right first time". According to Bates, this involved working closely with 10 local suppliers to guide them step by step through the new packaging processes.

Future challenges

Less is growing steadily, from two founding partners in the UK three years ago to now employing more than 20 people globally. Its aim, says Bates, aside from changing the behaviour of business to reduce the impact of packaging on the planet, is to increase the consultancy's international presence. Less has just secured its first French client, a major retailer, and there are many more projects with well-known companies in the pipeline.

The biggest challenge Less faces in putting its ambitious vision for packaging into practice is gaining board-level buy-in for packaging optimisation projects at retailers and manufacturers. Bates says: "Large companies still tend to be silo in their thinking and our design solutions require a holistic, birds-eye perspective that unites different functions, such as brand management, marketing and operations."

Packaging points



Total packaging waste in the UK increased steadily between 2001 and 2009, from 9.3 million tonnes in 2001 to 10.8 million tonnes in 2009, according to a 2011 report from Defra.

Around half of packaging waste is derived from commercial and industrial sources, and half from households. Total recovery and recycling of packaging in the UK has more than doubled from 3.3 million tonnes in 1998 – 33% of all packaging waste – to 7.2 million tonnes in 2009 – the equivalent of 67% of all packaging waste. Despite this, only 24% of the UK's plastic packaging is currently recycled.

According to Wrap:

- the grocery sector accounts for about 70% of the UK packaging market and uses 10 million tonnes of packaging each year. About 4.9 million tonnes reaches households and, if it is not reused or recycled, can end up in landfill;
- while 73% of packaging can be recycled in England, only 33% is; and
- research indicates that consumers favour sustainable products and want less packaging.

Wrap says that companies can reap the economic benefits of reducing packaging, and it runs the following two consumer programmes where industry can participate: Recycle now (recyclenowpartners.org.uk) and Love food hate waste (lovefoodhatewaste.com).

Wrap reports that decisions around material choice for primary, secondary and tertiary packaging are primarily informed by: whether consumers like it; supply-chain constraints; the need to protect the product from damage; and closed-loop approaches to resources through designing for recyclability and recycled content.

Designing packaging so that it can be more easily recycled and specifying the use of recycled content will help to reduce the demand for primary raw materials and generate demand for recovered resources, says Wrap. Reducing the amount of material used at the outset, through lightweighting, for example, is an important way in which to prevent unnecessary packaging from being manufactured, stored, transported, handled, collected, recycled and disposed of.

The broader environmental advantages of better packaging include lower energy use and fewer greenhouse-gas emissions.

Source: Wrap

All at sea?

Martin Broderick, Nick Medic and Alan Pearson
on new guidelines aimed at helping developers
perform cumulative effects assessments

The offshore wind sector is an industry of national importance that will help the UK secure its energy supplies, reduce dependence on imported fossil fuels, and protect the environment. It is a sector on which the country's clean energy future rests. Delays to projects and planning permission rejections inhibit the UK's ability to meet its 2020 targets for renewable energy.

One aspect that is causing major difficulty in the planning process for offshore wind farms is cumulative effects assessments (CEAs), including "in combination effects", whereby multiple projects or activities create a cumulative effect greater than, or different from, that of the individual project.

Key to the overall CEA process are the requirements of the EU Directive on strategic environmental assessment (SEA) (2001/42/EC). Although SEA seeks to inform decision making on a particular action, it does so at a strategic level for local plans, programmes and strategies. Typically, planners or the regulator perform the SEA, while the developer undertakes the project level environmental impact assessment (EIA).

The SEA is an important step for the CEA because, at a project level, many strategic decisions have already been made, with questions over what type of development should take place and where, either decided or pre-empted by earlier policymaking processes. The EIA focuses on a project's direct effects, which makes it challenging to address cumulative effects at the project level. To help developers, a set of guiding principles for undertaking cumulative effect assessments for offshore wind farms in the UK (see panel, right) has been developed by regulators and stakeholders from the sector.

Significant effects

All proposals for projects subject to the EIA Directive assessment (2011/92/EU) must be accompanied by an environmental statement describing the aspects of the environment likely to be significantly affected by the project. The Directive requires an assessment of the likely significant effects of the proposed project on the environment, covering the direct effects and any indirect, secondary and cumulative effects. It requires that short-, medium- and long-term effects are all considered, as well as permanent and temporary

effects, and positive and negative effects at all stages of the development. It also requires the inclusion of measures envisaged as necessary for avoiding or mitigating significant adverse effects.

Developers must ensure they consider both intra-project and inter-project cumulative effects. This Directive is implemented for offshore wind farms generating more than 100MW of electricity in the UK through the Infrastructure Planning (EIA) Regulations 2012 and the Electricity Works (EIA) (Scotland) Amendment Regulations 2008.

Separately, the EU Habitats Directive (92/43/EEC) requires that, where a plan or project is likely to have a significant effect on a Natura 2000 site – a special area of conservation or protection designated under the Habitats Directive or the Birds Directive (2009/147/EC) – either individually or in combination with other developments, it is subject to "appropriate assessment" of its implications for the site. In-combination effects need to be considered for relevant habitats and species. The process of screening for likely significant effects and, where appropriate, the undertaking of an appropriate assessment is known as a Habitats Regulations Assessment (HRA).

The EIA and appropriate assessment regimes are separate: an EIA cannot substitute for an appropriate assessment, or vice versa. There is scope, however, for the processes to be undertaken in an integrated way.

The focal point of an EIA is the environmental statement, which is prepared by the developer. The decision-making body – for example, the planning inspectorate or the Scottish government – must take the statement into account, along with other information when approving or rejecting a project.

But, under the Habitats Directive, the appropriate assessment is "the competent authority's own assessment" of the material effects on site integrity, and must be undertaken on a precautionary basis. If a proposal fails the integrity test it can only proceed in restricted circumstances.

The developer must provide sufficient information in the environmental statement and the CEA for the competent authority to undertake the appropriate assessment. Although acknowledging this crucial distinction, the new guiding principles apply to both the EIA and HRA processes, unless explicitly stated.

Meeting the challenge

Assessing cumulative effects is a regulatory requirement, but it can be challenging for several reasons. First, there is a lack of certainty over the process for undertaking a CEA, with inconclusive guidance and inconsistent definitions of scope and what should be considered “reasonably foreseeable”. There is also uncertainty over project-level effects, such as bird collision and displacement, which are compounded by a number of projects potentially contributing to the same effect.

Also, there are few existing definitive significance thresholds under which the cumulative effects of projects can be managed. Finally, there is potential for projects with larger environmental effects to be given consent before projects that may have lower environmental effects – using up important environmental capacities and potentially reducing the total generating capacity of projects that can gain consent. This is particularly difficult for project-level assessments to account for.

The newly-published guiding principles aim to tackle the first challenge and provide a framework that develops a consistency of approach in areas prone to uncertainty; not so much providing guidance as setting an expectation of standards. These principles do not seek to solve all CEA-related issues, however. Bird displacement and a better understanding of bird thresholds, for example, are areas that require further investigation. The guidelines aim to:

- ensure that all stakeholders have the same expectations of the CEA process;
- reduce uncertainty over the CEA process; and
- promote streamlining of the consenting process.

The guiding principles were developed through a steering group comprising developers, the Crown Estate, Decc and Natural England. Other stakeholders submitted written comments – more than 300 were received – and participated in two development workshops. The guidance was also presented to the offshore renewable energy licensing group; and discussed with the planning inspectorate and IEMA.

A structured approach

The principles are structured to consider effects from additional changes caused by a proposed offshore wind farm in conjunction with other similar projects, or the combined effect of several developments.

The principles define cumulative effects as “those that result from additive effects caused by other past, present or reasonably foreseeable actions together with the plan, programme or project itself and synergistic effects (in-combination), which arise from the reaction

between effects of a development plan, programme or project on different aspects of the environment”.

The focus of the guiding principles is on producing meaningful assessments, which strike the right balance between pragmatism and precaution. They must also provide a good quality analysis of the environmental effects of projects, while allowing a development to proceed in a timely fashion. The emphasis is on the assessment of potentially significant effects rather than cataloguing every conceivable effect.

Although the principles have been developed for project-level assessments in the UK offshore wind market, they may have wider relevance, including to future strategic environmental assessments.

Nick Medic is director at RenewableUK. **Martin Broderick** is senior director and **Alan Pearson** is senior consultant at WSP.

Principles for cumulative effects assessments

General principles

1. A cumulative effects assessment (CEA) is a project-level assessment, carried out as part of a response to the requirements of the EU Directives on habitats, birds and environmental impact assessment, designed to identify potentially significant impacts of developments and possible mitigation and monitoring measures.
2. Developers, regulators and stakeholders will collaborate on CEA.

Scoping

3. Clear and transparent requirements for CEA are to be provided by regulators and their advisers.
4. Boundaries for spatial and temporal interactions for CEA work should be set in consultation with regulators, advisors and other key stakeholders, in line with best available data.
5. CEAs will include early, iterative and proportionate scoping.
6. Developers will use a realistic project design envelope.
7. Developers will consider projects, plans and activities that have sufficient available information to undertake the assessment.

Data

8. The sharing and common analysis of compatible data will enhance the CEA process assessment.
9. CEA should be proportionate to the environmental risk of the project and focused on key effects and sensitive receptors.
10. Uncertainty should be addressed and, where practicable, quantified.

Mitigation and Monitoring

11. Mitigation and monitoring plans should be informed by the results of the CEA.

To receive a complete version of the guiding principles containing the rationale and implementation proposals, contact martin.broderick@wspgroup.com or nick.medic@RenewableUK.com.



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GLVIA3 guidelines are now available

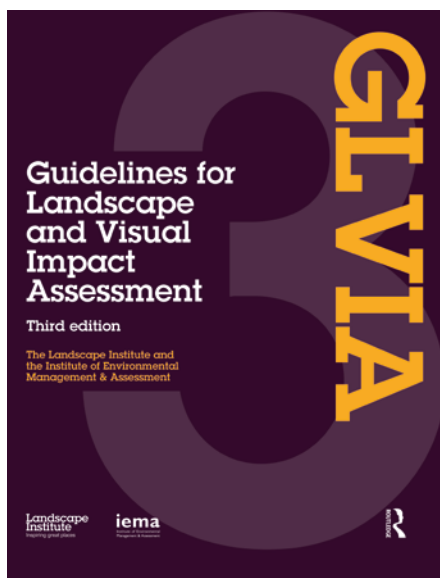
IEMA and the Landscape Institute have jointly published the third edition of their widely respected *Guidelines for landscape and visual impact assessment* (GLVIA3).

Officially launched on 17 April at an event in London – which was attended by Josh Fothergill, IEMA's policy and practice lead on impact assessment (EIA), and representatives from the IEMA EIA Quality Mark scheme – the revised guidance places greater emphasis on seeking collaboration in the assessment process.

The new document also promotes the greater use of a professional's judgment in effectively applying the most relevant principles and approaches, and in setting out the context of the development and the receiving environment. As result, GLVIA3 places the power of landscape and visual impact assessment in the hands of those best placed to deliver effective assessments, say IEMA and the Landscape Institute.

Fothergill welcomed the launch of GLVIA3, which he said will contribute greatly to the achievement of IEMA's vision for EIA practice: that of ensuring it delivers more proportionate EIAs that work for developers, communities and the environment. "For the first time, this key piece of guidance specifically recognises and references the crucial role of the EIA professional whose interpretive knowledge and skills help to ensure that landscape and visual assessments undertaken in an EIA can be effectively integrated with the rest of the topic assessments in its environmental statement," he said.

"Ultimately, GLVIA3's increased emphasis on discussion and engagement with stakeholders should help to focus assessments on likely significant effects, improve the way cumulative effects are considered and reduce delays associated with further information requests."



Sue Illman, president of the Landscape Institute, described GLVIA3 as comprehensive and clear, and said it covered the many changes that have taken place in the scope and nature of impact assessment since the publication of the second edition in 2002. "Looking forward, it will play a crucial role for those concerned with changes to the landscape and the impact of developments; the guidelines will assist decision-makers in determining what is acceptable and what can be mitigated," said Illman.

Written by professor Carys Swanwick from the landscape department at the University of Sheffield, GLVIA3 was developed with input from an advisory panel led by Jeff Stevenson of Oxfordshire-based Jeffrey Stevenson Associates, members of both IEMA and the Landscape Institute, and a range of stakeholders, including the Environment Agency and Natural England.

Get your copy of GLVIA3 and learn more about the guidelines

GLVIA3 is now available for purchase from landscapeinstitute.org. IEMA is hosting a series of free member workshops around the UK to explain the new guidance, beginning in London on 30 April and followed by events in Cardiff (1 May), Birmingham (2 May), Newcastle (8 May), Glasgow (9 May) and Manchester (10 May). Places are limited and are being taken up quickly. For more information and to book a place, visit iema.net/events.

Policy update



Progress report: streamlining EIA

In his 2012 autumn statement the chancellor said: "The government will consult on updated guidance on conducting environmental impact assessments (EIAs) by budget 2013, and will consult on raising the screening thresholds set out in the Town and Country Planning (EIA) Regulations 2011 later in 2013."

So how are his plans progressing? Well, the communities and local government department (Dclg) failed to launch a consultation on updated EIA guidance by the budget. This is not to say the plans are to be shelved. In fact, replacing the existing guidance was also identified as a priority by the 2012 Taylor review of planning guidance. However, these further delays will not surprise practitioners, who have already seen seven years pass since the original consultation on replacing the guidance.

On the second action, the ruling of the Court of Justice of the European Union (CJEU) in the *Salzburg Airport* case may temper the government's ambition to raise the EIA screening thresholds in England. The judgment (lexisurl.com/iema15024) ruled that legislation in Austria, which established an arbitrary quantitative threshold for determining EIA requirements when expanding an airport, failed to comply with the EIA Directive. The ruling has wider implications for member states.

The CJEU also stated that where a member state establishes thresholds incompatible with article 2(1) – requiring any project with likely significant effects to undergo an EIA – local planning authorities should ignore the threshold and apply case-by-case screening, which would generate a significant administrative burden. The ruling doesn't specify what an incompatible threshold is, but implies that arbitrary quantitative thresholds, like those in Schedule 2 of the UK Regulations, may not comply with the screening criteria in annex 3 of the Directive.

Josh Fothergill is IEMA's policy and practice lead on EIA.

Why choose direct debit?



With the often busy nature of environment management roles, it can be easy to overlook paying for your annual IEMA membership renewal, particularly if your employer is covering part of the costs.

However, forgetting to pay means that your membership will lapse halting your access to features such as iema.net, *the environmentalist*, environmentalisonline.com and member-only webinars, as well as removing your professional suffix (AIEMA, MIEMA CEnv, for example).

Opting to renew your membership via direct debit can take all of the hassle out of the renewal process and help you to plan your finances in advance.

IEMA offers a direct debit service for annual renewal payments, which ensures that after the Institute receives your direct debit mandate you need do nothing else. Payment will be taken on your renewal date, ensuring that your membership remains active, as will your access to all features and services.

The direct debit service is particularly useful for members who work away from their main address and are not always aware of the date by which their membership must be renewed.

Accompanying *the environmentalist* this month is a form for you to set up a direct debit instruction. If you wish to make your future payments simpler and quicker, simply fill in the form and return it to IEMA at the address provided. No further action is required and your membership is taken care of for another year.



Deadline approaching for students to design new ID

IEMA's competition to find an innovative and environmentally sustainable form of membership identification closes on Friday 26 April.

With the support of the National Union of Students (NUS), the student environmental enterprise competition 2013 asks future environment, design and business professionals to use their environmental knowledge, design skills, creativity and teamwork to transform the way we collectively think about proof of membership. And with more than five billion cards filling up wallets in Europe, finding a low-impact and cost-effective format for identification will have a wide-reaching impact.

The individual or team that submits the most outstanding entry as selected by the judges will win £1,000, plus one year's IEMA Student membership. The award will be presented at the annual NUS awards ceremony in June. The winner(s) will then be invited to one of IEMA's 2013 "Leading the way" events to present their solution to an assembly of the UK's environmental leaders. Following the competition, IEMA will assess launching the winning idea as the new format for membership ID.

The competition judges – James Thorne, IEMA's head of membership service delivery; Jo Kemp, green impact project manager at the NUS; and Toby Hodgkinson, partner at Opus Print – have set out their criteria for judging submissions and are anticipating entries in the format of a business case that

Competition overview

- Prize fund of £1,000
- Teams of up to four can enter
- Deadline date for registrations is Thursday 25 April at 5pm
- Deadline date for submissions is Friday 26 April at 5pm
- Awards to be held in June 2013
- Winners will be invited to present their idea at a future "Leading the way" event

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demonstrates excellence and creativity in all of the following areas:

- **Usability and appeal** – how will the new design work in practice?
- **Feasibility on a large scale** – the new ID format will be used by at least 15,000 people.
- **Sustainability** – evidence that potential sustainability impacts of the new ID have been considered and minimised at the production, usage and reuse/disposal phases.
- **Cost benefit** – does the new ID format present any revenue or reuse opportunities at the end of its life instead of disposal?

To find out more, or to submit an entry, visit lexisurl.com/iema14675.

New membership fees

From 1 June 2013 IEMA is introducing a small increase to its annual membership renewal fees. The Institute has frozen its membership renewal fees at 2010 rates for the past three years in order to help its members during the tough economic conditions. However, owing to increasing baseline costs, IEMA must now increase renewal fees.

The Institute has worked to minimise the increase and continues to invest revenue back into the provision and development of the services that IEMA offers its members, such as

the environmentalist and the programme of professional development events running during 2013.

Further details on the changes to your membership costs will be available in the May issue of *the environmentalist* and in future issues of IEMA's *Downloaded*. A full and transparent breakdown of the new renewal fees will be available online at lexisurl.com/iema15061.

Members whose annual renewal falls in June will receive their renewal advice with details of the updated fee before the end of April.

Don't forget *Downloaded*

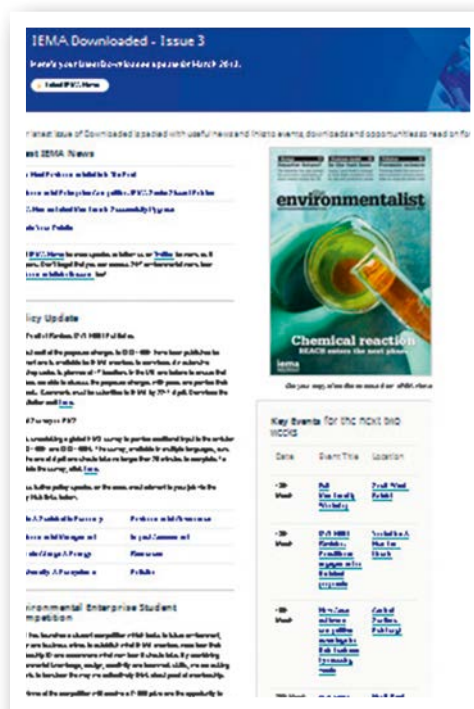
Since IEMA relaunched its online newsletter *Downloaded* at the beginning of February, the webpages have received more than 12,000 hits. Despite these high numbers, not all members are accessing the new service.

Downloaded is delivered straight to your inbox fortnightly and provides essential links to the latest IEMA news; important announcements; policy updates; details of discounts on events and services; information on opportunities for members to get involved in the Institute's activities; and the key events happening in the following two weeks.

By alternating publication of *Downloaded* with the *environmentalist* newsletter, you receive a weekly update from IEMA, in line with feedback from members on how often they want to receive information from the Institute.

Future issues of *Downloaded* will be published on 25 April, 9 May and 23 May, so be sure to look out for the email in your inbox. We welcome feedback on what you think of *Downloaded* and how it could be improved to meet members' needs, and comments so far have been extremely positive and helpful. Please contact IEMA's communications coordinator Katrina Pierce at k.pierce@iema.net to contribute your feedback.

If you have not yet received a link to *Downloaded*, then it may mean that we do not have the correct email address on your membership record. To check that your details are complete, and correct, log into iema.net using your username and password, and click "update my details" to make any necessary changes.



More successful IEMA members

IEMA would like to pass on its congratulations to the following individuals on successfully upgrading their membership.

Associate

Isabel Clark, Peterborough City Council
Callum Donnelly, Groundwork
Jane Huxtable, Jacobs Engineering UK

Susan MacBain, NEO Consultants
Catriona MacLachlan, VG Energy
Erin McMurtry, University of Southampton
Georgina Smith

Full

Rachel Adams, Ministry of Defence
Peter Barnes, Rolls-Royce
Elizabeth West, Atkins

Full and CEnv

Albert De Jong, Shell Global Solutions
David Fisher, Sepa
Christopher French
Scott Johnson, Jacobs Engineering
Simone Medonos, MWH
Warren Percival, RSK Group

Fellow

Stephanie McGibbon, Ove Arup

Richard Campen

Upgrading your membership is important in ensuring you gain the professional recognition you deserve, and can help you to secure the job you want and, potentially, a higher salary. Learn more about how to progress your membership at lexisurl.com/iema13639 or by calling +44 (0)1522 540069.

IEMA events

Date	Region	Topic
30 Apr	South East	Spring EIA in practice workshops – GLVIA3, EIA Directive and case studies (London)
1 May	Wales	Spring EIA in practice workshops – GLVIA3, EIA Directive and case studies (Cardiff)
2 May	Midlands	Spring EIA in practice workshops – GLVIA3, EIA Directive and case studies (Birmingham)
8 May	North East	Spring EIA in practice workshops – GLVIA3, EIA Directive and case studies (Newcastle)
9 May	Scotland West	Spring EIA in practice workshops – GLVIA3, EIA Directive and case studies (Glasgow)
10 May	North West	Spring EIA in practice workshops – GLVIA3, EIA Directive and case studies (Manchester)
Membership workshops		
1 May	South East	Full membership workshop (Maidstone)
10 May	Scotland North	Full membership workshop (Aberdeen)
23 May	Midlands	Full membership workshop (Leicester)

Jessica Fleming

Senior environmental coordinator,
the Landscape Partnership

Why did you become an environment professional? I was fortunate to grow up in the west of Ireland surrounded by natural beauty. My curiosity was followed by dismay at the prospect of environmental harm, whether by development or pollution. In my career, I derive great satisfaction from attempting to redress such harm.

What was your first environment role? My first job was with the department of lands and survey in Dublin. I started in the summer of my second year at university with field surveys of wetlands. I spent days walking around Galway or Clare identifying and recording plants and soil characteristics. After I graduated, I was hired permanently as a junior biologist to make sense of the data we had collected.

How did you progress your career? I volunteered as a teacher overseas which helped me to understand how differently people can live. From there I went to the US and worked as a geologist in the oil and gas sector, which was fun. Unfortunately, the bottom fell out of the industry and I was laid off. I turned to the growing environment sector and after interning with the US Environmental Protection Agency I got a job at one of their consultants. This was fascinating work. It was the beginning of the CERCLA regulatory programme (environmental compensation and liability act) and I helped to convict those responsible for environmental crimes, including some large-scale waste cases involving the mafia! Over time, I was promoted into compliance, auditing and permitting. I worked with the US military on its environment programmes and was impressed at the level of stewardship shown towards the land they used for training. I later worked with ISO 14001 and was introduced to NEPA, the US equivalent of environmental impact assessment (EIA). Since my return to Britain in 2004, my career has focused on planning, EIA and environment management systems (EMSs).

What does your current role involve? I manage projects that require major planning applications and/or EIA. I coordinate the different elements of EIA and ensure that supplementary studies and assessments are meaningful. I also lead our EMS team and implement our environment policy.

How has your role changed over the past few years? Since returning to Britain, my role has evolved from one of fast-track learning (the environment regimes here are very different from those in the US) to implementation, and then expanded towards management and knowledge sharing.

What's the best part of your work? I like enabling projects that I believe in. Helping a client to optimise a design, get planning permission and then build a project is the ideal. Often the reality is different, however, and you come in when something is in trouble. That said, a successful rescue is satisfying as well. I also enjoy sharing information and generating enthusiasm among young people coming into the profession.

What's the hardest part of your job? Having to stop short of what is desirable in a design or a mitigation plan because funds are not available. The need to compromise is constantly with us as we juggle economic limits with ideals.

What was the last training/event you attended? I regularly attend workshops offered by IEMA and other organisations on EIA and changes to environmental legislation.

What did you bring back to your job? Knowledge of how things are evolving in my discipline, which helps us to anticipate what is coming in terms of regulation. It is also good to mix with other people and exchange ideas.

Where do you see the profession going? I see the greater integration of scientific disciplines as environment



Career file

Qualifications:

AIEMA; paralegal certification in environmental law; BSc Geology; BA Natural Science; MA Botany

Career history:

2004 to now Senior environmental coordinator, the Landscape Partnership
1999–2003 Senior environmental scientist/project manager, URS
1996–1999 Environmental scientist, AGEISS Environmental
1993–1996 Project manager, Dames & Moore
1986–1993 Consultant, TechLaw and US Environmental Protection Agency technical enforcement support team
1981–1986 Geologist, Exploration BlueSky Oil and Gas
1979–1980 Teacher, Voluntary Service Overseas
1977–1979 Biologist, department of lands and survey, Ireland

matters become more important to the success of businesses, economics and government. Environment professionals will need to apply their skills in a much broader range of situations.

What advice would you give someone entering the profession?

Obtain a sound education in at least one of the core disciplines of mathematics, chemistry or physics. Statistics and thermodynamics have stood me in good stead all my working life, although I do not apply them directly. Students should not be put off by pure science subjects because they are perceived as difficult. Second, have fun and don't take it all too seriously; you can only change the world a tiny bit.

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EIA Project Director, Principal Environmental Planner – Edinburgh

About us:

LUC is dedicated to conserving and enhancing the environment and promoting sustainable development on behalf of our clients. With more than 45 years' experience, our specialist team of over 100 staff is located across four UK offices. Our work is underpinned by core values of respect, integrity, drive and excellence.

Our clients include central, devolved and local government, public sector agencies, regulatory bodies, private sector companies and the third sector, both UK and overseas.

About the role:

LUC is seeking a motivated and enthusiastic Principal Environmental Planner with experience in directing a variety of EIA projects. This may include projects for a range of industry sectors, such as renewable energy developments, including wind farms, electricity transmission infrastructure, transport, minerals, waste and water. You will take a leading role in business and team development and in continuing to expand and diversify LUC's EIA services.

Involved in all stages of project development from tendering through to completion, the candidate will be expected to participate in all aspects of the work carried out, particularly the generation of new business, customer relationship management and staff management.

The role will require the co-ordination of LUC's in-house specialist teams as well as external sub-consultants and client liaison. We are registrants of IEMA's EIA Quality Mark Scheme

About you:

You will have a degree in a relevant discipline and preferably will have completed a post-graduate qualification in, or covering, Environmental Impact Assessment.

Full membership of IEMA is desirable and CEnv status preferred but not essential.

We are looking for candidates with extensive experience in project leadership, including major infrastructure projects. Experience in the energy sector is useful but ideally the candidate will be able to work in a wider variety of sectors.

Candidates must have good organisational and managerial skills because this post includes participation in wider team and business management. Also important for this role are excellent communication skills and the ability to build effective relationships with colleagues and clients.

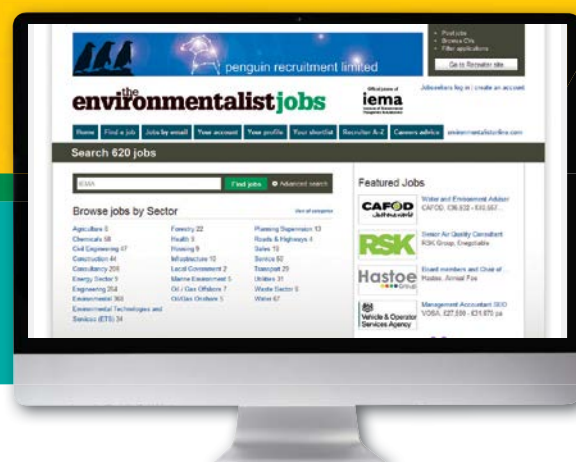
For further details about LUC please visit our website www.landuse.co.uk

To apply please email your CV and a covering letter, quoting reference: **2013-08 to Mary Woodman**, HR Manager at: HR@landuse.co.uk

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<p>Environmental Advisor £Competitive Salary Southern and Western Region Ref: The Clancy Group</p>	<p>Data Centre Energy Engineer £Competitive + package London Ref: 4331</p>
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A close-up, artistic shot of a Glenmorangie whisky bottle and a glass. The bottle is in the background, slightly out of focus, with the words "GLENMORANGIE" and "MALT SCOTCH WHISKY" clearly visible on its label. In the foreground, a glass is partially filled with the golden whisky, and a stream of the liquid is captured mid-pour, creating a dynamic, flowing effect. The lighting is warm and golden, highlighting the rich color of the whisky.