



## The Future of Environmental Policy

2015. World markets are also expected to grow rapidly. Many new EU member states require substantial investment in basic environmental infrastructure, such as water supply and waste management. The rapid growth of China and India means they are looking to invest in renewable energy and cleaner technologies for economic, as well as environmental reasons. The global market in environmental goods and services is expected to rise from \$548bn now to just under \$800bn by 2015.

This is a massive opportunity for wealth creation. But UK companies will face tough competition. Not only from traditional competitors in Germany, France, the US and Scandinavia, but also from developing economies. For instance, Singapore is aiming to become a 'Global Hydrohub' of the knowledge economy – the best place in the world for companies to create and provide innovative water technologies.

To maximise these opportunities, government needs to provide the right frameworks and support for business. That is why we launched the joint Defra/DTI Commission on Environmental Markets and Economic Performance, chaired by Alistair Darling and myself. The Commission's report to Government will set out recommendations for actions by Government and business to stimulate the growth of productivity and employment in sectors that can make a significant contribution to environmental outcomes. Building on analysis published by the Environmental Innovations Advisory Group, the Commission will address the following questions:

- What are the key trends in world markets for environmental products and services that can generate opportunities for the UK economy?
- Which are the key environmental sectors in which the UK has an existing and potential comparative advantage?
- What if anything is holding these sectors back from achieving their potential, including the skills and capacity needs within the sector?
- What kinds of environmental policy, regulation and other public and private-sector interventions can drive innovation?

In the past, environmental industries were not focused on tackling the scarcity of natural resources but managing the harmful by-products from the industrial process – air pollution, land contamination, polluted water, and toxic waste. In an age where the scarce resource is not people, but natural resources – in particular the capacity of the planet to absorb carbon dioxide – we need to re-define our notion of environmental industries. Instead of focusing on 'end of pipe' solutions – fixing problems after they arise - we need to look at preventative measures that design out waste and increase resource productivity. That task cannot be left to a niche of environmental industries. It must permeate

every business. That is why the taskforce will take a broad interpretation of environmental markets, to encompass all products and services, technologies and processes that are more environmentally beneficial than those that they replace.

### Turning Every Industry into an Environmental Industry Will Involve Applying New Principles.

First, we need to make more with less. Prior to the industrial revolution, the limiting factor in production was the scarcity of people. The rapid mechanisation of

of materials and the design of products and services.

Third, we must begin to decarbonise and decentralise our energy supply. Renewable electricity sources are becoming more widely available at reasonable prices. Decentralised power, including solar power, wind turbines and combined heat and power stations could make a major contribution to meeting our future energy needs. Transport is further behind, but potential exists to switch to bioethanol and other renewable fuels.

### Government Framework

The transition to a low-carbon economy relies on private sector innovation and investment but it will not happen without government intervention. The Stern Report says climate change is the definitive example of market failure, but it is a government failure to establish the right frameworks as well. Government can play a direct role in helping with the transition.

**Through procurement** - government can provide the certainty of large-scale demand to catalyse new products and services, transform markets and bring forward investment. We have already committed to moving the Government estate to carbon neutrality by 2012. But we also want to use the £150bn spent on procurement to drive the development and scaling up of technologies. For instance, English Partnerships will run a second phase of the Design for Manufacture competition, building on the lessons learnt from the competition to build a £60,000 house, but this time pushing the boundaries further. Using six sites across the country we want to challenge the industry to build low-cost, low-carbon and zero-carbon homes, this time looking at the whole developments rather than individual homes.

**Through public R&D investment** - government can complement private investment that will be under-supplied because of the knowledge spillovers that occur from the innovation process. That is why we created the UK Energy Technologies Institute, a public-private partnership that will potentially generate £1bn of investment over the next ten years – £550M, half from the private sector, has already been committed.

**Through ensuring better information on environmental impacts** - consumers, businesses and investors can make more informed decisions. That is why we are promoting real-time metering and energy performance certificates for homes, better labelling on products and appliances and it is why the Carbon Disclosure Project, which is now supported by 225 investors with collective assets under management of \$31.5 trillion, should be welcomed.

But while direct intervention by government is important, the biggest contribution government can make is through carbon pricing. For the past 150 years, we have emitted greenhouse gases without thought to the cost these gases are imposing on future generations or the developing world. Those who have produced pollution▶

The UK environmental industry is a success story. With over 400,000 people employed in 17,000 companies, it has an annual turnover of £25bn – roughly the same as the pharmaceuticals and aerospace sectors.

– DAVID MILIBAND,  
Secretary of State for Defra

industries transformed the productive capacity of the economy. Today, we must address the scarcity of natural resources. We must think how to make dramatic reductions in our use of electricity, gas, transport fuels, water and other materials. Some improvements in resource productivity are already under way. For instance, a hybrid car is about 30 per cent more efficient than its petrol-only equivalent. Changes since 2002 to the building regulations will deliver a 40 per cent improvement in the energy efficiency standards of new houses. Within the home, new appliances are also driving up efficiency. An A+++ rated refrigerator is 46 per cent more efficient than an A-rated equivalent.

Second, we need to design out waste. In many countries, products from cars to computers are being designed with a view to disassembling the parts as well as assembling them. Waste management should not be seen as something that is done downstream as part of rubbish collection, but upstream in the choice

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▶ have not faced the full cost of their actions. If we are to channel investment into a low-carbon economy, we must begin to put a price on carbon dioxide and other greenhouse gases, equivalent to the damage these gases will cause.

The mechanisms for doing this include a combination of emissions trading, taxation, and in some cases, regulation. For instance, in waste, we have created a Landfill Allowance Trading Scheme for biodegradable municipal wastes that is putting a price on methane emissions. The landfill tax has the same effect for all waste streams. Producer responsibility obligations for packaging, end of life vehicles and electrical and electronic equipment are helping to design out waste.

With emissions trading our ambition must be to create a global carbon market, building on the European Union's Emission Trading Scheme (EUETS), covering the vast majority of emissions in our economy. The EUETS is still in its infancy. But already it covers nearly half the emissions within the EU. As set out in the EUETS vision statement, we need to look at how to improve and extend the scheme in future phases:

- Securing its long-term future beyond 2012 so that investors have the confidence to invest;
- Extending its coverage to include aviation at the earliest possible opportunity, and, potentially, surface transport;
- Improving the mechanisms for allocating permits, for instance through more auctioning, and the setting of caps that are consistent with our long-term goals for CO<sub>2</sub> emissions;
- Linking it to other emerging emissions trading schemes around the world, such as the Californian scheme.

The EUETS covers energy-intensive industries in this country. But as set out in the Energy Review, we are also determined to reduce emissions from large non-energy-intensive businesses and public-sector organisations. At current prices, this generally refers to organisations with annual electricity bills above £250,000, including supermarkets, rail operators, large offices, universities, central government departments and large local authorities.

As stated in the Energy Review, our analysis suggests that this group of organisations have significant potential to achieve cost-effective carbon reductions. The sector, comprising around 5,000 large non-energy-intensive organisations, is responsible for about 15M tonnes of carbon (MtC) per year by end use, and analysis suggests that the sector could effectively save 0.5 MtC per year by 2015, rising to 1.2 MtC per year by 2020. At this stage, our approach is based on delivering net present benefits to participants rather than costs.

In the light of this analysis, we published a consultation to invite views on possible measures to help deliver cost-effective emissions reductions in this group of organisations. The consultation proposed in detail two options for particular consideration: proposals for an Energy Performance Commitment (EPC) – a 'cap and trade' scheme for the sector and a system of voluntary benchmarking and reporting.

The Energy Performance Commitment would be an auction-based cap-and-trade scheme. Participants would be required to purchase allowances corresponding to their emissions from energy use (either at the auction or from each other) and then surrender them to a co-ordinator. Government would cap total energy-use emissions by deciding on the number of allowances

issued for auction. As highlighted in the Energy Review, the revenue raised by the auction would be recycled to participants, so the proposal would be revenue neutral to the Exchequer. The proposal would provide a financial signal to participants to improve energy efficiency and aim to stimulate greater awareness of energy use within an organisation's senior management. Analysis suggests that the net present value to participants would be nearly £1bn over 15 years as they would save money through lower energy bills.

The second policy option is a system of voluntary reporting of emissions and energy performance and voluntary benchmarking of this performance against comparable activities. Participating organisations would agree to report their energy use as well as other information required to make a comparison relative to an energy or emissions performance benchmark. I, therefore, welcome views on their feasibility, cost and effectiveness at reducing carbon.

## Conclusion

Like all epidemics, environmental policy is becoming contagious. It has spread rapidly across the political spectrum, across departments, across citizens, business and investment communities. Environmental concerns are no longer confined to environmental industries or environmental departments. The change is not happening gradually, but dramatically. The challenge is to turn the fear of climate change into hope; awareness into action. To mobilise self-interest alongside moral duty. To turn every industry into an environmental industry. That is a challenge that places great responsibilities and opportunities for your sector. It is challenge that the Government and I look forward to addressing with you in the coming months. ●

