

## Is this America's new Sputnik nightmare?

Barack Obama's State of the Union speech called on history, when the Soviet Union put the first man-made satellite, Sputnik, into orbit. This event, in 1957, shocked America and triggered the space race and its myriad technical spin-offs.

This time, developing nations have been stealthily gaining ground, largely by doing what the Americans can't or won't do at the price. External threats, providing they're credible, usually have a unifying effect on nations. Presumably Obama wanted to tap into that sentiment when he said: "New laws will only pass with support from Democrats and Republicans." He added, bleakly: "We will move forward together, or not at all."

Obama then explained how nations like China and India are setting about



their transformation, largely through education and hard work, ending with the barbed comment: "Just recently, China became the home to the world's largest private solar research facility and the world's fastest computer."

Following praise for American innovation and the role government money had played, he said: "This is our generation's Sputnik moment." He told America's

scientists and engineers that if they "assemble teams of the best minds in their fields, and focus on the hardest problems in clean energy, we'll fund the Apollo projects of our time". Referring to his request that Congress should eliminate the billions of tax dollars currently going to oil companies, Obama said: "Instead of subsidizing yesterday's energy, let's invest in tomorrow's."

## CO<sub>2</sub> is our friend

Our obsession with cutting or capturing carbon dioxide emissions can make us forget that the gas can be quite useful. Plants and trees have known this for aeons. Norwegian company DNV ([www.dnv.com](http://www.dnv.com)) has produced a research paper on many of the ways in which chemical and electrochemical processes can use carbon dioxide as a raw material in the production of a number of other substances.

An interesting aspect of this is that such processes could be used to turn an intermittent renewable energy source into something more permanent: such as a fuel that can actually benefit from conventional methods of both distribution and consumption.

**Can you be on-trend and green? Check out our look at sustainable fashion on p.20 and then head to pp. 26-27 for clothing that covers it all.**

**Need help doing something ethical with your money? Our independent advisers on pp. 22-23 are all experienced professionals - why not give one a call?**

**This issue's green dragon is renowned Whole Earth pioneer Stewart Brand. Read his inspiring story on p.25.**

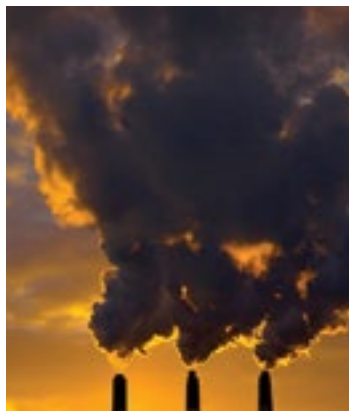
## Carbon credits crisis

The electronic theft of £26m of emissions allowances from several EU countries brought the Emissions Trading Scheme (ETS) to its knees. The spot trading market had to be suspended until individual member countries could persuade the EU they had implemented adequate security measures.

While inconvenient for many organisations that

urgently needed to buy allowances, this hiccup could end up doing the ETS a favour by highlighting some of its inherent weaknesses.

As the world's oldest trading scheme, having started its life in 2005, the ETS is evolving and is providing valuable insights to other countries that are considering the same "cap and trade" path to emissions reduction.



## NEWS

1,5,9 **News**

6-7 **Our Planet This Month**

## THINKING ALLOWED

3 **Your Say**

28 **Green Review: Films & Books**

29 **Rights & Responsibilities**

31 **Cartoon**

## MONEY

21 **Money, Money, Money**

22-23 **Map of Ethical IFAs**

24 **Socially Responsible Investors**

## SPOTLIGHT

16-17 **Sustainability for Business**

20 **Green Fashion?**

25 **Green Dragon: Stewart Brand**

## ENERGY

10 **Sustainable Homes**

15 **Onshore Wind**

19 **Biofuels**

## TRAVEL

11 **Buses and Trains**

13 **Avoiding Plane Strain**

## SHOPPING

26-27 **Sustainable Clothing**

## NEED MORE?

4 **Win Vouchers**

8 **Get Our E-newsletter**

14 **Blue & Green Travel**

18 **Tax-free Savings**

30 **Links & Legal**

## EDITORIAL

### Waste is Food

Talk to the average person in the street and you'll find environmental sustainability is the last thing on their mind. Talk to progressive business people and you'll find it's very much on theirs. But, when it boils down to it, we're all interested in the same things. We want a future that is healthy, happy and secure for us and our descendants.

Right now, that seems like a tall order. Yes, maybe it is a bit idealistic, but someone with a vision will always achieve more than someone without.

We all have choices. We can wallow and play the "ain't it awful?" game, leaving all actions and decisions to other people. We can play the "ignorance is bliss" game and just concentrate on having a jolly good time. Or we can take a cool look at what's going on and see plenty of reasons to be optimistic, and maybe even get stuck in.

We at *Blue & Green Tomorrow* like to think we're part of the third group. We try to keep on top of what's going on in the world and we love to share our discoveries with you. Sometimes we get a little po-faced and sometimes we're light-hearted, but all the time we're looking for people who are working to enhance our world; people who can inspire you and give you hope for the future.

All around the world, scientists and engineers are trying to turn the present threats into opportunities; none more so than those who have a "waste is food" mentality. Where we see rubbish, they see fuel, or frocks. Where we see desert, they see electricity. Where we see atmospheric pollution, they see gases to be exploited.

New goods and services will continue to appear from organisations that are tapping the talents of such people. These outputs will be so self-evidently good they will sweep the public along with them. We will learn, by induction rather than by exhortation, how our world can be made better.



**David Tebbutt**

**Editor**

[editor@blueandgreentomorrow.com](mailto:editor@blueandgreentomorrow.com)

### Why *Blue & Green Tomorrow*?

We're indebted to Douglas Adams for writing *The Hitchhiker's Guide to the Galaxy*, in which he describes Earth as "an utterly insignificant little blue-green planet". Now you know where the title comes from ...

Our magazine is for thinking people who'd like our planet to be as blue and green tomorrow as it was yesterday.

**Editor** David Tebbutt, [editor@blueandgreentomorrow.com](mailto:editor@blueandgreentomorrow.com); **Subeditor** Lori Heaford, [www.loriheaford.com](http://www.loriheaford.com); **Design** Dominic Kershaw, [www.inkengine.co.uk](http://www.inkengine.co.uk); **Publisher** Simon Leadbetter, [publisher@blueandgreencommunications.com](mailto:publisher@blueandgreencommunications.com); **Advertising** [advertising@blueandgreentomorrow.com](mailto:advertising@blueandgreentomorrow.com); **Production** Marcus Dobbs, BGP Limited – Bicester; **Distribution** Jan O'Shea, Jordan & Co. – Oxford.

All rights reserved. Reproduction in part or whole is forbidden. The views contained in the publication may not necessarily reflect the views of the publisher. Blue and Green Communications Limited makes no express or implicit representation or warranty, and no responsibility or liability is accepted, with respect to errors or omissions in the magazine, or with respect to fairness, accuracy, adequacy or completeness including, without limitation, the reasonableness of projections, forecasts, estimates or any associated assumptions. The publisher cannot accept responsibility for the quality of any services or products advertised in this publication. Any prices or costs quoted are correct at time of going to press but are subject to change without notice.

Published by Blue and Green Communications Limited, London – Simon Leadbetter, 6 Peal's Court, 9 – 10 Colville Terrace, London W11 2BE.



Printed on  
certified  
sustainable  
PEFC stock

# YOUR SAY

*We love to hear from you, whether you're extending a brickbat or a bouquet; that's how we fine-tune your magazine. If something provokes or inspires you, please tell us.*

## Misled and confused

I was shocked when I read your article on which companies can make up an "ethical" fund. Having spoken to my IFA, it turns out that my "ethical" fund does include BP and Rio Tinto. How does the layperson make any headway when funds masquerade as ethical and you have to trust your adviser to help you make the right choice? I have now changed IFA and switched fund portfolio. Thank you for highlighting this issue. Many of your readers have probably been similarly hoodwinked.

**John Page, Businessman, London**

## Green retreat

I really enjoyed Issue 2 of *Blue & Green Tomorrow* but feel a growing sense of despair that the whole environmental movement is in retreat. All you ever read about in the national press is the importance of economic growth. Economic growth does not equate to human happiness or environmental sustainability. To paraphrase Robert F. Kennedy: "The gross national product does not allow for the health of our children, the quality of their

education, or the joy of their play. It does not include the beauty of our poetry or the strength of our marriages; the intelligence of our public debate or the integrity of our public officials. It measures neither our wit nor our courage; neither our wisdom nor our learning; neither our compassion nor our devotion to our country; it measures everything, in short, except that which makes life worthwhile." I'd like to be proud about all those things, not just economic growth.

**Peter Young, Senior Lecturer, Shropshire**

## Eurosceptic organ

I read your second issue with interest but had to double-take when I got to your world in 2020. Are you a Eurosceptic magazine as that runs counter to your apolitical claim? I cannot imagine anything more divisive than taking a Eurosceptic line. I am no fan of the EU's bureaucratic waste, expense culture and lack of democratic accountability but I see huge economic benefits from our membership. The chance of the UK leaving the EU is slim so if *B&GT* is going to be about editorial wish-fulfilment I'm not interested in reading it.

**Emilia Banks, Hospital Consultant, Yorkshire**

*Thank you for your letter and for taking us to task. We hope you found a few other things in the 2020 piece that you didn't agree with. We didn't set out to be political or advocate any course of action. We just thought that we'd pick*

*a few possibilities that might act as a catalyst for thinking or for conversation. We think you'll find that we're back to objective reporting following our aberration into crystal ball gazing.*

## Pollution tax

The more I read *B&GT* the more I think the only way forward is to penalise those who do harm. Incentives don't work and markets don't work for the long-term survival of the planet, they just create secondary markets for the city to trade in with no benefit to the environment. Not that I'm for higher tax overall. The state should take no more of the country's GDP than it does currently, and probably it should take less. Nevertheless if the polluter were forced to take a greater share of the overall tax burden then behaviour would change, as individuals and companies found ways to reduce their pollution. People scorn legislation these days and rely on markets too much, but all the great advances in human well-being have come from governments regulating the excesses that markets naturally create, for example the Clean Air Act of 1956, following the Great Smog of 1952, which killed 12,000.

**James Lewis, Paralegal, London**

*You might be interested in this little movie about dodgy carbon credits [tiny.cc/rscul](http://tiny.cc/rscul)*

## Conversely ...

Green, for want of a better word, is good or so Gordon Gecko would say if the

original Wall Street had been made in 2010. Businesses and individuals are moving far faster than governments towards a sustainable future as your front page highlighted in the differences between the political Cancun Climate Conference (COP-out 16) and the business leader's World Climate Summit (17 gigatons of carbon out of industry by 2020). Business will fail if they ignore the fact that a generation of environmentally aware and connected shoppers are entering the market and demanding ever-higher ethical and environmental standards from the people they buy from. Get government out of the way with its heavy-handed programme of tariffs and subsidies for favoured industries (jobs for mates basically) and let the enlightened consumer vote with their wallet. Keep up the good work – it is a genuine pleasure to read a gently sceptical but honest assessment of sustainability.

**John Brown, Government Oliver Hopkins, Retired, Hampshire**

*We believe that governments can have a stimulating role, but only if they're well advised and they support the right things. Perhaps that's too big an ask?*

## And finally ...

I thought Issue 2 of *B&GT* was very enjoyable and I really like the letter page as it's nice to see what other people think and be able submit your own views.

**Name and address supplied** 

**Tell us what you think & win** (see page 4)



**Email:** [editor@blueandgreentomorrow.com](mailto:editor@blueandgreentomorrow.com)



**Visit:** [www.blueandgreentomorrow.com](http://www.blueandgreentomorrow.com)

**The next issue of  
B&GT is out on  
11 March 2011**

**blue&green**  
tomorrow

# *Tell us what you think* **And win!**

*One of 10 £50 vouchers to spend at  
[www.blueandgreenshopping.com](http://www.blueandgreenshopping.com)*



*Free clean energy for a year from our  
friends at Good Energy*

Terms & conditions apply. Please refer to p.30

*Blue & Green Tomorrow* is a new magazine, a baby magazine, and we like to think we've done a good job. You might agree, you might not. Either way we'd like to know what you think. Tell us what you want more of, what you want less of, what you liked and what you hated. Ultimately this is your magazine and we want it to address the things that matter to you.

**Closing date 25 February**

**[www.blueandgreentomorrow.com/survey](http://www.blueandgreentomorrow.com/survey)**



## NEWS

### Shale dilemma

Geologists are busy mapping British shale gas reserves following some massive finds in Lancashire. They expect to finish next year. Meanwhile, the pros and antis are already taking up their positions.

The antis are worried about further emissions and pollution, especially of our water supplies. Their major fear relates to the extraction process, which involves fracturing the shale rocks and pumping chemicals and water in to liberate the gas.

The pros say that we will increase our energy security and cause a net reduction in emissions if the gas is used to generate power instead of coal. They also point out that the reserves are about 9,000 feet below the water table.

Each side is gathering its war stories and both are watching the outcome of similar tussles taking place in the USA. The Environmental Protection Agency expects to report research findings towards the end of 2012.

The Department of Energy and Climate Change has given the go-ahead for further development, putting a block on calls by the Tyndall Centre for Climate Change Research for a moratorium for at least two years.

### Hull gets a boost

Siemens has signed a memorandum of understanding to create an £80 million wind turbine nacelle factory in Hull. Apart from direct employment during its building and manufacturing, it could generate up to 10,000 related jobs in the region. It will serve three of the world's largest offshore wind farms, generating around 20 gigawatts of electricity.

If the contract is signed, the factory will be built on Associated British Ports (ABP) land, where ABP will

also be spending £100 million on a new deepwater berth for servicing the farms and for shipping overseas.

This could restore Hull's fortunes and attract other companies to the area.

### Booze or burger?

GE has a natty little visualisation website. You select grams (or ounces) of CO<sub>2</sub> and see what everyday products create that, or a nearby amount. It's not new, but it was new to us, so we thought we'd share it.



The company hasn't validated all the figures, but we're pleased to note that a bottle of wine – imported or local – is much kinder to the environment than a beefburger. The visualiser is at [tinyurl.com/49nkqyd](http://tinyurl.com/49nkqyd)

### A new cash crop

The Feed-in Tariff scheme was designed to reward homeowners to micro-generate electricity, using a lot of it themselves and tipping any excess into the grid.

A number of landowners quite like the idea of covering their fields with solar panels instead of crops. The BBC visited the first one ([tinyurl.com/5ttewle](http://tinyurl.com/5ttewle)), in Malmesbury, Wiltshire, which has spent £300,000 on its installation. It receives £38,000 each year from the FiT. According to the farmer, it generates enough power for about 25 homes.

When you consider that an acre of wheat would pay about £200, it's easy to see the temptation. Even leasing that land to an energy company would earn many times that.

Sure, we have local planning approvals and suchlike to prevent abuse, but it's very difficult to challenge the commercial case. The downside is that this sucks grant money away from the people it was intended for in the first place.

### Go with the flow

A Cambridgeshire company hopes that its hydrokinetic turbines will capture energy from much slower river and tidal flows than competing devices. And they should be able to do it with less harm to marine life or to themselves from passing debris.

Thanks in part to a £100,000 grant from the East of England Development Agency, Green-Tide Turbines ([green-tide.org](http://green-tide.org)) is now testing its device on the River Cam. Early markets exist in India, China and Brazil, where relatively low-cost technology can deliver energy consistently from river flows.

According to the firm's founder Michael Evans: "Our technology will do for water turbines what the jet engine did for aviation. This is a revolutionary and adaptable product with the capability of supplying power to some of the most disadvantaged people in the world."

It contains one fixed and one moving rotor inside a larger diameter duct. The incoming current is forced to rotate by the stator, causing the rotor to spin and generate electricity. The outflow is smoothed by the process, meaning that the new hydrokinetic turbines can be placed closer together than conventional ones.

The company expects to install a 1m diameter device in the Northern Amazon in Brazil, which will generate about 5 kilowatts of energy. A rainforest environment doesn't lend itself to alternatives such as solar or wind power. Providing the price is right, this river device will prove more attractive than the diesel generators

used currently (no pun intended). Such installations will provide revenue and act as a test bed for more ambitious tidal flow devices.

### Green eggs, anyone?

By the time you read this, the Lakes Free Range Egg Company should have become the first UK carbon-neutral egg supply and packing operation.

Its buildings will be heated with solid fuel, using trees from the chicken ranges and factory waste, with ground source geothermal heating for domestic areas. Presence sensors will switch the low energy LED lights on and off. Insulation has been added to walls and roofs; solar cells supply some of the power; and rainwater harvesting helps with the non-food water needs.

David Brass, the owner, realised that birds are descended from jungle fowl and don't like open spaces, so he plants trees for the hens to congregate under. All of his suppliers have to keep hens in similar conditions.

If you ever find yourself eating one of his eggs, you'll be able to trace it right back to its farm of origin through the company's website ([www.lakesfreerange.co.uk](http://www.lakesfreerange.co.uk)). And, no, it won't be green, not in the colour sense anyway.



### Thermal gold from dead mine - Canada

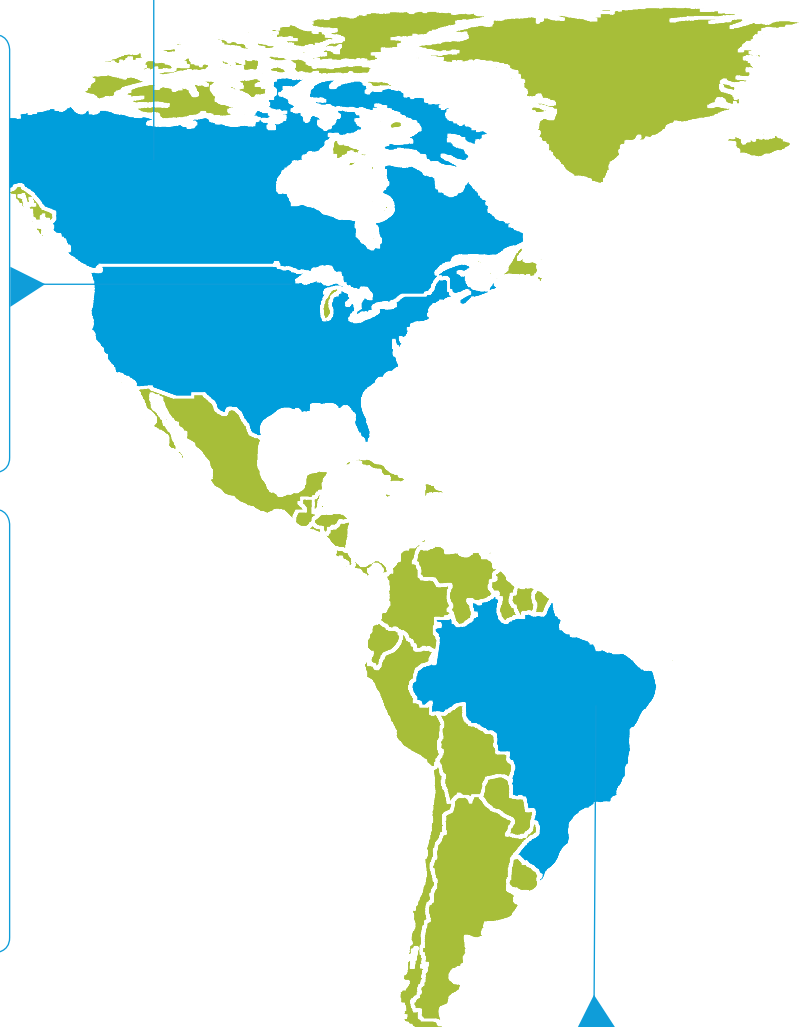
What do you do with an abandoned goldmine? Remembering that their miners worked in sweltering heat, regardless of surface temperature, the people of Yellowknife in the Canadian Northwest Territories have had the bright idea of tapping that heat as a replacement for heating oil. The mine, closed in 2003, looks as though it's about to get a new lease of life. A referendum will be held next month on whether to install the necessary pipes to heat 39 of the town's largest buildings.

### Oil from CO<sub>2</sub> - USA

Now here's a neat trick, if it can be pulled off. Joule Unlimited ([www.jouleunlimited.com](http://www.jouleunlimited.com)) has patented a genetically-modified E-Coli bacterium that feeds on carbon dioxide, water and sunlight and excretes hydrocarbons. And it is expected to do this at \$30 a barrel. From the energy security and CO<sub>2</sub> reduction perspectives, this is good news indeed. It requires land, but not as much as its biomass competitors, with a projection of 15,000 gallons of diesel per acre each year. Commercial production is expected to start in 2012.

### Appalachian reprieve? - USA

Mountain-top removal for access to coal has long scarred the American landscape. Even worse is the river blocking and pollution that extends way downstream. It affects forestry, wildlife and people, often in devastating ways. The Environmental Protection Agency has, for the first time, put its foot down and revoked an existing water permit for one of West Virginia's largest mines. This is a pivotal moment for the environment versus big coal. Keep an eye on Spruce No. 1 Mine; the story won't end here.



### Brazil to take USA to WTO, again? - Brazil

Encouraged by the success of previous appeals to the World Trade Organization against the USA (cotton) and the EU (sugar) on subsidies, Brazil is considering adding ethanol subsidies and import tariffs to the list. Two US senators, John McCain and John Barrasso, considered ethanol subsidies and a tariff on imports likely to be illegal under international trade rules, according to Reuters. The USA currently imposes a 54 cent-per-gallon import tariff and provides a 45-cent-per-gallon subsidy for blenders.

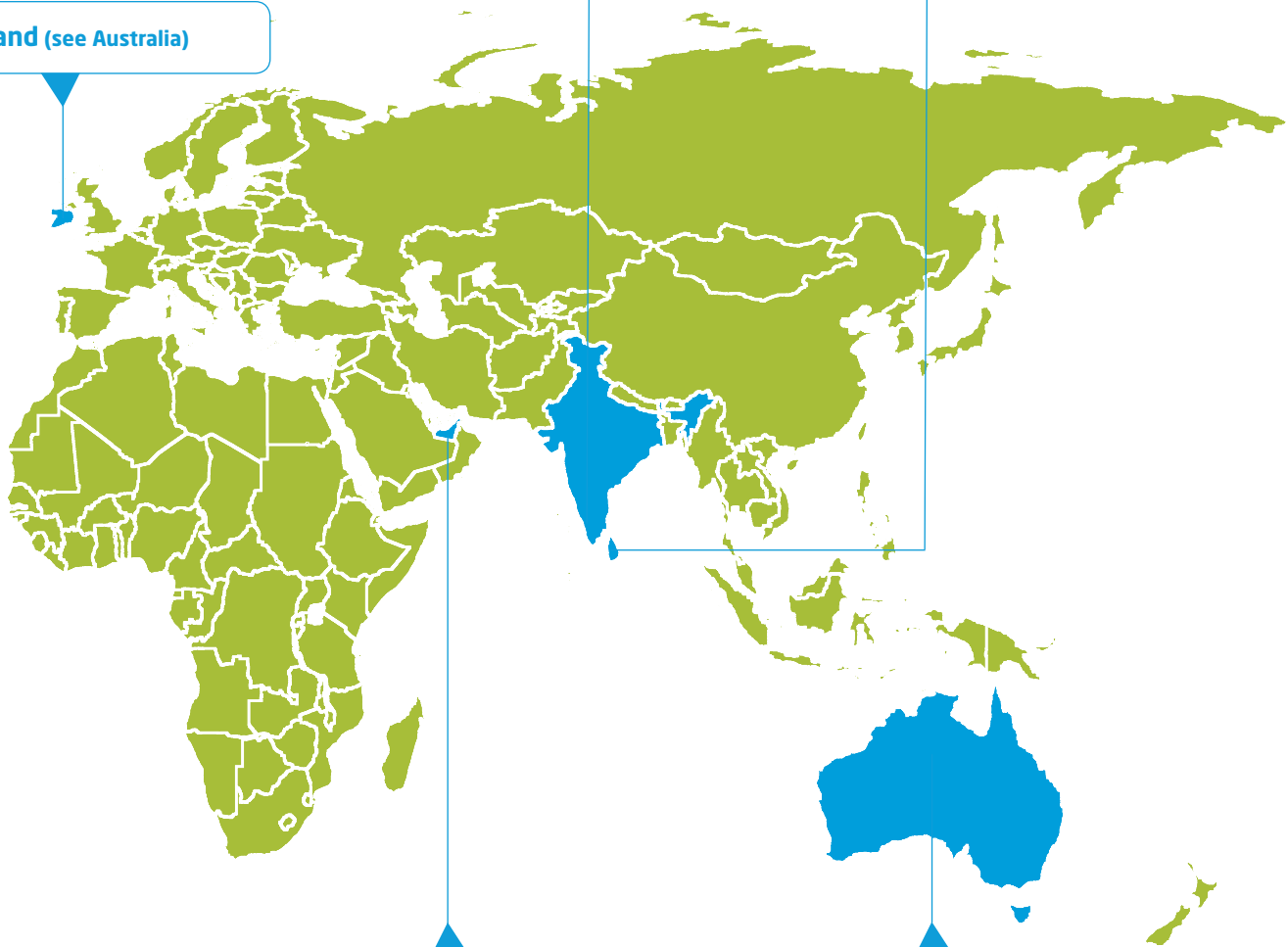
## A tidal power first? - India

Tucked away in the north-west corner of India, in the state of Gujarat, is the Gulf of Kutch, which will be home to what may be Asia's first commercial tidal power station by 2013. Atlantis Resources is planning to install 50 1 megawatt turbines. DJ Pandian, chairman and managing director of Gujarat Power Corporation, said: "This will deliver important economic and environmental benefits for the region, as well as paving the way for similar developments within Gujarat."

## Upcycling for fashion - Sri Lanka

Creating fashion items from cast-offs has always been a small-scale activity. Not any more. London-based Orsola de Castro has started doing it on an industrial scale for her From Somewhere fashion label. Recognising that some brand names would rather destroy their stock than sell it off cheaply or give it to charity, the company offered to turn their cast-offs into fashionable clothing. For example, 18,000 Speedo LZR Racer swimsuits (banned by swimming's FINA governing body for making swimmers too slippery) are being turned into unusual and good-looking dresses in a worker-friendly Sri Lankan factory. They'll be available in Selfridges next month.

## Ireland (see Australia)



## Salt-water biofuel - United Arab Emirates

The Masdar Institute has been investigating the possibility of creating aviation biofuels and other bioresources from seawater tolerant plants. The project is called the Integrated Seawater Agriculture System (ISAS) and the initial research findings were announced at the recent World Climate Summit in Abu Dhabi. They confirmed the potential of the system to sidestep the need for the freshwater resources and arable land used by conventional agriculture. The project's supporters include Boeing, Etihad Airways, Honeywell and the Abu Dhabi Government.

## Invisible wave energy - Australia & Ireland

Australia's Carnegie Wave Energy is going 50/50 with Ireland's Sustainable Energy Association on the cost of designing a bespoke wave energy plant off the coast of Ireland. It will use the movement of submerged buoys connected to anchored pumps to drive seawater ashore, where it passes through turbines to generate electricity. The high pressure water can also be fed into a reverse osmosis water desalination plant. The goal of the project is to deliver a commercial 5 megawatt technology demonstration system.



**A bespoke e-newsletter  
direct to your inbox**

In addition to this great magazine that we're going to send you 10 times a year, you can subscribe to a fortnightly e-newsletter to keep you up to date with the latest news and developments.

**A fortnightly look at  
the key issues**

All the information you need to help you invest responsibly, travel sustainably, shop ethically and use clean energy at home, on the road and at work

**Sign up now and join  
in the big debate**

The latest news, the latest offers and your chance to participate in the key issues and discussions. Use the *Blue & Green Tomorrow* e-newsletter as a fortnightly window on the world.

Sign up to our e-newsletter at  
**[www.blueandgreentomorrow.com/register](http://www.blueandgreentomorrow.com/register)**

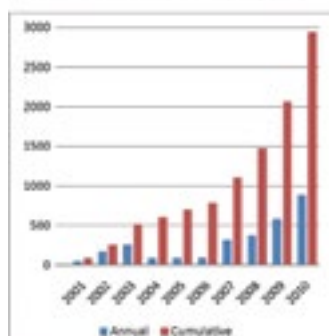


## NEWS

### UK's offshore wind lead

According to the European Wind Energy Association (EWEA), the UK is the world leader in offshore wind installations. We have 1.341 gigawatts installed. Denmark, our closest European competitor, has 854 megawatts, while Germany, Ireland, Finland and Norway have 145 megawatts between them. Do they perhaps know something we don't?

Installed offshore wind power capacity (MW)



In any event, consent has already been given for a total of 19 gigawatts. This seems like a great opportunity for the UK to sell its experience and expertise overseas.

To put the figures in perspective, EWEA likens the present output to the power consumption of cities Berlin and Brussels together. When the consented turbines come on-stream, they could power 14 of the largest capitals in Europe. And these figures are based on "normal wind" years, in case you were concerned about the difference between capacity and delivery.

The chart shows both the annual and the cumulative installed capacity over the past 10 years.

### Biomass emissions upped

The people of Port Talbot can breathe easily. The Environment Agency has declared that a doubling of nitrous oxide, an eight-fold increase in sulphur dioxide and a 30 percent uplift in hydrogen chloride from a

local biomass power station won't make any difference to air quality.

These increases are from the limits originally stipulated. Prenergy can go ahead with a clear conscience, subject to ratification. Local people were given 28 days (from 14 January) to make their representations. It must have been a hard decision. On the one hand, there are clear benefits – a 70 percent contribution to Wales's renewable energy target, jobs for 150 people and the capacity to power half the homes in Wales. On the other hand, you have some increases in emissions that lie well within EU standards. And the plant is a heck of a lot cleaner than a coal-fired station.

If anyone at the Environment Agency looked at the greenhouse gas aspect of the emissions, they're not saying. Gram for gram, nitrous oxide is 298 times more potent than carbon dioxide. Someone needs to be making sure the annual three million tonnes of wood chips and pellets are coming from renewable sources.

### Fishy furore

Hats off to Hugh Fearnely-Whittingstall for bringing the story of fish discards right into our living rooms. We've all known about the practice for years and we've all moaned about it. Yet few of us have been in a position to do much besides insist on line-caught fish, if we've even done that.



If you didn't see his programme, aired in January, it showed tons of fish being thrown back into the sea because EU quotas were being exceeded. His website claims: "Half of all fish caught

in the North Sea are thrown back overboard dead." That was the main point but other stories emerged, such as the surrounding wildlife that gets caught up in purse-seine nets. It's not surprising, given that there's nothing selective about what goes into a mesh bag, which is closed around whatever is in the way. Sadly, such things included, for some African tuna fishermen, dolphins and turtles.

Maybe this kind of "collateral damage" has been acceptable in the past. Or maybe it has just been swept under the carpet. No more. At the time of writing this piece, 616,272 people had signed his anti-discard petition ([www.fishfight.net](http://www.fishfight.net)), which will be sent to Commissioner Maria Damanaki, members of the Common Fisheries Policy Reform Group and all MEPs. If it's still open, perhaps you'd like to sign it too?

### A show and a week

Climate Week ([www.climateweek.com](http://www.climateweek.com)) is for those who want to influence or be influenced in matters of climate change and what we can do about it. There'll be a medley of events, small and large, all focused on raising awareness and inspiring people to take positive actions.



Its primary commercial supporter is Tesco and its "supporting partners" are Aviva, EDF Energy, Kellogg's and RBS. The event will run from 21 to 27 March.

During the same week, on 25 and 26 March, the UK Aware green and ethical lifestyle exhibition and conference ([www.ukaware.com](http://www.ukaware.com)) will run at London's Olympia 2. Now in its fourth year, it will sport 150 exhibitors, 50 speakers and expects around 10,000 visitors. Tickets are £7.

### Responsible business guidance

This 17–18 March sees the first Responsible Business convention ([www.responsiblebusinesssevent.org](http://www.responsiblebusinesssevent.org)), set up to help businesses establish long-term, sustainable business models with economic, environmental and social value. The event is aimed primarily at business leaders and CSR professionals.

It is the result of a not-for-profit partnership between United Business Media's Responsible Partnerships Exhibition and Business in the Community's Responsible Business convention. The event will take place at the Design Centre in Islington.

Fifty global business leaders will share their experiences in 22 sessions alongside an exhibition of 150 organisations selected from charities, voluntary organisations and social programmes. As ever with these things, the networking value will be high.

The exhibition is free to attend. The conference costs up to £1,100 (+VAT).

### A warm farewell

Redditch Council leader Carole Gandy is getting it in the neck for suggesting they use dead bodies to heat the local swimming pool.

Of course, it's not quite that gruesome. She's actually talking about using the waste heat from a crematorium to warm water for the leisure centre next door rather than venting it to the atmosphere, which is currently the case.

The story sparked masses of media coverage, mainly of the "shock, horror!" variety. But, when it comes down to it, is a heat exchanger really such a big deal? It will cut the leisure centre's energy bill by £14,500 a year and bring associated environmental benefits.

Rather than give the woman a hard time, someone should give her a medal. What do you think? 🌍

# Green Homes: Will Patience Pay?

**Architect Luke Tozer takes a close look at the realities of sustainable housing.**

Few people commission a home directly. Most houses are provided by builders, developers and registered social landlords (RSLs) who then sell or rent them to occupants.

People on Kevin McCloud's *Grand Designs* programme ([tinyurl.com/aw3ssv](http://tinyurl.com/aw3ssv)) are ahead of the curve and can usually afford to indulge their environmental preoccupations. Spending a few thousand pounds in upgraded insulation seems cheap when building from scratch, though investing far beyond the building regulations still takes longer to pay back than the average house stay of seven years.

The Feed-in Tariff's introduction last April changed the market in renewables for householders. It's now possible to get a decent rate of return, assuming you have the right conditions of orientation to take advantage of it. But it would be foolish to install such technologies without minimising the carbon footprint of the house in the first place.


The demonstration houses at the British Research Establishment ([www.bre.co.uk](http://www.bre.co.uk)) innovation park outside Watford show how far you can go and how much you can spend to achieve an ambitious low-energy home on a one-off basis, but the general lessons are rather harder to extrapolate. The Coalition Government's Green Deal, representing an attempt to move the market in retrofitting fabric improvements, will start coming on-stream in 2012. Intelligently the costs of the work stay with the house, even if the owner sells and moves, and are paid back through energy bills over time.

The Technology Strategy Board ([www.innovateuk.org](http://www.innovateuk.org)) Retrofit for the Future projects should provide further evidence that can be applied more widely. Costs are likely to fall significantly through economies of scale.

House builders and developers generally seek the most cost-effective way of meeting planning and building regulations requirements. But without long-term interest being retained in the land, and with no demonstrable premium for a sustainable home, few house builders can afford to pursue sustainability aggressively.

Social landlords have motives other than pure profit and often need to address issues of corporate responsibility for themselves and fuel poverty for their tenants. After all, building a home that needs no heating means even the poorest can afford to live there.


Registered social landlords and local authorities often have large housing stocks with long-term tenants, and undertaking refurbishment works with people in situ presents real challenges. Effective communication and tenant liaison, coupled with simple straightforward controls, are critical for the ongoing success of any sustainable scheme. A household's carbon footprint is dramatically affected by its occupants' lifestyle choices, as well as by the fabric of the house. Research suggests that two neighbouring low energy households can have a threefold difference in carbon footprint, so helping occupants understand how best to use buildings and make low energy choices is vital.

The key to pursuing sustainability is long-term interest in what's being built. If you're a private developer needing to sell quickly to recoup your investment, it's simply not economically feasible to pursue sustainability beyond the minimum demanded by planning and building regulations. A wider take-up of sustainable housing can happen only when long-term planning for sustainability also pays dividends in the shorter term, or when real financial benefits accrue from retaining a long-term interest in the land. 

Le Corbusier named a house "a machine for living in" in 1923 but today it might be more accurately called "a machine for living in sustainably". By 2016 all new homes in the UK are due to be zero carbon, with incremental carbon footprint reductions for the trickier existing building stock leading to an 80 percent reduction by 2050. Legislation changes force behavioural changes, so the main tool for achieving these is in the building regulations, with stepped improvements along the way.

Yet people are building sustainable houses that go beyond current requirements – why? For homeowners and institutional investors the reasons differ, but for both it's as a result of longer-term thinking rather than a quick return on investment.

Even now the cost benefit of reducing the environmental impact of a home is difficult to value except by anticipated reductions to energy bills. The energy performance certificate helped, but few estate agents regard a good score as a major selling point, as the lack of empirical evidence makes it hard for a purchaser to factor it into their criteria. Location and size come first, with energy performance, if not quite last, very low down the list. Clearly this could change if energy costs continue to rise, but for now if you're building a sustainable house it's usually for reasons that are not immediately financial.

Some of the more patient developers and long-term investors, such as Grosvenor Estates, have started building high-value, low-energy apartments. These will test whether there is, or could be, a premium for low-energy housing in the way there has started to be in commercial buildings. Still, it's early days. 

[www.pitmantozzer.com](http://www.pitmantozzer.com)





# Greening our Public Transport

**Nick Slawicz takes a look at the environmental merits of our two most popular public transport systems.**

It has been noted – often jocularly, but never without merit – that if people living in cities at the beginning of the 20th century had been able to foresee how the population would grow over the next hundred years, they would have had two questions about the future of their transport system: where will we get enough horses, and what will we do with all the manure?

Though technology swept in before equine breeders and street cleaners were stretched to their limits, a raft of new questions has emerged. Is public transport sustainable in the 21st century? What can we do about congestion? How can we reduce the impact our public transport systems have on global warming?

Britain is an increasingly urban nation: in 1950 79 percent of people lived in cities; by 2010 over 90 percent do and the figure is projected to grow – albeit slowly – until 2030 at least. Currently 11 cities in the UK have populations of over 300,000. Of these London is the one paving the way to a greener future – and rightly so.

London contains almost 8 million people, and to ensure their transportation needs are met without returning to the “pea souper” fogs of history it has had to develop some novel ideas regarding its public transport systems. The congestion charge and Boris Johnson’s bike rental scheme are widely touted as successes in the capital’s fight to be green, but recent efforts have been focused on shaking up one of the most recognisable elements of the city: the buses.

London’s bus network currently handles some 1.8 billion passenger journeys every year and runs to a fleet of 8,500, of which 100 are diesel-electric hybrids (a figure planned to swell to three times that size by the end of 2012, with eventual plans for all new buses in the city to run on hybrid technology). The city has long had a reputation as a hub of green public transport development, most notably as a result of taking part in a Cleaner Urban Transport for Europe (CUTE) trial from



December 2003 to January 2007, and it’s a good thing too: around 20 percent of London’s CO<sub>2</sub> output comes directly from transport, and 5 percent of that comes from buses. It’s less than you’d expect if these journeys were taken by individuals in cars, but still a substantial level of emissions that needs to be brought to account if London has any chance of meeting its goal to lower its carbon emissions by 20 percent by 2020 and 60 percent by 2050.

Thankfully, the city might have a solution. Transport for London has recently unveiled five hydrogen cell electric buses on various routes around the city, and is hoping to add another three by the end of the year. As with any hydrogen cell vehicle, the buses burn clean at the point of consumption (producing only water as a by-product) and are practically silent. Assuming they continue to prove as popular with the public as they seem to have done so far, London might be making strong steps in shaking off its “Big Smoke” image and bringing public transport bang up to date. 🌍

Though buses have a reputation – like most other petrol and diesel-fuelled vehicles – for being smoky and bad for the environment, the country’s railway networks got on to the green bandwagon early, and have stayed there throughout. One of



the major selling points about rail travel is its environmental value when compared with flying or driving, with the CO<sub>2</sub> level

of Virgin’s fleet of electric Pendolino trains estimated to be at least 76 percent less than cars and 78 percent less than domestic flights. Even pure diesel trains are estimated to be massively better for the environment than buses, with an average miles per gallon per passenger rating of 182 compared with buses at 98, according to figures released in 2005 (although both of these figures put short-haul flights to shame, offering as they do only 40mpg per passenger).

Virgin Trains is currently looking at twin-fuel source trains for the future – that is, those capable of running on either electricity or diesel – and while a much-lauded trial scheme in 2007 to run trains on biodiesel wasn’t picked up for application to the whole fleet, other environmentally-useful technologies that were first mass-applied to the railways are now widespread on a variety of other types of transport. The most notable of these is the system’s use of regenerative braking, which returns electricity to the National Grid whenever a driver attempts to slow down, saving enough energy in a year to power almost 12,000 homes.

As urban sprawl and population growth continue onwards, it’s always refreshing to find that both industry and local government are finding new ways to deal with common ecological problems while providing valuable public services to the nation as a whole. 🌍

# Join the homegrown energy movement

Good Energy is an energy supplier with a difference – we believe that the way energy is made and used in the UK needs to change. All of our electricity is 100% renewable and our main tariff is independently certified by the Green Energy Supply Scheme.

We believe energy doesn't have to come from big power stations, it can be made by ordinary people up and down the country. As well as making our own electricity from our wind farm in Cornwall, we support more than 1500 independent renewable generators around the country.

By joining the greenest possible electricity supplier, homes and businesses have the opportunity to play a part in something important.

**Switch now and quote 'Blue and Green' and you'll get £25 off your first bill.**

Electricity and gas prices held during the winter.



[www.goodenergy.co.uk](http://www.goodenergy.co.uk)

0845 456 1640



Together we do this





# Avoid Plane Strain

***Forget airport and flight hassles; go continental on a train out of St Pancras suggests Simon Leadbetter.***



You just have to love plane travel. There's the adrenaline-fuelled thrill as the engines roar on take-off and your stomach drops through your boots, and the spectacular mile-high views of our blue green planet. But best is the discomfort of arriving two to three hours before your flight, getting up two hours before any civilised person rises, pointless belt and shoe removing and trudging in long lines through machines that irradiate everything you own, packing no more than 100ml of any liquid in clear plastic bags and ensuring you have neither tweezers nor nail clippers in any cavity. Then there's the brightly lit shopping mall atmosphere and service station cross-section of society as you wait for your plane, impending thrombosis and, regardless of the class you travel, the mind-numbing, bum-numbing, soul-crushing boredom of the long-haul flight. Let's face it, plane travel, as a rule, is rubbish.

British Rail commissioned Tony Kaye, then of Saatchi & Saatchi, to create an evocative advertisement called "Relax" featuring a chess-playing passenger, redneck blues and a sepia monochrome. The only reactions it appeared to provoke were bemusement and ridicule. British Rail was certainly not getting there in 1988, with out-of-date rolling stock, a fictional timetable and plastic-tasting food at temperatures that would have put Hiroshima on 6 August 1945 to shame. Train travel, it seems, is also rubbish.

But what's this at George Gilbert Scott's Victorian Gothic temple to the gods of rail travel, St Pancras? I ascend escalators from the undercroft into a true crystal palace under a clear blue sky – William Henry Barlow's triumph in creating the largest single-span structure of its time. Historically St Pancras was an awful station, dingy and depressing, serving the East Midland cities of Leicester, Nottingham and Derby. What a change the three short years from 2004 to 2007 and a small investment of £800m can make (only £480m over budget)?

For those interested in this sort of thing, Saint Pancras was an early Roman convert to Christianity beheaded for his faith at the age of 14 in AD 304. He lent his name to one of the oldest sites of Christian worship in England, St Pancras Old Church on Pancras Road in Camden, which in turn lent its name to the surrounding area and international railway station. If you want to venerate Saint Pancras you do it on 12 May and you can invoke him

against cramp and headaches. Worth considering when you're stuck on a cramped Ryanair plane at 36,000 feet in a metal tube and outside temperatures of -36°. St Pancras, the station not the man, was completed in 1868 and the now-famous hotel, used as a backdrop to Ian McKellen's Richard III and as King's Cross in the first Harry Potter, was opened in 1873 but both suffered much reduced usage from the grouping of private companies before WWII, significant and unrepaired bombing during it, nationalisation reducing demand further and subsequent privatisation. Largely redundant by the 1960s Sir John Betjeman led a successful campaign to prevent its demolition, which would have been a national disgrace. Just look at Euston. It was as the Channel Tunnel developed that the idea of using St Pancras as the London terminus was first mooted by Michael Heseltine, before being rejected by John MacGregor in favour of Waterloo. It re-emerged only in the late 1990s in the final days of Major's Government. You can say thank you to Sir John on the upper concourse near the escalators.

It was in this cavernous setting that my family and I sipped champagne at the eponymous bar before ambling to the Eurostar check-in, were whisked through a straightforward and rapid security process and then relaxed, sipping coffee and nibbling croissants as we waited for our train – all in the space of 30 minutes. After we boarded the comfort of Business Premier we were whisked passed the Olympic Village in Stratford, gradually accelerating to speeds of 140mph through a sun-dappled Kent countryside. A perfectly acceptable La Baume Chardonnay accompanied a superb lamb tagine for me while Mrs L. enjoyed a trout soufflé with crayfish sauce and tail.

As the English countryside retreated and the French countryside arrived we relaxed, racing towards and beyond Lille, Paris, Le Creusot, Valence and arriving in Avignon some six hours later. Six hours might sound a long time but we did the maths – the difference wasn't much more than flying and we had none of the hassle or discomfort. Rather than being an unloved bookend to the holiday, our train journey became a hugely enjoyed part of it, with freedom to walk around, excellent food and great views.

A train journey creates just over a quarter of the carbon emissions of an equivalent plane journey. Train travel isn't just getting there. It seems to have arrived. 🌍



# near & far

Introducing Blue & Green Travel  
Luxury travel without the footprint

**A bespoke travel  
service that won't cost  
the earth**

Seeing the world is good. It opens our minds, and shows us we have more in common than that which divides us and providing valuable income to the countries we visit

**Luxury travel without  
compromising our planet or  
its people**

But travel comes at a cost especially when travelling damages the environment and if the people who staff the hotels and resorts we visit are treated badly or the locals don't benefit

**In this magazine's first  
class lounge in this  
magazine in 2011**

Blue & Green Travel will give you the confidence that you're getting there in the least harmful way, and that the locations you visit have a good record of treating their people and environment well

**Coming in March 2011**

**blue & green**  
travel

# Onshore Wind: The Second Generation

**Jessica Knowles looks at how onshore wind will continue to play a key role in the UK's renewable energy future.**

The UK has a legally-binding target to source 15 percent of its energy from renewables by 2020. Electricity supplier Good Energy believes that we shouldn't stop there, however, and has developed a pathway that can lead the UK to generating 100 percent of its energy from renewable sources by 2050. The company's research shows that around half will come from offshore wind, a quarter from onshore wind and the remainder from other renewable technologies.

While offshore wind is still in its infancy, onshore wind is a more mature technology and is now entering its "second generation". Good Energy's own wind farm, at Delabole on the North Cornwall coast, has recently been redeveloped with the support of the local community to take advantage of new technical advances – it's proved a fantastic example of how the UK can harness nature's resources more efficiently.

Delabole was the UK's first commercial wind farm, set up in 1991 by the Edwards family to counter plans for a nuclear power station in the area. Good Energy bought the wind farm in 2002, though the Edwards continue to play a role in the business. Martin Edwards explains how he sees the future of onshore wind: "It lies in small to medium sized turbines built on farms and industrial sites alike, which will become a normalised part of business, softening the blow of the inevitable growth in electricity prices."

The other key driver for change will be continuing improvements in onshore wind technology, which will lead not only to greater efficiency, but also open up other less windy sites to the benefits of wind generation. "There is also likely to be a surge in commercial wind farm applications situated on lower wind speed sites due to advances in technology," Edwards says.

In 2007 Good Energy embarked on a £12 million project to make the most of better turbine technology and redevelop the Delabole wind farm. From the outset it recognised the importance of involving the local community in the plans. The company offered local residents a choice between replacing the 10 original turbines with either 9 smaller or 6 larger turbines. Photomontages illustrated their impact on the landscape and gave information about the carbon savings for each option. The larger ones won by an overwhelming majority.

Delabole the first generation	Delabole the second generation
Number of turbines: 10	Number of turbines: 4
Installed: 1991	Installed: 2010
Turbine Model: Vestas Windane 34	Turbine Model: Enercon E70
Hub Height: 32m	Hub Height: 64m
Rotor Diameter: 34m	Rotor Diameter: 70m
Tip Height: 49m	Tip Height: 99m
Power: 400kW	Power: 2.3MW
Annual Output: 10,000 MWhs	Annual Output: 25,800 MWhs
Enough to power around 3,000 homes	Enough to power around 7,800 homes

With such strong community support, the project took just nine months to get through the planning process, which is very good going for such a project.

Edwards believes Delabole to be a role model for other developers to emulate: "The case of Delabole only emphasises the importance of involving the community in future onshore wind farm

developments across the country. I hope this management style will become more frequently used and will serve to reduce the fear of the unknown which is a major cause of objections."

The process of wind farm development can be challenging for residents in a rural area, with huge pieces of machinery having to be manoeuvred along small country lanes.


However, keeping residents informed at every stage can foster reciprocal support.

"The wind farm at Delabole is as much a part of this village as our slate quarry," said Delabole resident Sonia Hawkey. "Having turbines back on Deli Farm gives us back the 'Delabolian' panorama, taking in Roughtor, Brown Willy and the Atlantic, and best appreciated from the edge of the quarry with the wind in your face."

The redevelopment was completed in December 2010. The four new, larger turbines (99.5m to tip height) have increased the generating capacity of the wind farm by two and a half times, saving over 13,700 tonnes of CO<sub>2</sub> emissions per year. Yes, the Delabole turbines are now visible from further away, but local residents clearly feel it's worthwhile – in fact they often ask why Good Energy can't fit more turbines on the site.

The greater turbine height allows for a more consistent wind, less affected by turbulence caused by obstructions such as buildings and trees. And as they're gearless with fewer moving parts, the new turbines require less maintenance and can perform at higher wind speeds owing to improvements in technology. They are more expensive to install initially, but they're more cost effective over time thanks to their higher power output.

Juliet Davenport, founder and CEO of Good Energy, explains her delight at "taking Delabole into its second generation of onshore wind power. The increased capacity of the new turbines serves to illustrate how successful innovation in this field has been over the last two decades. With projects like this, the UK moves ever closer to a 100 percent renewable future."

The windiest country in Europe, the UK currently gets just 2.2 percent of its electricity needs from wind power. Provided local communities are involved, onshore wind has a clear role to play in a 100 percent renewable future. 

Jessica Knowles is Good Energy's wind farm project developer. For more information visit [goodenergy.co.uk](http://goodenergy.co.uk)







## Profitable Sustainability

***Caroline Rennie describes how working sustainably can help to make companies more profitable.***

In 2005 H. Lee Scott, then CEO of Walmart, announced that his company, one of the world's largest, was committing to zero waste, sourcing 100 percent of its energy from renewables and selling products that sustain the environment. Within a few years M&S and Tesco were making similarly bold announcements, as were suppliers such as Procter and Gamble, Unilever, Coca-Cola, Pepsi, Kraft and a slew of others.

What gives? Most businesses believe sustainability means additional costs, so how could retailers in an industry with profit margins of 2 to 4 percent be boldly sustainable yet still profitable? Is it just an exercise in PR?

Past experience would suggest we be sceptical – as the Greenwashing Index, SourceWatch and StopGreenwash websites demonstrate. But this time it's different.

Yes, greenwash takes place. But the big boys are now playing a far more comprehensive and sophisticated game. They've discovered that sustainability saves them money, motivates employees and aligns them to common goals and values, and makes meetings with analysts and shareholders more meaningful. But, most importantly, they've learned that *engaging* with sustainability issues gets them much better intelligence about what customers and stakeholders really want. In short, sustainability helps them grow.

M&S last year announced it has saved £50 million since 2007 through energy and waste reduction, logistics and packaging redesign, and hundreds of small initiatives. Ray Anderson, founder and Chairman of Interface, a carpet manufacturer, says sustainability has saved his company \$364 million over 10 years. At Walmart, Mike Hagood, Senior Director of In-Store Logistics says: "We no longer see a cost with waste. If you take our reduction and waste hauling expense, then add recycling income, we now see a profit in these areas." Greg Trimble, Walmart's Senior Director of Global Energy Development and Reporting says: "We are saving more than \$150 million dollars in energy and refrigerant expenses each year."

So at the factory/store level, reducing energy and waste means making money. And, for a retailer, a pound saved is the equivalent of £12 of revenue.

However, without a top-level commitment to sustainability, companies would be unlikely to save so much. When marketing says, "We need extra-strong lights to make frozen foods look good" and operations says, "Those lights require extra coolers to cool the freezers," it's likely that the sales argument will trump the savings one – since savings might hurt sales. But, when Walmart committed to sustainability and established working groups to determine how to meet its targets, one cross-functional group quickly discovered that installing LEDs inside the freezers provided all the light they needed, at 1/100 the electricity demand, eliminating the need for extra coolers.

### **Where does top-level commitment come from?**

Investors have become more interested in assessing the impact of sustainability on a company's economic value. The Carbon Disclosure Project (CDP) was set up by the largest financial institutions in the world, which control \$64 trillion in assets. Public companies report risks to them of, as well as their impact on, climate change. For example, they might compare the impact of producing in few facilities with global distribution against distributed production and local transportation. Critically, this information is openly available on the CDP's website.

In 2005 355 companies responded. Today 2,500 respondents – including consumer product companies such as P&G, Unilever, Walmart and Coca-Cola – report. Success has encouraged expansion: the CDP now ensures that impacts along the value chain from raw material to product are assessed through supply chain reporting. It has also expanded its remit to include water. Similar initiatives focusing on forestry, packaging and recycling are making supply chain behaviour increasingly transparent.

Just as important as transparency is the practical reality of working within resource limits: Unilever used to be the world's



largest fisherman but faced decreasing catches. It built larger boats, but though catches increased briefly they soon started to decline again. Eventually Unilever realised it was fishing at a rate higher than the fish could reproduce, thus systematically depleting stocks.

Despite forming the Marine Stewardship Council with NGOs to develop standards and labelling for sustainable fish, progress was so slow that Unilever determined it wasn't possible to run a profitable fish business and sold its interests. Today Findus, among others, is complaining that the rising cost of fishing exceeds consumer willingness to pay.

So a smart understanding of a company's resource needs can ensure profitability through both investment and judicious disinvestment.

Sustainability breeds profitable innovation too. When carpet company Interface committed to being fully sustainable, it started to break some deep traditions like Six Sigma, a process that aims at product perfection. As the company's engineers and designers studied sustainable design principles, they realised that nature doesn't do perfection – it does aesthetically and practically useful variation. Do adjacent carpet tiles really have to be identical? The company launched two lines of floor covering based on these insights and each became a bestseller within a year.

And sustainability can increase consumer loyalty: P&G studied its detergents (Ariel, for example) and realised that as much as 90 percent of their life-cycle impacts came from heating water in the washing machine. By developing cold-water Ariel and promoting it widely – for example in the “Turn to 30” campaign – P&G has reduced consumers' energy costs and considerably reduced the environmental impacts associated with detergents and washing clothes. It has also increased loyalty: benefit-led sustainability increased sales by a reported 10 percent in 2009. It further developed ultra-concentrated detergents that lowered transportation, packaging and logistics costs, thus saving retailers money and securing itself better shelf prominence and enhanced sales.

In 2009 General Electric invested \$1.5 billion in “Ecomagination” products, with a commitment to put in another \$2 billion a year for the next five years. It has made \$18 billion on these products so far and is aiming to double the rate of growth of green products relative to its traditional offerings.

As these examples demonstrate, sustainability doesn't have to be consumer-driven to be profitable.

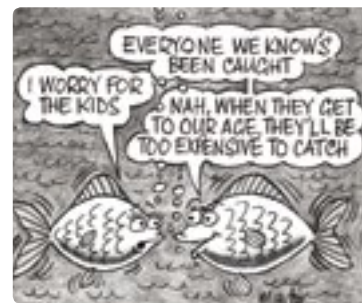
These changes are happening remarkably quickly. In 2000 almost no major consumer goods company was making public commitments about its environmental performance.

By 2005 Walmart and Campbell's were. Since the beginning of 2010 most of the major consumer goods companies have made public commitments regarding their sustainability performance across a broad array of criteria: waste reduction, consumer packaging and packaging waste, renewable materials and energy, energy reduction and greenhouse gas reduction. Not only do they have commitments, they have ambitious commitments. For example:

- Unilever has committed to doubling its sales while reducing its absolute footprint.
- P&G has committed to no consumer waste from its products and packaging, 100 percent of its energy use from renewable resources and 100 percent use of renewable or recycled materials in its packaging.
- Campbell's has committed to reducing its environmental footprint by 50 percent and using 75 percent renewable material for its packaging.
- Coca-Cola and Pepsi have both committed to being water neutral in the communities they produce in.

These companies understand how to align their businesses with sustainability imperatives. And this has turned out to be profitable because they can create brand new business models, grow new product lines and protect themselves from the price shocks associated with limited natural resources. The better that companies understand sustainability, the better their business drivers reflect public expectations, Nature's constraints and market benefits, meaning that everybody wins. 🌍

Caroline Rennie is founder and managing partner of ren-new, working with people in organisations to make sustainability profitable.  
ren-new.com



## Sustainability actions you can take

### When you invest, choose companies that:

- **understand** - they work with NGOs and are transparent;
- **are prepared** - they have stable supplies of raw materials, understand climate impacts and have mitigation plans;
- **demonstrate ambition** - their products and goals meet the big environmental challenges of our time.

### When you're buying stuff:

- **read the labels** - look for certification;
- **ensure sustainable resources** - look for certification of packaging and product;
- **choose fair labour**.

### To support a sustainable world:

- **back the NGOs** that have the greatest impact on businesses (e.g. World Wildlife Fund, Environmental Defence Fund);
- **write to consumer brands** - each letter has a disproportionate influence.

### Within your company:

- **check it has an environmental policy;**
- **develop ambitions, targets and measures;**
- **ensure a cross-functional team is responsible;**
- **adopt public reporting.**



# tempus fugit

## Time flees for tax-free savings

Each year you can invest a sum of money in an individual savings account (ISA) and pay no tax on the interest.\* That's right; pay not one penny of tax on the interest. But you only have until the end of the tax year (5 April) before you lose this year's allowance.

You get a new allowance each tax year but every year's lost allowance is a tax-free allowance gone forever.

Act before 5 April to make the most of your £10,200 tax-free savings allowance.

See pages 22–23 for a guide to your local independent and ethical financial adviser to help choose the best ISA for you.



\* Provided you stay within HM Revenue & Customs guidelines. In accordance with the Financial Services and Markets Act 2000, Blue and Green Communications Limited does not provide regulated investment services of any kind, and is not authorised to do so. Nothing in this magazine and all parts herein constitutes or should be deemed to constitute advice, recommendation, invitation or inducement to buy, sell, subscribe for or underwrite any investment or savings of any kind. Any specific investment-related queries or concerns should be directed to a fully qualified financial adviser.

# Biofuel Backgrounder

*Biofuels are touted as environmentally friendly substitutes for fossil fuels. Nick Slawicz drills into the details.*



In the search for a replacement for petrol and diesel, biofuels once seemed the perfect solution: they can be grown naturally, actually absorb CO<sub>2</sub> from the atmosphere as the plant material grows (releasing it upon combustion to be carbon neutral overall), and – thanks to the wide variety of crops and waste products that can be turned into biofuel – are suitable for implementation pretty much anywhere on the planet. Yet some argue that life isn't that simple. Is it ever?

Biofuel production can generally be put into four distinct categories: first-generation, which refers to fuels made directly from sources such as starch, sugar, animal fats and vegetable oil; second-generation, which includes fuels made from waste products or non-food sources (including wheat stalks and specifically grown energy crops); third-generation, made from algae; and the catch-all fourth-generation, which is used to refer to all other means of biofuel production, including hypothetical new methods and those still in the experimental stage. In many ways, the four categories are massively different, each offering its own advantages and disadvantages with regards to environment cost. All biofuel sources, it seems, are not created equal.

Three years ago, first-generation biofuels were voted bottom on a list of 18 technologies supposed to lower CO<sub>2</sub> levels over the next 25 years. While 70 percent of respondents (governments, NGOs and private sector industry workers from over 100 countries) agreed that solar energy would help to lower overall carbon levels in the atmosphere without unacceptable side effects, and around 40 percent were willing to put their faith in nuclear and second-generation biofuels, only 21 percent believed that first-generation biofuels could compete (EurActiv, 2007).

Although efforts have been made to improve the foothold biofuels are making in the alternative energy industry, in recent years their effectiveness has been called into question owing to emissions of nitrogen compounds with a global warming potential (GWP) of approximately 300 times that of carbon dioxide, not to mention their effect on the ozone layer. Reports from the US National Oceanic and Atmospheric Administration note that nitrous oxide (N<sub>2</sub>O) is currently “the most important ozone-depleting gas that is emitted” and is not yet regulated by the Montreal Protocol which phased out the use of CFCs in the 1980s and 1990s. It's also going to be extremely difficult to control N<sub>2</sub>O emissions, as they result from fertiliser use (and emerge in

the production of most plant products, with the exceptions of legumes and a group of species known as actinorhizal plant that can capture and fix nitrogen from the air).

A recent report in the journal *Nutrient Cycling in Agroecosystems* found that “the contribution of N<sub>2</sub>O emissions from fertilizer production and application make the greenhouse gas balance for certain biofuels small positive or even negative for some crops compared to fossil fuels”, because “N<sub>2</sub>O is a 300 times more effective greenhouse gas than CO<sub>2</sub>” and emissions of nitrogen compounds during the production of biofuel “might be a factor 2-3 higher than estimated up until now from many field trials”. A similar report in 2007 from Nobel Prize-winning chemist Paul Crutzen found similar reasons for concern, which were generally upheld by a third survey by the International Council for Science (ICSU) in 2008. It seems that the biofuel industry needs to convincingly address these issues before biofuel can be embraced as a viable energy source for the future.

That's not to suggest that biofuels are a complete waste of time as the industry stands at the moment – they definitely are not. Certain plants (especially sugar cane and legumes such as soya) produce considerably fewer nitrogen compounds during the production process, making them valid options for future development – despite once again raising the “food versus fuel” debate. The potential for third- and fourth-generation biofuels is yet to be determined. Some of these crops can be grown on marginal land, as long as irrigation is possible and doesn't deprive local populations. Experiments are currently taking place with salt-tolerant crops, in order that sea water may be used instead of fresh water.

So what can you do if you're thinking about investing in a green company? The answer is simple: ask; probe; research. Insist on details. Look at reports from the companies themselves – and from independent scientists and journals. Run an internet search on the production method used. Enquire as to the total environmental impact of the plants being grown, specifically including their nitrogen compound emissions. Probably one of the most pragmatic people when it comes to biofuels is venture capitalist Vinod Khosla ([www.khoslaventures.com](http://www.khoslaventures.com)). Keep an eye on his writings on the subject if you want to keep abreast of developments. As ever, don't just rely on glossy brochures or websites before making investment decisions. 🌱



# Sustainable Fashion: An Oxymoron?

*As London Fashion Week looms, Lena Semaan gets hot under her unfashionable collar about the sustainable rag trade.*



Many of us are more than a bit cynical about the concept of sustainable fashion. The problem is that, by definition and in practice, fashion is about unnecessarily replacing items that are in working order. But is throwing out perfectly decent clothes to buy new ones a very green thing to do?

This dilemma sums up the confusion surrounding sustainable fashion. For some advocates it's about wearing ethical eco-friendly clothes made from materials that won't destroy or upset nature. Their arguments often cite cotton as a major enemy of the planet on the grounds that production of one T-shirt requires a high degree of pesticide. Organic cotton, on the other hand, is free of chemical pesticides. Like other organic fabrics it is mindful of the health of both humans and the environment. Then there is the emotionally named "peace silk", less glamorously known as "vegetarian silk". Rather than being boiled in their cocoon, as happens with conventional silk, moths are allowed to emerge from the cocoon and live out their full life cycle.

Naturally (no pun intended) this kindness doesn't come cheap. In the era of the £1.50 T-shirt, an organically grown T-shirt will set you back at least 20 times that and often a lot more. Meanwhile, Primark's ability to create champagne looks on a beer budget has made it the disposable fashion temple of choice for British shoppers. With skinny jeans for £8 and the ability to purchase an entire family wardrobe for under £100 it's easy to see the attraction for the cash-strapped consumer. However, should you enter a Primark you'll notice that many of its customers do not appear financially challenged. For them, it's more about disposable mass consumption.

Part of the problem is that British consumers have had it too good for too long. Asda's cheapest pair of jeans in 2000 is now cheaper still. But, as always, somebody has to lose out and it's usually the suppliers. The idea of fair trade is very nice in theory, except when West African farmers find themselves unable to compete against the behemoth US cotton industry because of the US Government's \$3billion annual subsidy to cotton farmers.

In short, being nice to the planet and to the poor people who grow stuff for us to turn into ethical/eco-clothing is a relatively expensive business. This brings us back to the definition of

fashion. Over the past 20 years clothes buying has changed from something you do a few times a year to a major activity pursued on an almost daily basis. It's cheap, it's fast and it offers instant gratification to a society that hasn't got the concentration to think beyond 140 Twitter characters and Sky Plus.

The fact is that our desire for fashion is inextricably bound up with our desire for a world in which everything is immediate and nothing is delayed. Ironically, Primark itself sums this up better than anyone else in its description of Primark Online: "the best place to ... get the best cheap designer clothes without leaving your house".

**Part of the problem is that British consumers have had it too good for too long.**

Twenty years ago people happily saved for a new pair of jeans or that special dress. Investment dressing wasn't just a fashion phrase; it was a way of life. Nowadays, while it seems easy to blame retailers, we need to recognise that they are simply part of a society no longer concerned with the long term and sustainable. This is potentially the real barrier to sustainable fashion and a sustainable society. The scandal of boiled moths and pesticide-ridden cotton is simply a subset of the bigger issue; by focusing on production methods we ignore the wider problem of a society that wants everything fast, easy and shiny.

No matter how many trendy designers set up organic farms on sun-kissed African coasts, no matter how many times Vivian Westwood opines that "climate change matters", the fact is that unless we can change the mass mindset it's difficult to see how fashion can morph into something that isn't about an instant fix. Whether it's politicians or badly-made cheap clothes, we get what we ask for. And until we stop asking for cheap throwaway goods regardless of the effects, the words "sustainable" and "fashion" really don't belong together in the same sentence. 🌍



## Protecting Your Children

**Lee Smythe asks what happens to our children in the event of our death.**

Most people want a better life for their children. But perhaps not so clear are the financial implications for children should they find themselves without parents. It is important to have an up-to-date will, especially if you have young children, as this is your opportunity to dictate who should look after them in the event of your death. Otherwise the state decides.

If something happened to you, where would the money come from to raise your children? If the main wage earner dies their income would need to be replaced. But what if the main carer dies and the wage earner has to continue working? And what if both parents die – would the children's guardians be able to afford the additional cost?

Research shows that most people are woefully underinsured, owing to reluctance to address mortality or to misconception about cost. For a healthy non-smoking 35-year-old man, £250,000 of life cover for 25 years costs as little as £17.50 per month – family security for less than the cost of a bottle of good wine each week.

That covers in the event of death. But much more likely is that you'll suffer and survive a "critical illness", such as heart attack or cancer, before you are 60. This can have a worse financial impact on your family, as you may be unable to work but still have bills to pay, possibly more. For the same man, the monthly cost is around £86, which is roughly equivalent to the Child Benefit for a single child. 🌍

Lee Smythe is Managing Director of financial planners Smythe & Walter [www.smytheandwalter.co.uk](http://www.smytheandwalter.co.uk)

## Investors for Biodiversity?

**Mark Robertson argues the case for green investing.**

You might think governments and companies, under acute financial pressure and still recovering from a grim recession, would be quietly burying their commitments to sustainable business practices. In fact, they're doing the reverse.

Over the last few years, major economies including the US, UK, China and Korea have announced detailed stimulus packages to support sustainable businesses as part of their recovery plans. In the UK the Coalition Government has announced plans for a green investment bank to support renewable energy businesses (though these plans might be scaled back and replaced by an investment fund). Not only would this help to bridge short-term funding gaps of green technologies arising from the economic downturn, but it would also pave the way for longer-term sustainable growth.

Climate change is financially significant to all companies. It presents a systemic risk: both the threats posed to the economy and the financial impact of ignoring climate change are significant,

as the Stern Review explained. Increasingly, businesses are recognising that long-term commitment is needed to address climate and other critical sustainability issues. Major companies such as M&S and Walmart continue to invest in sustainability initiatives on account of the significant efficiencies to be gained.

Mandatory carbon reporting, increased roll-out of emissions trading (once the EU's security issues are resolved) and growing recognition amongst US policy-makers that America needs to reduce its reliance on foreign imported oil without relying on existing stocks of polluting coal will further boost demand for renewable energy, increase energy efficiency and encourage other industries to adopt more sustainable business practices.

It's likely that governments, companies and investors will continue to provide the necessary long-term support to build a more sustainable global economy. This will continue to create opportunities for investors to make both money and a difference by supporting businesses involved in these technologies. 🌍

IRIS – Experts in Responsible Investment Solutions  
[iris.org](http://iris.org)

## Publisher's Perspective

**Simon Leadbetter discusses the values that drive us.**

Bias, pessimism and scaremongering might seem the norm amongst national media outlets these days, gradually ratcheting up the anger, fear and intolerance that blights society. Well, not at *Blue & Green Tomorrow*, where we aim to be fair, optimistic and responsible:

- fair – we are not dogmatic, but would rather present both sides of an argument so you can form your own opinion;
- optimistic – we believe humanity has the capacity to adapt its behaviour to its changing environment. We are not pessimistic about humanity's future and do not believe we are all doomed;
- responsible – we won't scare you, make you feel guilty, lecture you or confuse you (not deliberately anyway!). Quality journalism plays an important role in exposing untruths and speaking truth unto power, but only when it is free of personal or corporate agenda.

We present competing opinions so you can make up your own minds on what the truth is or isn't. Why? In 1702 Mrs

Elizabeth Mallet founded *The Daily Courant*, England's oldest newspaper. Mallet claimed that she wouldn't take it upon herself to add any comments of her own, in the belief that people have "sense enough to make reflections for themselves".

The team at *B&GT* agrees. We are a thoughtful paper for thinking people who have "sense enough". What you see on these pages is a distillation of painstaking research by the editorial team, which scours the greenwash and discards 90 percent of what we find to be "propaganda". Our objective is to inform, entertain and inspire you to make a difference.

This is our guarantee: independent, fair, optimistic and responsible journalism. Enjoy! 🌍



# Good Advice

*Your guide to finding an ethical financial adviser in your area*

Getting good independent financial advice can be hard. Whether you rely on friends and family, banks and building societies, financial professionals, websites, or the media in general, how do you know you're getting good and independent advice? With the current financial uncertainty the answer matters more than ever.

Importantly, if you want your investments to do some good or you just want to minimise the harm they might be doing, there's a network of advisers which focuses on ethical or socially responsible investment. The Ethical Investment Association (EIA) supports sustainable and responsible finance in both theory and practice, and demands the highest levels of professional knowledge and integrity from its members. Here we showcase a number of advisers who make the grade.

In our view, these are the good guys in financial advice: independent, ethical and experienced. But don't take our word for it – speak to them.

In accordance with the Financial Services and Markets Act 2000, Blue and Green Communications Limited does not provide regulated investment services of any kind, and is not authorised to do so. Nothing in this magazine and all parts herein constitutes or should be deemed to constitute advice, recommendation, invitation or inducement to buy, sell, subscribe for or underwrite any investment of any kind. Any specific investment-related queries or concerns should be directed to a fully qualified financial adviser.

## DERBY

**Firm:** Equity Invest   
**Coverage:** Wimbledon  
**Postcodes:** SW19  
**Contact:** Richard Hunter  
**Address:** 60 High Street, Wimbledon Village, London SW19 5EE  
**Phone:** 020 8879 1273  
**Web:** [www.equityinvest.co.uk](http://www.equityinvest.co.uk)  
**Email:** [advice@equityinvest.co.uk](mailto:advice@equityinvest.co.uk)

**Firm:** Barchester Green Investment   
**Coverage:** Salisbury & Andover  
**Postcodes:** SP  
**Contact:** Bernard Lovesy, Tim Bradford or Andrew Faulkner  
**Address:** Barchester House, 45-49 Catherine St, Salisbury, Wiltshire SP1 2DH  
**Phone:** 0800 328 6818  
**Web:** [www.barchestergreen.co.uk](http://www.barchestergreen.co.uk)  
**Email:** [info@barchestergreen.co.uk](mailto:info@barchestergreen.co.uk)

**Firm:** Stewart Investment Planning   
**Coverage:** Bristol & North Somerset  
**Postcodes:** BS8 & BS48  
**Contact:** Martin Stewart  
**Address:** 1 The Courtyard, Leigh Court, Abbots Leigh, Bristol BS8 3RA  
**Phone:** 01275 371900  
**Web:** [www.stewartinvestmentplanning.co.uk](http://www.stewartinvestmentplanning.co.uk)  
**Email:** [sip@stewartinvestmentplanning.co.uk](mailto:sip@stewartinvestmentplanning.co.uk)

## BRISTOL

## SALISBURY

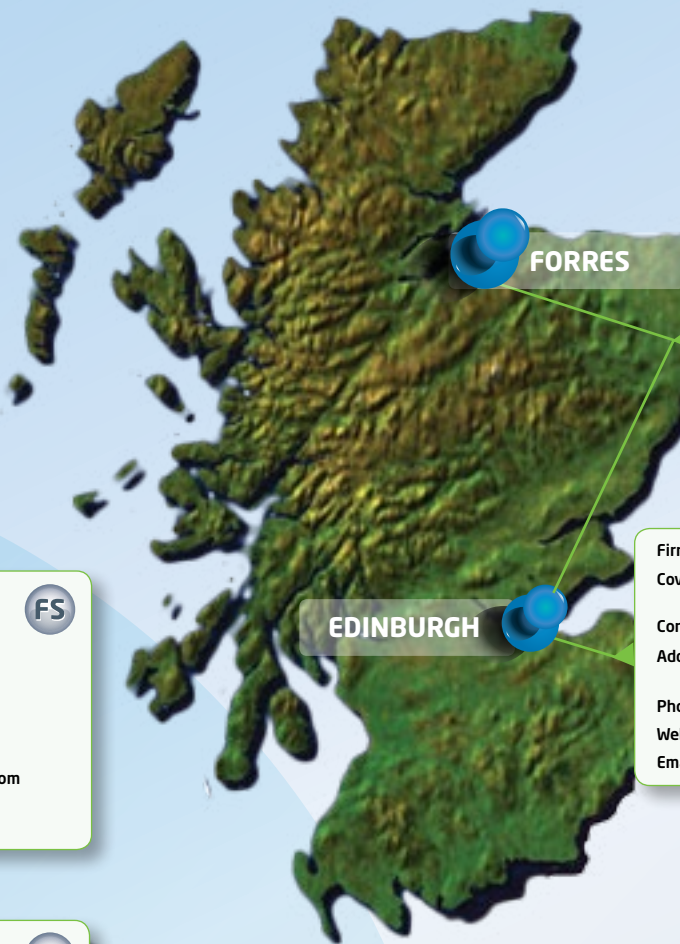
## LYMINGTON

**Firm:** The Ethical Partnership   
**Coverage:** Lymington  
**Postcodes:** SO41  
**Contact:** Jeremy Newbegin  
**Address:** 180 Woodlands Road, Southampton SO40 7GL  
**Phone:** 0845 612 3411  
**Web:** [www.the-ethical-partnership.co.uk](http://www.the-ethical-partnership.co.uk)  
**Email:** [jeremyn@the-ethical-partnership.co.uk](mailto:jeremyn@the-ethical-partnership.co.uk)



FOUNDING  
SUPPORTER





## FORRES

**Firm:** Scott Murray Asset Management **FS**  
**Coverage:** Findhorn & Edinburgh  
Postcodes: IV36 & EH3  
**Contact:** Scott Murray  
**Address:** 9 Clerk Street, Loanhead,  
Midlothian EH20 9DP  
**Phone:** 0131 440 9888  
**Web:** [www.scottmurrayam.co.uk](http://www.scottmurrayam.co.uk)  
**Email:** [enquiries@scottmurrayam.co.uk](mailto:enquiries@scottmurrayam.co.uk)

## EDINBURGH

**Firm:** Ethical Futures **FS**  
**Coverage:** Edinburgh  
Postcodes: EH9 & EH10  
**Contact:** Julian Parrott  
**Address:** FREEPOST NAT 18672,  
Edinburgh EH3 6BR  
**Phone:** 0845 612 5505  
**Web:** [www.ethicalfutures.co.uk](http://www.ethicalfutures.co.uk)  
**Email:** [invest@ethicalfutures.co.uk](mailto:invest@ethicalfutures.co.uk)

**Firm:** Lighthouse Impact **FS**  
**Coverage:** Derby  
Postcodes: DE3 & DE22  
**Contact:** Ash Rawal  
**Address:** Station Road, Micklegate,  
Derbyshire DE3 9FN  
**Phone:** 01332 517 120  
**Web:** [www.ethicalinvestments.uk.com](http://www.ethicalinvestments.uk.com)  
**Email:** [arawal@lighthouseifa.com](mailto:arawal@lighthouseifa.com)

**Firm:** Green Financial Advice **FS**  
**Coverage:** Putney  
Postcodes: SW15  
**Contact:** Ian Green  
**Address:** Erico House, 93-99 Upper  
Richmond Road, Richmond,  
London SW15 2TG  
**Phone:** 0800 170 7400  
**Web:** [www.iangreen.com](http://www.iangreen.com)  
**Email:** [iangreen@iangreen.com](mailto:iangreen@iangreen.com)

**Firm:** Smythe & Walter Chartered  
Financial Planners **FS**  
**Coverage:** Notting Hill, Kensington & Chelsea,  
Chiswick  
Postcodes: W11, W8, SW3 & W4  
**Contact:** Benjamin Walter  
**Address:** 2nd Floor Berkeley Square  
House, Berkeley Square, London  
W1J 6BD  
**Phone:** 020 7887 1989  
**Web:** [www.smytheandwalter.co.uk](http://www.smytheandwalter.co.uk)  
**Email:** [ben@smytheandwalter.co.uk](mailto:ben@smytheandwalter.co.uk)

**Firm:** Smythe & Walter Chartered  
Financial Planners **FS**  
**Coverage:** Canterbury  
Postcodes: CT3 & CT4  
**Contact:** Lee Smythe  
**Address:** 2nd Floor Berkeley Square  
House, Berkeley Square, London  
W1J 6BD  
**Phone:** 020 7887 1989  
**Web:** [www.smytheandwalter.co.uk](http://www.smytheandwalter.co.uk)  
**Email:** [lee@smytheandwalter.co.uk](mailto:lee@smytheandwalter.co.uk)

**Firm:** Smythe & Walter Chartered  
Financial Planners **FS**  
**Coverage:** Sevenoaks  
Postcodes: TN13  
**Contact:** Lee Smythe  
**Address:** 2nd Floor Berkeley Square  
House, Berkeley Square, London  
W1J 6BD  
**Phone:** 020 7887 1989  
**Web:** [www.smytheandwalter.co.uk](http://www.smytheandwalter.co.uk)  
**Email:** [lee@smytheandwalter.co.uk](mailto:lee@smytheandwalter.co.uk)

**Firm:** Bromige **FS**  
**Coverage:** Forest Row  
Postcodes: RH18  
**Contact:** Christian Thal-jantzen  
**Address:** 22 Hartfield Road, Forest Row,  
East Sussex RH18 5DY  
**Phone:** 01342 826703  
**Web:** [www.bromige.co.uk](http://www.bromige.co.uk)  
**Email:** [invest@bromige.co.uk](mailto:invest@bromige.co.uk)

## LONDON

## SEVENOAKS

## CANTERBURY

## FOREST ROW

# Mapping Socially Responsible Investors

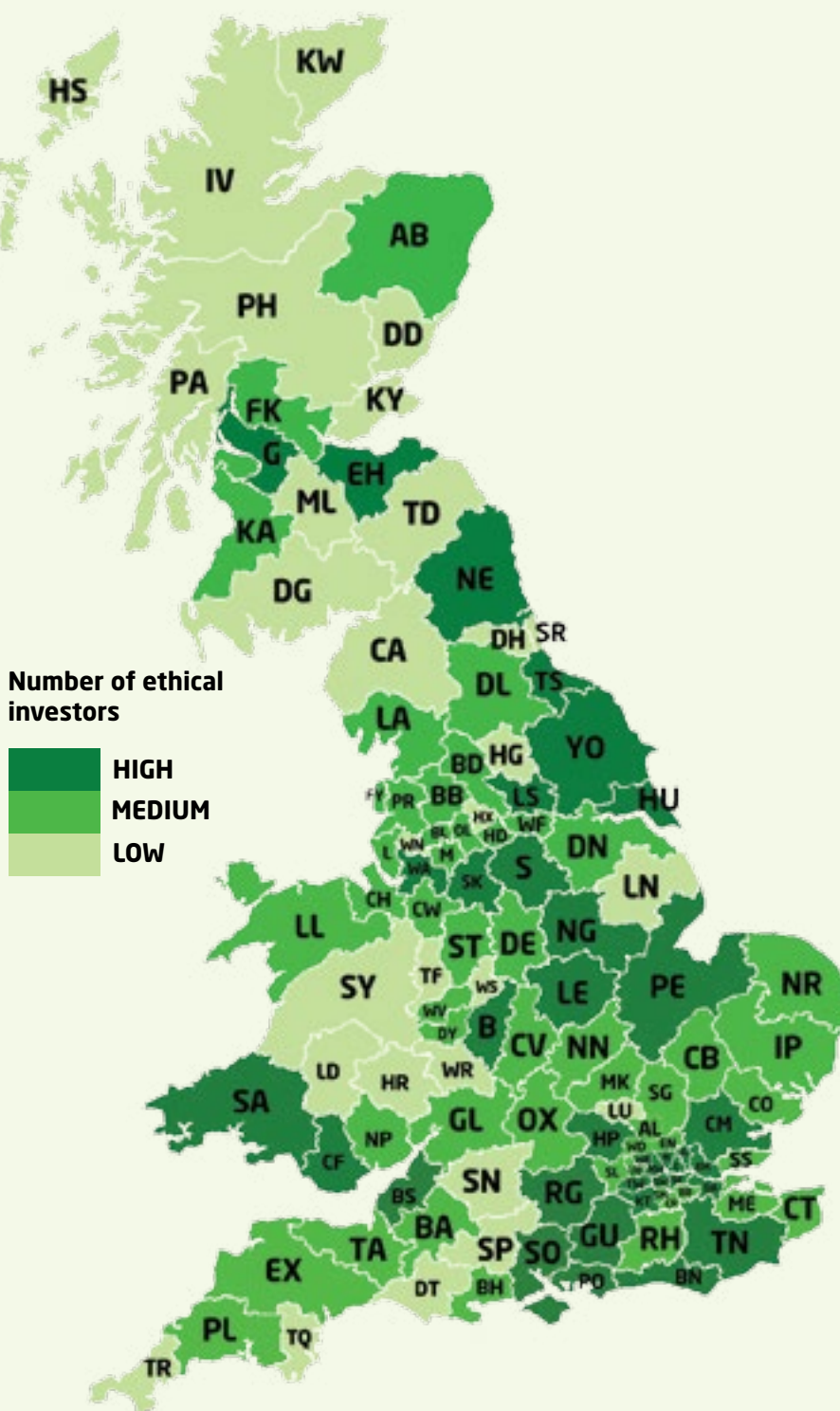
***Socially responsible investors seek to balance people, planet and profit with their investments. Blue & Green Tomorrow looks at where they live in Great Britain.***

*Blue & Green Tomorrow* tries to reach those people who have an interest in sustainable or socially responsible investment, whether that interest stems from a deep commitment to do as much good as possible with their portfolio or from a genuine desire to do less harm.

Over the last six months we've been looking at where socially responsible investors live, by postcode area, and it's thrown up some surprises. While we expected an area like Brighton & Hove, home to the UK's first Green MP, to be a hotbed of socially responsible investment, little did we suspect that the

good folk of Hull would be so committed to ethical or green investment. And while the London commuter belt of Kingston upon Thames, Guildford and Reading came as no surprise, our determination not to be London-centric was borne out by Birmingham, Sheffield, Bristol, Leicester, Glasgow and Leeds all coming in strongly, and Scotland's capital Edinburgh making it in at number 13.

To counter the impact of overall population we'll let the people of the Outer Hebrides off; but there still seems little interest in the towns of Sunderland, Hereford, Durham or Halifax.



## Top 30 postcode areas

HU	Hull
B	Birmingham
S	Sheffield
HA	Harrow
GU	Guildford
BS	Bristol
KT	Kingston upon Thames
RG	Reading
LE	Leicester
G	Glasgow
LS	Leeds
SW	London SW
EH	Edinburgh
N	London N
BN	Brighton
CM	Chelmsford
SO	Southampton
TS	Cleveland
SK	Stockport
HP	Hemel Hempstead
PE	Peterborough
WA	Warrington
TN	Tonbridge
NW	London NW
YO	York
PO	Portsmouth
CF	Cardiff
NE	Newcastle upon Tyne
SA	Swansea
TW	Twickenham



# Green Dragon: Stewart Brand

**David Tebbutt explores Brand's Whole Earth philosophy.**

Stewart Brand is a man who discovers paradigms, figures out how to shift them and then does it. Being born in 1938 gave him a certain advantage. While the sixties generation was still finding its feet, he'd already found his. Mind you, it didn't stop him dropping acid (legally) and hanging out with the Grateful Dead and early hippies. He also secured an ecology degree from Stanford, became a US army officer and participated in the 1968 "mother of all demos", when Douglas Engelbart introduced things like the mouse, conferencing, shared workspaces, word processing, an outliner, hypertext, windows and many other computing aspects that took another 20 to 30 years to become popular.

Brand has a talent for being in the right place at the right time – if you discount his childhood, that is. He grew up in Rockford, Illinois, the child of an advertising copy writer and a liberal arts graduate. He feared nuclear annihilation and loved nature. In fact, he still talks about the conservation pledge he took as a 10-year-old "to save and faithfully to defend from waste the natural resources of my country – its air, soil and minerals; its forests, waters and wildlife".

Life in Rockford wasn't all bad; but the bright lights of California and New York soon beckoned. There Brand fell in with some curious bedfellows in the arts and computer fields as he flitted around his bohemian world, taking it all in before bursting forth with some event of his own.

In 1966 Brand jumbled together people from all his different communities into a giant three-day "happening" called the Trips Festival in San Francisco. Where else? That same year he could be seen sporting (and selling) badges asking: "Why haven't we seen a photograph of the whole Earth yet?" The following year the ATS-3 satellite took exactly that picture, which quickly became a catalyst for the global ecology movement. For the first time we could see how we're all bound together on spaceship Earth.



wrote the *Whole Earth Software Catalog*, for which he pulled the largest ever advance for a paperback, \$1.3 million. Such was the pace of software development that the book was out of date as soon as it was published.

He's sidestepped that particular problem with his 2009 book, *Whole Earth Discipline: An Ecopragmatist Manifesto*, by providing a website for live updates. Brand's not ashamed to change his mind in the light of fresh evidence, but his espousal of nuclear power, genetic modification, dense cities and geo-engineering in this book has caused many a shock among his fellow eco-travellers. However, he argues his cases carefully and still leaves you to decide what to accept or reject. This is one of his talents: identifying where we're headed, suggesting ways of getting there and then letting us get on with it while he scoots off to his next project.

Brand splits most of his working time between two organisations he co-founded: The Long Now Foundation, of which he's president, and the Global Business Network (GBN), a future-looking consultancy where he mainly reviews books. Part of The Long Now plan is a clock that will tick once a year for 10,000 years. A 1/50th scale prototype is in London's Science Museum; though the real thing will be hidden in a Texas mountain. The Texas clock is a symbol of the need to think in terms of humanity's whole future rather than just the next quarter, year or lifetime. Just as Brand challenged us with the whole Earth picture all those years ago, he's again pushing us into a broader view of our existence and a greater sense of our responsibilities.

Over the years, Brand has befriended a heck of a lot of well-known and influential friends. Their lives are intertwined through many of his projects (not all of them reported here). And this is another thing that bugs some of the eco-folk; they believe he's sold out to his rich mates. He told *B&GT*: "The eco-folk rap is a bum rap, but no surprise."

When asked what drives him, he said: "I suppose the goal is 'better world', whatever that means. Lately, I've been thinking it means 'more options for everybody'."

As for his approach, he says: "The method is pretty much opportunism. Try a variety of things, pursue the few that work, keep moving."

A bit like nature really. 🌍



His next milestone was creating the *Whole Earth Catalog* (tools for self-reliance) in 1968, with the satellite picture on the cover. Six years later he launched *Co-Evolution Quarterly*, which later became *Whole Earth Magazine*. In 1984 Brand and Larry Brilliant created a pioneering public online community called the *Whole Earth 'Lectronic Link* – the WELL. Brand also ran the first Hacker's Conference, bringing together the first three generations of computer hackers. And, still in the same year, he

# fashion

On page 20 we asked if throwing away clothes to buy new ones is green or sustainable? Ideally we make do and mend and give old clothes to charity, but we still need new clothes from time to time. Luckily, our good friends at Ethical Superstore solve the problem with their fantastic range of clothes and accessories produced in an environmentally and/or fair-trade way. Fashion can be sustainable; you just need to know where to look. Here's a small selection of what they have on offer for you, your family and your friends. You can find a whole lot more at [www.blueandgreenshopping.com](http://www.blueandgreenshopping.com).



## Komodo Merino Stripe Cardigan

**£28.99**

Made from 100 percent merino wool, this flattering multi-stripe cardigan is sure to make you stand out from the crowd this season. With full-length sleeves and mock sleeve detail around the neckline, this fair-trade cardigan is truly unique! Available in bold narrowing stripes of black, green and ink.

## Komodo Halter-neck Maxi Dress

**£28.99**

Feel stunning with this ethical maxi dress from Komodo, perfect for summer.

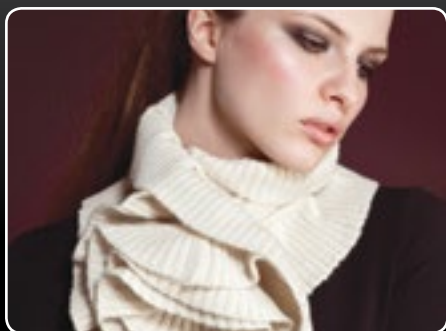
A flattering halter-neck style, with contrasting trim and all-over leaf print.



**Visit**  
[www.blueandgreenshopping.com](http://www.blueandgreenshopping.com)  
for more great deals






**Komodo Merino Bee-Warmer Scarf**
**£9.98**

Keep warm in style with this unusual 100 percent wool ruffle-neck scarf. Ideal for V-neck coats and jumpers, this scarf goes on over your head and sits snugly around your neck.


**Paisley Ruched Scarf**
**£19.36**

Soft and gentle, with plenty of colour and paisley pattern, this fair-trade scarf is ruched for extra shape and body. Available in three different colours, each one adds autumnal richness to any outfit.


**Chunky Wooden Beaded Necklace**
**£4.99**

These eye-catching fair-trade necklaces are made from beads with a variety of colours, shapes and textures. Each is available on a natural or white drawstring cord, adjustable for the perfect length.


**Komodo Organic Mosaic Print Scoop-neck Top**
**£9.98**

Great for layering to keep warm, this 3/4 length mosaic printed top has a relaxed and natural fit. Available in natural and black, this T-shirt has contrast stitching and a wide scooped neck. It's made from 100 percent organic cotton jersey.


**People Tree Handwoven Pearl Border Skirt - Black & Red**
**£19.99**

At its best when "swished", this knee-length skirt from People Tree looks stunning in black with a vibrant red trim. With a deep gathered waistband, zip fastening and two handy side pockets, this statement skirt is designed to be worn just below the waist.


**Fair-trade Contrast Print Long-sleeve Dress**
**£14.99**

The contrasting ethnic prints of this fair-trade dress alternate to create a bold, original look. Made from organic cotton jersey, it has a flattering empire line, gently draped loose sleeves and is finished with tiny jewel beads along the neckline.


**Braintree Flower Detail Top**
**£9.98**

In vibrant shades of pink or purple, the simple feminine design of this cotton jersey top will brighten up your wardrobe. With a band of gathered material across one shoulder as a ruffled flower effect, this gorgeous top will quickly become a favourite.


**Fair-trade Drape Cardigan**
**£14.99**

This stylish, longer length fair-trade cardigan has handkerchief asymmetric side details. It drapes elegantly for an easy, beautiful accompaniment to any autumnal outfit.



# Green Review: Films & Books

*If you're anything like us, which we believe you are, these films and books will appeal to you.*



## **Freakonomics** (2010)

**Directors:** Various

[youtube.com/watch?v=56k1xVAq290](https://www.youtube.com/watch?v=56k1xVAq290)

A book inspired this film, but if you've read it, you won't need to see the film. In 93 minutes it can only skip over the surface of "the hidden side of everything". However, as a way of getting you to think about the world in different ways and, who knows, of encouraging you to buy the book, it does its job. Don't expect depth.

Not yet rated on amazon.co.uk

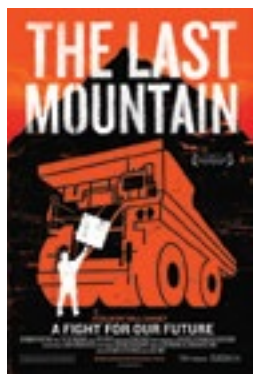


## **Human Planet** (BBC Books, 2011)

**Author:** Dale Templar and Brian Leith

Sometimes we forget we're just animals struggling (or not) to survive in whatever conditions we find ourselves. This book tells the story of mankind, but it also describes how certain communities have adapted to and harmonised with their unique, and often peculiar, environments. The book is uplifting because it gives us hope for a future for mankind.

Rated 5/5 on amazon.co.uk



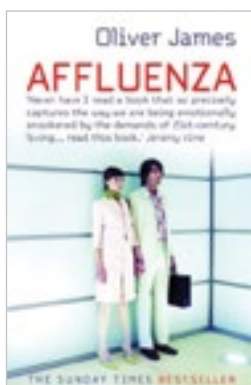
## **The Last Mountain** (2011)

**Director:** Bill Haney

[youtube.com/watch?v=szb99ezPogQ](https://www.youtube.com/watch?v=szb99ezPogQ)

This documentary about Appalachian surface coal mining brings to life our planet news story on page 6. If you want an insight, please watch the trailer. Coal is plentiful, cheap and easily accessible, providing you don't mind the removal of mountain tops and the poisoning of land and water. And that's before you start burning it.

Not yet rated on amazon.co.uk



## **Affluenza** (Vermilion, 2007)

**Author:** Oliver James

James believes that many place high value on money, possessions, appearances (physical and social) and fame, and that this leads to emotional distress. The book advance helped pay for a world tour to meet with both experts and real people, check out his theories and seek solutions. He seems to have hit the mark with about half his audience.

Rated 2.5/5 on amazon.co.uk



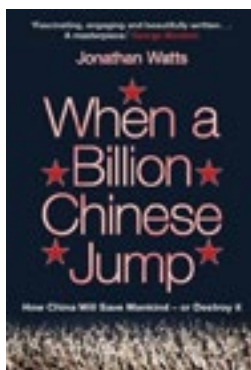
## **Gasland** (2010)

**Director:** : Josh Fox

[youtube.com/watch?v=dZe1AeH0Qz8](https://www.youtube.com/watch?v=dZe1AeH0Qz8)

If you live in Lancashire, you might want to watch this film when it comes out. It's all about how energy companies are buying land to get at the gas reserves underneath and about what can go wrong in the event of reckless drilling. Why Lancashire? See the shale dilemma story on page 5. Hopefully we have a more rigorous permissions and monitoring policy.

Not yet rated on amazon.co.uk



## **When a Billion Chinese Jump** (Faber & Faber, 2010)

**Author:** Jonathan Watts

The title hints at the fabled power of the Chinese to shift the world on its axis by jumping in unison. While this may not be true, China certainly has the power to alter the world for better or for worse. Subtitled *Voices from the Frontline of Climate Change*, this book will give you an insight into what's going on there and which way it's likely to impact your life.

Rated 4.5/5 on amazon.co.uk



## **The Cove**

(2009)

**Director:** Louie Psihoyos

[youtube.com/watch?v=4KRD8e20fBo](https://www.youtube.com/watch?v=4KRD8e20fBo)

*The Cove* highlights the gruesome, annual slaughter of about 2,300 dolphins in a national park in Japan. Backed up with evidence, interviews and undercover filming, the documentary follows the original trainer of Flipper as he continues on his redemptive campaign to end the annual killing of dolphins.

Rated 5/5 on amazon.co.uk



## **An Optimist's Tour of the Future** (Profile Books, 2011)

**Author:** Mark Stevenson

Think of any modern technology or challenge and it's likely this author is ahead of you. He's travelled the world asking awkward questions of those who might have answers. His book talks science and technology, present and future, taking dreams along the way. As the title suggests, he's in favour of embracing change rather than blocking it or hiding from it.

Rated 5/5 on amazon.co.uk

# The Wrongs of Rights

**Simon Leadbetter examines the reality of rights and responsibilities.**

“All human beings are born free and equal in dignity and rights.” So says Article One of the United Nations Universal Declaration of Human Rights (UDHR). Yet, there is scant evidence in the bloody, tyrannical, unequal, undignified and enslaved history of the world that this ever been the case. Obviously, the text of the UDHR is aspirational, but is it so aspirational as to be meaningless? A more accurate statement would be: “An insignificant but powerful minority of human beings are born free and with considerably greater dignity and more rights than the vast majority.”

The four main problems with “rights” are that they don’t actually exist; they’re fundamentally selfish, in that they confer a burden on others rather than on oneself; it’s often only the most powerful who are able to defend them; and they are incredibly human-centric, with little or no regard for the other species on Earth and the wider environment.

**“All human beings are born free and equal in dignity and rights.”**

Rights don’t actually exist? If people are born truly free, in the sense of enjoying personal liberty, then the majority of the world’s population would live in democracies where they control their own destiny. This is evidently not the case. The Economist Intelligence Unit estimates that only 26 countries out of the 167 assessed, with 12 percent of the world’s population, are full democracies (EIU Democracy Index, 2010). A further 53 countries and 37 percent of the population are flawed democracies. That means a smidge less than half the people in the world live in democracies, with the UK coming 19th. A total of 55 nations and 37 percent of the global population live in authoritarian regimes and are not free. The United States was one of the original UDHR signatories and considers itself the “world’s leading democracy”; yet to its disgrace it has spent the last 100 years overthrowing other democracies, 14 at the last count.

In terms of human beings being “equal in dignity and rights” the plight of women across the planet, from their representation in boardrooms to their appalling suffering in parts of the developing world and Middle East, lays bare this lie. Despite overwhelming evidence that the educational, commercial and cultural empowerment of women leads to greater economic prosperity (UN, 2008) women still suffer daily violence, intimidation and virtual slavery in a significant number of countries around the world. The World Economic Forum’s Global Gender Gap Report 2010 placed the UK 15th out of 130 countries in terms of gender equality. Moreover, we should not ignore the dire treatment of groups based on their sexuality, ethnicity and religious or non-religious beliefs in many countries of the world.

For the United Kingdom to come 19th on a democracy index and 15th in terms of gender equality is an embarrassing indictment of the world’s 6th largest economy.

Though the original debate about rights concerned the weak, it has descended into an increasingly selfish argument about whose rights trump whose. The rich and powerful have far greater rights, plus the ability to defend them, than the poor and weak. If the freedom of the powerful is infringed, their reputation attacked or they simply don’t get their way they have resources and routes



available (litigation, legislation, lobbying or loans/donations to government parties) to get the result they want.

And what of the planet? Neither the Earth nor the environment has been accorded rights throughout human history; and we are beginning to see the long-term effects of our exploitation and degradation in our poisoned seas and skies and toxic land.

However, this column is not a message of despair but a debate about a better tomorrow.

Perhaps a better place to incubate this debate in our individualistic society would be within the field of “human responsibilities”. Why? Because a responsibility is fundamentally dutiful and puts the onus on the individual. A better quality debate would move us away from the adversarial nature of “I know my rights,” i.e. what I am owed, towards “I know my responsibilities,” i.e. what I owe to others.

Therefore, my starter for 10 on a Blue & Green Declaration of Human Responsibilities is:

- We have a responsibility to create a better future for life on Earth than the one we have inherited.
- Our greatest responsibility is to improve the life of the poor, the sick and those who don’t have a voice; namely the young, the weak and non-human life.

**“We have a responsibility to create a better future for life on Earth than the one we have inherited.”**

Instead of the weak protesting their rights, the powerful should observe their responsibilities, which they shirk all too often. It is not acceptable to focus on the short-term gains instead of the long-term risks. Neither is it acceptable to avoid tax and prioritise profit making at the expense of others, be they people or our planet.

As Eleanor Roosevelt, proud advocate of the UDHR, said: “Freedom makes a huge requirement of every human being. With freedom comes responsibility. For the person who is unwilling to grow up, the person who does not want to carry his own weight, this is a frightening prospect.”

Maybe it is time for humanity to grow up. 🌍

# Where Did I See...?

**As you've whizzed through the magazine, you might have thought, "I must remember that." But as real life gets in the way, we thought you'd like a reminder of all those references and links buried in the news and in our articles.**

To visit a website, just prefix the given code with [tinyurl.com/](http://tinyurl.com/) so the first link, to DNV, would be [tinyurl.com/4vbj9w6](http://tinyurl.com/4vbj9w6)

## News

p.1	DNV on using CO <sub>2</sub>	4tltodo
p.5	GE visualiser	49nkqyd
p.5	Malmesbury FiT	5ttewle
p.5	Green-Tide Turbines	6xa7z5q
p.5	Lakes Free Range Egg Co.	4cwu8ce
p.6	Joule Unlimited	3ah8aqe
p.7	Gujarat Power Corporation	6ahqu5a
p.7	Masdar Institute	6egae66
p.9	Fish Fight	3x4fgmh
p.9	Climate Week	38nfdzl
p.9	UK AWARE	2re9xr
p.9	Responsible Business 2011	4apfl5w

## Energy

p.10	Grand Designs	aw3ssv
p.10	DNV on using CO <sub>2</sub>	4tltodo
p.10	Technology Strategy Board	ng43nk
p.10	Pitman Tozer Architects	4mxv4xj
p.15	Good Energy	llogqf
p.19	Khosla Ventures	34zvbznz

## Thinking Allowed

p.29	WEF Global Gender Gap Report 2010	5r7qets
------	-----------------------------------	---------

## Spotlight

p.16	Greenwashing Index	bx3eny
p.16	SourceWatch	63koe49
p.16	StopGreenwash	6jg28zb
p.16	Carbon Disclosure Project	ycea6z3
p.17	ren-new	5tvowmy
p.25	Douglas Engebart's 1968 Demo	2gtxd7
p.25	Brand's conservation pledge	5s78bv6
p.25	Whole Earth badge	6a34nnr
p.25	Whole Earth Catalog online	9kcp2c
p.25	Whole Earth 'Lectronic Link -- the WELL	5k4xv
p.25	Whole Earth Discipline: An Ecopragmatist Manifesto; annotation	yjwgjps
p.25	Long Now Foundation	jva8k
p.25	Global Business Network	6dydlph
p.25	Long Now clock scale model	5ra4r4j

## Money

p.21	Smythe & Walter	6emyksd
p.21	EIRIS	6ek5eof

## Competition Terms & Conditions

1. Submitted competition entries are automatically entered into the prize(s) draw. 2. Employees of the promoter Blue and Green Communications Limited (B&GC) or participating companies may not enter. 3. No cash alternatives are offered. 4. The prize(s) described are available at the date of publication. Should events occur beyond B&GC's control that render promotions or prize(s) awards impossible, B&GC may vary or amend promotions without incurring liability to itself or participating companies. 5. Proof of (e)mailing will not be accepted as proof of delivery. No responsibility is accepted for entries lost, delayed or mislaid, or for any technical failure or event that causes any competition to be disrupted or corrupted. 6. The Editor reserves the right to ask a "tie breaker" question or to conduct a second draw if necessary. 7. Winners are notified by post or email within 28 days of the competition closing date. 8. All entries and copyright therein become the property of B&GC. 9. Entry to competitions is restricted to UK residents of 18 years of age and over, unless stated otherwise. 10. B&GC may ask winners to assist with publicity regarding the prize experience. 11. If a competition winner is unable to take up a prize for any reason, the Editor reserves the right to award it to an alternative winner, in which case the first winner is not eligible for any share of the prize whatsoever. 12. The Editor's decision in all matters relating to competitions is final. It is a condition of entry to any competition that entrants agree to be bound by these rules, whether published or not. 13. No purchase is necessary. 14. One entry is permitted per household. 15. Names of winners can be requested by sending an SAE to: Competitions Manager, Blue and Green Communications Limited, 6 Peal's Court, 9-10 Colville Terrace, London W11 2BE.





Tell us what you think



Email: [editor@blueandgreentomorrow.com](mailto:editor@blueandgreentomorrow.com)



Visit: [www.blueandgreentomorrow.com](http://www.blueandgreentomorrow.com)

The next issue of  
**B&GT** is out on  
 Friday 11 February

**blue&green**  
 tomorrow



# Your**Ethical**Money.org

The one-stop-shop for green and ethical finance

**£ Learn about how  
and where your  
money is invested**

**£ Search for green  
and ethical  
financial products**

**£ Find out how you  
can help make  
finance more  
sustainable**



**Banking**



**Investments  
& ISAs**



**Pensions**



**Insurance**



**Mortgages**



**Credit  
Cards**



**Student  
Finance**



**Child Trust  
Funds**



## Your**Ethical**Money.org

The one-stop-shop for green and ethical finance