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From April 2017, the business water market will open fully to competition, allowing firms to swtich suppliers. *the environmentalist* looks at the impact

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# Political will

Last year, Decc found that 80% of respondents to its annual tracking poll supported the idea of electricity, heat and fuel being supplied from renewable sources, while a Populus poll found that almost 73% of the British public want to see a global deal on climate change agreed at Paris in December.

With the UK general election just weeks away and the political parties vying for votes you might expect their energy and environment spokespeople to set out a clear vision for how they will meet the aspirations of the electorate on renewables and tackling climate change. Sadly a lack of imagination prevails (pp.19–20). The "green hustings" hosted by the Green Alliance at the end of

March demonstrated the dearth of ideas. The participants were: Liz Truss, the Conservative environment secretary; Ed Davey, Liberal Democrat energy and climate change secretary; Caroline Flint, shadow energy secretary for Labour; and Caroline Lucas, the UK's only Green MP. Before the politicians faced questions, members of the audience were asked whether they were optimistic the next government would "make progress on the environment". Thirty-six per cent said yes. That only just over one-third had any confidence that Westminster

With the UK election just weeks
away, you might expect the parties
to set out a clear vision on climate
change and renewables. Sadly
a lack of imagination prevails

could deliver change was itself revealing. More depressing was that by the end of the debate the proportion had dropped to 30%. Only the performance of Lucas generated overwhelmingly positive feedback on social media.

So, where are the politicians with the vision to significantly move forward on the low-carbon agenda in the built environment, for example? Buildings account for more than 40% of UK emissions but offer the best cost-effective opportunity to reduce them. New regulations have just been passed that will set minimum energy efficiency standards in England and Wales from April 2018 for commercial properties and from June 2016 in Scotland (p.12), but the level of ambition is low. How many prospective MPs are demanding the roofs of all new commercial buildings contain solar panels or plants – which would cut the amount of energy needed to heat a building in winter and cool it in summer – as France has just done? And who is asking for panels to be fitted to all public buildings with southfacing roofs that can support them? The price of panels has plummeted over the past few years and is expected to fall further, so the cost is not the barrier just an absence of political will. That lack of resolve also exists for many of the other environment and sustainability measures that should be a priority (pp.14–17).

With billions of pounds being pumped into new infrastructure over the next few years, the decisions the next government takes will have long-term impacts. UK readers need to think carefully where they place their cross on the ballot slip.



Paul Suff, editor

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#### IEMA

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

#### Editor

Paul Suff paul.suff@lexisnexis.co.uk

#### Deputy editor

Catherine Early catherine.early@lexisnexis.co.uk

#### Managing editor

Louis Wustemann louis.wustemann@lexisnexis.co.uk

#### Sub-editor

Mike McNabb: Sue Fenton: Angela Partington

#### Display and recruitment advertising

Sam MacKenzie tel: +44 (0) 20 8212 1913 sam.mackenzie@lexisnexis.co.uk Harry Toomey tel: +44 (0) 20 8212 1989 harry.toomey@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

#### Publisher

Chris Jones chris.jones@lexisnexis.co.uk

#### IEMA communications coordinator

k.pierce@iema.net

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

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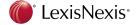
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#### Short cuts

#### Decarbonising industry

The government has published documents setting out how eight of the most heat-intensive industry sectors can reduce their greenhouse-gas emissions and become more energy efficient. The industrial decarbonisation and energy efficiency roadmaps cover: iron and steel; chemicals; oil refining; food and drink; pulp and paper; cement; glass; and ceramics (lexisurl.com/ iema82826). The reports reveal that carbon emissions are highest from the iron and steel sector, which emitted 22.8 million tonnes of CO2 in 2012. The roadmap for iron and steel suggests that emissions could be reduced by 60% by 2050 if the maximum technical potential for decarbonisation in the sector was deployed. This would cost up to £600 million. UK Steel, which represents the industry, described the roadmap as a "vital first step in building a comprehensive understanding of the decarbonisation options available". However, its director, Gareth Stace, warned that the government had to put industrial competitiveness at the centre of its decarbonisation policy. "Central to this is long-term certainty around the compensation package for the pass-through costs of electricity sector decarbonisation, as well as the necessary reforms to carbon leakage measures within the EU emissions trading system," he said.

#### Green economy growth

The low-carbon economy in the UK is worth around £122 billion and has been growing on average by more than 7% a year since 2010, according to a report from Decc. The energy and climate change department said the sector supportsed more than 460,000 jobs, equivalent to 1.5% of all UK jobs, and that the number had been increasing at 3.8% a year on average. The sector is spread across the country, with nearly £2.7 billion invested in renewable electricity in north east England and £6 billion in Scotland, Decc estimates. The Green Investment Bank has backed more than 40 green infrastructure projects and committed some £2 billion to the UK's low-carbon economy since its launch in 2012.

### Barren budget for environment

Confirmation that negotiations over how much financial support the government might provide to build a tidal power lagoon at Swansea was the main environment measure announced in the budget.

The Treasury said the discussions on a contract for difference for the project would determine whether it is affordable and good value for consumers, and whether its construction would help drive down the costs of developing tidal lagoon energy in the UK (pp.38–41).

George Osborne's sixth budget also included more details on a scheme to compensate energy-intensive industries (EIIs) for the indirect costs of smallscale renewable energy subsidies. Under the plans, EIIs will be compensated for the higher costs of electricity resulting from feed-in-tariffs (FiTs) and the renewables obligation. Osborne said the FiTs component of the scheme would be implemented as soon as state aid approval is received, which is expected this year, and would save EIIs £25 million in 2015–16.



The chancellor set the value of the landfill communities fund (LCF) for 2015–16 at £59.4 milliion, with the cap on contributions by landfill operators amended to 5.7%. The saving from the LCF will provide the Environment Agency with £4.2 million to help it tackle waste crime.

Osborne said the government would consult on aligning planning notification arrangements for deep geothermal energy projects with those for onshore oil and gas. An extra £16.8 million to build flood defence schemes was also announced.

# Natural capital challenge

Dieter Helm, chair of the Natural Capital Committee, has challenged the next government to put in place the body's recommendations. "If the incoming government does not embrace them it will be a enormous set back," he warned.

Helm told the annual conference of the UK network of environmental economists that the infrastructure being planned provided an opportunity to ensure proper consideration is given to natural capital assets. "A huge amount of concrete is going to be poured, the biggest in a generation. It should not be possible to bring forward plans for energy, water, housing etc without considering the natural capital involved," Helm said. Natural capital should be included in the natural infrastructure plan, he added.

In its final report, published in January, the committee set out what a future government would need to do if it is to take forward the coalition's commitment to protect and improve the environment within a generation. This included a 25-year capital investment programme of woodland planting, peatland restoration, and wetland and intertidal habitat creation as well as measures to improve

urban greenspaces and air quality. Helm told the conference that most of the money to fund this action would have to come from the private sector. "Defra will not see its resources increased," he warned.

Helm described the failure by previous governments to establish a sovereign wealth fund from North Sea oil and gas tax receipts as a 25-year example of "bad economics", saying the money could have been used to fund the capital maintenance necessary to keep other natural capital intact. He said the government should encourage private sector owners of natural assets to invest in maintaining and improving them, and advocated the wider use of the corporate natural capital accounting framework developed by the committee.

Allan Provins, an economist and senior consultant with eftec, told the conference how the Crown Estate, National Trust, Larfarge-Tarmac and United Utilities had successfully piloted the framework, which evaluates the costs of sustaining and restoring natural assets.

Helm said the committee expects to receive a response to its proposals from the new government in September.

# Support for cross-Whitehall resource unit increases

The Labour party and Liberal Democrats have pledged to create a cross-departmental unit to coordinate work on resource efficiency if they are in government after the general election. Their commitments were made at a parliamentary launch of a report by the material security working group.

The group, which is chaired by manufacturers' organisation EEF, wants an office for resource management (ORM) to be set up. The unit would be tasked with forecasting and research, and would be responsbile for driving the direction of policy and providing guidance and support to officials in government departments.

The report suggests that the ORM sits within the business department, since this already has responsibility for advancing the green economy and resource efficiency. It also calls for a review of the security of materials used by UK companies similar way to the one conducted in 2006 by Lord Stern on the costs of climate change, which was commissioned by the Treasury.

At the launch of the report, Duncan Brack, vice chair of the Liberal Democrats' policy committee, said that the party supported the creation of an ORM and a resource review. The party would also put the Natural Capital Committee (p.4) on a statutory footing, he said.

Barry Gardiner, shadow environment minister, said Labour also backed the establishment of an ORM. He promised that an announcement outlining Labour's approach to resource efficiency would be made before the election.

IEMA is a member of the material security working group. A survey of members found that 89% do not believe that government departments and agencies are sufficiently joined up in their delivery of resource efficiency. Eight-eight per cent of respondents also said that the sector in which they work, including private and public bodies, is not doing enough towards achieving a circular economy. Slightly more (89%) support the idea of incorporating resource productivity and security in corporate reporting.

Josh Fothergill, IEMA's policy lead on sustainable resource management, said there were inspiring case studies on organisations leading the way on



resource management, but these were "too thin on the ground".

The idea of an ORM has gained widespread support in recent years, including from the Chartered Institute for Water and Environmental Management, the Institution of Civil Engineers, and the Institute for Public Policy Research.

The Aldersgate group is also behind the idea. It has called on the next government to make significant fiscal and regulatory reforms to help UK businesses be more resource efficient. In a report published in March (p.50), it set out the initial findings of a three-year EU-funded project known as REBus, which is supporting 30 pilot schemes to test how businesses can achieve a 30% reduction in resource consumption by 2020.

Current environmental regulations have been designed around risk, hazards or fixed standards, Aldersgate says. The report says the regulations have worked well in the sectors for which they have been designed, but the different approaches have created silos of regulation and attitudes among regulators that are barriers to developing a circular economy. The report recommends the rationalisation of regulatory positions, codes of practice and certified standards to allow secondary materials and components to be handled in the same way as primary materials.

A separate report from the Carbon Trust, with support from the Knowledge Transfer Network and the Centre for Remanufacturing and Reuse, has examined the potential for remanufacturing in the UK. Among its recommendations is a review of targets under the Directive on waste electrical and electronic equipment, so more importance is given to reuse and remanufacture over recycling.

#### Shortcuts

#### EU climate target

The EU has submitted to the UNFCCC its intended nationally determined contribution (INDC) after it was approved by the environment council. The EU INDC confirms the bloc will achieve at least a 40% domestic reduction in greenhouse-gas emissions by 2030 compared with 1990 levels. Countries must submit an INDC well in advance of the climate summit in Paris in December. The EU claims its INDC puts the bloc on a cost-effective pathway towards reducing emissions by 80% by 2050, and is also in line with the objective of reducing global emissions by 60% compared with 2010 levels by middle of the century. "It is our fair share of what has to be done to achieve the internationally agreed below 2°C target," said Miguel Arias Cañete, commissioner for climate action and energy. As the environmentalist went to press, Switzerland was the only other country to have submitted its INDC.

#### Sign to support action

On 18 June 18 2015, a global series of events will be held over 24 hours to highlight the importance of world leaders reaching an agreement on a new climate treaty in Paris at the end of the year. Environmentalists can declare their support for urgent action on climate change by signing the petition at liveearth.org.

#### Biodiversity guidance

The standards body BSI has developed guidance for businesses on managing the risks and opportunities of biodiversity. BS8583 is aimed at organisations that want to manage their impact on biodiversity for the benefit of their business. It explains what biodiversity is and why it is relevant to businesses and other organisations; advises on how to assess biodiversity impacts; explores ways to manage biodiversity, for example through supply chains; and gives advice on protecting and enhancing biodiversity. It also outlines a four-step process to improve biodiversity and provides examples of opportunities and risks in the context of global, national and local targets, and UK policies, the BSI said.

#### In parliament



Getting the EU to fight wildlife crime

Wildlife crime is driving many endangered species to the brink of extinction. The illegal ivory trade has resulted in 100,000 elephants being killed in the past two years. Wildlife crime has become a lucrative source of income, worth an estimated \$20 billion a year. It is now the fourth largest illegal trade in the world. The only way to take on the transnational gangs that operate this vile trade is to work closely across borders in Europe and beyond. That is why, in March, I launched the cross-party MEPs for wildlife group, which will aim to put the fight against wildlife crime at the top of the EU's agenda. Led by one MEP from each of parliament's seven political groups, it will build support across the political spectrum for an EU action plan to combat wildlife crime.

The EU currently plays a major role in the fight against wildlife crime, including funding anti-poaching efforts in developing countries and putting in place strict rules against the trafficking of endangered species. But it lacks a comprehensive strategy to deal with this growing threat. A comprehensive action plan would ensure that coordinated action is taken across all areas, from development aid to police cooperation. The EU could start by imposing tougher minimum penalties for criminals involved in the illegal trade in wildlife, set up a dedicated wildlife crime unit in Europol and increase funding for antipoaching efforts in developing countries.

Momentum is now building as governments around the world wake up to the threat wildlife crime poses to global security. China has recently announced a ban on imports of ivory. Both the US and UK have made tackling wildlife crime a foreign policy priority. Yet the EU has still not accorded this pressing issue the importance it deserves. The MEPs for wildlife group will ensure an action plan against wildlife crime is developed and implemented across the EU.

Catherine Bearder, Liberal Democrat MEP and a member of the European parliament's environment committee.

### **Emissions flatline in 2014**

Greenhouse-gas emissions from the energy sector stalled in 2014 despite a 3% expansion in economic activity, according to research by the International Energy Agency. It is the first clear indication that the link between global economic growth and rising may finally have been broken.

The agency said this is first time in 40 years in which a halt or reduction in GHG emissions was not tied to an economic downturn. There have only been three occasions since the mid-1970s – in the 1980s, 1992 and 2009 – when emissions stalled or fell compared with the previous year, and all were associated with global economic weakness, it said.

Preliminary data for 2014 reveal that global emissions of carbon dioxide were 32.3 billion tonnes in 2014, unchanged from 2013. The agency said the figures suggest that efforts to mitigate climate change may be having a more pronounced effect on emissions than had been thought. It attributed the halt in emissions growth to changing patterns of energy consumption in China and OECD countries. China generated less electricity from coal in 2014 than before, said the agency, while OECD economies are doing more to improve energy efficiency and promote renewable energy sources. This is



producing the desired effect of decoupling economic growth from GHG emissions, said the agency.

"This is both a very welcome surprise and a significant one," said IEA chief economist Fatih Birol. He said evidence of decoupling would provide much-needed momentum to negotiators preparing to agree a new global climate deal at the Paris summit in December.

IEA executive director Maria van der Hoeven warned that the news should not be an excuse to delay further action on reducing emissions. "The latest data on emissions are indeed encouraging, but this is no time for complacency," she said.

## Decc and Defra 'too weak'

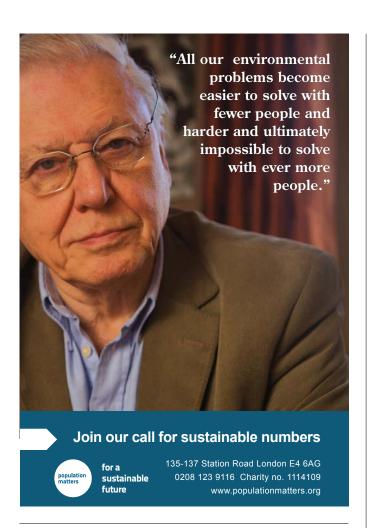
Government departments responsible for energy and the environment are too weak to stand up to other departments, according to the cross-party group of MPs which scrutinise them.

The creation of Decc "seemed like a good idea at the time", Tim Yeo, chair of the energy and climate change committee said at the launch of a report on the group's work during the current parliament. "But I don't think the department has worked as well as it could because Decc is essentially underresourced. It is weak."

Yeo claimed that Decc is often outgunned by the departments for transport, business and local government, as well as the Treasury. "All that has led to policy being formed with too much regard to the short-term impact rather than the long-term, which is particularly dangerous in energy policy where the investment cycle is so very long," he said.

Meanwhile, MPs scrutinising Defra said the environment department was "worryingly vulnerable". Budget cuts have left the core department less effective in persuading decision-makers in other government departments and Brussels to follow its agenda, the Efra committee said in a report examining Defra's performance over the past five years. The MPs concluded that Defra needs firm, ministerial leadership and better in-house expertise to ensure it can deliver its priorities.

Campaign group WWF believes reform of government departments is necessary to properly protect the environment. Outdated Whitehall structures have led to short-term and piecemeal approaches to dealing the species and habitat loss, pollution and climate change, says a report for the WWF by former government adviser Duncan Brack. It recommends the creation of an Office of Environmental Responsibility to oversee a 25-year plan for the environment.





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#### Businessplans

Anglo American has warned in its latest sustainable development report that climate change poses a significant challenge to its business. "Energy and policy-associated costs are rising, consumer demand for products is changing, and the threat of the physical impact of climate change on operations and host communities is escalating," it states. The mining company reports that its greenhousegas (GHG) emissions in 2014 fell by 4.2 million tonnes and it is on track to achieve its target to reduce them by 19% by the end of 2015.

Toyota has unveiled its Mirai car, which will be the UK's first commercially available hydrogen fuel-cell vehicle when it goes on sale later this year. The Mirai, which means "future" in Japanese, is powered by a hydrogenoxygen fuel cell and can travel more than 300 miles on one tank of hydrogen.

To improve its environment and sustainability performance, **Electrolux** is planning to set qualitative and quantitative targets this year in 10 areas. These include improving product, material and operational efficiency and eliminating hazardous substances. The electrical goods producer reports that, by the end of 2014, it had reduced its GHG emissions by 22% against a 2005 base year. It aims to halve its emissions by 2020.

Marks & Spencer has completed installation of the UK's largest single roof mounted solar panel array on its East Midlands distribution centre. The array consists of 24,272 panels and will generate more than 5,000 MWh of electricity a year. It will also lower the retailer's carbon footprint by 48,000 tonnes over 20 years.

Google has invested \$300 million in renewable energy company SolarCity. It is the internet services company's largest investment in renewable energy and the money will be used to install solar panels on homes across the US without the owners paying an upfront cost.

Deutsche Post DHL Group improved the carbon efficiency of its operations – road and air transport and buildings – by 23% between 2007 and 2014. It aims to achieve a 30% improvement by 2020. The firm also said the number of "environmentally friendly" vehicles in its fleet now numbers 11,200.

# Europe failing on targets

Europe will fail to meet its environmental targets unless it implements more robust policies, according to a report from the EU's official adviser on the environment.

Despite having cleaner air and amassing less waste, Europe is a long way from achieving its objective of "living well within the limits of the planet" by 2050, the European Environment Agency (EEA) stated in its five-yearly assessment of the state of the environment. The report concluded that neither current environmental policies nor economic and technology-driven efficiency gains will be sufficient to achieve the target. Goals to halt biodiversity loss, reduce greenhousegas emissions and improve freshwater quality are all off-track, it found.

Natural resources are being used more efficiently than previously, but the resource base on which people rely is still being degraded, the agency said. Climate change and biodiversity loss are major problems, it added. Alongside more ambitious policies, Europe needs to make smarter investment



decisions to transform the way it produces food and energy and delivers housing, health and education, for example.

The EEA found that the financial crisis contributed to reductions in some environmental pressures, such as resource use, but added that it remains to be seen whether improvements will be sustained.

Hans Bruyninckx, EEA executive director, said that, although 2050 may seem far away, many of the decisions made today will determine how people live then, so action must be taken now.

# UN to set resilience goals

The post-2015 sustainable development goals that are due to be adopted in September will include targets to reduce the risk for loss of life, livelihood and critical infrastructure from disasters. It follows the agreement struck on disaster risk reduction at a UN conference in Sendai, Japan.

The framework calls for actions to protect populations and promote quick recovery, as well as prevent new risks, such as those caused by ill-planned urban growth in areas subject to flooding, landslides and effects of climate change.

"The adoption of the framework for disaster risk reduction opens a major new chapter in sustainable development as it outlines clear targets and priorities for action which will lead to a substantial reduction of disaster risk and losses in lives, livelihood and health," said Margareta Wahlström, head of the UN office for disaster risk reduction.

The document warns that disasters, many of which are exacerbated by climate change and are increasing in frequency and intensity, significantly impede progress towards sustainable development. It calls for more dedicated action on tackling

underlying disaster risk drivers, such as the consequences of climate change, unplanned and rapid urbanisation, poor land management, complex supply chains, unsustainable use of natural resources and declining ecosystems. "Addressing climate change represents an opportunity to reduce disaster risk in a meaningful and coherent manner," states the agreement. It also advises governments to strengthen the sustainable use and management of ecosystems, and to implement integrated environmental and natural resource management approaches that incorporate disaster risk reduction.

The Sendai accord replaces the 2005 Hyogo framework for action. The UN said Hyogo had helped to reduce disaster risk at local, national, regional and global levels, but conceded that, over the past 10 years, disasters had continued to exact a heavy toll. Since 2005, disasters had resulted in more than 700,000 people losing their lives, with approximately 23 million being made homeless, it said. Overall, more than 1.5 billion people had been affected by disasters in various ways during the past decade, with total economic losses estimated at more than \$1.3 trillion.

# In court

#### Illegal waste exports cost company almost £24,000

Sending mixed waste to Germany and China without notifying the authorities in writing and obtaining their permission has cost a Bedfordshire recycling company £23,745 in fines and costs.

Northampton magistrates' court was told that Monoworld transported mixed waste from its recycling facility in Rushden to a Tönsmeier factory in Herne, Germany, without the proper documents. This occurred on 1 July 2013 and was a breach of reg.19(2)(a) and reg.58 of the Transfrontier Shipment of Waste Regulations 2007. Authorities in the Netherlands intercepted the waste cargo and the Environment Agency found there was no proper contract or financial guarantee between Monoworld and the German company. The waste, described as "recycled plastic", was contaminated with metal cans, food trays, aerosol cans and wood.

In a separate incident, on 7 October 2013, the company attempted to transport mixed waste to China without written notification and consent, and contrary to reg.23B(2) and reg.58 of the 2007 regulations. This consignment was stopped by Environment Agency officers at Felixstowe port and found to contain plastics contaminated with wood, cans and cable as well as pockets of polluting brown liquid.

The company had been convicted in 2004 for 10 offences under previous waste shipment regulations and, in 2012, it received a formal warning for a similar breach of the 2007 regulations when two containers of waste electrical and electronic equipment bound for Hong Kong were intercepted.

Miriam Tordoff, prosecuting for the agency, told the court that the procedures Monoworld had in place before the offences were committed did not specifically comply with the regulations and had not in any case been followed. Georgie Messent, defending, said Monoworld accepted there had been serious procedural failings but had since invested £9.8 million in new sorting lines and a recycling facilities at the Rushden site.

Monoworld was fined £5,000 for each offence and ordered to pay agency costs totalling £13,745.

#### Magistrates' fine cap removed

The upper limit on all current fines and maximum fines of £5,000 and above that magistrates' courts can impose have been removed after the Legal Aid, Sentencing and Punishment of Offenders Act 2012 (Fines on Summary Conviction) Regulations 2015 (LASPO)came into force on 12 March. Instead, magistrates can now issue higher penalties to offenders who have committed the most serious "level five" offences (lexisurl.com/ iema81091). LASPO amends several pieces of legislation, including the Environment Protection Act 1990, by removing the ceilings on fines that magistrates could impose for offences connected with waste or the control of air pollution, for example. The Environmental Permitting (England and Wales) Regulations 2010 are also amended and raise the prospect of unlimited fines. Reg.39 relates to penalties and the wording "a fine not exceeding £50,000" is substituted with "a fine" by the LASPO regulations.

Waste tyre mountain leads to prison Hamilton sheriff court has jailed a former director of Earthmover Tyre Recycling for 14 months and fined the firm £195,000 for illegally depositing and keeping controlled waste. Paul Cook pleaded guilty to two offences under the Environmental Protection Act 1990 for depositing and keeping controlled waste on land without a waste management licence between October 2012 and April 2013. The illegal waste included a vast quantity of tyres, tyre bales and tyre crumb. Officers from the Scottish Environment Protection Agency (Sepa) discovered about 140,000 tyres at the north Lanarkshire site. Many were stacked haphazardly in piles higher than allowed at licensed facilities, and too close together, making it difficult for fire trucks to access the site. Fire is the biggest environmental risk associated with scrap tyres as burning rubber pollutes the atmosphere. Sepa used its statutory powers to remove most of the tyres at a cost of more than £437,000.

#### Case law

# Onus on inspector to demonstrate impact

Section 66 of the Planning (Listed Buildings and Conservation Areas) Act 1990 requires a decision maker to consider whether a development will affect a listed building or its setting when assessing an application for planning. The national planning policy framework (NPPF) states: "Where a development proposal would lead to less than substantial harm to the significance of a heritage asset, this harm should be weighed against the public benefits of the proposal."

In Mordue v Secretary of state for communities and local government [2015], the claimant argued that the inspector had failed to apply the duty imposed by s.66 by neglecting to give "considerable importance and weight" to the acknowledged impact of a wind turbine on the setting of listed buildings. The court allowed the claimant's application. The inspector had referred to the impact on listed buildings but, applying the NPPF guidance, concluded that heritage issues were outweighed by the environmental benefits. However, there was no indication of what weight the inspector had given in each case or cumulatively. The judge felt bound to follow the judgment in East Northamptonshire v Secretary of state for communities and local government [2014], which placed the onus of proof on the secretary of state to demonstrate that considerable importance and weight had been given to the impact on listed buildings, rather than on the claimant to establish that the decision was legally flawed.

In Mordue, therefore, applying the NPPF alone was not sufficient, because it did not demonstrate that the required weight had in fact been given.

Jen Hawkins

Lexis<sub>PSL</sub>

# New regulations



In force	Subject	Details
4 Feb 2015	Emissions	EU Regulation 2015/45 amends Directive 2007/46/EC and Regulation 692/2008 to modify the documents used in the approval process for light commercial vehicles. The amendment requires approved uses of innovative technologies to reduce CO2 emissions to be separately specified in type approval documentation and certificates of conformity. lexisurl.com/iema68624
12 Feb 2015	Energy	The Renewable Heat Incentive Scheme (Amendment) Regulations 2015 revises the renewable heat incentive (RHI) rules on combined heat and power systems and heat loss calculations as well as references to microgeneration certification scheme standards. A tiered tariff is introduced for biomethane injection to the grid. Sanctions available to regulators are also clarified. The Renewable Heat Incentive Scheme and Domestic Renewable Heat Incentive Scheme (Amendment) Regulations 2015 amend the domestic and non-domestic RHI schemes for solid biomass or biogas used to generate heat, and on injected biomethane. From 5th October 2015, these must comply with lifecycle greenhouse-gas emission limits. lexisurl.com/iema77984; lexisurl.com/iema77989
14 Feb 2015	Waste	The Food Waste Regulations (Northern Ireland) 2015 amend waste legislation to support the recycling of food waste. Most food businesses will be required to separate food waste for recycling. From 1 April, separate collection and transport of food waste must be undertaken by waste contractors and district councils. lexisurl.com/iema68528
27 Feb 2015	Waste	The Waste (Fees and Charges) (Amendment) Regulations (Northern Ireland) 2015 increase the registration fees for waste carriers, brokers and dealers. Fees payable for three waste management exemptions also rise. lexisurl.com/iema68531
16 Feb 2015 1 Apr 2015	Waste	The Scottish Landfill Tax (Administration) Regulations 2015 provide for the administration of the tax in Scotland. Measures on registration came into force on 16 February, while the other provisions, including how returns and landfill tax accounts are managed and delivered, came into force on 1 April. The Revenue Scotland and Tax Powers Act (Involved Third Party) Order 2015 makes three definitions in relation to Scottish landfill tax and came into force on 1 April. The Scottish Landfill Tax (Qualifying Material) Order 2015 defines materials eligible for the lower rate of landfill tax in Scotland. This Order applied from 1 April. lexisurl.com/iema68521; lexisurl.com/iema68534
17 Feb 2015	Waste	Part 2 of the Wales Act 2014 provides for the devolution of landfill tax to Wales. Welsh landfill tax is expected to apply from April 2018. lexisurl.com/iema61455
4 Mar 2015	Water	The Water Framework Directive (Priority Substances and Classification) (Amendment) Regulations (Northern Ireland) 2015 replace sch 1 – setting criteria and standards for rivers, lake or transitional water; sch 2 – determining status of relevant water bodies; and sch 3 – determining groundwater status. lexisurl.com/iema77910
16 Mar 2015	Planning	The Planning (2011 Act) (Commencement No.3) and (Transitional Provisions) Order (Northern Ireland) brings sections of the Planning Act (Northern Ireland) 2011 into force. These include local development plans, enforcement and compensation. lexisurl.com/iema77899
17 Mar 2015	Emissions	The Ozone-Depleting Substances Regulations 2015 replace and consolidate the Ozone-Depleting Substances (Qualifications) Regulations 2009 and the Environmental Protection (Controls on Ozone-Depleting Substances) Regulations 2011. The 2015 regulations concern the placing on the market of ozone-depleting substances, statutory testing of units containing these substances and minimum qualifications for the testing, recovery, recycling, reclamation or destruction of ozone-depleting substances. lexisurl.com/iema77991

This legislative update has been provided by Waterman's Legal Register available at legalregister.co.uk

# Latest consultations









#### 14 Apr 2015 Environmental liability

The Scottish government is consulting on proposals to amend the Environmental Liability (Scotland) Regulations 2009 to comply with article 38 of the EU Offshore Safety Directive (2013/30/EU), which extends the Environmental Liability Directive (2004/35/EC) into the marine environment. Draft regulations are available for comment. lexisurl.com/iema78038

#### 20 Apr 2015 Contracts for difference



#### 22 Apr 2015 River management

Measures to speed progress in improving Scotland's water environment have been put out for consultation by the Scottish government. These include using scoping studies to help identify proportionate

improvements; encouraging partnerships to take forward voluntary restoration projects; and increasing remediation of artificial structures where there are significant adverse impacts on or barriers to fish passage.

lexisurl.com/iema78042

#### 29 Apr 2015

#### Climate change reporting

The Scottish government proposes to make an order under section 46 of the Climate Change (Scotland) Act 2009 to require some public bodies to prepare annual reports on compliance with climate change duties. The order will set out the form of these reports and the information that public bodies must include. The aim is to improve the quality and consistency of climate change information reported across Scotland.

lexisurl.com/iema78043

#### 30 Apr 2015 REACH authorisation

European commission proposals to streamline and simplify the authorisation procedure under the REACH Regulation have been put forward for consultation. They apply to applications on using substances in low volumes and on a one-time extension of transitional arrangements for uses of substances in legacy spare parts. The commission wants stakeholders to comment on the proposed

scope, conditions and review period for the specific case of authorisation applications for low volumes, as well as the proposed definitions and scope of legacy spare parts. lexisurl.com/iema68463

#### 30 Apr 2015

#### Public procurement

New EU legislation – Directives on public procurement (2014/24/EU), utilities (2014/25/EU) and concessions (2014/23/EU) – requires Scotland to introduce regulations for public procurement by 18 April 2016. The existing model requires public bodies in Scotland to consider how their purchasing decisions can improve the economic, social and environmental wellbeing in its locality. The government is keen for any changes to retain this so-called sustainable procurement duty. lexisurl.com/iema68481

#### 30 Apr 2015 Sustainable drainage

The Flood and Water
Management Act 2010 requires
new developments to include sustainable
drainage (SuDS) that complies with
national standards. The Welsh
government is consulting on interim
national standards to be applied until it
determines the most effective way of
embedding SuDS principles in new
developments in the longer term.

lexisurl.com/iema78046

### New guidance

**ESOS** 

The Environment Agency has produced a guide to the energy savings opportunity scheme (ESOS) (lexisurl.com/iema78058). The agency is the scheme administrator. Sections cover: ESOS and to whom the scheme applies to; deadlines; carrying out an ESOS assessment; identifying areas of significant energy consumption; available routes to compliance; appointing a lead assessor; director signoff; notification of compliance; and enforcement and appeals. Appendices focus on compliance advice; completing a notification form; and useful contacts.

#### Asbestos and demolition

Asbestos in demolition waste is the topic of new guidance from the Scottish Environmental Protection Agency (Sepa). It includes information on managing, moving and mixing special waste; classifying and assessing special waste; assessing and classifying asbestos contaminated demolition waste; identifiable pieces; free and dispersed fibres; the regulatory framework, including the role of Sepa and the Health and Safety Executive. It is available at lexisurl.com/iema78065.

# Managing water on land

New guidance on managing water on land is available from the Environment Agency. Topics covered include: water abstraction and irrigation; emergency restrictions on irrigators; discharge of wastewater; vegetation management; herbicides; drainage and water levels; pollution from land management activities; wastewater and field runoff; storage of silage, slurry and agricultural fuel oil; and penalties for non-compliance. The guidance is available at lexisurl.com/iema78050.

# Laying down the law

### Regulating the built environment

Georgie Messent and Linda Fletcher highlight forthcoming controls on the sale and letting of energy inefficient buildings





ommercial property owners face extra costs as they improve buildings to meet proposed minimum energy efficiency standards. The legislative framework will vary across the UK, however.

#### **England and Wales**

The Energy Act 2011 requires regulations setting out minimum energy efficiency standards to be introduced in England and Wales by 1 April 2018. The regulations have now been approved by parliament. These will make it unlawful for landlords to grant a new lease from April 2018 – the proposals do not affect sales – on commercial and domestic properties that have a minimum asset rating below E on its energy performance certificate (EPC) until efficiency improvements have been made. The improvements must be cost effective, the landlord incurring no upfront cost, as the work must satisfy the "golden rule" in a Green Deal plan or is cost-effective over a seven-year payback period.

There are several exclusions. For commercial properties, short-term lettings, less than six months, for example, are excluded. The regulations bring lease renewals within its ambit, however.

The new requirements are compounded by changes to the Building Regulations, which came into force on 6 April 2014. Under the changes, properties that have already been assessed for an EPC may be given a lower asset rating if a requirement for a new certificate is

triggered and the property is reassessed under revised assessment criteria. As a result, an E rated property could be downgraded to an F, taking properties into the category where a new lease cannot be granted after April 2018 until efficiency improvements are made.

There are several exemptions in the regulations, including where the landlord has used reasonable endeavours to obtain a tenant's consent or planning permission to undertake energy efficiency improvements but consent has been refused or, in the case of planning, granted with unreasonable conditions. Exemptions will apply for only five years, when the landlord would have to reapply.

Of even greater significance is the additional requirement – from April 2020 for domestic properties and April 2023 for commercial properties – that landlords will not be permitted to continue to let a property with an asset rating below E unless energy efficiency improvements have been carried out first, again subject to there being no upfront cost for the landlord. Exemptions will apply.

#### Scotland

Forthcoming regulations under the Climate Change (Scotland) Act 2009 will provide for improvements to the energy efficiency of non-domestic buildings in Scotland of more than 1,000m² but which do not meet 2002 building standards.

The trigger for improvement work will be the sale or letting of a commercial property – although not lease renewals and not domestic properties – from June 2016. When there is a sale or let, the property owner will be required to provide the purchaser or tenant with an action on carbon and energy performance. This will comprise an EPC and an "action plan".

The action plan will set out how the energy performance of the building can be improved and greenhouse-gas emissions reduced. The purchaser or landlord will then have the option of carrying out

the work set out in the plan within a set period – 3.5 years has been suggested – or recording the energy consumption of the property over time. It is anticipated that energy efficiency improvements will become increasingly mandatory as this regime is strengthened.

As in England and Wales, the regulations are expected to exempt premises covered by a Green Deal plan.

It is worth noting that, although EPCs play a key role in both regimes, in Scotland the basis for assessment of EPC ratings is different from that in England and Wales. This could lead to different ratings for otherwise identical buildings. It is hoped that this will be regularised in time.

#### Northern Ireland

Although Northern Ireland has implemented the Energy Performance of Buildings Directive in so far as buildings require an EPC, there are no proposals for the introduction of minimum energy efficiency standards on the sale or letting of buildings in the country.

#### Summing up

Property owners, occupiers and investors should use the introduction of minimum energy efficiency standards in England and Wales under the Energy Act 2011 and the changes planned in Scotland under the Climate Change (Scotland) Act 2009 to review the energy efficiency of their existing building stock.

Risks need to be considered early and action taken if appropriate, taking advantage of any closure periods in the ordinary cycle of business where possible. When acquiring a property, its energy efficiency needs to be assessed and any improvement work factored into the valuation assessment and return on capital calculation.

The government's Green Deal scheme is one option for funding work to improve the energy efficiency of a building, with the cost repaid through energy bills. However, take up of the domestic Green Deal has so far been very low, and no commercial Green Deal package is currently available.

Georgie Messent is a partner at Pinsent Masons – georgie messent@pinsentmasons.com. Linda Fletcher is a legal director – linda.fletcher@pinsentmasons.com.

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# A green manifesto

# What environment and sustainability priorities should the next government target? **the environmentalist** finds out

he coalition promised it would be the "greenest" government ever, but most in the profession would say it has failed to live up to that pledge. So what of the priorities for the next administration? *the environmentalist* has asked IEMA's policy team and other leading bodies to set out three issues of prime concern to form a "green" manifesto for Westminster until 2020.

#### **IEMA**

#### Climate change

A policy shift is required if we are to meet carbon reduction targets for avoiding dangerous climate change. A poll of IEMA members revealed that 91% agree that the next government will need to work hard to strengthen its leadership and commitment on domestic and international climate change issues. IEMA expects the new government to:

- take a leadership position domestically, and at the Paris summit in December to ensure an effective agreement and framework are put in place so that global greenhouse-gas emissions peak at the earliest opportunity and is consistent with keeping the temperature rise below 2°C;
- act on advice from the Committee on Climate Change on the 2028–32 fifth carbon budget, due out in December, and draft legislation early in 2016 that is consistent with the UK achieving its 2050 target to cut emissions by 80%;
- set climate change and energy policy frameworks that are not subject to short-term political change to secure the investment, innovation, progressive transformation and effective action to meet the second and third carbon budgets; and
- review energy and carbon taxes, subsidies, tariffs and tax breaks to ensure they are consistent with and support the transition to a low-carbon economy.

#### Sustainability skills

However the next government is formed, it will need to work with business, professional bodies and education providers to ensure that sustainability is placed at the heart of decision-making and that the associated skills are embedded in the economy. The next government should:

- commit to developing a sustainability skills strategy within the first year of the new parliament;
- undertake capability assessments as environmental policies and regulations are developed, with training programmes established where skills gaps are identified;

- ensure the strategy encourages all university courses to support the development of sustainability skills as an integrated element of learning, and that environment and sustainability are taught in the school curriculum;
- work towards integrating the knowledge and understanding of environment and sustainability issues into apprenticeship programmes; and
- provide support for environment and sustainability awareness-raising programmes to stimulate business demand for environment and sustainability skills.

#### Government culture

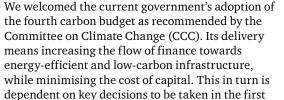
In recent decades, governments have failed to set a defined vision for a sustainable economy in the UK. This lack of over-arching direction, combined with inconsistency in environmental and wider sustainability policy areas as well as regular abrupt changes in direction, generates uncertainty. This uncertainty is denting confidence in the UK as an attractive place to invest in the transition to a sustainable economy. The next government should:

- commit to establishing a sustainability culture across public policy, which is at least equal to those being developed in comparably sized, leading private companies;
- ensure that effective support is provided to help departments and wider agencies achieve this cultural change by creating a policy unit to support the transition to a sustainable economy; and
- provide the unit with enough staff and access to leading-edge knowledge outside the government so that it can support the wider civil service in embedding key sustainability issues in all policymaking.

Martin Baxter, Josh Fothergill, Nick Blyth

#### Aldersgate group

#### Carbon budgets



Specifically, we need clarity on the next government's ambition to improve the UK economy's

18 months of the next parliament.



energy efficiency. We suggest making energy efficiency a national infrastructure priority and action to decarbonise the UK's power sector. It takes up to 10 years to build clean energy projects, such as offshore wind farms, and the government will need to clarify urgently the levels of funding available for low-carbon projects beyond 2019 under the Levy Control Framework. Setting a decarbonisation target for 2030 under the Energy Act (which will come under debate in parliament in 2016) as recommended by the CCC will also be essential to give a clear signal to investors in low-carbon generation.

Other key measures, such as increasing investment in research and development in the low-carbon sector and pushing for a meaningful reform of the EU emissions trading system, will be essential if we are to expand a low-carbon economy.

#### **Natural** capital

The UK's natural capital has an intrinsic value in itself but, critically, it also provides essential services that are key to the economy and society. These services, which are often taken for granted and counted as free, include the provision of clean water. This is not just about supplying drinking water; it is also about supporting the manufacturing economy, given that, typically, 50,000 litres of water are needed to manufacture a car. Yet our reliance on services provided by nature is poorly understood and many of the UK's ecosystems are in critical decline. To reverse this, measurement, finance and institutional arrangements need to be improved. These include:

- implementing the recommendation of the Natural Capital Committee for conventional accounting methods to monitor the state of the UK's natural capital, reporting on it on yearly;
- setting a natural capital investment strategy and ensuring the Green Investment Bank plays a key part in this; and
- establishing in law a permanent and independent advisory body with the powers to publish recommendations for action and hold the government to account on the preservation and enhancement of the UK's natural capital.

#### Circular economy

We have lived in a linear, take-make-use-dispose economy since the start of the industrial revolution, albeit with an increasing emphasis on end-of-life recycling. Given the growing pressures on global resource use, it is clear the time has come to do

things differently and shift to a more resource-efficient system based on the circular economy. However, our understanding of economy-wide

and business scale vulnerability to resource issues remains poorly developed.

A report published in December by the all-party parliamentary sustainable resource group found that reducing material waste and increasing the remanufacturing of components could be worth up to £5.6 billion to the UK. To move a step closer to a circular economy, the next government should immediately conduct a review into the UK exposure to resource security risks and the impact these could have on the economy. This should be





Peter Young and Nick Molho

#### EEF

#### **Industrial decarbonisation**



The manufacturers' organisation

The EU must reform its emissions trading system, while protecting industry from the risks of carbon leakage. More broadly, the incoming government should reform domestic industrial decarbonisation policy. There is a lack of confidence that the climate change agreements and carbon reduction commitment scheme can continue to deliver the required energy efficiency improvements.

Also, the current policy landscape cannot address the challenges of decarbonising energy-intensive sectors, such as steel, cement or chemicals. Key to this will be taking on board the findings of the 2050 low-carbon roadmaps and their emissions reduction options.

#### Resources

UK manufacturers must have the same access to critical resources and inputs as competitors. The government must: establish an office of resource management (p.5) to review supply risks regularly and work with stakeholders to mitigate them; improve the UK's data infrastructure; and help to deliver a more strategic, informed approach to innovation.

#### Waste

There remains significant potential in the UK to use more of what is defined as waste. But to gain maximum benefit the regulation and incentive structures need to be integrated to capture value. Once this framework

is in place waste could be used to generate high-quality materials for manufacturers and efficient energy, for example. Priorities for the next parliament should be to generate btter data on waste to support investment in the infrastructure to manage it effectively. The government should also look to establish a centre for remanufacturing innovation and explore the use of incentives to encourage resource efficiency.

Susanne Baker

### **Environmental Industries Commission**



#### Sustainable infrastructure

All the main parties will enter the general election campaign committed to one of the largest infrastructure investment programmes ever. This would include new homes and new energy infrastructure, a high-speed rail line, and possibly new airport runways.

The next government must make sure this new infrastructure embeds sustainability and does not compromise environmental goals. New runway capacity must be compatible with UK carbon and air quality targets; new homes should be built on brownfield sites where possible and incorporate sustainable drainage and high-energy efficiency; and construction site machinery must have emissions filters.

#### Air quality

Britain's poor urban air quality is failing EU limits and is contributing to the illness and premature deaths of tens of thousands of citizens. No other environmental issue hits public health in this way. We need strong political will from the next government to tackle different elements of the problem. Buses with old diesel engines need to be retrofitted. There must be tighter restrictions on emissions from construction site machinery. The case for promoting lower-emission fuels, such as LPG, must be re-examined, while the development of zero-emission vehicles, such as electric vehicles, must continue.

#### **Energy efficiency**

The UK can meet its emissions targets only if less energy is consumed, particularly in buildings. Although there has been progress, there is far to go. In particular, the combination of the increasing complexity of the policy landscape and politicians' desire to manage the politics of energy prices have caused uncertainty among funders and building owners. The next government must take forward as a matter of urgency policies that have been announced but not implemented. A rationalisation of the policy framework is required and the barriers for commercial business with property portfolios must be examined.

#### Matthew Farrow

# **Environmental Services Association Recycling supply chain**



The new government needs to focus on mending the broken recycling supply chain. According to

ESA members, who collect the material on behalf of councils, the quality of recyclate collected is falling as funding cuts take their toll. And the amount of material collected is flatlining as local authorities in England struggle to find the resources for services to raise performance. Also, the price paid for collected recycled materials is dropping in concert with global commodity markets. The ESA urges the new government to look into this issue, and to think about ways to stimulate the recycling supply chain.

#### Regulation

The second issue the next government must address is the poor enforcement of waste regulation. This is undermining legitimate businesses and harming their investments in much-needed new waste infrastructure. In 2014, the ESA identified that waste crime costs the UK economy between £300 million and £800 million a year, and has significant impacts on the environment and quality of life. The ESA calls on the new government to support proper enforcement of the law, and to provide some reassurance for industry that tougher action will be taken to identify and deter these waste criminals.

#### Skills and jobs

The resources industry can be a major provider of jobs, skills and innovation. Over the past 10 years, technological innovation in the sector has increased significantly, with heavy investment in new treatment facilities. These plants are a valuable source of skilled employment and help to inject funds into local economies around the country. It is vital that the incoming government recognises the economic contribution our industry can make to the country.

Jacob Hayler

#### IUK Green Building Council Retrofit programme



Designating energy efficiency as a national infrastructure priority is the only way to meet the challenge of improving the UK's 26 million homes. The next government must ensure domestic retrofit is included in the top 40 priority investments in its national infrastructure plan and dedicate part of its infrastructure budget over the next parliament to help fund a national energy efficiency programme.

This could deliver savings of up to £300 a year on the average household energy bill and contribute to wider economic growth by creating thousands of jobs. From an environmental perspective, energy efficiency offers the UK by far the most cost-effective way of meeting its carbon targets – reducing the need for the equivalent of 22 power stations of energy by 2020, according to the government's own estimates.

### Zero-carbon homes and commercial buildings

The next government must ensure that new homes are built to the highest achievable standard of energy efficiency. This is vital from a consumer perspective: a new zero-carbon home is likely to save householders

more than £1,000 year-on-year on their energy bills, compared with one built in Victorian times, despite costing builders as little as £3,000 more to build in real terms. In 2007, a clear trajectory was set out to deliver genuine zero-carbon homes from 2016. Despite some relaxing of the standard, it is not too late to meet this milestone. But to do so we must ensure that there are no exemptions.

In the early stages of the next parliament the government must commit to the target for all new non-domestic buildings to be zero carbon from 2019. The construction and energy industries need to be sure that the target remains at the centre of the energy-efficiency strategy, with an explanation on how to reach this published as a matter of urgency.

#### **Energy efficiency standards**

The current government has laid the regulations for minimum energy efficiency standards in the private rented sector. From 2018 landlords will be prohibited from renting out the worst-performing properties, amounting to some 400,000 homes. But enforcement is key to their success. The next government must ensure that the standards are effectively enforced, particularly in the early years, and that local authorities are given adequate resources to police compliance. The new government should also investigate introducing mandatory energy efficiency standards for owner-occupied buildings, particularly if progress on meeting national climate change targets requires this. A commitment to introduce a regulatory backstop would instil confidence in the energy efficiency market and encourage action.

John Alker

#### WSP

#### **Paris 2015**



There is a responsibility on the next government to ensure the UK uses its influence and leadership at the UN climate summit in Paris in December to secure an international deal at the pace and scale called for by climate science – that is, keeping the global temperature rise below  $2^{\circ}$ C.

#### **Energy efficiency**

Making every home in the UK energy efficient should be a national infrastructure priority. The next government must do so with the same level of urgency, coordination, finance and goal-setting as for other major existing initiatives, such as HS2, nuclear power and the road building programme.

#### Skills

Most jobs will need new skills for a "future ready" economy. A strong programme must be implemented, possibly through existing sector industrial strategies, to give the UK's workforce the skills they will need in a low-carbon, circular and dematerialised world.

David Symons

the environmentalist thanks the Aldersgate group, EEF, EIC, ESA, IEMA, UKGBC and WSP for their contributions.



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# The state of the parties

the environmentalist guide to where the main parties stand on environment and sustainability issues

#### **Conservatives**

Like the leaders of the other two main Westminster parties, David Cameron signed the joint pledge in February to tackle climate change. The commitment includes a promise "to work together, across party lines, to agree [UK] carbon budgets" and "to accelerate the transition to a competitive, energy-efficient low-carbon economy and to end the use of unabated coal for power generation". The party supports the extraction of shale gas and oil, viewing the former as a way of strengthening energy security and as a transition fuel to a low-carbon economy. "We will tap shale gas, commission nuclear power and

•••••

renewables," the chancellor, George Osborne, told the party's 2014 conference. In his recent budget, Osborne gave tentative backing to a planned tidal power lagoon at Swansea (pp.38–41). The Conservatives are expected to introduce a moratorium on new onshore wind projects and to halt the expansion of photovoltaic arrays on land. Party policy is to exempt a proposed 200,000 new "starter" homes from the zero carbon standard, which is due to come into force in 2016. On the countryside, the Conservatives are likely to extend badger culls across the country after the trials in south-west England in 2014 were deemed a success.



#### **Democratic Unionists**

The DUP says it is focused on promoting renewable energy, reducing pollution and preserving Northern Ireland's countryside and wildlife. The party wants 40% of country's energy consumption to come from renewable sources by 2020 and is aiming for 10% of heating to also be from renewables by the end of the

decade. The party's plans also include: a province-wide retrofit programme to improve energy efficiency; installation of low-energy lighting and fittings in public buildings; an increase in recycling rates and reduction in food waste; and measures to arrest by 2020 the recent loss of wildlife, and to retain and restore native forests.



#### **Green party**

The Green party says it will take "serious action" on climate change. This will include: working with other countries to ensure global temperatures do not rise beyond 2°C; phasing out fossil-fuel based energy generation and nuclear power; and investing in a public programme of renewable generation and the insulation of buildings. "We should aim steadily to reduce all UK greenhouse-gas emissions to 10% of their 1990 levels by 2030," the party states. It advocates

a system of tradable quotas to reduce UK emissions, with a proportion distributed free to all eligible individuals and the remainder sold to organisations. The quota system would be supported by investment in energy conservation, energy-efficient appliances, public transport and renewable energy technology to ensure that people can live within their quotas. The party opposes shale gas extraction. It would establish a natural resources department to oversee resource use.



#### Labour

Labour leader Ed Miliband has pledged to pursue a new global climate treaty at the Paris summit consisting of: emissions targets for all countries, based on a scientific assessment of the progress towards the 2°C goal and reviewed every five years; and a net zero global emissions target for the second half of this century. He also wants transparent, universal rules for countries to measure, verify and report their emissions. Domestically, the party has pledged to stick to the legally binding targets for carbon reduction and to fully implement the UK carbon budgets. It also plans to set a 2030 decarbonisation target for the energy sector, which

it says will "unlock" investment in clean energy, and will aim to make Britain a world leader in low-carbon technology. Labour promises one million new high-tech, "green" jobs by 2025, and says it will strengthen the Green Investment Bank by providing it with borrowing powers. Interest-bearing "green bonds" will be offered to the public to fund clean energy projects. The party also says it will prioritise flood prevention and introduce a new climate change adaptation plan to help the UK properly prepare for the effects of a changing climate. It would put a moratorium on fracking until a stricter regulatory regime was put in place.



#### **Liberal Democrats**



The Liberal Democrats plan to introduce five "green laws" in the next parliament. These would focus on carbon, homes, nature, transport and waste. Measures in its planned zero carbon Bill include: a legally binding target for zero carbon Britain by 2050; a legally binding decarbonisation target for the power sector by 2030; an office for accelerated low carbon innovation to fast-track new technologies, such as tidal power and renewable heat; and emissions performance standards for existing coal plants from 2025. The party also wants to double the UK's production of renewable electricity by 2020. Its commitments on "green homes" include

investing £2 billion to insulate around 10 million homes by 2025, while the proposed zero waste Bill would introduce a 70% recycling rate for England and Wales, end waste being sent to landfill and introduce larger fines for fly tipping. An action plan to turn waste into an economic asset would also be pursued. Legislation on nature includes legal targets for biodiversity, clean air and water, and establishing new marine and coastal reserves. The party is also proposing a 25-year "nature of Britain" plan, with clear recommendations for reversing the decline of species and their habitats, and to strengthen legal protection for bees.

#### **Plaid Cymru**



Plaid Cymru says Wales needs to take full advantage of its renewable energy resources, and support micro-generation and other small-scale sustainable power generation schemes. These include tidal (pp.38–41), wave power, onshore and offshore wind, hydro and biomass. The party is keen on harnessing the energy of the Severn estuary and its preferred option is a combination of lagoons and tidal-stream turbines, which it claims would minimise environmental damage. Plaid supports

emission performance standards for all new power stations and is opposed to the construction of any new nuclear power stations in Wales. It also opposes the use of waste incinerators and supports binding targets for waste prevention. It would set recycling targets of 80% for domestic waste by 2020 and introduce a higher landfill tax. It also advocates changes to public procurement legislation so that local authorities can favour materials from recycled and local sources.

.....

#### Sinn Féin



Sinn Féin says Ireland's energy system must be renewable and sustainable, and be of value to both the environment and the consumer. "The future of Ireland's energy system must incorporate far more renewables if we aim to achieve energy security and reverse the onset of climate change," says the party. It supports the principle

of sustainable development, and says all economic activity and policy decisions should be "environmentally proofed" to ensure no needless damage is inflicted on Ireland's environment, which the party describes as already being under severe pressure from unnecessary pollution and inefficient waste management.

#### SNF



The party's vision for a "greener" Scotland includes expanding the climate challenge fund to encourage more communities to become low-carbon by, for example, improving the energy efficiency of community buildings and supporting low-carbon travel options. The SNP also plans to establish "green skills academies" to ensure Scots have the right skills mix for the future. It will also plant millions of new trees and put in place measures to protect Scotland's peatlands as well as protect and expand the country's marine carbon sinks as ways of rebalancing its carbon

account. Scotland's zero-waste strategy, introduced by the SNP government in 2010, includes a 70% recycling target for all the nation's waste, with just 5% going to landfill by 2025. Meanwhile, the Climate Change Act 2009 set a target to reduce emissions by 42% by 2020, and by at least 80% by 2050. The party wants Scotland to make full use of its renewable energy potential, including offshore and onshore wind, and tidal power. It supports "clean" coal and carbon capture and storage technologies, and opposes new nuclear power stations in Scotland.

#### UKIP



Ukip wants to abolish Decc and scrap "green" energy subsidies; repeal the Climate Change Act 2008, which it claims costs the economy £18 billion a year; scrap the Large Combustion Plant Directive, which controls emissions of sulphur dioxide and nitrogen oxides, and particulate matter with the aim of improving air quality; and provide no new subsidies for wind farms and solar arrays. The party says it supports a diverse energy market, including coal, nuclear, shale gas, geo-thermal, tidal, solar, conventional

gas and oil. Shale gas exploration will get the go-ahead if "proper safeguards" for the local environment are established, says Ukip. Other proposals include allowing the British parliament to vote on growing genetically modified crops and altering planning rules to make it easier to build on brownfield sites, with low-interest bonds issued to enable decontamination. It also plans to hold local referenda on whether large-scale developments should receive planning permission.



environmentalist







### IEMA members' incomes rise and gender pay differences narrow, annual poll finds

he 2015 IEMA survey of environment and sustainability practitioners brings some positive news on pay, training and job satisfaction. Almost three-quarters of respondents say their overall earnings increased over 2014, with their median salary standing at £38,000 a year. Moreover, this year's IEMA poll shows the gap between men and women's annual salaries narrowing to 12.5% overall, with the data suggesting that female practitioners aged 25 to 29 now earn slightly more than male colleagues of the same age. Practitioners continue to benefit from a wide range of training and development opportunities, with webinars playing an increased role. Job satisfaction is up, with 71.5% of respondents reporting that they are satisfied or very satisfied in their current role.

The prospects for both economic growth and the labour market continue to improve. Although major global economic risks, such as the weakness of the eurozone economies remain, most economists consider that the fundamental characteristics of the UK economy

are relatively sound. Meanwhile, the number of people in work continues to increase, with the employment rate of 73.2% at its highest level since records began in 1971.

Despite this, earnings continue to grow only at a snail's pace, with pay including bonuses up by 2.1% during October to December 2014 compared with a year earlier, far below the pre-downturn norm of 4% to 4.5%. Earnings growth may now have officially edged above consumer prices index inflation, which was just 0.3% in January 2015, but there is a lot of catching up to do in view of the massive dent in real earnings caused by the downturn. The Office for National Statistics (ONS) estimates that weekly wages for the average employee fell by 10.3% between 2008 and 2014 in real terms.

The 2015 IEMA survey is based on responses from 1,238 members. These environment and sustainability managers, officers, consultants and researchers provided pay and working conditions data based on their earnings and working experience during the 2014 calendar year (for more details of the survey sample, see p.24).

# E TOP FINDINGS

- The median or midpoint in the range annual salary for IEMA members is £38,000, with the mean or average figure higher at £41,939.
- Members working in business or industry earn more (£41,000 a year) than their public sector counterparts (£34,000), whose pay continues to suffer from the effects of public spending cuts.
- Almost three-quarters (73.5%) of respondents saw their total annual income increase in 2014, compared with 58.9% in 2013.
- Although the going rate for Graduate members starting out in the profession is around £24,000 a year, those who have reached top leadership positions as IEMA Fellows can command a median salary of £82,500.
- The vast majority of survey respondents have higher academic qualifications, with 46.6% possessing a Master's degree; just 3% report no formal qualifications.

- IEMA members can achieve significant pay increases by progressing into a higher role, with the median salary differential between project/middle manager and senior manager roles in excess of £11,000.
- There has been a significant narrowing of the gap between the earnings of men and women over the past year, with female professionals earning a median annual salary that is 12.5% lower than men's in the 2015 poll, compared with 15.1% last year.
- When the annual salaries of women and men aged 25 to 29 are compared, women in this age group earn 6.9% more than men of the same age.
- The vast majority (92%) of respondents undertook some form of professional development in 2014.
- Almost half (49%) of survey respondents participated in an IEMA webinar during 2014.
- Job satisfaction has improved, with 71.5% of environment practitioners now satisfied or very satisfied with their job role, up from 65.1% in 2014.

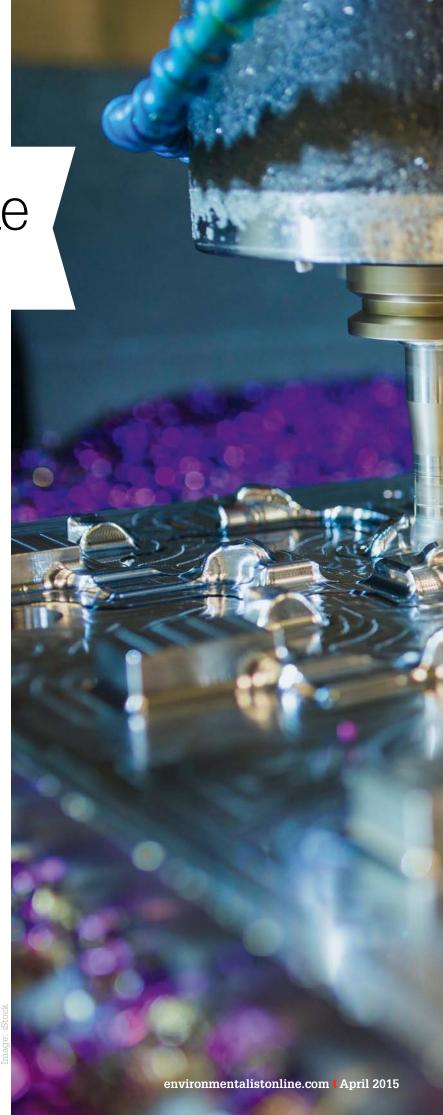
Details of the 2015 survey

he 2014 practitioners' survey was conducted via an online questionnaire between 18 December 2014 and 9 January 2015. Respondents were asked to provide details of their 2014 salaries and asked a range of questions about their job role, seniority, training and plans for the future. The survey excluded student members because it was designed to analyse pay and working conditions of IEMA members who are working rather than those still studying. A total of 13,920 members were asked to take part in the survey and 1,238 responded – a response rate of 9%.

The headline findings contained in the charts and tables in this special supplement show both mean, or average, and median salary, which is the midpoint in the range. Where only one figure is used, however, we have highlighted the median because this figure reduces the influence of outlying salaries at either end of the pay range. The basic salaries cited are exclusive of overtime, commission, bonuses or other elements of contingent pay that can boost earnings.

Respondents are representative of IEMA's membership in terms of their membership type. Excluding retired and student members, more than half (57.4%) of IEMA's members are associates (AIEMA), as are 59.4% of the survey sample. Slightly more full members (MIEMA) responded to the poll (15.6%) than members of the Institute as a whole (7.6%), while the survey sample slightly under-represents affiliate members (18.6% of survey respondents compared with 28.2% of the membership). Graduate members make up 5%–6% of both the survey sample and the membership, while less than 1% of respondents and members are fellows. Around half of respondents (50.9%) work in business or industry sectors of the economy, most commonly in manufacturing, engineering and construction. Almost one in three (31.2%) works for consultancies, with a further 12.1% in public sector roles, mostly in regulatory or central government bodies. A much smaller number works in academic or research roles (3.5%) or the voluntary sector (2.3%).

More than half (52.6%) of participants work for employers with more than 1,000 employees. A further quarter (25.3%) work for organisations with between 50 and 999 employees, while 12.7% work for small or micro firms, which have between 10 and 49 employees. Only 4.4% work as a sole trader. This year's poll reveals a fall in the proportion of self-employed respondents, down to 7.4% from 9.3% in 2014. This is surprising given that an increase in self-employment has been a major characteristic of the UK labour market in recent years.



# Salary by broad industrial sector 50k 40k 30k f. 20k Consultated Education academia research 10k Business and Industry Pillic sector Third sector Mean salary Median salary

#### Salaries by

# Sector and firm size

igure 1 shows the median salary for environment and sustainability professionals by broad economic sector. As seen in previous surveys, practitioners working in business or industry maintain a healthy lead over those in other sectors, with a median annual salary of £41,000. Those working for consultancies can expect to earn a median £36,380, while salaries in academia or research (£35,000) and the public sector (£34,000) are not far behind. Salaries for environment and sustainability professionals in the voluntary or third sector – at a median £28,250 – are a little lower. It should be noted that these findings do not include any elements of pay in addition to basic salary, such as bonuses, which may boost earnings in the private sector more than others.

These figures contrast with national statistics showing that median salaries for public servants are slightly higher (£24,302) than they are in the private sector (£21,259), according to the annual survey of hours and earnings (ASHE) carried out by the Office for National Statistics. For environment and sustainability practitioners the reverse tends to be true.

Overall, the figures in the 2015 IEMA practitioners' survey show respondents' salaries to be comfortably higher than the median, gross annual salary for all workers as published in ASHE. This was £22,044 in 2014. A more accurate figure for comparison is the median for all professional occupations, which ASHE 2014 found is £33,624 a year, while the median annual salary nationally for those classed as managers, directors and senior officials stands at £37,573. Although not directly comparable with the findings of the IEMA survey, it is worth noting that the annual median salary for an "environment professional" is £29,028, according to ASHE.

Across the economy, earnings tend to be higher on average in the largest firms and lower among the small and medium-sized enterprises. Similarly, the IEMA practitioners' survey finds median earnings to be highest in organisations with more than 1,000 employees, with practitioners earning £40,000 a year at the midpoint, falling back to £37,000 in organisations with 251 to 999 employees; £35,000 in those with 10 to 249 employees; and £32,000 in micro firms. The exception to this rule is the median salary for practitioners operating as sole traders, which, at £37,750, is higher than in most other categories. This is likely to be because many self-employed practitioners will be experienced professionals operating at a senior consultant or specialist level.

#### Salaries by

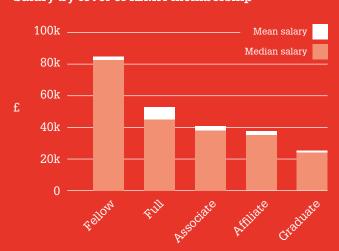
# Level of membership

igure 2 illustrates how the salaries of IEMA members increase in line with the membership status they have achieved. Affiliate members, who may be working in a variety of different roles and may join the association simply for professional networking opportunities, earn a median salary of £35,000 a year. Members who take the step to become an associate can expect to earn a little more, at a median of £38,000 a year. There is a bigger pay premium associated with becoming a Full member, which requires both a written submission and interview. Members at this level can expect to earn a median of £45,000, a full £10,000 above that for affiliates. The mean annual salary at this professional level is £52,854, highlighting that the earnings potential for some practitioners who have achieved full member status can be much higher.

# if IEMA fellows earn a median annual salary of £82,500

Becoming a fellow of the Institute signifies a practitioner reaching what IEMA describes as "the pinnacle of professional recognition". As leaders in their field, Fellows can expect to earn a median salary of £82,500 a year. The significant differential between Full members and Fellows reflects this leadership role.

#### Salary by level of IEMA membership

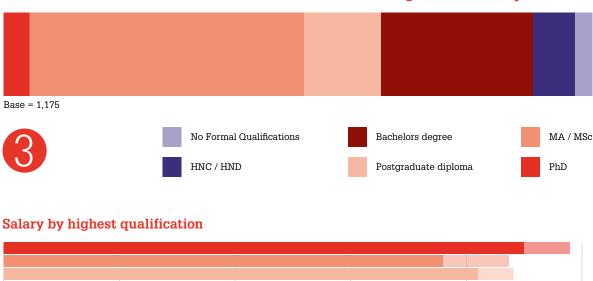


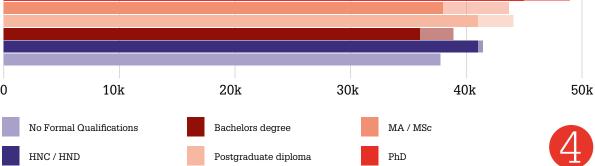




# Academic qualification

#### Level of highest academic qualification



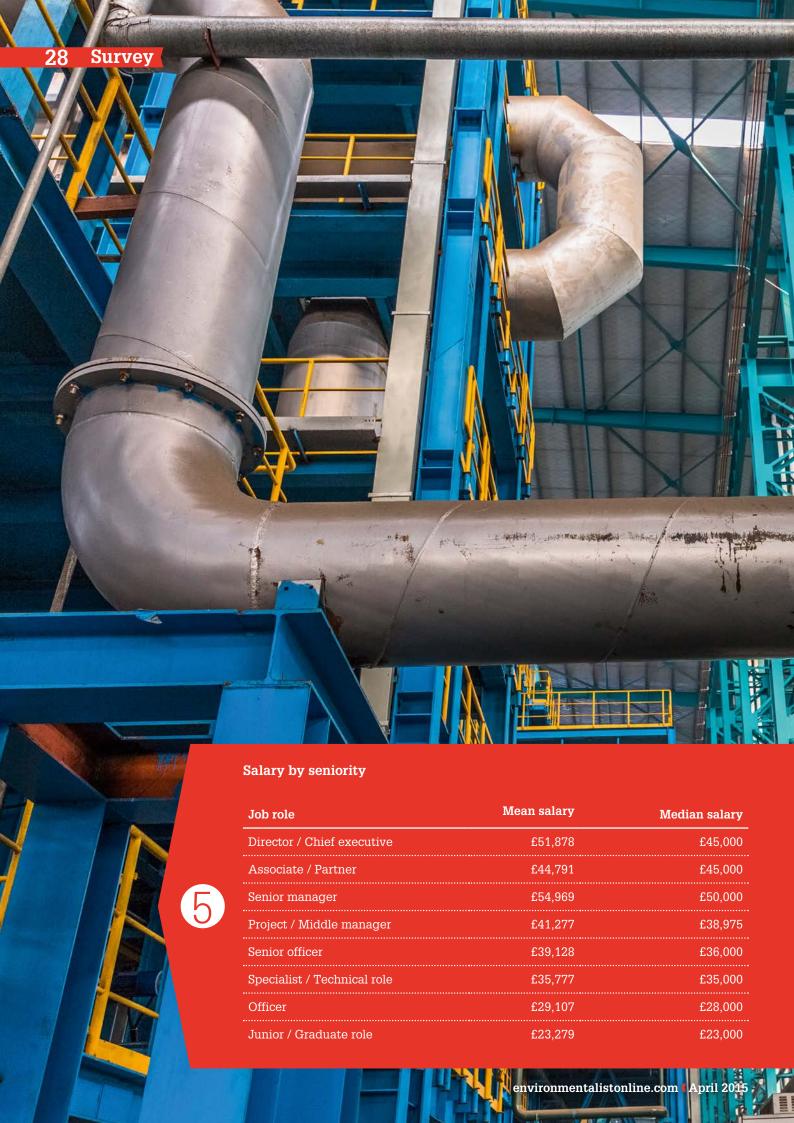


igure 3 reveals the highest academic qualification held by the IEMA members responding to this year's survey. It shows that just 3% have no formal academic qualifications, while almost half (46.6%) hold a master's degree. One quarter (25.8%) report that their highest academic qualification is a bachelor's degree; a post-graduate diploma (13.1%); or vocational HNC or HND qualification (17.1%).

IEMA members who have completed a doctorate earn significantly more than those who have not, with a median annual salary of £45,000 (see figure 4). Below that level, however, the link between the achievement of academic qualifications and earnings power is less clear. In fact, the few members who have no academic qualifications appear to earn a median salary (£37,750) that is higher than those who have a BA or BSc degree (£36,000) – although this position is reversed when the mean measure is used (see figure 4).

It is important to note that many of the academic qualifications held by members may be in subject areas that are unrelated to their current profession, while the findings do not take into account the wealth of workbased or other vocational training that IEMA members typically undertake each year.

Although some practitioners may benefit from higher entry into the profession through study for a degree or master's in a specialist environmental or sustainability field, others may have completed a non-related degree some time before entering the profession but undertaken considerable specialist on-the-job training and experience. It is interesting to note, however, that the median annual salary for practitioners with qualifications that are more likely to have a specialist vocational focus, such as postgraduate diplomas and HNDs, are higher than for those whose qualifications may not necessarily be vocational, such as an MA or BA – suggesting there is much to be gained from these forms of study.





#### Seniority of role



Base = 1.194

Salaries by

# Work and job roles

ur survey sample covers IEMA members across the whole range of responsibility levels, but the largest group (31.2%) is employed as project or middle managers. Overall, more than three-fifths (62.3%) perform a management role in some form (see figure 6).

Figure 5 shows that the earnings trajectory rises fairly steeply as higher levels of responsibility are reached. The findings on seniority show healthy pay progression between each level, with professionals moving from a project or middle management position to a senior manager role seeing a median increase in salary of £11,025, for example. The median salary for a junior or graduate position is £23,000, but environment and sustainability professionals can expect their salary to increase to a median £28,000 if they progress to an officer role.

The average annual median salary for a senior environment and sustainability manager is £50,000"

The annual median salary for senior managers is £50,000. At director/chief executive level, annual salaries fall back somewhat to a median of £45,000. This reflects the fact that many practitioners at this level will be self-employed or directors of small companies. The mean measure, however, which puts greater weight on a small number of high earners, puts the average income of directors at £51,878, above the average for associate/partner level (£44,791) but not for senior managers (£54,969), reflecting the significantly higher earnings enjoyed by some members of this group.

It is perhaps more surprising that salaries for associates or partners appear to be lower than those for senior managers. However, this may be due to the fact that the sample of practitioners at this level is smaller than for other roles at 3.6% (see figure 3). It may also be a reflection of the fact that some associate roles are also likely to be performed on a self-employed basis.

#### Salaries by

Salary by region

South East
Midlands
North West
North East
South West

Scotland North

Yorkshire/Humber

Scotland Central

Northern Ireland

Wales

All

10k

20k

East England Scotland West

# Region

ost salary surveys across any profession or sector of the economy tend to show earnings in London and the South East are higher than elsewhere in the UK. The 2015 IEMA practitioners' survey, however, paints a more equitable picture of pay levels across the country, suggesting that the labour market for environment and sustainability professionals is not as heavily dominated by London and the South East as those for other professional services roles.

Figure 7 shows median basic annual salaries by UK region (excluding IEMA members who work overseas). The highest median earnings, at £40,000 a year, can be found in the Scotland North and the North East regions. Whether this will still be the case in Scotland North next year remains to be seen, with the energy and offshore oil sector in particular hit by falling global oil prices. The median salary for practitioners in the South East is £39,000; in Wales it is £35,000; and in Northern Ireland it stands at £31,318. These are the only exceptions to this relatively equal picture of regional earnings, both below the headline median salary of £38,000 for all respondents.



8

Change in annual salary in 2014

Salary has decreased

Salary has not changed

Salary has increased

Changes to salaries

# Pay rises and prospects

his year's survey offers firm evidence that pay is rising for the majority of IEMA members. Almost three-quarters (73.5%) of respondents report that their total annual income increased during 2014 (figure 8) – compared with 58.9% in 2013, 56.9% in 2012 and 54.2% in 2011. One in five (21.1%) respondents to the 2015 poll reported no change in their salary, down from 32% the previous year. A small proportion (5.4%) experienced a decrease in pay, down from 7.4% in 2013.

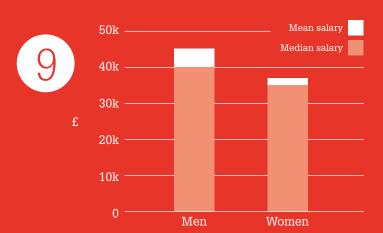
These findings compare favourably to the latest employee outlook survey from the main HR body, the Chartered Institute of Personnel and Development. It reports that only around half of the 2,250 employees surveyed said that their salary went up in 2014, with 21% experiencing a pay freeze. The IEMA figures will include some who have moved to a new job or role (or who may have more than one job) so cannot be taken as reflective of the extent of across-the-board pay increases or pay freezes. Nonetheless, the fact that a comfortable majority of respondents experienced a salary increase in 2014 reflects a significant positive change in pay patterns since the recession.

Although the labour market is still relatively slack, employers report difficulty finding people with the right skills for specialist, especially technical, roles. This is certainly true for environment and sustainability skills in the manufacturing, engineering or construction sectors. On the other hand, fierce competition in the consultancy market, public sector budget cuts and uncertainty in the energy sector are some of the factors helping to keep pay rates in check to some extent.

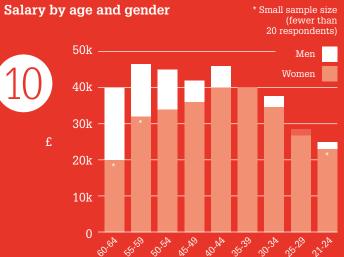








#### Salary by age and gender





Diversity

# Age, gender and pay

The gender pay gap in the 2012-15 surveys

		2012		2013
	Mean	Median	Mean	Median
Male	£43,128	£38,000	£45,368	£39,000
Female	£36,491	£32,700	£37,358	£33,050
Pay gap	£6,637	£5,300	£8,010	£5,950
Pay gap %		15.8%		15.3%
		2014		2015

Mean Median Mean Median £45,211 £40,000 Male £47,970 £41,200 £35,000 £36,938 £35,000 Female £38,432 Pay gap £6,200 £5.000 f.9.538£8.273 Pay gap % 15.1% 12.5%

emographic change, bringing with it the need to attract and retain an increasingly diverse workforce, will be a key consideration for all employers over the next 10 years, and the environment sector, with its focus on long-term sustainability, will be no exception.

Analysis of the 2015 IEMA practitioners' survey results reveals a diverse workforce by age and gender, with the proportion of women taking part (37.9%) up slightly on that in the previous year (35.8%). The age profile of respondents shows that most (61.6%) are aged between 30 and 49, with only 3.5% younger than 25 and 11.3% between 25 and 29. The remaining 23.7% are 50 or older.

Last year it was revealed that the gender pay gap across the whole economy for full-time workers was the narrowest on record, with the median measure in April 2014 at 9.4% – down from 17.4% in 1997. For all workers (both full- and part-time) it had also reduced, to 19.1%. These headline figures disguise a myriad of variations by occupation, age and sector. Nationally, the gender pay gaps for professional (10.6%) and associate, professional and technical occupations (10.6%) are slightly wider than that for all full-time workers, while the gap for managers, directors and senior officials is significantly higher (15.9%). By age, full-time female workers in their 20s and 30s now earn slightly more at the median than their male counterparts, but the position is reversed once they are

in their 40s and 50s, when the pay gap in favour of men is 13.6% and 18% respectively. The official measure of the gender pay gap is calculated using hourly earnings excluding overtime, whereas the IEMA findings are based on full-time annual salaries, so are unlikely to be affected by differences in working hours and are not directly comparable to the national statistics.

The 2015 IEMA survey reveals the good news that the gap between men and women's median annual earnings has narrowed to 12.5% on the latest findings, down from the 15.1% reported last year (see figure 11). As figure 9 shows, the median annual salary for male environment and sustainability practitioners is £40,000 compared with £35,000 for their female colleagues. Using the mean measure, which tends to better reflect the fact that there will usually be more male earners at the top of the earnings spectrum, the differential widens to 18.3%, men earning £45,211 on average and women £36,938.

Some interesting findings on age are shown in figure 10. For 25- to 29-year-olds, where an exact 50/50 split of male and female practitioners responded to the 2015 IEMA survey, there is a difference in median pay in favour of women of 6.9%, while for workers in their late 30s there is no discernible gender pay gap. However, the findings suggest large gender pay gaps kick in later in women's careers. For the 50-54 age group, there is a 24.5% difference between men and women's pay in favour of male practitioners.

11

#### Training and engagement

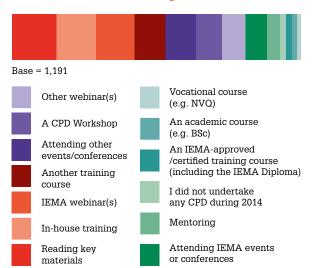
Professional development and job satisfaction levels

high level of personal commitment and motivation to develop and train is evident among practitioners responding to the 2015 IEMA survey. When asked about their main motivation for undertaking professional development in 2014, less than 2% cited the fact that it was required by the employer. Around 92% of respondents undertook some form of professional development or training in 2014.

Keeping up to date by reading essential materials (56.8%) and undertaking in-house training (50.9%) are the most common means to professional development, figure 12 shows. However, the importance of IEMA webinars has grown significantly, with almost half (49%) of those surveyed participating in them – up from 37.3% in 2013. Members undertook a mixture of IEMA (7.1%) and other (39.4%) training courses, and the same diversity of provision goes for events and conferences. As many as 27.1% of respondents attended an IEMA event or conference in 2014, while 38.9% attended other conferences, seminars or other events to further their development. Mentoring, which can help develop both interpersonal and professional skills, as well as confidence, has grown in importance this year, with 16.6% of respondents citing this as a source of professional development, compared with 12.9% in the previous survey.

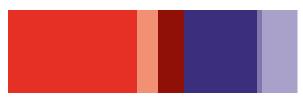


#### Professional development activities

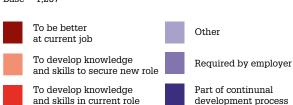


13

Main motivation for undertaking professional development



Base = 1,237



There has been considerable job mobility among environment and sustainability practitioners over the past year, the survey findings suggest. Figure 14 shows that more than one-third (35.6%) of respondents have recently moved job, either within the same organisation or to a different one, with the remaining 64.4% staying in their current role. For a significant proportion of those taking on a new role this was an upward move, with one in five (20.1%) rising to a more senior post, and the majority staying at the same organisation. For a few (2.3%) there was a downward move.

Despite a healthy level of mobility, however, the majority of environment and sustainability practitioners say that they undertook professional development in 2014 in order to develop their knowledge and skills in their current role (44.5%) or be better at their current job (9%), with only 7.2% stating that they were doing so in order to secure a new role (figure 13).

Figure 15 presents the survey's findings on respondents' job satisfaction. Comfortably more than two-thirds of those polled (71.5%) are satisfied or very satisfied in their current job, up from 65.1% in the previous survey. Notably, the proportion who are very satisfied is up from 15.5% last year to almost one in four (24.1%) this year. A further one in five (19.5%) respondents feel indifferent about their role, while 7.7% feel dissatisfied and 1.3% are very dissatisfied.







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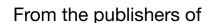




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and tidal stream energy has the potential to meet up to 20% of the UK's current electricity demand, representing a 30GW–50GW of installed capacity." The six lagoons planned by TLP would be enough to meet 8% of the UK's total electricity requirement for more than 100 years, claims the company. This potential source of power for the UK is there because the seas around the British Isles are powerful and the tides are predictable. Martin Wright, chair of both Mojo Maritime, which provides services for marine renewables, and the Renewable Energy Association, says: "Tidal power is an enormous opportunity, given its high-energy capture."

However, the UK industry is at a critical point in its development after being dealt a series of blows, starting with the financial crash of 2008, which reduced investment and made commercial investors risk-averse. This led to Pelamis Wave Power, the Edinburgh company behind the wave energy converters that it had been testing at the European Marine Energy Centre (EMEC), going into administration, and Siemens pulling out of the Strangford Lough twin turbine in Northern Ireland and the Skerries development off Anglesey.

Nonetheless, the UK's offshore energy industry has abundant skills and plentiful equipment that could be applied in new ways. EMEC (p.40) is based in Orkney and is the world's foremost offshore testing laboratory for marine energy devices and ancillary equipment, such as foundations, hubs, cables, substations and grid connections. Most casual observers fixate on the turbines, but it is installation, reliability and maintenance in a hostile environment that can be the limiting factors. Unless the devices are very reliable, the costs of raising one from the seabed and replacing a relatively low-cost part could be more than £100,000.

The UK government has pledged to support the industry through contracts for difference (CfD), which have replaced renewables obligation certificates (ROCs) as the main support scheme for renewable energy projects, although no marine-energy projects received support in the first CfDs announced in February. The government

recognises that the development of wave and tidal power is still in its infancy, and this is reflected in the CfD "strike price" (amount the generator receives) for these technologies. In December 2013, Decc said the strike price for wave and tidal stream technologies would be £305 per MWh – far more than other renewables would receive – and that 100MW of revenue support tidal generation capacity would be ring-fenced until 2019.

#### **Technical glitches**

At the 8th International Tidal Energy summit late last year, there was an air of pessimism, particularly at the difficulty in attracting private investment to move to full-scale commercial arrays. The most significant project at the moment is Meygen in the Pentland Firth, at the north eastern tip of Scotland. Four 1.5MW turbines, using designs by both the Atlantis Resources Corporation and Andritz Hydro Hammerfest, are set to be installed there in 2016 to test which works most effectively.

"The Pentland Firth is one of the best sites in the UK to prove the technology," says Dan Pearson, chief executive at Meygen. "We hope to deploy 15–16 turbines in the next phase, and grow the project to reach 20–30 turbines in the array in the 2020s."

Peter Fraenkel, a co-founder of Marine Current Turbines (MCT) – the firm behind the Strangford Lough project – and a visiting professor at Edinburgh University, believes that many proposed turbine fixtures are too small. At the summit, he argued that, because overhead costs are fixed, bigger arrays make more economic sense. Four turbines in one array have the same fixed costs but quadruple the power, which equals more energy and profit for the operators, he said

MCT, which was acquired by Siemens in early 2012, installed its SeaGen S1.2MW device in Strangford Lough in



#### Testing facilities

Established in 2003, the European Marine Energy Centre (EMEC) in Orkney is the world's foremost wave and tidal testing site. The location is an ideal base for testing, with its strong tidal currents, grid connection, sheltered harbour facilities, and maritime and environmental expertise shared by the local community. EMEC's facilities have attracted marine energy developers from all over the world.

Currently there are four turbines in the water under test in the centre's main grid-connected site. EMEC also boasts smaller areas for non-grid-connected sites. Eileen Linklater, client relationship and marketing manager at EMEC, says: "Often it is too big a leap to go from tank testing to the grid-connected site, which has strong tides. So some companies opt for an intermediate stage at our non-grid connected sites before they are ready for the main site."

Industry support services that EMEC has tested include cables and cable-laying, and the use of local vessels and labour to install equipment at sea. "The local labour force is highly skilled and experienced in offshore operations," says Linklater. "We are also testing cable laying systems and electrical connections. EMEC is pioneering a standardised data pod, which can be used to capture data to prove that the turbines are working as expected."

The development of the pod is because EMEC's remit includes helping to draw up international standards and verification systems for marine energy equipment. The centre is a participant in the EU Environmental Technology Verification (ETV) scheme, which provides independent confirmation that installations are performing to specification.

EMEC has ambitious plans for the future. It is expanding the number of testing sites with two new ones on the west coast of Scotland. The centre also intends to scale up arrays in the water, and to continue its testing and verification operations, as well as monitoring cabling and data collection systems. Linklater believes that cable installation and maintenance is an area that has so far been neglected.

As well as EMEC, there is another UK testing site called Wave Hub off Hayle on the north Cornwall coast. It is grid connected and has berths for four devices to test. FloWave, a unique 25m tank at Edinburgh University, is also used to test marine energy technologies. It can simulate a variety of sea conditions and currents, which is ideal for testing designs without hauling them out to sea. Developers can, in effect, prove the efficacy of their projects before deployment at sea.

marine renewable energy project to be accredited by Ofgem as a commercial power station. It has generated more than 10GWh, and can deliver up to 20MWh of electrical energy a day or 6,000MWh a year. This is about the rate of energy capture of a 2.4MW wind turbine.

However, Siemens downgraded its involvement in Strangford Lough last year and wants to sell MCT. "It's because it's taking too long for the technology to become commercial, both in terms of the market and the supply chain," a Siemens spokesperson said. The difficulties of gaining a return on its investment, even with what is clearly a successful design, seemed to be what deterred the German engineering firm from continuing its support.

The supply chain problem is part of the "chicken and egg" nature of the sector: there is no point in investing in docks, specialised vessels, grid connections, and training a workforce if there are no projects for them to work on. This is the dilemma facing Mojo Maritime with its advanced HF4 DP vessel. This is designed to support the most difficult offshore operations. It would cost Mojo £25 million to build but demand for it does not justify that level of investment. But the industry will need it, or something similar, to put turbines in the most powerful currents, where the greatest energy is generated.

Environmental considerations apply to any new technology. The Strangford Lough operating licence required MCT to establish an environmental monitoring plan (EMP) and a number of mitigation measures. Data collection began pre-installation in April 2005 and formed the basis of an environmental baseline report against which to compare all future monitoring during installation, commissioning and decommissioning.

The monitoring focused on three areas: marine mammals, such as seals and harbour porpoises; the effects on the seabed or benthic zone, where many marine organisms live; and tidal flow and energy. The final report, published in 2011, concluded: "The findings of the EMP provide confidence that SeaGen can continue to operate with no likely significant impacts on the marine environment in Strangford Lough." This suggests that marine arrays are safe to operate and do not have undue effects on the ecosystem.

#### **Overseas competition**

Some nations view tidal power positively. In France, GDF Suez and EDF have been awarded €120 million in government grants to develop and test tidal farms off the Cherbourg peninsula in Raz-Blanchard, which has the strongest tidal current in Europe. This area also has the advantages of good grid connections. In Canada, OpenHydro is working on an array in the biggest tidal range in the world, the Bay of Fundy between New Brunswick and Nova Scotia. It plans to install two 16m turbines totalling 4MW later this year. The company says the project has the potential to be one of the world's first multi-megawatt arrays of interconnected tidal turbines.

These developments leave some wondering whether the UK will drop the ball and relinquish its lead in the sector, as happened with offshore wind, where Germany and Denmark became the major players and now enjoy the consequent economic advantages. Overall, the UK

#### Swansea Bay's tidal lagoon

Power from tidal lagoons is really a variation on a hydropower dam. An area of the sea is cordoned off and the water flows through the turbines to generate electricity. This occurs four times a day at predictable times. This technology is mature, to say the least. La Rance in France has been operating for half a century and has just been licensed for a further 50 years. Mark Shorrock, chief executive of Tidal Lagoon Power (TLP), the company behind the proposed lagoons at Swansea Bay and between Cardiff and Newport, claims that the projects are cost effective on a "massive scale".

The projected tidal lagoon at Swansea would have a 9.5km breakwater, costing £1 billion, generate 320MW of electricity and have a life expectancy of 120 years. TLP says the lagoon will save more than 236,000 tonnes of carbon each year. The location is ideal because the huge tidal range of more than 10 metres allows a significant amount of power to be generated. Aside from Swansea and Cardiff–Newport, TLP has identified four other sites in the UK with good potential, including at Bridgwater Bay in Somerset and on the west Cumbrian coast, north of Workington.

The Swansea project has received £200 million of equity financing – the second £100 million arriving in February 2015 – and expects to raise a further £800 million by July. If approved it could be generating power by 2022. Decc views tidal lagoon power favourably. The Swansea scheme was included in the national infrastructure plan, published ahead of the chancellor's last autumn statement.

The chancellor announced in his 2015 budget (p.4) that the government and TLP were negotiating on how much financial support the project will receive. The BBC reports that TLP wants £168 per MWh for its electricity (less for the Cardiff–Newport lagoon). A study published last year by consultancy Poyry predicted an average cost of £111 per MWh for tidal lagoons. According to calculations from Decc in 2013, this is comparable to most electricity generation methods, conventional or renewable, and far better than solar – with the exception of electricity from combined-cycle gas turbines.

TLP has worked with a range of stakeholders on its plans for the Swansea lagoon, including the fishing industry and local watersports enthusiasts. A survey of stakeholders received an 86% approval rating, and contrasts with the criticism the proposed Severn Tidal Barrage received. "Swansea is a template," says Andy Field, TLP's head of communications. "It will set up a scalable solution, attract investment and involve the UK government and supply chain. I think it will then lead to a rapid deployment of tidal lagoon power worldwide as the technology is proven."

tidal sector has been through rough waters, but the 100MW of ring-fenced finance at £305 per MW provides the industry with a degree of stability, enabling firms to prove their designs and collaborate on developing the infrastructure, grid connections and supply chain to move on to commercial operations. Globally more projects are planned, opening up export markets for UK technologies, operators and skilled workers.

The UK lead could easily be eroded by more proactive nations, however. Some industry commentators feel it is important to get several more projects in the water and generating electricity within the next 18 months to keep up the momentum. Private investors like to see several years of dependable electricity generation before they will fund the move to bigger, commercial projects.

Julian Jackson is a writer on the environment.

# A recipe ( for success

**Paul Suff** discovers how 2 Sisters Food Group reached out to the profession to help develop its first sustainability plan

ow can a business developing its first sustainability plan ensure it is on the right path? That was the question facing environment and sustainability director Andrew Edlin and his team at 2 Sisters Food Group, one of Europe's leading food manufacturing businesses. The answer was to ask the profession for feedback on its draft plan through members of IEMA's LinkedIn group and the 2degrees sustainability network.

More than 900 pieces of feedback were submitted through this crowdsourcing activity, helping the firm to finalise its plan, called Feeding our future. "All but two of the responses were constructive and we received comments from people around the world, including in Australia, New Zealand, Singapore and the US," says Edlin. "The feedback made us rethink some aspects and resulted in us altering the structure and content of the plan for the better. I'm sure we'd have arrived at some of the same conclusions further down the road, but I think the crowdsourcing helped us to jump forward by at least 12 months."

#### A growing business

2 Sisters started in 1993 as a poultry business and has grown over the past 22 years into a firm with an annual turnover of more than £3 billion. In 2010, it acquired Northern Foods for £342 million, adding Fox's Biscuits, Goodfella's Pizzas and a ready meals business to its mainly meat processing operations. 2 Sisters operates 43 production sites, owns 700 farms, employs more than 23,000 people, mostly in the UK but also in the Netherlands, Poland and the Republic of Ireland, and processes around 9 million chickens each week.

The company has three main business units – protein (meat), chilled and branded – and many of its sites are, in effect, medium-sized operations, with annual turnovers of more than £100 million and their own dedicated team of directors and capital budgets.

The rapid expansion of the business called for an overarching environmental policy and sustainability strategy. Putting in place a sustainability plan was in Edlin's remit when he joined the company in 2013. He recalls: "I started by getting a group of people together from across the business, including from finance,

procurement, operations, communications, technical [mainly food standards] and HR, to work on developing a plan." He says the workshops identified an initial list of 350 issues on which to work. These were reduced over time to the 30 to 35 most important ones. It was at this stage that Edlin decided to share the working group's emerging outcomes with other people.

#### **Getting feedback**

"The first step was to ask people in the business," says Edlin. About 200 people in 2 Sisters were selected to act as "internal consultants" to examine what the group had come up with. At the same time, the working group, which numbered 15, discussed letting 2 Sisters' key stakeholders, mainly its major customers, see the document. The team identified about 200 external people and sought help from the 2degrees sustainability network to make contact with others. In the event, more than 2,000 individuals were contacted through the network. The draft sustainability plan was also posted on IEMA's LinkedIn page, which is accessed by more than 9,000 members.

"We wanted to get as many people as possible to look at the plan and let us know if we were focusing on right things; if anything was missing; and if we should consider a different approach in some areas," he says.

A number of retailers, including Asda, operate their own communities on the network and this provided a starting point for identifying suitable potential reviewers. "We were able to select people in the network from relevant role groups that fitted our profile, while the IEMA LinkedIn group is a self-selected group of environment and sustainability practitioners," says Edlin. People were contacted anonymously through 2degrees, although most of those replying provided their contact details.

2 Sisters worked with 2degrees to design a questionnaire for people to complete, although some chose to provide comments directly. The 15 questions varied: some asked respondents to rate the content of a section of the draft plan from one to five; while others were more open ended, allowing participants to elaborate on a topic. To encourage input, 2 Sisters offered prizes, including tickets to an England international football match.

#### Reducing energy use at 2 Sisters



2 Sisters Food Group is covered by climate change agreements (CCAs), although responsibility for these has varied. In some cases, the sites were responsible, typically led by the general manager, while the procurement department or the finance function might be in control of other agreements. "This means there was no sharing of best practice and no learning from each other about what works and what doesn't," says Andrew Edlin, the group's environment and sustainability director. That lack of joined-up working will change with the company's sustainability plan. "There will be a league table published each month, so sites can see where they are in terms of energy and water consumption, waste, productivity and so on," Edlin says.

The company is also planning to centralise action to reduce energy consumption at its head office in Nottingham. At the end of February 2015, 2 Sisters installed solar panels on its 73rd roof and is planning to fit more on other sites. "There is definitely scope for more," says Edlin. "But whereas in the past sites were being contacted directly by solar companies, head office is using one contractor to visit all our sites to see which ones are suitable for solar. The same approach will probably be adopted for lighting and other efficiency opportunities."

He also reports that 2 Sisters is looking at innovative solutions to reduce energy consumption. One example is the energy-fromwaste agreement signed at the end of last year with Liverpool-based bioengineering company H2 Energy. Under phase one, the supplier's biorefineries, which convert product waste to energy, will be installed at 10 of the company's factories. Each year the deal will save 35,000 tonnes of carbon, 20,000 lorry journeys and cut 2 Sisters' overall annual nontransport carbon footprint by 10%. Edlin says the deal with H2 Energy demonstrates 2 Sisters' commitment to sustainability and innovation and highlights how the firm plans to engage with innovators to meet its sustainable development goals. The first project will be at the Cavaghan & Gray site in Carlisle, which manufactures ready meals. The biorefinery will produce up to 3,500 MWh/year of electricity and about 5,000 MWh/year of processing steam – 20% of the site's annual electricity consumption and almost all its steam. In this case, the plant will run on potato waste.

Edlin says that most of the energy projects at 2 Sisters are financed through third-party funding, so the company incurs no upfront costs but a share of the savings. This type of finance is particularly good for projects with relatively long paybacks, he says. "The forecast payback period for installing solar panels on a facility in Grimsby [pictured] is nine years. If I went to the board and told them that, I wouldn't get funding. But if I say installation is free and will reduce the site's annual energy bill by 20% over 20 years, I'll get the green light. It's a no brainer."



- climate change and energy;
- innovation;
- procurement;
- responsible business covering people, safety, technical issues, community and charity.

to track feedback in six categories. These are:

- waste; and
- water.

"People were very helpful, offering a lot of advice on technical issues, such as climate change adaptation," says Edlin. He also reports that there was a big debate about whether to use an absolute or normalised [intensity] measure of carbon. "The feedback was split evenly," recalls Edlin. "We've decided to adopt a normalised metric because that is what is required by our climate change agreements." Several sections of the draft came in for criticism. The draft innovation section was described by many respondents as "weak" and attracted a lot of feedback. "We completely rewrote the section," Edlin says. The key performance indicator suggested for measuring "responsible business" also drew flak. "It was universally hated," Edlin concedes.

Edlin and his team also suffered a "duh moment" when it was pointed out by several people that they had forgotten to include any reference to the sustainability requirements of customers. "How did 15 people in the group, including myself, and 200 people internally not spot that omission?" he says. The feedback also highlighted the difficulty of bundling everything into six key performance indicators (KPIs). "It simply didn't work, so we've had to settle for 10 KPIs," says Edlin.

#### The plan

The 2 Sisters board signed off the sustainability plan at the end of February 2015. "It plots our journey up to 2020. This is where we think we need to go and some of the challenges we will face on the way," says Edlin.

Each of the six sustainability issues is accompanied by a vision. The waste vision, for example, states that "reduced food waste and loss is embedded in our operations and supply chain, and we can create value through beneficial use of all wastes."

waste teams in sites, we continue to make year-on-year improvements in this area," states the company.

In the climate change and energy section, the company vision is focused on becoming a carbonneutral business and a net provider of energy. "With a significant carbon footprint in our operations and a major internal and third party logistics operation serving our customers, this is one area where we can achieve significant success in sustainability." it says.

Water is one area that Edlin acknowledges is key to the firm's future success and which, until recently, was lower down its agenda. "We spend about £40 million a year on energy and around £10 million on water. Yet water is our most valuable commodity. If supplies were turned off, all our sites would shut down. If a site's effluent treatment fails, it would close. From a risk perspective, water is a show stopper." The sustainability plan's vision for water acknowledges its primacy. It foresees a firm that is a net saver of the resource, using less at its sites than is saved through its supply chain.

#### **Hidden benefits**

Edlin reports that the focus on sustainability throughout the business, particularly asking 200 people internally to comment on the draft, has had the added benefit of identifying sites and engineers that have already been reducing environmental impacts. "We've discovered loads of examples of where equipment has been installed to reduce energy use, for example. It means that in many cases we're not starting from scratch to achieve our visions under the plan," says Edlin. Examples include installing solar panels on roofs, replacing conventional motors for inverted versions and swapping inefficient lighting with LEDs (see panel, p.43).

The fact that these examples were largely under the radar of head office was because of the autonomous nature of most sites, says Edlin. "Most sites have their own maintenance and capital budgets and are covered by climate change agreements, and they just got on and did things. There was no central diktat. Now that 2 Sisters has its sustainability plan in place, those examples of best practice and lessons learned will be shared across the whole business to help us achieve our visions."

# Water, water everywhere

From April 2017 all firms in England will be able to choose their water supplier. the environmentalist looks at the likely impact

esearch indicates businesses are increasingly aware of the benefits of water efficiency and the effects of water-related risks on their operations, and many are integrating this knowledge into the management decision making process. But in strategic terms the natural resource is now moving to another dimension entirely – business water competition. The UK business water market will open fully in April 2017. It is already well developed in England, where the water use threshold for companies to opt for a new supplier has dropped from 50 mega litres (Ml) a year to 5Ml, and will fall to zero in two years. In Wales, the threshold remains 50Ml a year.

Competition is expected to intensify as a result. Ofwat's view of competition is that it is a "key driver of efficiency and innovation", which will enable the water industry to meet future challenges. The industry regulator also believes it will help deliver the government's strategy for sustainable and secure supplies in England, which was published in 2011. Ofwat also argues that competition has improved service and widened choice for customers in other utility sectors, and that regulation can be gradually withdrawn as markets become more competitive. "Currently there are too many examples of businesses getting a poor deal from their water supplier, particularly when it comes to service," says an Ofwat spokesperson. "Opening up choice to the customer not only promises to drive costs down, but also should improve service and make the best use of scarce resources."

#### Scotland first

Ofwat believes the experience in Scotland, where since 1 April 2008 all businesses and public sector, charitable and not-for-profit organisations have been able to choose their supplier, shows the benefits of competition among suppliers. "In Scotland there has been an estimated £100 million of total savings since the market opened. Around half of this has come through water companies offering savings through water efficiency measures. Better use of water is good for businesses' bottom lines but also for ∄ the environment. We need to learn lessons from the

opening up of the market in Scotland and that includes analysing what has worked well. We should ensure any framework works well for an English market, bearing in mind that this market is a lot bigger than the one in Scotland," Ofwat reports.

Competition arrived in Scotland with the relatively straightforward transfer of publicly owned Scottish Water's business interests to an arm's-length operation called Business Stream. This has become the default water services supplier for all businesses in Scotland. Scottish Water owns the water and wastewater networks and is the wholesaler, selling water and sewerage services to the competitors, which act as suppliers. The suppliers bundle their services with a selection of "valueadding offerings" and sell them on to customers.

Johanna Dow, Business Stream's acting chief executive, explains: "The intention before the market opened was to drive improved choice for customers, with increased innovation in a range of services. Service improvements and better value were the measures for success.

Like Ofwat, Dow highlights savings totalling more than £100 million that have come either through discounts or water efficiency since competition began, though she stresses that the efficiency side it is not all about money. "The financial savings translate into saving customers 34,000 tonnes of carbon. This is an aspect that is often missed. We very much look at the environmental benefits."

The public sector, which Dow notes "does have a big voice as a customer group", is a major beneficiary from competition, having saved £36 million since 2008. She also stresses that water savings are worthwhile. "We hear quite a lot that water is the poor relation of electricity and gas. I definitely don't think that. There is a huge amount of customer benefit."

Although the market in England and Wales is not fully open, Dow believes a lot of customers could still be benefiting. "The key thing we encourage customers to be is informed – to learn the art of the possible. There is a lot they can do before the market opens. If customers use over 5Ml of water a year they can switch now." She urges all business



#### Firms vying for a slice of the market

#### **Business Stream**

The incumbent business water service provider in Scotland is an arm's-length company from Scottish Water.

#### **Severn Trent Services**

The business division of Midlands-based Severn Trent Group was one of the first in England to embrace competition. It has a long-standing  $\pounds 1$  billion contract providing water and wastewater services for MoD properties in the north and east of England.

#### **Thames Water Commercial Services**

The business operation of Thames Water trebled the size of its Scottish unit in October 2014 as part of a bid to win market share.

#### **Anglian Water Business**

Anglian Water's business venture started in Scotland as Osprey Water and rebranded in 2013 as AWB to operate across the UK. AWB has been providing services in Scotland to (among others) the Belhaven pub chain, owned by brewer Greene King, since 2009.

customers to understand their water use, to work out how much they use in a year and how much water costs. "They will then be in a better position when the market opens," says Dow.

Although some observers suggest competition has not brought much change of ownership in Scotland, with just 15% of customers having switched supplier, Dow says the market has picked up in the past 12 months. "There are now 18 retailers licensed to sell water services. I definitely feel that is plenty of choice," she says. Ultimately, she concludes, the measure of success does not depend on the number of customers that have switched but to the benefits businesses have gained, including improved customer service, and water and financial savings.

#### Going south

The Water Industry Act 1991 allows sites in an existing supplier's area to be served by another utility. Where an alternative supplier is selected, an inset appointment is made by Ofwat. Despite this Jacob Tompkins, chief executive at the water efficiency NGO Waterwise, says the market in England and Wales has been quiet. "It is an issue that inset appointments have been allowed for quite a while, so large companies have potentially been able to switch and not many have, so will full competition be any different?" says Tompkins. He believes the changes need to be considered with the other issues Ofwat is focusing on, such as tackling leakage and promoting efficiency.

Tompkins predicts big changes in 2017, with water companies starting to sell services rather than water. "Water efficiency, rainwater harvesting, off-grid water. I can see it going two ways: false competition, where companies have a shiny website and offer a cuddly water vole and pen, or something more akin to the energy market. But if Defra sorts out upstream licensing we will get a real revolution," he says.

Innovative options for bundled supplies of utilities, and activities focused on microsensors that give a detailed view of water consumption, and even self-service businesses buying directly from the water wholesaler and becoming their own suppliers, are all possible, Tompkins predicts. He points to utilities like Severn Trent and Business Stream in Scotland, which are refocusing their entire businesses on the customer. He suggests companies may even move to a flat fee combined with water management. "These service models are very attractive," he notes. Competition, he adds, should also lead to innovation, possibly on a scale barely imaginable today. "The idea that utilities can continue to do the things they have always done will not wash," says Tompkins.

#### Big water

Major commercial water users should definitely consider what competing providers can offer, according to Kalpana Peigne, marketing manager at the printing firm Seacourt Press, which has won awards for water efficiency. Globally, the print industry is the fifth largest consumer of water and is the sixth biggest polluter, she says. Seacourt acted on this when it learned of these statistics, and acknowledged the

growing threats from climate change. "Also, print technologies were available not just to counteract the pollution but to produce a much higher quality of printwork, so for us it was a must," says Peigne.

The Oxford-based company invested in a waterless press, which resulted not only in significant water savings but a better product. "Because we were so into doing what is right for the environment it gave us a purpose and we have taken on an environmental crusade since," says Peigne. The company also bought a filtration system. This saves 520,000 litres a year by allowing water from the plate-making process to be reused.

Although Peigne feels there is little that Seacourt could do to be more water-efficient, and is therefore unlikely to benefit from the forthcoming opening up of the water market in England, she is an advocate, particularly of the expertise that water companies can provide: "Some organisations might not have the resources or time to investigate what [water] efficiencies are possible. For people wanting to start on their journey it will be useful to engage with people who know what to do."

Peigne explains that environmental awareness and water efficiency has brought Seacourt many benefits: "It changed our whole ideology about how to do business and differentiated us from our competitors."

Competition is not welcome by some, however. The Major Energy Users Council (MEUC), which represents the biggest consumers of water and energy in the UK, has been a tough critic of the water industry. The organisation believes that suppliers have worked to frustrate competition, though it concedes that in too many large customer organisations, water management is not seen as a significant issue and is not a priority for senior management. An MEUC poll revealed that only 31% of the businesses felt their relationship with their water supplier was "very good"; more than a quarter described it as "poor"; and half said their supplier was "not helpful" in reducing waste. Around 30% admitted they did not know where their meters were fitted, however. In addition, 54% said they did not know what impact water competition would have on their tendering process.

Respondent's comments included some wish-list elements, such as a simple billing arrangement, a single supplier (and bill) for all sites, all services included on one bill, and metered supplies in all locations. Companies were keen to embrace water efficiency and minimise leaks, but also wanted more support than they were receiving from their current suppliers.

#### Grounds for optimism?

Nonetheless, the future looks better than past attempts at competition might suggest. Karma Ockenden, chair of the water competition group at the MEUC, says: "I think that, since the Water Act 1991 was passed, the confidence of business customers that something will happen has grown. There were a lot of false starts. People were jaded with the whole thing."

She reports that the council is trying to rally customers to take part when the market opens. "MEUC represents very large users. There is definitely interest and an appetite for engaging with the market." However, the level of engagement for smaller customers is much

lower, she observes. In terms of awareness, Ockenden says: "It is a learning curve. Many companies are aware the market is opening, but how to switch and what choices there will be is something they need to learn."

She explains that many large businesses do not have a dedicated water buyer. "Nine times out of 10 it is the energy buyer and their main focus is energy." The major factor is not price, says Ockenden: "Compared with energy costs, the water bill is often seen as a relatively small issue." But administrative efficiency is important. "A lot of MEUC members are multisite, such as supermarkets. A lot of companies send bills in different ways – there is no consistency. Water takes a huge amount of administrative time and is harder to manage than gas purchase despite the relative difference in cost."

Feedback Ockenden has received from MEUC members also suggests concern about how competition will work in practice. "Some companies have had bad experiences with energy switching," she says. "There are some reservations on the back of that." Data issues also pose a problem. "Metering consumption data doesn't necessarily tally with suppliers," she says.

Severn Trent Services (STS) has focused on issues with data accuracy, which managing director Wayne Earp warned at the annual national water event in 2014 was the "elephant in the room". He told delegates that, during the switching process when STS scrutinises a new customer's existing data, its experts discovered billing errors of around 20%. Earp also focused on tariffs and discounts. He warned that "there will be no excuse to repeat the failings of the power sector", and emphasised the need for suppliers to be transparent about their margins, and work efficiently in a lean business model to ensure best value for the customer.

He also predicted a huge demand for "added value" services in England and Wales and predicted that market opening would spur innovation "as never before".

Speaking at the same event, STS chief executive Nick Grant, who switched sectors from British Gas, emphasised the importance of customer service: "We will need to measure up to standards that have been set outside the water sector. The new benchmark is retail, and the obsessive focus on the entire customer experience that you find throughout that sector. I can tell you that keen attention to what customers are saying, to understanding what they say they need and anticipating what they will need next is a vital element of business success."

Graham Southall, head of commercial services at Thames Water, predicts that competition will drive most suppliers to look at the way they provide services. "We can partner with customers and provide a wider range of services as part of a package we feel they can benefit from," he says. "It's a matter of trying to think about it from a customer perspective – what sort of services do they expect, where we can add value."

If the new emphasis on customer service is refreshing, the hard commercial benefits can be persuasive. Anglian Water Business reports that the brewery company Greene King, which switched to its Scottish venture, Belhaven pubs, in 2009, is saving £20,000 a year, while Aimera, a competitor in Scotland, claims to have saved one customer £320,000.



The next UK government should take a stronger international leadership stance on climate change and energy issues, according to a survey of IEMA members.

In the lead up to the general election, IEMA has polled its members to explore the environment and sustainability profession's views on climate change and energy policies. The research found that 91% of the 833 respondents agree that the next government needs to strengthen its leadership and commitment on domestic and international climate change issues.

# The environment and sustainability profession shows no appetite for scaling back on carbon reduction targets

Other findings include:

- 92% of respondents agree that the next government should strengthen its commitment and investment in relation to future climate risks for example, in flood risk management and in broader climate change adaptation.
- 66% do not believe that gas derived from hydraulic fracturing (fracking) in the UK has a role to play as a "strategic transition fuel" in the nation's future energy provision.

Instead, more than 72% believe the incoming administration should prioritise investment in energy conservation schemes. Respondents also overwhelmingly support more funding for a mix of renewable and alternative energy schemes in order to address any potential short- to medium-term energy gaps.

■ 59% of those surveyed agree with the statement: "The UK should lead by example in carbon reduction."

The survey results come after the three main party leaders signed a cross-party declaration to tackle climate change. However, when asked which party leader demonstrates climate leadership best, David Cameron, Nick Clegg and Ed Miliband received a combined vote of just 24%. By contrast, more than half (51%) of those polled back Natalie Bennett of the Green party as the leader who demonstrates the strongest leadership. Twenty per cent said they did not know who was strongest leadership.

Commenting on the survey results, Nick Blyth, IEMA's lead on climate change said: "Collectively, the survey results demonstrate a professional urgency on climate change." He said the strength of feeling among the profession on climate and energy issues signals a need for greater political momentum. "IEMA members are making a strong call for renewed political climate leadership from the next

UK government. Recent pledges from the main party leaders are welcome signs of intent, but clearly professionals working on the receiving end of past government policy are not fully convinced," said Blyth. IEMA would look to engage constructively with the incoming administration, and to work with its members to present critical evidence and experience from climate change professionals.

# 91% of surveyed IEMA members want the incoming government to prioritise a commitment to tackling climate risks

IEMA's poll also addressed a widely held view that policy to reduce carbon emissions focused too much on the biggest companies, neglecting the importance of action and policy drivers for wider businesses, including small and mediumsize enterprises. Almost two-thirds (63%) of respondents believe there is a need for the next government to rationalise the number of energy and carbon schemes affecting the biggest organisations. At the same time, more than half (53%) recognise the need for more financial support to be given to smaller businesses, such as tax breaks or loans, to help them implement energy savings measures.

# Breakdown of the changes to membership fees from June

	Price	VAT
Affiliate	£117	£0.00
Associate EIA application	£41.00	£8.20
Associate entry exam administration	£15	£0.00
Associate environmental auditor application	£41.00	£8.20
Associate exam entry, exam registration	£122	£24.40
Associate via training application	£152	£0.00
EMS auditor application	£45	£9.00
Environmental auditor application	£146.00	£29.20
Environmental auditor renewal	£35.00	£7.00
ESOS combined	425.00	85.00
ESOS application and assessment	125.00	25.00
ESOS training workshop	400.00	80.00
ESOS renewal	35.00	7.00
Fellow application	£220	£0.00
Full/Chartered environmentalist administration (application)	£20	£4.00
Full/Chartered environmentalist	£311	£0.00
Full/Chartered environmentalist SocEnv fee (application)	£75	£0.00
GACSO plus IEMA non-professional level – Student, Graduate, Affiliate	£260	£0.00
GACSO plus IEMA professional level – Associate, Full, Fellow	£295	£0.00
Graduate (price subject to change in 2015)	£52	£0.00
Lead EMS auditor application	£71.00	£14.20
Membership re-instatement	£60.00	£12.00
PEA application	£218	£43.50
PEIA application	£218	£43.50
REIA register application	£146	£29.20
Replacement certificate	£25	£5.00
Student of IEMA corporate member university	FREE	£0.00
Student	£50.00	£0.00

As previously featured in *the environmentalist*, annual IEMA membership renewal rates change from 1 June. To ensure every member is aware of the changes to their fee(s) in advance of the renewal date, the chart (above) provides a full breakdown of the new structure for all membership levels and registrations.

Members whose renewal is due on or shortly after 1 June 2015 will receive full details four weeks in advance of the date.

Changes to the membership fees are being applied in order to support the delivery of services from this year and beyond. Members can expect to see a number of new and improved features, tools and opportunities over the coming months, which will ensure they get maximum value from their membership. The increase will also support the achievement of IEMA's Vision 2020 objectives – as identified by members during the 2013 consultation. These are to grow the profession in size, prominence, capability and influence.

Some frequently asked questions, which explain further the changes to the fees structure, can be found at iema.net/fees.











Four more organisations have made official their support for IEMA's campaign on preparing for the perfect storm.

A growing number of organisations and well-known environmentalists have now signed up as official supporters of the campaign, which aims to stimulate collaborative action to bridge the environment and sustainability skills gap. With the latest signatures, the campaign is now approaching 40 supporters. IEMA wishes to thank the latest supporters, namely:

- Royal Haskoning DHV
- KR Enviroconsult
- Cynnal Cymru/Sustain Wales
- Bespoke Supportive Tenancies

Organisations backing the campaign will be contributing to the events, initiatives and research taking place this year and next.

#### Policy update



Policy after the general election

Two years ago, IEMA members helped secure one of the few green policy wins of this parliament, with their evidence used to support the introduction of mandatory greenhouse-gas reporting. Last year, IEMA was involved in successfully removing mandatory GHG reporting from a Defra review of policy. Now, a new consultation by Defra is proposing to look again at GHG reporting as well as ESOS and other guidance (lexisurl.com/iema83923). Combined with Decc's "simplification" of the CRC, many professionals are understandably critical about the continual review and modification of carbon and energy policy.

Recent IEMA polls highlight concerns about the current energy and carbon policy landscape, including that policies are overly focused on the biggest companies, neglecting the importance of action and support for other businesses (p.48).

So what next? Is it time for one big push to clear up a crowded policy landscape or time for a period of calm in which recent schemes are allowed to bed in before being steadily extended? A carbon and energy policy review after the election is looking increasingly likely. The hope is for a considered review with any changes not being rushed in.

**Nick Blyth** is policy and engagement lead at IEMA; @nblythiema.

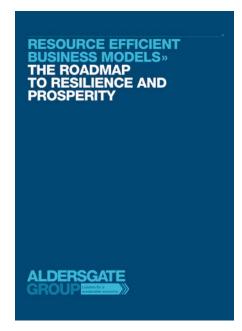
## IEMA supports call for the reform of policies on resource management

IEMA has welcomed the publication of a new report urging the next UK government to introduce business reforms on resource efficiency.

The Aldersgate group report, Resource efficient business models: the roadmap to resilience and prosperity, was published in March and its conclusions have received strong backing from IEMA. The Institute's lead on sustainable resource management, Josh Fothergill, said: "There is absolutely no doubt that resource efficiency measures will become crucial to every business in the future. Organisations that are early adopters of sustainable resource management practices are really reaping the rewards. The next government has an opportunity to take the lead and implement centralised, mandatory schemes which will ensure that all UK businesses feel the benefit."

IEMA is a member of the Aldersgate group and is quoted in the report, advocating the impact initiatives such as mandatory greenhouse gas (GHG) reporting have had on reducing energy use and achieving financial savings.

IEMA states in the report: "Working with environment and sustainability professionals we have established that GHG reporting is an effective and supportive driver for carbon reduction, energy efficiency and associated financial savings. The benefits often arise over the medium term, with annual disclosure helping businesses to share and to



communicate narratives on their transition towards a low carbon future."

The recommendations in the report reflect those made by IEMA in its 2014 publication *From waste to resources*. It also argued for a radical shake-up of resource management to maximise every business's chance of achieving potential savings of £1 million.

The IEMA report and its companion business briefing and resource action maturity planner (RAMP) tool are available at iema.net/rm.



#### Got Your "They Want Your Vote" Postcard?

Remember to keep the postcard we sent to you in the March *environmentalist* handy. You can use the questions we have suggested to challenge MPs who are seeking your vote on key environment and sustainability issues.

We want to hear what they say - and what you think of their answer - so get involved and Tweet their response to:



#SustainableMP

www.iema.net/election-2015

#### More successful IEMA members

IEMA would like to congratulate the following individuals on recently upgrading their membership as part of their ongoing commitment to learning and professional development.

#### Associate

**Hannah Arcaro** Zara Arif Andy Bambrick, Nestlé UK Karl Barnes, Network Rail Barry Baxter, Industrial Turbine Company (UK) Carl Bishop, Babcock **International Group** Andre Botwright, GC Motors David Bradley, SSI UK Christopher Butler, Phlorum **Mick Cairns** Anna Casson, Sellafield Marie Cleaver, Ecologia **Environmental Solutions** Robert Copeland, **Evolve Training** David De Leyser, Owen Mumford **Demosthenis** Demosthenous, **Environ UK Sharon Dowling**, Schroders Angela Dunn, Fine Organics John Dyet, Babcock **International Group** Darren Evans, TES 2000 Kirsty Farquharson, Muirden Energy

Andy Fisher, Research Sites Restoration Louise Forster, **Cott Beverages** Ryan Geldart, Sellafield Simon Giles, Royal Navy **Martin Green** Anna Guise, HS2 Chris Hammond, Knowledgepool Meghan Hampson, Associated British Foods Eva Hansen, Peter Brett Associates Keith Harvey, University College London Jessica Herring Craig Hewitt, Babcock **International Group** Brad Hibbert, Babcock **International Group** Marianna Hislop, SRCL Mark Holland, LRQA Jamie Hoy, Mott MacDonald Andrew Jackson, Peterborough Environment City Trust **Tim Jeeves** Viviana Jimenez, Brite Green Julie Kelly, **Environment Agency** Hannah Kershaw, Lend Lease Adrian Lancaster, Arriva Bus (UK) Gavin Lindsay, Babcock Rail Sarah Maiden, Kelder Water Services

Cheryl Marshall, West **Dunbartonshire Council** Brian McKay, **Babcock International Support Services** Debbie Mee, Voith Paper Julia Messenger Long Hong Nguyen Dominic North, CBI Kentz Joint Venture Sally Oliver Steve Osborn, Magnox Charlotte Osterman, Vinci Nafeezah Padamsey, Atkins Steve Perks, HCT Anastasia Polyakova Keir Randles, **Hochtief Construction** Oonagh Reffell, Flybe Kathleen Relph, **UK Power Network** Sunil Salpekar, Independent Delegate Ellen Smith Matthew Smith, Howdens Joinery Richard Elijah Ssonko, **Smallholder Fortunes** and Thermogenn Gina Standage, Lovell Partnership Hannah Starr Samuel Stewart, **Environment Agency** Catherine Unsworth, University College London Valery Votrin, Environ UK Scott Ward Liz Ware, Ministry of Defence

Jessica Watkiss **Holly Watson** Alexandra Webb, Keltbray Gregory Webster, Owen Mumford Darren Weston, **Lovell Partnerships** Tony Wong, Alaya Consulting Elizabeth Woods, CBRE Claire Wroblewski, Alpro UK **Full and Chartered** environmentalist James Cadman, **Action Sustainability** James Dixon, Newcastle upon Tyne Hospitals NHS Foundation Trust David Dowson, Skanska UK Neil Hadden,

roundation Trust

David Dowson, Skanska UK

Neil Hadden,
Hurleypalmer Flatt

Craig Hales, Skanska UK

Kirsty How, MWH (UK)

Lisa Ithurralde, Skanska UK

Daniel John Oldfield,
QinetiQ

Robert McCulloch,
Skanska UK

Hannah Rich, Costain

Geraint Rowland, Costain

Nigel Sagar, Skanska UK

Stephanie Van de Pette,
Skanska UK

## Chartered environmentalist

Kim-Marie Clothier, North Coast Consulting Clare Day, Skanska UK

#### IEMA events

Date	Region/Time	Topic		
15 Apr	Yorkshire and Humber	Strategic environmental assessment and its	s role in sustainable development	
22 Apr	Scotland West	"Eight golden minutes" – presentation skills, networking and learning on multiple topics		
13 May	Wales	Full member and CEnv mentor forum and Wales IEMA network meeting and social		
Webinars				
15 Apr	12.30-1.30pm	Applying to become an IEMA mentor – support and guidance		
External conferences				
21–23 Apr	NEC, Birmingham	SustainabilityLive 2015	sustainabilitylive.com	
11–12 Jun	Brighton	Eco technology show 2015	ecotechnologyshow.co.uk	

## India



#### Lakshminarayanan Ramakrishnan and S Raghupathy report on a unique rating system to support environmental excellence

new rating system to evaluate the environmental performance of different industries has been developed in India. Called GreenCo, it was conceived jointly by industry experts and the CII-Sohrabji Godrej Green Business Centre (CII-GBC) in Hyderabad.

It consists of a four-step process:

- training and "handholding" by experts at CII-GBC;
- preliminary assessment of the company's application;
- site visit and assessment; and
- final verdict by the GreenCo "jury".

#### Scoring system

Organisational units are assessed on 10 environmental parameters on a scale of 0–1000 (see panel, below). Seventy percent of the points are awarded for the unit's performance in the preceding three years,

and the remaining 30% for "enablers", such as the capabilities and resources that contribute to success. Each parameter is assessed and given a weighted score. More than 500 industry experts developed these metrics over two years. The parameters and weightings vary from industry to industry based on their relevance. For airports, the product stewardship and lifecycle assessment parameters have no weighting, for example.

The typical assessment protocol is based on the "plan, do, check, act" (PDCA) management method that environment practitioners will be familiar with. An assessment of energy efficiency, for instance, covers:

- commitment by the top management;
- policy:
- training and awareness;
- communication;
- objectives, targets and programmes;

- trends in performance;
- innovative efforts;
- monitoring mechanisms;
- future plans; and
- review (daily, monthly and annual) mechanisms.

Each individual element is given points based on the performance. Organisational units are assessed as platinum (more than 750 points), gold (650–749 points), silver (550-649 points), bronze (450-549 points) or certified (350-449).

A typical GreenCo assessment report identifies the strengths and options for improvement in each of the parameters assessed, helping the organisation to improve its performance and progress to the next level of rating in a planned manner. It compares the position of a business with the best in its sector, and the best in industry with respect to each parameter.

#### **Industry by industry**

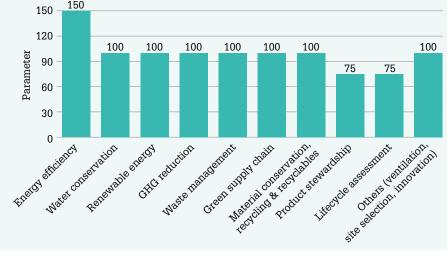
The GreenCo rating system can now be applied to many sectors. These include: airports; automobiles and engineering; banks and financial institutions; cement; corporate offices; fertilisers; fast-moving consumer goods; foundries; glass; hospitals; hotels; iron and steel, and non-ferrous metals; IT services; pulp and paper; refineries and petrochemicals; textiles; and tyres. By February 2015, 32 business units had been assessed under the rating scheme. A further 110 are registered for a GreenCo rating and are preparing for the assessment. Some of the units rated so far are listed in the panel (below, left).

Customer feedback on GreenCo rating is encouraging. Hussain Shariyar, senior vice-president at the appliance division of Godrej & Boyce, said: "GreenCo not only shows us where we stand, but also gives us ample opportunities for improvement."

business by 2022.

The indication so far is that GreenCo will help industry in India to meet CII-GBC's goal of enabling the country emerge as one of the global leaders in green

GreenCo parameters and typical weightings 150



#### Examples of GreenCo-rated companies

Company	Sector	Location	Rating level
Associated Cement Company	Cement	Kymore	Gold
Bangalore International Airport	Service – Airport	Bengaluru	Silver
Brakes India	Foundry	Sholingur	Gold
Dr Reddy's – CTO 2	Pharma	Hyderabad	Bronze

Lakshminarayanan Ramakrishnan, FIEMA, CEnv is professor at the Indsearch Centre of Sustainability Management, Indian Institute of Cost and Management Studies and Research (IndSearch), in Pune. S Raghupathy is executive director and head of the CII-Sohrabji Godrej Green Business Centre, in Hyderabad.

## EIA update

### Report is first step to Cardiff lagoon

A tidal lagoon between Cardiff and Newport has moved a step closer to being constructed after the company behind the project submitted a preliminary report on its potential impact on the environment.

Tidal Lagoon Power (TLP) is aiming to build six lagoons, which it claims will meet 8% of the UK's total electricity needs for more than 100 years (pp.38–41). Plans for Tidal Lagoon Cardiff include up to 90 turbines set in a 22km breakwater, enclosing an area of around 70km².

The firm says its submission to the Planning Inspectorate of an environmental impact assessment scoping marks a first significant step towards the delivery of full-scale tidal lagoon

#### Revisions to guidance

The Planning Inspectorate has published a new version of its advice note (seven) on EIA: Preliminary environmental information, screening and scoping (lexisurl. com/iema78595). The inspectorate says the note explains when a nationally significant infrastructure project (NSIP) should be considered as EIA development under the Infrastructure Planning (Environmental Impact Assessment) Regulations 2009. It also provides details of the procedural requirements that apply to NSIPs that are deemed EIA developments, including: the role of preliminary environmental information; pre-application consultation requirements on applicants; notification and consultation requirements on the secretary of state; and the procedures



infrastructure in the UK. "There is still a long way to go and many environmental surveys to undertake but we will work in partnership with all nature conservation bodies to understand, avoid, minimise and mitigate any environmental impacts," said TLP chief executive Mark Shorrock.

for screening and scoping developments. The inspectorate says the note will assist everyone involved in the Planning Act 2008 regime.

#### Delay to cruise terminal

The Royal Borough of Greenwich has asked for more information on the potential environmental impacts from a planned cruise ship terminal on the River Thames. The terminal, at Enderby wharf, is due to open in 2017, but it may be delayed after the council ordered the EIA to consider several issues not included in the scoping report. In a letter to planning consultancy bptw partnership, the council lists these as site layout and design, noise, air quality, lighting, transport and access.

#### Legislative news

An amendment confirming higher screening thresholds for environmental impact assessments (EIA) came into force on 6 April.

**Amended EIA regulations** 

Under the changes, developers will no longer have to go through the screening process if a site is smaller than 5ha or 150 homes. Screening involves local planning authorities deciding whether a project needs to undergo an EIA. Thresholds also rise for other

types of development. Industrial estate projects will no longer need an EIA unless the area of development is larger than 5ha, while shopping centres, car parks, sports stadiums, leisure centres and multiplex cinemas need to be more than 1ha before an EIA is required.

The government believes that developments below a certain size are unlikely to result in "significant" environmental impacts.

#### EIA research

Opportunity knocks

Chris Prydderch at Amec Foster Wheeler argues in a new QMark paper that the amended EIA directive (2014/52/ EU) provides a clear opportunity to demonstrate the merits of the EIA coordinator role and how it differs from that of a project manager. Prydderch says 2014/52/EU, which came into force on 15 May 2014 and must be transposed into domestic legislation by spring 2017, includes a number of changes for developers and their consultants to consider. These include more stringent screening requirements; the introduction of new topics, such as human health, climate change and resource efficiency; and for developers to ensure that the EIA report is prepared by "competent experts". A specialist EIA coordinator is ideally suited to ensure that these new requirements are met, Prydderch argues.

environmentalistonline.com/coord

#### Noise quidance

IEMA's guidelines for environmental noise impact assessment were published in October 2014, replacing guidance from the Institute of Acoustics and IEMA dating from 2002. In a new OMark paper, WYG's Peter Kneen looks at how consultants have been using the new guidelines. He reports that, because WYG has been following similar practices to those outlined in the guidance for some time, its consultants have not dramatically altered the way they undertake noise impact assessments. Nonetheless, WYG has incorporated the new guidelines into several technical and EIA reports and experienced some positive effects. "The update has given us more back-up when clients, local planning authorities, or objectors question the methodology employed on a project," he says. On 30 April, IEMA is running a webinar on the noise guidelines. For further details go to events.iema.net/view/MTAv.

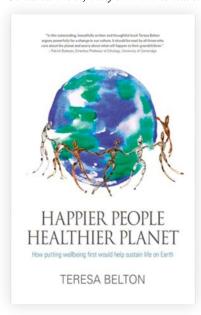
environmentalistonline.com/noise

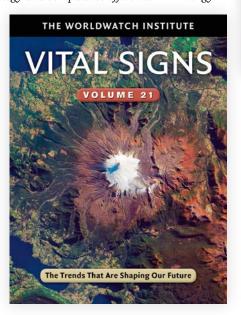
#### Energy policy: a global perspective

Timothy Braun and Lisa Glidden/Zed Books/ £21.99/ISBN: 978-1-7803-2934-5 The cost and security of supply for energy have both moved up the UK's political agenda in the past 12 months, so publication of this book appeared to be timely. Sadly, my expectations of it were dashed.

Energy policy at home and abroad is complex, and interlinked with a number of externalities. So I was looking for a book that would help to explain how these interactions drive energy policy and technology. The book is an easy read and the authors have gone to great lengths to explain how energy is sourced and in particular how it can be converted into electricity. However, too much space is devoted to information on production technologies and delivered at a level that can be found in a good school textbook. The authors look at the economics of the technologies at a regional and global level, but this still lacks the detail and discussion that would add value for the reader.

I had hoped that the book would provide the reader with a steer on the policy mechanisms or instruments that have delivered the intended outcomes for society and the environment, but this opportunity has been largely missed. The key conclusion from my reading of the book is that good energy policy needs to set clear goals and create certainty for businesses to make investment decisions. *Jonathan Foot, chief environmental strategy and compliance officer at EDF Energy* 

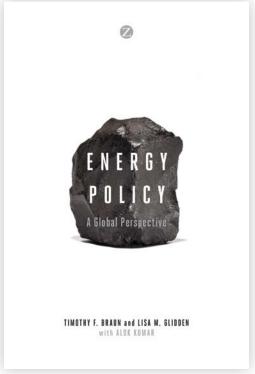




## Happier people, healthier planet: how putting wellbeing first would help sustain life on Earth

Teresa Belton/SilverWood Books/£13.95/ISBN 978-1-78132-260-4 Can we live environmentally friendly lives without making sacrifices to our wellbeing and happiness? This is probably a familiar question to environmentalists and, while not promising a definitive answer, this book contributes to the debate.

The first 40 pages provide an excellent summary of the current state of the environment, wellbeing research and new thinking in economics. It is here, for example, that readers will find out that Costa Ricans score the highest happiness per unit of environmental impact. The rest of the book is a loosely structured collection of insights into how some people can be happy with minimal environmental impact. The author draws on her research on a collection of UK people who are self-declared "modest consumers" with high wellbeing scores. Chapter titles such as "The significance of experience" and "The place of spirituality" will give the reader an idea of what to expect. Apart from the chapter, "Nurturing playfulness", the work is well referenced and stimulates thought. Overall, the book is readable and gives insights into how some people lead happy lives without consuming too many resources. And they didn't have to move to Costa Rica to do it. *Richard Lupo, senior sustainability consultant at Sustainable Homes* 



### Vital signs: the trends that are shaping our future (volume 21)

The Worldwatch Institute/\$21.99/ISBN: 978-1-61091-539-7

The annual *Vital signs* from The Worldwatch Institute is targeted at policymakers, planners and environmental advocates – us!

Presented in a concise, digestible format, it delivers global trends information on selected key issues on which most IEMA members would wish to be updated. From energy, transport, food, resources and conflicts to societal trends, it clearly presents data essential to maintaining currency and credibility to those involved in promoting the transition to sustainable business and economy.

In 2012, the book tells us, global fossil fuel subsidies were on a par with global military spend (itself second highest); world car production was at a record at 67 million; the capacity of decommissioned nuclear plants topped 50GW, while only seven new plants, with a combined capacity of 6.9GW, were built; and the cost of solar photovoltaic panels fell 80% as support for renewables continued to grow. Most indicators concern continuing growth as pressure continues to increase on natural resources. Typically, UK contribution and performance are included.

This book provides an excellent analysis of the challenges that society faces, and is a valuable tool in the development of solutions applicable to organisations seeking a framework that is sustainable in terms of ecological and human health. Dave Stanley, director at e3

## Nicola Stopps

Founder and director of Simply Sustainable

Why did you become an environment/sustainability professional? Having been brought up in rural Wales, my early life was intrinsically linked with the environment and the elements that can have an impact on it, be that the recession of the 1980s or changes in weather patterns. I passionately believe large organisations have the resources – financially and intellectually – to tackle some of the most significant environmental and social issues.

What was your first environment/ sustainability job? My first job after I graduated from my master's was with SLR Consulting. It was a small environmental consultancy at the time, but growing fast. I was lucky; they gave me an opportunity to work on a variety of issues and trusted me to get a job done.

#### How did you get your first role?

I sent out more than a thousand speculative letters and CVs to environmental consultancies and got one reply. Luckily I got the job!

How did you progress your environment/sustainability career? I always wanted to be smart with my career and ensure I kept as many doors open to me as possible. Hence, I have a good mix between consultancy and working in-house with large companies. Using the principles of environmental management – identify significant issues and tackle them methodically - I started developing corporate responsibility strategies and programmes for large firms. Undertaking these strategies in a scientific manner has set me apart and ensured their social and business impact is measured rigorously.

What does your current role involve? In 2011, I founded Simply Sustainable, a sustainability and corporate responsibility consultancy. From the years of working in-house and employing consultants, I knew what good and bad consultancy looked like. My consultancy is extremely varied, working for companies such as Costa, EE,

DHL, Manchester's Airport Group, British American Tobacco and Interserve. In any one week, I may be conducting face-to-face stakeholder interviews, examining environmental trends across the globe, writing corporate social responsibility reports and developing an environmental strategy with a finance director.

How has your role changed over the past few years? There is a growing acknowledgement that organisations need to be sustainable – that is future-proofed for wider trends such as climate change, population increase, and digitally enabled lifestyles. I am now working with my client's strategy departments to understand how these will have an impact on their organisation.

What's the best and hardest parts of your work? Working with my clients and seeing them become more sustainable and responsible. We hear a lot about firms that are very developed in this area, but there are many large organisations that still find it challenging. Setting up the consultancy was not easy. To be candid, putting on the line the livelihood of my family was terrifying. I know keeping my stress levels down is essential to the success of my business. I run at least five miles a day to keep this at bay.

What was the last training course/ event you attended and what did you bring back to your job? A highly technical day on how the CRC, the EU emissions trading system and climate change agreements connect. I brought back a clear understanding of the different schemes and how they have changed.

## What is/are the most important skill(s) for your role and why?

Positivity and a wide-ranging knowledge of corporate responsibility and sustainability issues. This is what clients value.

Where do you see the environment/sustainability profession going? A linear career path is a thing of the past. As a profession, we need to embrace and expect changing



#### Career file

Qualifications: BA, MSc, AIEMA

Career history: 2011 to now founder and director, Simply Sustainable 2009–10 head of corporate responsibility, T-Mobile UK 2008-09 environmental consultant, AEA Technology 2008 corporate responsibility manager, T-Mobile UK 2007–08 director of sustainability. Travelodge 2004–07 environmental manager, DHL 2002-04 environmental coordinator, BBC 2000−02 environmental consultant, SLR Consulting 1999 environmental consultant, Watton Produce 1995–98 climate change research assistant, University of Exeter

patterns of employment, such as parttime working and freelancing. We need to be prepared to adapt, otherwise we are going to have a vast resource of experienced and educated professions left out of the marketplace. Many institutions are out of step with this and treat freelancers and those who don't choose a linear career as second-class citizens. I am passionate this should change.

Where would like to be in five years' time? Continuing to consult for my clients on sustainability and corporate responsibility matters.

## What advice would you give to someone entering the profession?

If I can give any advice for people starting in a new environmental role: walk into the office with a smile on your face, be the first to help out and learn – you should never stop learning.



#### Considering a career in **Recruitment?**

In the past year we have seen a rapid expansion, with a second UK office and a new office in the US. We are looking for ambitious Graduates who would enjoy working in a target driven environment to be based in either of our UK offices (Aylesbury or Reading). We will consider Graduates who are not graduating until 2015 as we have a number of open vacancies.

#### Get in contact

For more information regarding any of these opportunities or to apply please call 01296 611322 or email response@shirleyparsons.com



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#### **SELECTION OF CURRENT OPPORTUNITIES**

#### **Sustainability Manager**

LONDON £65K TN 7023

A financial services corporation is seeking a Sustainability Specialist with sector experience to sit within their growing team. The role would entail implementing strategy development with regards to ESG framework throughout the organisation. You will also be working with internal department managers and external clients to deliver sustainable solutions. Candidates must have experience in a similar sector and be qualified to degree

#### **Environmental Manager** WEST MIDLANDS £50K + CAR LO 6844

A leading principal contractor is currently seeking an Environmental Manager for their construction business stream. You will be responsible for providing specialist environmental advice on a number of ongoing operations and developments across England. This role would be most suited to candidates with an environmental degree and detailed knowledge of ISO

#### **Ecologist Consultant LONDON £40K TN 7026**

An international commercial property consultancy is looking to hire an Ecologist with EIA experience. The successful candidate will be responsible for undertaking EIA and a range of Ecological issues, whilst producing technical ecological reports and liaising with clients. Candidates must be a member of IEEM and have consultancy experience.

#### **Environmental Manager** LONDON £45-55K LO 6503

A UK based construction and infrastructure company is currently seeking an Environmental Manager for a high profile and high value project. You will assist the rest of the sustainability and environmental team in developing a company environmental management system, as well as providing environmental advice and guidance across the rest of the site. Candidates must have experience within construction and infrastructure and hold an IEMA membership.

#### **Contract EHS Advisor**

**SOUTH EAST ENEG LP 7031** 

A global manufacturing company requires an onsite EHS Advisor to join their team. This is a 9-month contract opportunity and the successful candidate would be employed on a full time basis. You will be responsible for providing onsite EHS advice, undertaking site audits and reporting on hazardous incidents to develop plans to manage EHS emergencies. Candidates must hold the NEBOSH Diploma and have experience with EMS ISO 14001 and OHSAS 18001.

#### **Sustainability Manager**

**LONDON £28-35K LO 6881** 

We have been engaged by a global consultancy and construction firm to recruit a Sustainability Manager to support a number of high profile projects across London. As you will be responsible for providing sustainability consultancy services to a large number of blue-chip clients, candidates must have strong technical capabilities combined with commercial awareness and excellent interpersonal skills.

#### Senior Environmental Consultant

LONDON £40K TN 7025

Shirley Parsons Associates are currently working with a global commercial property consultancy in London who is seeking a Senior Environmental Consultant to join their team. The successful candidate will be responsible for undertaking surveys and inspections and providing environmental advice to their international clients. Suitable candidates will be qualified to degree level and have previous consultancy experience.

#### **Sustainability Advisor**

**LONDON £35K LO 6571** 

An international contractor is currently recruiting for an experienced Sustainability Advisor. This role will see you ensure that all environmental objectives relating to regulation, law and contractual commitments are met. You will also implement and manage ISO 14001 as well as managing company environmental requirements. Candidates must be a member of IEMA and have a minimum of 2 years' experience within the construction/infrastructure industry.

#### **Environmental Advisor SOUTH EAST £35-40K + CAR LO 6954**

A UK-based principal contractor currently requires an Environmental Advisor to work on a large scale utilities project. This is a regional role which involves visiting multiple sites and shaping the environmental policy across the framework. The candidate will be responsible for liaising with the client and relevant contractors. Suitable candidates will have an AIEMA membership and have previous experience in either the utilities or construction industry.

#### **Environmental Advisor SOUTH EAST £25K + CAR ALLOWANCE LO 6955**

A leading UK principle contractor is seeking an Environmental Advisor to work on a major utilities project with sites based across the South East. You will be responsible for ensuring environmental compliance and undertaking site audits and inspections whilst reporting in to the project SHE Manager. Candidates must have previous experience working in the environmental sector and an environmental degree.

www.shirleyparsons.com



## Time for a new challenge...?

This is a fantastic time to join RPS. We are involved in a number of high-profile, £multi-million projects and are looking to recruit talented individuals who want to expand their experience and develop their career. We have a number of roles available, all with an excellent salary and benefits package on offer.

#### Our Company

RPS is a leading multi-disciplinary consultancy with the expertise to support clients through the development process, from planning to design to implementation.

We are acknowledged as experts in planning, transport, landscape and environmental consultancy and we are award winning architects, civil, structural and mechanical and electrical engineers.

RPS has grown into one of the world's pre-eminent consultancies by maintaining its local connections whilst underpinning these with the resources and knowledge of a global business.

We employ 5,000 people in the UK, Ireland, the Netherlands, the United States, Canada, Brazil, Africa, the Middle East, Australia and Asia. Our international presence allows us to undertake co-ordinated and integrated projects throughout the world.

To apply, or for more information, contact our Recruitment Manager, Geoff Thorpe via e-mail at geoff.thorpe@rpsgroup.com

No Agencies Please

RPS is an equal opportunities employer

Principal Hydrogeologist	Bristol / Cardiff
Principal Contaminated Land Consultant	Bristol / Cardiff
Senior EIA Consultant	London
Senior / Principal Ecologist Bristol / Cambr	ridge / Cardiff / Oxford
Senior EIA Co-ordinator	Bristol / Cardiff
Graduate Environmental Consultant	Cardiff / Oxford
Ecologist	Cambridge / Oxford
Contaminated Land Consultant	Bristol / Cardiff
Principal Acoustics Consultant	Brighton

