



# Awareness of Government Carbon and Cost Saving Schemes Survey



April 2010

# Awareness of Government Carbon and Cost Saving Schemes Survey - April 2010

---

## Carbon Reduction Commitment by the Government

---

The 2008 Climate Change Act made Britain the first country in the world to set legally binding 'carbon budgets', aiming to cut UK emissions by at least 80% by 2050. Business and the public sector are under pressure to achieve these ambitious targets and they need to reduce their carbon footprint now.

Prime Minister, David Cameron announced that carbon emissions from central government alone will be cut by 10% in the next 12 months. The new Secretary for State for Energy and Climate Change, Chris Huhne is working with Charles Hendry and Greg Barker as Ministers of State to tackle climate change. A low carbon economy is a priority agenda. The Government also committed that central government headquarters will publish their energy use in real time online.

The Government has enforced a commitment to carbon reduction as well as offering businesses interest free loans to energy reduction projects through the Carbon Trust. The Carbon Reduction Commitment by the Government, now called the CRC Energy Efficiency Scheme started in April 2010 with the aim of a 60% reduction in CO2 emissions by 2050. The Carbon Trust's mission is to accelerate the move to a low carbon economy, by working with organisations to reduce carbon emissions now and develop commercial low carbon technologies for the future.

## Aims of the Survey

---

The objective of the survey was to understand how much awareness within the organisations who participated have of carbon reduction and cost saving schemes available to them. Of those sampled, we sought to understand if they believed they could leverage an environmental programme. 74% said yes. Asked if they were able to secure interest free finance for energy efficiency projects, would they? 63% said yes, while only 22% said that they already do. What then is stopping those that would invest in energy efficient projects when money is not the reason?

## Findings on resistance to change

---

When we asked participants where they would find the most resistance to changing to low carbon methodology within their organisation, one third said positively that there would be no resistance for changing with one commenting, 'the group is currently committed to reducing carbon emissions in all areas and had the support of the CEO'. Of the remaining two thirds many commented on the reluctance to change, 'due to ignorance or can't be bothered attitudes' and 'most staff are likely to be resistant to any major change in lifestyle or the 'traditional' way of doing things'.

Of those reluctant to change, one quarter said their finance department would want details of return on investment. Teachers may need educating too as one commented, 'some teaching staff may not help in keeping with the policies of turning off lights and other equipment'.

## Conclusions

To date, the Carbon Trust has helped organisations save 23 million tonnes of carbon and £1.4 billion in energy costs. Even if only two thirds of organisations used this scheme a further 46 million tonnes of carbon could be reduced and almost £3 billion saved.

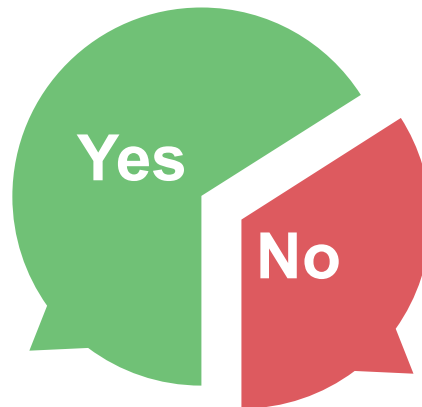
The survey questionnaire revealed;

- Half of all respondents were unaware that their organisation could be eligible for interest free finance to upgrade equipment to low carbon alternatives.
- Although 83% of organisations stated that reducing energy costs was equally as important as reducing carbon emissions, only 22% said that they had already used Government backed carbon and cost saving schemes.
- Despite nearly 80% of organisations not using the schemes, nearly a third recognised that the average cost for reducing emissions by an entire tonne of carbon was under £100 and over 70% thought that they could leverage an environmental programme in their marketing efforts.
- 62% of organisations said that if they were able to secure 0% finance for energy efficiency projects, they would invest in this area. So why aren't they?
- The Finance department and the methods of accounting capital expenditure were the most commonly given obstacles to implementing carbon & energy cost saving schemes. Accounting practices on expenditure are often short term and neglect the life-time cost saving properties of investing in saving energy.
- Two thirds of respondents believe that public sector organisations have an obligation to reduce carbon emissions more so than private sector.
- 45% said that there is a willingness to deal with the issues of carbon emissions within the home, but not in the workplace.



# Carbon Reduction Survey Questions and Results

1. Are you aware of any government backed schemes to encourage carbon and cost savings through the provision of financing to enable such projects?



Two thirds said yes they were aware of a government backed finance scheme for carbon reduction projects.

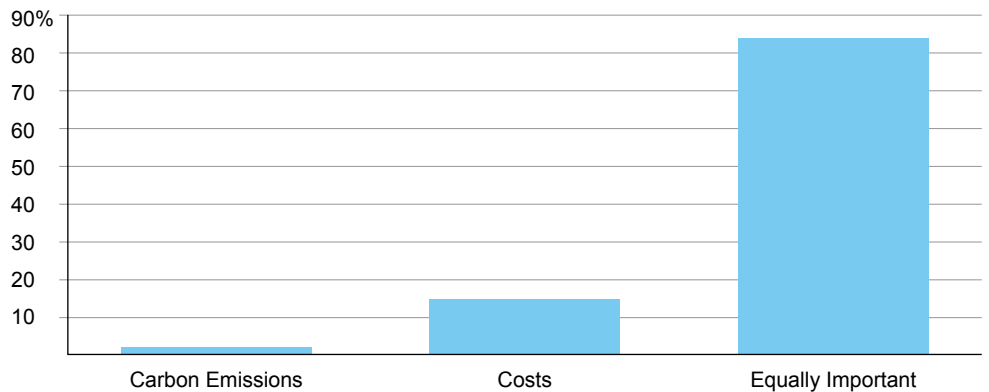
2. Have you heard of the Carbon Trust or Salix?

Two thirds had heard of the Carbon Trust or Salix.

3. Were you aware that the Carbon Trust offers interest free loans for up to £500,000 for upgrading equipment to low carbon alternatives?

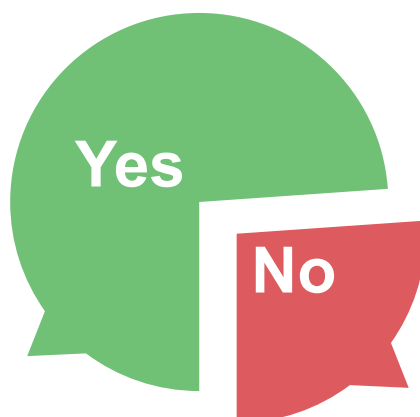
Half of all respondents were unaware that their organisation could be eligible for interest free finance to upgrade equipment to low carbon alternatives.

4. Which would you attach more significance to - reducing the carbon emissions of your organisation or reducing its energy costs?



83% of organisations stated that reducing energy costs was equally as important as reducing carbon emissions. Less than 2% felt Carbon emissions and almost 15% said costs.

5. Do you think you could leverage an environmental programme to assist with the promotion of your business or organisation?



74% thought that they could leverage an environmental programme in their marketing efforts.

6. From what area/department/roles would you see the most resistance within your organisation to changing to a low carbon methodology?

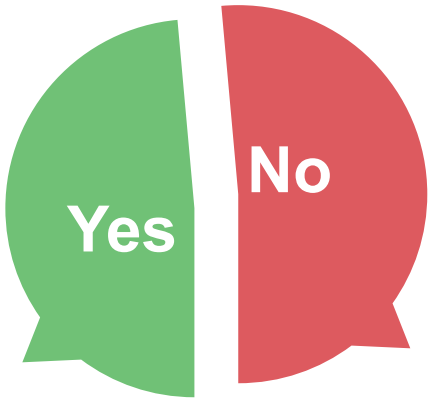
When asked participants for their comments on where they would find the most resistance to changing to low carbon methodology within their organisation, one third said positively that there would be no resistance for changing with one comment, 'the group is currently committed to reducing carbon emissions in all areas and had the support of the CEO'.

Of the remaining two thirds who stated there would be resistance to change many commented on the reluctance to change, 'due to ignorance or can't be bothered attitudes' and 'most staff are likely to be resistant to any major change in lifestyle or the 'traditional' way of doing things'. Some mentioned the financial implications such as 'the need for significant financial investment' and 'not so much resistance but general uncertainty particularly when there are conflicting messages, and lack of public money (not tied to loan) to address the issues'.

One quarter of those stated finance as the department where the most resistance would come from with some mentioning they would 'need to see cost of changing against cost saving' and 'the change to whole life costing and ROI' [Return on Investment].

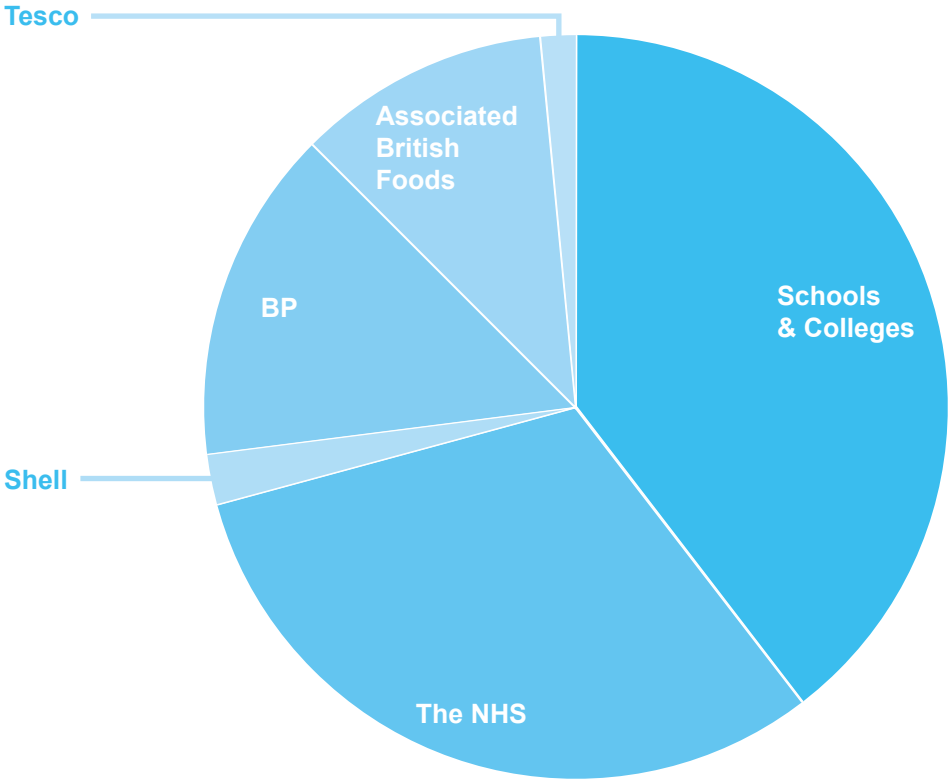
Other departments mentioned included lighting, planners, catering, teaching, education and finance. Within education, one commented that 'some teaching staff may not help in keeping with the policies of turning off lights and other equipment'.

7. Would you say that there is a willingness to deal with the issues of carbon emissions within the home, but not in the workplace?



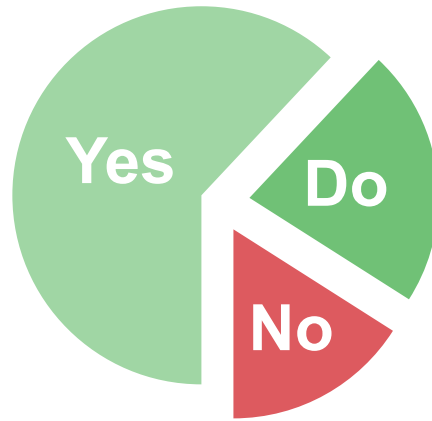
Slightly less than half said there was a willingness to deal with the issues of carbon emissions within the home but not the workplace.

8. Which of the following organisations do you think is the UK's largest emitter of carbon? (BP, Tesco, The NHS, Schools and Colleges, Shell, Vodafone, Associated British Foods and Xstrata).



The NHS is UK's largest emitter of carbon (35.2% ticked them) although most thought that schools and colleges were top of the list (with 37% ticking them). The results of the survey revealed that Vodafone and Xstrata were perceived to be the lowest emitters of carbon and were not chosen at all. BP had 13%, Tesco 1.9%, Shell 3.7% and Associated British Foods 9.3% of responders.

9. If you were able to secure interest free finance for energy efficiency projects, that would help your organisation cut costs, would you then invest in this area?



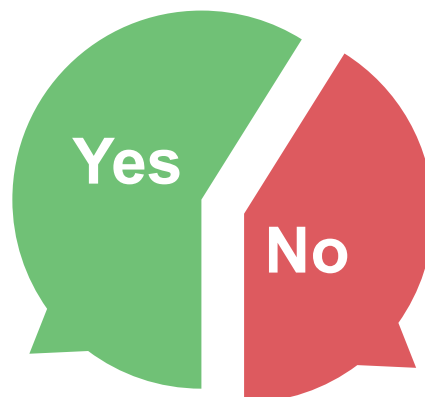
22% said they have already invested to be more energy efficient. 62% of organisations said that if they were able to secure interest free finance then they would invest in energy efficiency projects. So what is stopping them?

10. Which of the below would you say is the amount that it can cost to reduce emissions by one tonne of CO2?



27% correctly chose £100, however 20% did tick up to £1000 which is ten times that amount. Could this be stopping the changeover to be more energy efficient?

11. Do you think that public sector organisations have an obligation to reduce carbon emissions more so than private sector?



59% think that public sector organisations have an obligation to reduce carbon emissions more so than private sector.

# Carbon Reduction Initiatives from the Government

---

## Reasons to be energy efficient

---

When asked which would you attach more significance to - reducing carbon emissions or reducing energy costs? 83% stated that both were equally important. Organisations are generally motivated to take action to be more energy efficient and reduce their carbon footprint for a variety of reasons;

- Taking control of carbon emissions and energy consumption to save money by managing and reducing energy bills
- To meet regulation and legislation.
- Organisations that do lead by example are influencers with the aim to raise their profile to be amongst the top energy saving performing businesses.
- Green issues of climate change drive energy emissions management.

## Low carbon energy

---

The Department of Energy and Climate Change (DECC) was created in October 2008, to bring together energy policy and climate change mitigation policy. More at: [http://www.decc.gov.uk/en/content/cms/about/low-carbon/low\\_carbon.aspx](http://www.decc.gov.uk/en/content/cms/about/low-carbon/low_carbon.aspx) Climate change demands an urgent and radical response across the developed and developing world. The UK needs to secure clean, safe, affordable energy to heat and power our homes and businesses. Creating a low carbon and resource efficient world means making major structural changes to the way we work and live, including how we source, manage and use our energy.

DECC's 7 Departmental Strategic Objectives are:

- Secure global commitments which prevent dangerous climate change
- Reduce greenhouse gas emissions in the UK
- Ensure secure energy supplies
- Promote fairness through climate and energy policies at home and abroad
- Ensure the UK benefits from the business and employment opportunities of a low carbon future
- Manage energy liabilities effectively and safely
- Develop DECC's capability, delivery systems and relationships to serve the public effectively

## Carbon Reduction Commitment

---

The Carbon Reduction Commitment (CRC) Energy Efficiency Scheme started in April 2010 and is the UK's first mandatory carbon trading scheme. It is compulsory for both private and public organisations that consumed over 6,000 Megawatt hours of electricity per year (MWh) (6,000,000 kWh) of half-hourly metered electricity during the period from January 2008 to December 2008. At today's prices, this is roughly equivalent to total half hourly electricity bills of approximately £500,000 per year – about 5000 organisations and it is anticipated that the scheme will affect 25% of total business sector emissions within the UK.

The programme affects large companies and organisations such as supermarkets, retailers, banks, hotels and local authorities. The aim of the CRC is to reduce the level of carbon emissions currently produced by the larger 'low energy-intensive' organisations by about 1.2 million tonnes of CO<sub>2</sub> per year by 2020. As a Climate Change Bill commitment, the scheme is aiming for a 60% reduction in CO<sub>2</sub> emissions by 2050.

### The Carbon Trust

---

The Carbon Trust was set up by Government in 2001 as an independent company. Their mission is to accelerate the move to a low carbon economy by working with organisations to reduce carbon emissions and develop commercial low carbon technologies. The Carbon Trust reduce CO<sub>2</sub> emissions and develop commercial low carbon technologies through;

- Insights – explains the opportunities surrounding climate change
- Solutions – delivers carbon reduction solutions
- Innovations – develops low carbon technologies
- Enterprises – creates low carbon businesses
- Investments – finances clean energy businesses

### 0% business loans from the Carbon Trust

---

The Carbon Trust has made applying for a business loan straightforward and easy with no arrangement fees. You can borrow between £3,000 and £100,000 interest free, unsecured and government funded, to be repaid over a period of 4 years. Anticipated energy savings offset the loan repayments. So new equipment should pay for itself and you should continue to make savings year on year.

Maxim Logistics Group Ltd used a 0% Carbon Trust business loan to install new energy saving lighting for its main warehouse. The changes have improved working conditions by making the warehouse brighter, while cutting the company's annual energy bill by almost 41%. (The Carbon Trust Case study: February 2009)

A 0% Carbon Trust business loan enabled The Cavan Bakery, based in Middlesex, to replace its "massively inefficient" gas ovens, originally installed in 1946 and 1948. This has cut its gas consumption by 75%, helping the bakery to counter rising energy costs. (The Carbon Trust Case study: September 2009)

### Salix Finance

---

Salix energy efficient loans have now been fully subscribed, less than 9 months after the launch of the scheme following the 2009 budget. 1,419 energy efficiency projects across over 200 organisations are scheduled for completion over the coming months. This will save an estimated 95,000 tonnes of CO<sub>2</sub> annually and some 1.45m tonnes over the lifetime of the projects. Clients including schools, hospitals and local authorities will save a projected lifetime total of £244m in reduced energy bills through the installation of simple energy efficiency measures including upgraded lighting, insulation and heating, combined heat and power systems and improved IT controls systems. On average, projects will save enough money to repay the original investment from Salix Finance within three and a half years.

One area where businesses can easily reduce their carbon footprint and get substantial savings is through lighting as it accounts for approximately 20% of total electricity consumption. With the pressure on the need to save energy, one technology everyone is focusing on is LED. If halogen downlighters were replaced with LEDs, Europe would save 3,500,000 tonnes of Carbon per year (source Philips lighting UK). The very latest LED lamps are able to reduce your energy bills by up to 80%, meaning a little investment now will save you much more in the future. This is done by simply changing halogens to LEDs for immediate effect.

With the EU phaseout of old GLS lamps happening right now, this is the time to future-proof lighting by switching to new energy saving LED solutions. A 50 Watt halogen replaced with an Illuminex 7 Watt LED gives the same light output but reduces energy consumption substantially.

### Return on Investment

---

The return on investment (ROI ) can be less than 1 year for a 24 hour operation based on replacing a 50 Watt halogen with a 7 Watt LED, a normal 10 hour operation can be approximately 2 years.

LEDs are the exciting new generation of lighting because they tick all the boxes of energy saving, reduced maintenance and recyclability. The latest solid state light source and battery technology is 40 times brighter than conventional LEDs and have a lifespan of 60,000hrs (6.75 years if lit continuously for 24 hours a day).

# Survey Basis

---

## Errors and Omissions

---

Whilst reasonable steps have been taken to ensure that the information contained within this publication is correct, the authors, Eruma, its agents, contractors and sub-contractors give no warranty and make no representation as to its accuracy and accept no liability for any errors or omissions.

## Analysis

---

This report is based on data collected from a total of 54 private and public sector organisations. The survey responses were taken from a sample of contacts from Eruma plc and the responses were collated using a third party on-line survey management tool called Survey Monkey. The answers to the survey questions, presented throughout this report, are based purely on information volunteered by these participants.

## Responses

---

The survey was sent out on 19th March 2010 and nine responded immediately with another 7 by the end of the month. In order to maximise the survey response rates the survey was resent on the 30th March with sixteen responding by the next day and the remainder up to mid April. The timing of the first survey coincided with the Carbon Reduction Commitment (CRC) Energy Efficiency Scheme was just a few days before the scheme came into effect on 22nd March 2010.

# Eruma Plc and Illuminex Division - Energy Saving Specialists

---

Eruma plc invited UK businesses to complete this short survey on the various carbon and energy saving schemes available to them. These schemes can significantly reduce organisations' energy costs in addition to their carbon emissions and are often self funding.

Eruma plc has two divisions, Illuminex Division – the supplier and distributor of intelligent lighting systems and Security Blinds Division – a leading manufacturer of physical security and protection systems in the UK.

## Participants were eligible for a free lighting assessment

---

To highlight the issues and increase survey response rates, participants who completed the survey, were eligible for a free assessment of their lighting systems to show how savings could be made in both energy costs and carbon emissions. This free assessment was offered by Illuminex Division.

Illuminex can demonstrate through its lighting assessment that by upgrading existing lighting systems just how much sustainable reduction in energy consumption is achievable, alongside increased efficiency and reduced maintenance costs.

Illuminex is the provider of a range of intelligent, energy saving LED lighting systems designed to provide superior performance, a reduction in ownership cost and impact on our environment. These LED solutions could enable upwards of 60% reduction in energy consumption immediately by the retrofitting of new technology to existing lighting units and upgrading emergency lighting units. In addition it would reduce or release thousands of man hours of effort through lower maintenance and compliance and testing costs. A lighting health check would give an assessment of the saving potential of lighting with a commercial proposal on how this could be implemented rapidly and cost effectively. These cost and energy savings and reduction in your carbon footprint contribute towards the Governments Carbon Reduction Commitment (CRC) Energy Efficiency Scheme.

There is increasing awareness from organisations that saving energy can equate to justifiable cost savings. In addition, to the quick recovery of costs, there may be funding available through the Carbon Trust, a government scheme that provides interest free loans and help for such energy efficient projects.

## 45% energy to be saved in lighting Bristol Airport

---

Illuminex recently won a major contract (worth about £379,000) with Bristol Airport in the South-West of England for the provision of its energy saving lighting systems. Illuminex has supplied a range of energy efficient lighting and lighting management systems throughout the airport, including the main concourse areas and both the old and new terminal buildings.

These systems are expected to save over 45% of energy currently used to light the airport buildings, reducing carbon emissions from about 1,350 tonnes to about 700 tonnes per annum. Due to the energy savings that the Illuminex's systems provide, the majority of the airport's capital investment is expected to be recovered within three years. Bristol Airport is undergoing a major expansion project and as part of this, reviewed its energy costs and emissions and selected Illuminex as the best solution to assist them.

#### Easy energy cost saving from fluorescent lighting upgrades

---

The UK alone has an estimated 1.4 billion fluorescent tubes and if these were upgraded savings in energy costs of 20-50% may be possible by simply upgrading existing fluorescent lighting systems. Additional financial savings can also be had from the reduced maintenance from combined extended lamp life and the elimination of a starter lamp that Illuminex offer.

#### Energy saving for NHS that meets price and value for money

---

Ealing NHS Trust is one of many that has benefited from Illuminex' low carbon emergency lighting Xscape series which uses the latest LED technology and lighting intelligence. It not only gives a 98% energy reduction but the system has automatic testing to comply to BS5266 (legal requirement of emergency lighting for all public buildings) which will significantly reduce your maintenance requirements.

Ealing NHS Trust said that there were various reasons for them choosing to go with this product:

***“ We chose the Xscape series of products because of its ‘state of the art’ functionality, extra low energy consumption and reduced maintenance costs. One of our deciding factors was Illuminex’s ability to design and install the system in our hospital without the need to shut crucial parts of the busy wards. The product also met our expectation on price and value for money. ”***

## Acknowledgements

---

Thank you to all you who responded to Eruma's Awareness of Government Carbon and Cost Saving Schemes Survey. If you would like a free assessment of your lighting systems and how your organisation could save both energy costs and carbon emissions, please reply to this email or call Eruma on 0207 566 2610 to book in an appointment. The information has also included information on The Carbon Trust 0% loan and the Government Carbon Reduction Programme. The CRC Energy Efficiency Scheme Order 2010 can be found on the Office of Public Sector Information: CRC Energy Efficiency Scheme Order 2010 web page. The revised CRC Energy Efficiency Scheme user guide is now available.

## Contact details

---

For more information on saving energy contact:

Reduce your energy consumption:

Tel: [020 7566 2610](tel:02075662610)  
[info@illuminex.co.uk](mailto:info@illuminex.co.uk)  
[www.illuminex.co.uk](http://www.illuminex.co.uk)

0% interest free loans:

The Carbon Trust  
Tel: [0800 085 2005](tel:08000852005)  
[www.carbontrust.co.uk](http://www.carbontrust.co.uk)

Eruma Plc:

[info@erumapl.com](mailto:info@erumapl.com)  
[www.erumapl.com](http://www.erumapl.com)

Paul Youens, St Brides Media:

Tel: [020 7236 1177](tel:02072361177)  
[paul@sbfm.co.uk](mailto:paul@sbfm.co.uk)