

ALDERSGATE GROUP

COMMISSION STATEMENT DRIVING INVESTMENT AND ENTERPRISE IN GREEN MARKETS

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Sir John Harman
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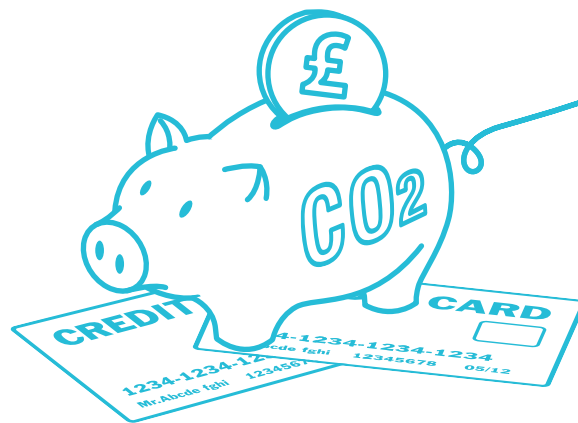
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Foreword

When Nicolas Stern published his report that was the wake-up call to the cost of inaction on climate change, one of the most tangible responses was Gordon Brown's immediate announcement to set up a Commission on Environmental Markets and Economic Performance (CEMEP) in November 2006. CEMEP, initially co-chaired by David Miliband and Alistair Darling as (then) Defra and DTI Ministers, had a finite life to publish within the year – achieved in November 2007. It advised Government on how the innovation and investment needed to avert the worst ravages of climate change could best be implemented to the UK's economic advantage, both at home and with an eye to our competitive position in world markets.

As a member of CEMEP, I declare now a possible biased view on the importance of this work in creating a catalyst whereby a large number of senior officials, special advisors and Ministers regularly met to discuss what was to emerge as the low carbon economy, before that phrase was even coined. It was in fact fashioned by the Government in its response 'Building a Low Carbon Economy; Unlocking Innovation and Skills' published in May 2008, just over a year ago as I write this foreword. It remarkably acknowledged all 24 recommendations and developed the four themes whose progress has been examined in this report.



The long standing commitment to developing the skills and creating a world leading low carbon and resource efficient economy was clear and the Government looked to have learnt that significant change was upon us. The Climate Change Act and the world first of carbon budgets reinforced this ambition, but scrape away the surface and the pace of change required is eluding us. Worse still the various strategy documents released by the Government in the lead up to the publication of a low carbon industrial strategy this summer appear inferior to what had been articulated a year before.

Maybe I had a jaundiced view, so through the Aldersgate Group, I was delighted to have the opportunity to take a more considered approach one year on. Where were the 'long, loud and legal' signals, how resilient were our commitments to this economic change in the teeth of the recession, and how had we used the early insight of Stern and all that has followed to gain competitive advantage? I am delighted that every CEMEP commissioner contributed their personal views on progress since the last time we met 18 months ago. I was also amazed how common the views were about so many issues.



For me three stand out. First, the loss of coherence – where is the necessary increase in co-ordinated approach and accountability across Government, and the benefits of tackling this agenda without undue regard for Whitehall departmental turf? Second, the lack of urgency which reaches complacency, even negligence at times, in developing the many identified facets of a low carbon economy, before we get a second hand one from European or North American competitors. Third, the lack of action to match the rhetoric, whether this be in transport, buildings, energy or skills, it seemed to all of us that far more needs to be achieved as each month passes, and even worse that on occasions time merely eroded the learning that had taken place.

I hope that this report causes you to consider whether after the Government's very early diagnosis of where the future economic route to prosperity lies, we are realising our ambition. Or are we signposting the way for braver nations, not least the new Obama administration which has taken this challenge very seriously? There is a lot to do and no-one says it is easy, but the lack of accountability and transparency for this whole agenda is a risk, and if nothing else this report is designed to sharpen attention on delivering the transition to sustainable economic prosperity in a coherent way.

Peter Young

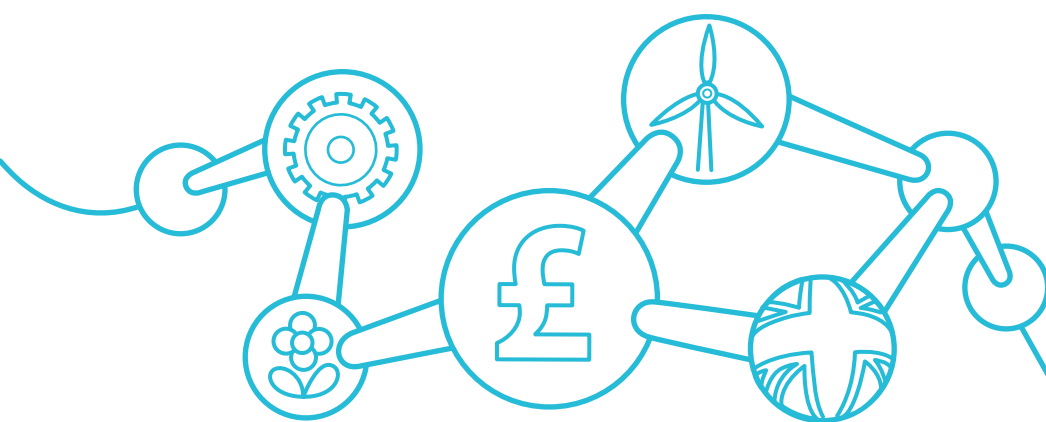
Chairman, Aldersgate Group

June 2009

Executive Summary

The UK Government has made clear that it would like to win the biggest possible share of the fast expanding global market for environmental goods and services. To achieve this aim, Gordon Brown drew on the advice of two Cabinet Ministers and leaders from business, trade unions, universities and NGOs to establish the Commission on Environmental Markets and Economic Performance (CEMEP). The Commission published its findings in November 2007 and the Government officially responded to the twenty four detailed recommendations the following May. A year on, this report, based on interviews with the former Commissioners, reviews government performance to date ¹ and makes recommendations for achieving a credible and ambitious low carbon industrial strategy and economy.

The global environmental goods and services sector is currently valued at £3 trillion and is expected to grow exponentially. While there will be winners and losers in the inevitable transition to a low carbon and resource efficient economy, there are also considerable opportunities for those countries and businesses with the foresight to seize them. The UK already employs over 880,000 people in this sector and there is only a small window of opportunity to ensure it captures the full potential of these environmental markets.



The current economic crisis, shaped by the global financial and commodities shocks, severely impacts on this agenda and demands a more active and targeted policy response. Strategies to drive green investments are not cost free and tighter public finances, coupled with the credit squeeze, may weaken the Government's willingness to meet these challenges. At the same time, such investments are desirable in the short term to stimulate jobs and growth and will be essential to build a resilient and competitive economy for the future.

Overall findings

There has been progress, not least with the creation of a number of ambitious and credible policy frameworks, helping to justify, at least partially, the UK's self-declared assertion to be a global leader in combating climate change. To build on these positive developments, the Commissioners outlined the need for:

¹ CEMEP also made recommendations for the private and third sector but this is not the subject of this analysis.

1 An injection of urgency.

Without a change of pace, the UK is in danger of missing out on the economic benefits associated with exploiting early mover advantage. For instance, action on a low carbon industrial strategy should have been initiated immediately after the CEMEP report and the related material published to date does not demonstrate sufficient progress has been made.

2 A more joined up approach.

A thorough step change across the piece is required, penetrating all government departments and at all levels. Recommendations include robust enforcement mechanisms for the new carbon budgets and the formation of a cabinet committee on climate change. Wider fiscal and regulatory policies must not be in conflict with environmental objectives.

3 Systematic and transparent implementation.

Environmental policy-making must shift from the margins to the centre ground, scaling up good practice and ensuring a more methodical approach to the overall implementation of CEMEP, the recommendations of the Climate Change Committee and any forthcoming industrial strategy.

4 Delivery to match the rhetoric.

Global leadership, valiant rhetoric and aspiring target-setting are rarely reflected in determined action, leading to a credibility gap.

Detailed analysis

Government performance is assessed in relation to the four key themes identified by the government in its response to CEMEP: setting a long term policy framework to foster confidence within business to invest; creating the conditions to allow innovation to flourish; ensuring the economy has the skills needed to be successful; and delivering this agenda through collaboration between government, business, trade unions, educational institutions and others.

Long term framework

The Government has frequently heeded CEMEP's calls for 'long, loud and legal' environmental policy and the certainty provided by the Climate Change Act in particular will encourage business investment. The Government must now be more transparent about how individual policy decisions are consistent with its carbon budgets. In response to the recent collapse in the carbon price within the EU ETS, serious consideration needs to be given to the implementation of a price floor or alternative support mechanisms. Other priority areas are the setting of dynamic performance standards, building on recent reforms in the policy appraisal process and clearer policy signals on supporting actions such as on smart meters.



Creating the conditions for innovation

The Government should not ‘pick winners’ – relying on the success of one type of technology within a specific sector – but clearly articulate the market failure and specify the support it will provide to overcome it, thus incentivising the market to find the most cost effective solutions. Targeted support mechanisms for renewables must be bold and sufficiently joined up to prevent job losses and bankruptcies; the UK needs to capture manufacturing jobs for future renewables, and not lose existing ones due to the recession. While there has been progress in the development of Forward Commitment Procurement (FCP) projects, specifying future performance levels and cost as opposed to locking in current technologies, this now needs to be scaled up to become common practice and used in major procurement contracts. In addition, there is a strong case for increasing levels of research, development and demonstration to match international competitors. In the energy and water sectors, the economic regulators (Ofgem and Ofwat) should have a more explicit duty to promote innovation.



Developing the necessary skills

A twin track approach is needed with specialist support and skills in the specific environmental sector (where one in three firms are being hampered by a shortage of skilled staff) and a generic greening of skills across the economy. The Government must also ensure it has effective pan-departmental mechanisms in place and accelerates the pace of change. In the short term, a Green New Deal would ensure the UK workforce gain the necessary skills and expertise to compete in future markets. As the largest customer in the UK economy, public procurement is an under-utilised driver in shaping the environmental market and Government must ensure that it has sufficient in-house engineering and sustainable procurement skills, as well as committed management.

Building partnerships

Resource efficiency is good for business, the competitiveness of the economy and the environment. While the Government recognises these benefits, its overall framework is inadequate to drive the massive step change that would hugely benefit UK competitiveness during the recession. In particular, there should be more short term measures to compliment the comprehensive Heat and Energy Saving Strategy and a greater role for the private sector to install household energy saving measures. The publication of guidance for standardised carbon reporting is hugely welcome and if this leads to the implementation of extensive mandatory reporting by 2012, it will help enhance London's leading position as the carbon finance capital of the world.

Conclusion

As the Government publishes and then develops its Low Carbon Industrial Strategy, the message from the panel of experts who initiated the process is clear: the starting point must not be a blank page. A wealth of expertise, time and resources went into producing the CEMEP recommendations which are still relevant despite the current economic crisis. As such, the CEMEP analysis should be explicitly incorporated into any industrial strategy moving forward and more robust and transparent monitoring and reporting mechanisms must be put in place – alongside strengthened pan-departmental structures that can more effectively manage the unprecedented cross-cutting nature of environmental policy-making.

As this agenda progresses, the role of good regulation in forcing the pace of industrial change should be a central element of economic policy. There must also be more focus on the deliberate design of supporting infrastructure to enable the desired transition to be made in the most economically beneficial way; demand side policy must be matched by development on the supply side. Furthermore, the wider benefits of high environmental standards must be addressed, as resource efficiency and innovation will increasingly become primary benchmarks of a successful economy. The government cannot leave these things wholly to the market and just as it is their job to regulate, it is their job to make consistent and holistic policy to create absolute certainty on the direction of travel. Only then can the private sector invest and drive to maximum pace the industrial transition to a low carbon economy.

CEMEP Membership List

CEMEP was drawn from business, trade unions, universities and NGOs across a wide range of sectors. Every member was interviewed for this analysis aside from the Government Ministers.

David Miliband Former Secretary of State for Environment, Food and Rural Affairs (joint Chair)

Alistair Darling Former Secretary of State for Trade and Industry (joint Chair)

Ian Pearson Former Minister of State for Climate Change and Environment

Malcolm Wicks Former Minister of State for Science and Innovation

Jim Brathwaite Chairman, South East England Development Agency

John Cridland Deputy Director General, CBI

Tom Delay Chief Executive, Carbon Trust

Professor David Fisk BP/RAEng Chair in Engineering for Sustainable Development, Imperial College

Dr Jonathan Frost Director, Johnson Matthey Fuel Cells

Julie Hill Programmes Adviser and former Director, Green Alliance

Emma Howard Boyd Head of Socially Responsible Investment, Director, Jupiter Asset Management

Sir Peter Mason Non-executive Chairman, Thames Water

Paul Noon General Secretary, Prospect

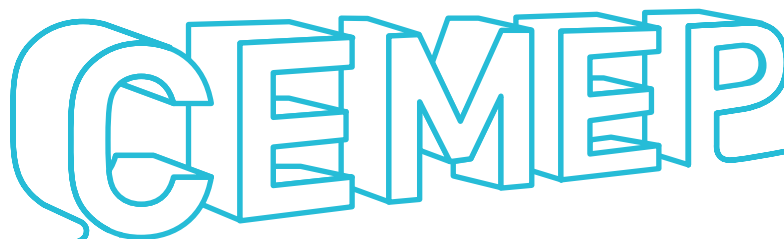
Frances O'Grady Deputy General Secretary, TUC

Professor Jim Skea Research Director, UK Energy Research Centre

Professor John Van Reenen Director of the Centre for Economic Performance, School of Economics

Dr Anthony White Senior Adviser, Climate Change Capital

Peter Young Chairman, Aldersgate Group and Strategy Director, Enviro



CEMEP

Commissioner Statements

Comments from each of the Commissioners in regard to the overall implementation of CEMEP and the impact of the global recession:

“One of the biggest missed opportunities in regard to CEMEP is alternative energy, where a persistent lack of leadership has led to the UK falling further behind Europe. The world leading programmes which we have been promised have not materialised.”

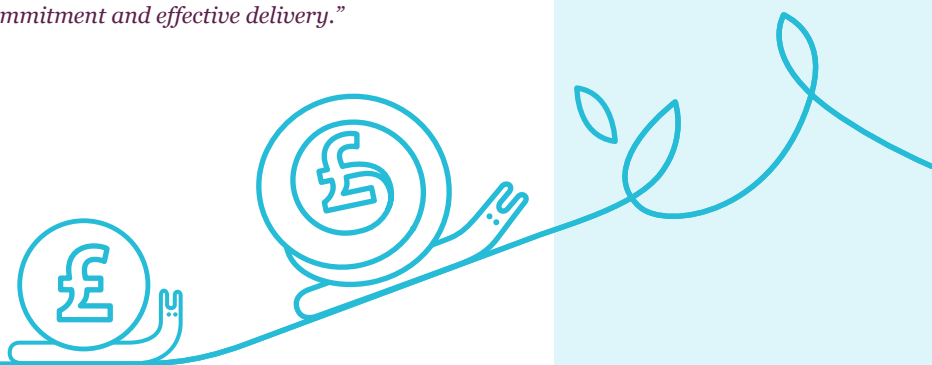
Jim Brathwaite, Chairman, SEEDA

“The CEMEP report identified many of the key ways to put the economy on a low carbon, resource efficient track. Its analysis of the role of long term policy frameworks, whole life cost public procurement and the more focused low carbon R&D spending should be required reading for Ministers as they draw up their low carbon industrial strategy.”

John Cridland, Deputy Director General, CBI

“The CEMEP report provides the foundations to develop a much more comprehensive low carbon industrial strategy. The UK can still become a global hub for low carbon innovation but we are in real danger of losing out without more steadfast commitment and effective delivery.”

Tom Delay, Chief Executive, Carbon Trust



“The focus now is not simply to plan for a low carbon economy per se but a low carbon economy in a very tight credit situation, with some threatening Asian competitors around.”

Professor David Fisk, BP/RAEng Chair in Engineering for Sustainable Development, Imperial College

“When CEMEP was devised the prevailing view in Treasury was that if you get the carbon price right, the rest will fall into place. The market was sovereign and interventionist policies were viewed with scepticism. Recent events have exposed the limitations of this view and stipulate the need to explore further regulatory and support measures that were not seriously considered by CEMEP”.

Dr Jonathan Frost, Director, Johnson Matthey Fuel Cells

“The Government should have published its response to CEMEP as a consultation to help gather useful and direct stakeholder analysis on a wide range of issues ranging from dynamic performance standards to carbon pricing”.

Julie Hill, Associate, Green Alliance

“Building on CEMEP, more work needs to be done to focus on different mechanisms to drive the changes we need. For example, with tax hikes expected in the near future, how do we stimulate behavioural change that penalises high carbon activities and incentivises low carbon activities?”

Emma Howard Boyd, Director, Jupiter Asset Management

“Key barriers remain for effective CEMEP implementation, particularly in the water sector. The recession means that there is even greater focus by all parties on managing customer bills and therefore less opportunity for long term investment to encourage innovation. This is too commonly viewed as discretionary spending.”

Sir Peter Mason, Non-executive Chairman, Thames Water

“There have been good intentions in the Government’s response to CEMEP and the recession has heightened the Ministerial commitment for industrial activism. The difficulty is translating this focus into effective actions that lead to green jobs.”

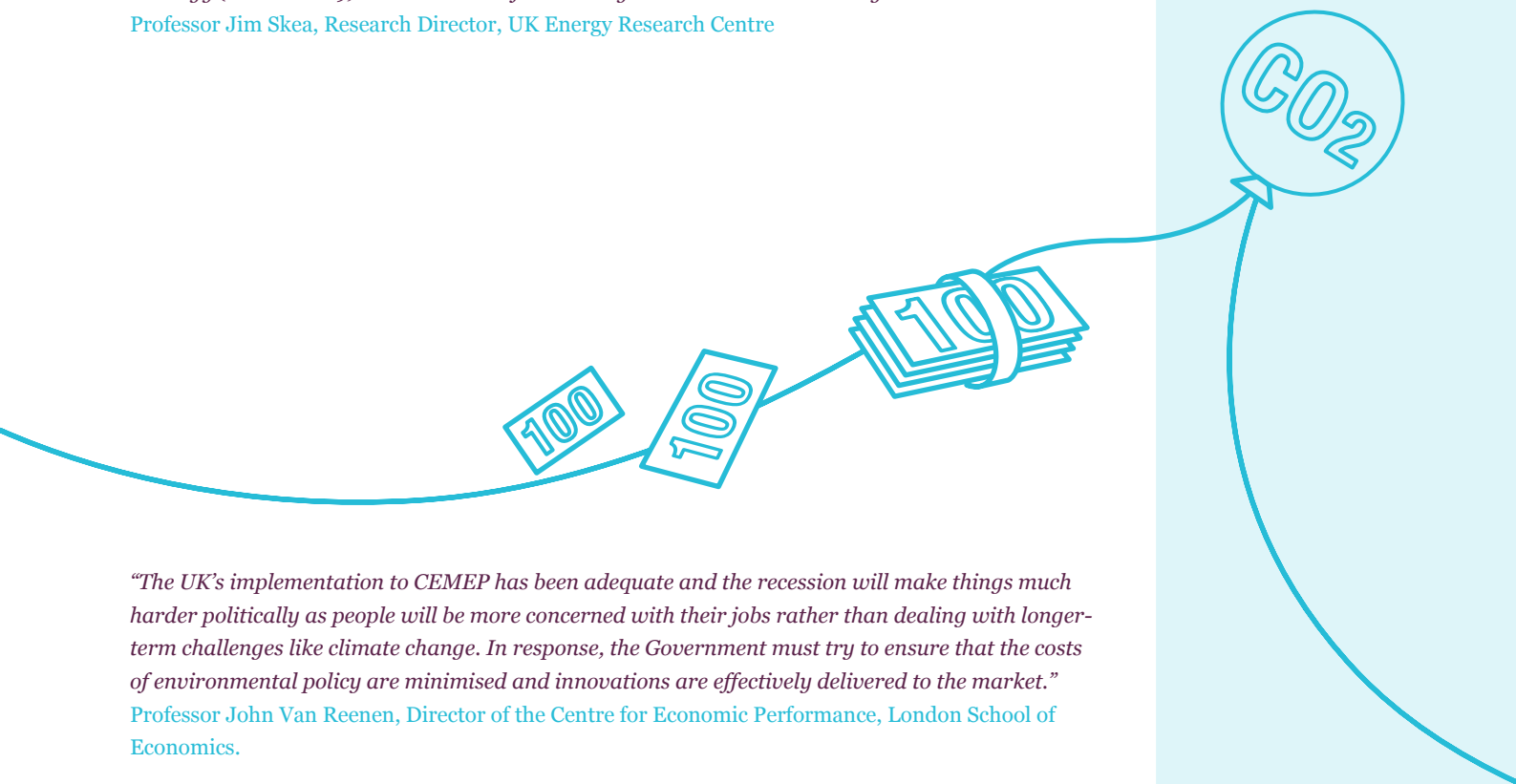
Paul Noon, General Secretary, Prospect

“The economic collapse means that there must be renewed focus on the consequences of the industrial restructuring for employees. We must ensure a just transition to the low carbon economy.”

Frances O’Grady, Deputy General Secretary, TUC

“CEMEP almost vanished without a trace afterwards. The vision for a Low Carbon Industrial Strategy (March 2009) covered much of the same ground but retreated into generalities.”

Professor Jim Skea, Research Director, UK Energy Research Centre



“The UK’s implementation to CEMEP has been adequate and the recession will make things much harder politically as people will be more concerned with their jobs rather than dealing with longer-term challenges like climate change. In response, the Government must try to ensure that the costs of environmental policy are minimised and innovations are effectively delivered to the market.”

Professor John Van Reenen, Director of the Centre for Economic Performance, London School of Economics.

“The recommendations put forward by CEMEP do not actually require a huge amount of public spending, rather sweeping structural and institutional reform. The real issue is whether the Government will be able to focus enough on the environmental agenda in light of the financial and economic crisis.”

Dr Anthony White, Senior Adviser, Climate Change Capital

“The Climate Change Act and the creation of DECC have been a good start to the massive shift in emphasis and institutional structures that the CEMEP agenda requires. However dispersion of the individual policy developments to multiple departments leaves limited accountability and transparency for delivery. This is slowing pace and risks inconsistent and contradictory signals to the market.”

Peter Young, Chairman Aldersgate Group and Strategy Director, Enviros

Introduction

‘As I look round at the challenges and opportunities of our economy today, and the tasks we face ahead, I don’t think we will have the strength of recovery we need unless it is a low carbon recovery. So the task we face is to win a very big share for Britain of a fast expanding global market for low carbon goods and services’²

Prime Minister Gordon Brown

The Commission on Environmental Markets and Economic Performance (CEMEP) was established by the UK Government³ in the light of the Stern Review to make detailed proposals to ensure the UK is in the best possible position to seize the new opportunities of the low carbon economy. The Commission published twenty four detailed recommendations in November 2007 (see Annex A) that would help attract the investment today to create tomorrow’s prosperity and jobs.

Gordon Brown launched the government response to CEMEP at the Prince of Wales May Day Summit last year. Entitled *Building a Low Carbon Economy: Unlocking innovation and skills*, the report welcomed CEMEP for making a “valuable contribution to thinking on how the UK can make the most of the synergies between economic and environmental objectives”⁴ and outlined government progress in a number of key areas. It also responded to each of the twenty four recommendations, all of which were embraced and none rejected.



A year has now passed and Commissioners are understandably looking for evidence that the recommendations have been acted on; if not specifically, at least with spirit and substance. Despite the challenges posed by the global recession, the Prime Minister remains committed to driving investment and enterprise in environmental markets, as the quote above testifies. A low carbon economy will be clean, efficient, energy-secure and competitive. There is simply no sustainable future in a high carbon economy.

This study, based on interviews with the CEMEP Commissioners and wider analysis from the private, public and third sector members of the Aldersgate Group, reviews government performance in relation to the CEMEP report and makes recommendations for achieving a credible and ambitious low carbon industrial strategy and economy. Is the UK doing enough to realise its ambitions to be a global leader in the industries of the future? Has implementation of the CEMEP report been sufficient, methodical and comprehensive? What policies remain desirable in the current economic climate and how has this impacted on the wider environmental agenda? The ultimate goal remains the same as the original CEMEP one: to make the UK one of the best locations in the world to develop and introduce low carbon and resource-efficient products, processes, services and business models.

² Brown, Gordon (6th March 2009) *Speech to Low Carbon Industrial Summit*.

³ References to ‘government’ or ‘the Government’ should generally be construed as applying to both the UK and devolved administrations in their respective areas of responsibility.

⁴ HM Government (May 2008) *Unlocking Talent: Building a low carbon economy*, p3.

The Environmental Sector

*'We are on the edge of a low carbon industrial revolution. Everything is going to change... Low carbon is not a sector of an economy – it is an economy.'*⁵

Business Secretary Peter Mandelson

The transition to a low carbon, resource efficient economy is inevitable to meet the global challenges of climate change, energy security and sustainable development. As noted by CEMEP, there will be winners and losers in this shift, but there are considerable opportunities for those countries and businesses with the foresight to seize them.

CEMEP sought to promote a policy framework to drive investment and enterprise in environmental markets in the UK and provide more effective support for the development and commercialisation of environmental innovations. This is no simple task. Commissioner John Cridland, CBI Deputy Director-General, made clear that "the massive investment of private capital required for the transition to a low carbon economy will only be forthcoming if there is certainty about the direction of government policy, a robust price for carbon, a clear planning and regulatory structure, the right regime for tax and intellectual property, and the skills that will be needed to bring all this new kit to market."

Despite these challenges, the CEMEP report recognised that there is a competitive advantage to be gained for the UK by anticipating future environmental needs and undertaking bold and early action. This was reinforced more recently by the Climate Change Committee who demonstrate that competitive advantage can arise as a by product of stretching environmental standards. For example, specific policy commitments to low-carbon energy development have helped create Danish and German leadership in wind turbine manufacture, and Japanese and German leadership in solar photovoltaic cells⁶. However, as CEMEP noted, a targeted approach is required as "the policies required are not cost free" and "there will be a trade-off between short term costs and the potentially huge but uncertain longer-term economic benefits in the form of higher growth and greater job creation that might have been achieved otherwise."⁷



The Government recently commissioned independent research⁸ to determine the scale of these potential economic benefits and the results were encouraging. The global environmental goods and services sector is currently valued at £3 trillion and growth is forecast to continue despite the current economic difficulties. The UK is the world's sixth largest low carbon and environmental economy, employing over 880,000 people, with an additional 400,000 jobs expected to be created over the next eight years. However, there is still much room for improvement. The UK only has 3.5% global market share and pre-recession was exporting five times less than Germany, a major European competitor.

5
Mandelson, Peter (6th March 2009) *Speech to Low Carbon Industrial Summit*.

6
The Climate Change Committee (December 2008) *Building a Low-Carbon Economy – The UK's contribution to tackling climate change*, p379.

7
HM Government (November 2007) *Commission on Environmental Markets and Economic Performance*, p5.

8
Innovas (March 2009) *Low Carbon and Environmental Goods and Services: an industry analysis*.

Creating an effective overall policy framework is essential for the UK to reap these rewards. CEMEP identified environmental policy as the critical factor for supporting investments, creating and shaping a market that would not otherwise exist. Direct government support is also required for the larger scale deployment of emerging innovations and to develop the technologies and skills necessary for the economic transition. As green business becomes big business, there is fierce competition between governments to set the most attractive business, policy and regulatory environment, as the quotes below testify.

“We have already seen companies active in the renewable energy sector abandon their operations in the UK to focus on the US, where the policy and planning environment is more favourable.”

Commissioner Emma Howard Boyd, Director, Jupiter Asset Management

“The US is now moving out of the slow lane and into top gear in the race against climate change. The UK must show a greater sense of urgency if it is rise to the challenges and grasp the opportunities that lie ahead.”⁹

Richard Lambert, CBI Director-General.

“The UK has only a small window of opportunity if British firms are not to be left behind in the international race to dominate international environmental markets.”

Adrian Wilkes, Vice-Chairman, Aldersgate Group & Chairman, Environmental Industries Commission.

9
CBI (6th March 2009)
CBI comment on launch
of low carbon industrial
strategy



The Impact of the Global Recession

‘The CEMEP deliberations took place during the first half of 2007 in an era of relative economic stability, when the UK was experiencing rising employment, rising investment, and was growing faster than any other G7 economy. The headline forecasts from the 2009 Budget demonstrate how much has changed in the last two years: the UK is facing the worst financial crisis since the Second World War, Britain’s public debt will rise to 79% of GDP and public finances will not return to comfortable levels until at least 2017–18. This new economic outlook severely impacts on the low carbon economy agenda and the original CEMEP recommendations, presenting both formidable challenges and exceptional opportunities.’

The policies required to drive green investment are not cost free. Spiralling public debt will mean there is likely to be severe spending cuts to regain control of public finances. In response, the Government must be more strategic in its approach to environmental markets, identifying areas where the UK has or could have competitive strengths. Commissioner Professor Jim Skea, Director at the UK Energy Research Centre, advised that “the UK shouldn’t waste time trying to catch up with technologies that are well established elsewhere; we would be better off focusing on gaining the edge in, for example, second generation photovoltaics.”



For the private sector, the credit squeeze, coupled with a fall in carbon and energy prices, is creating greater risks for investments in renewable and other low carbon infrastructure, leading to project delays and failures. To overcome difficulties in raising the necessary finance, the Government must provide comprehensive support. Progress was made in the Budget with the announcement that up to £4 billion of new capital will be made available from the European Investment Bank (EIB) for energy investments. Building on this, new financing mechanisms need to be fully addressed in the low carbon industrial strategy, such as targeted ‘green’ bonds whose proceeds would be ring-fenced for investment in tangible low carbon infrastructure.

At the same time, one must bear in mind that the CEMEP report focused on effective policy instruments to drive investments in environmental markets and do not necessarily require extensive spending by government. More widely, many low carbon investments, such as energy efficiency, will provide positive returns with short payback periods and stimulate employment. As noted by Commissioner Tom Delay, Chief Executive of the Carbon Trust, “despite the recession, the cost to fund the transition to a low carbon economy is manageable in the short term and negligible in terms of long term GDP growth. The benefits of moving quickly will more than offset the impact on the limited number of disadvantaged industrial sectors.”

The ability of the Government to prioritise environmental policy-making was identified by Commissioners as a significant concern and it is safe to say “the Government is not currently being kept awake at night worrying about zero carbon but zero credit”¹⁰. Naturally, the current spotlight will be on short term imperatives but the Government must ensure this does not impede longer term policy objectives. Accordingly, Commissioner Emma Howard Boyd, Director at Jupiter Asset Management, said:

“The Government is at an important juncture. It is attempting to balance the pressing needs of an economy in recession with long term environmental challenges, which themselves are key economic issues. While the Government is taking strides in the right direction, it is important that all policy decisions are consistent with its environmental commitments. This is necessary if we are to mitigate the long term economic risks presented by climate change.”

In the short term, as the Government seeks to stimulate growth during the recession, there is a compelling case to ensure that a large proportion of this spending is directed towards combating large scale market failures such as climate change, energy security and resource depletion. This is consistent with demands for a ‘Green New Deal’, inspired by Franklin Roosevelt’s public spending programme to end the 1930s depression, which would help create jobs, stimulate growth and prevent future shocks to the economy that could be much more severe and long-lasting than the current one. While the Aldersgate Group called for 20% of the fiscal stimulus to be ‘green’, as recommended by Lord Nicholas Stern¹¹, HSBC estimated that the UK proportion is presently only in the region of 10.6%¹². This represents a missed opportunity. The UK’s green fund is considerably less in real terms than competitors such as America, China and France and puts the UK at a competitive disadvantage.

Lord Stern has also made clear that it is “important that fiscal measures that are not explicitly ‘green’ do not make achieving climate change goals more difficult by subsidising greenhouse gas emissions or locking in high-carbon infrastructure for decades to come”¹³. Commissioner John Van Reenen, Director at the London School of Economics, agreed with this perspective, stating that environmental risks must be reduced globally and it is “important for the UK not to lock into high emissions growth”.

What’s more, the sheer size of the bank bail outs and public debt (predicted to rise to 79% of GDP) dwarf the estimated costs of climate change mitigation policy; the Climate Change Committee suggests that the costs to the UK of an 80% reduction of greenhouse gas emissions by 2050 is 1–2% of GDP. This now seems an even more prudent investment (to help secure future economic stability) and the current economic crisis must be utilized as a once-in-a-generation opportunity to restructure the economy in a more sustainable way. This demands a step change in policy rather than incremental improvements. Commissioner Peter Young maintained that “the UK has been particularly hard hit by the global economic shocks and high environmental standards will ensure the new economy will be more resilient, more long lasting and more profitable”.

The new economic climate does render parts of the CEMEP analysis outdated and this should be addressed in the Low Carbon Industrial Strategy. Furthermore, the Government must be transparent in its approach to revenue raising initiatives, such as a green tax shift and accelerating the auctioning of EU Emission Trading Scheme permits, as well as attaching ‘green’ strings to bank bail outs or sector support initiatives.

Overall, it is evident that the global economic crisis is both a threat and opportunity to the UK’s ambition to be a global leader in the environmental sector and requires a bolder and more targeted policy response than was envisaged by CEMEP.

10
Commissioner Professor
David Fisk, Imperial College

11
Alex Bowen, Sam Fankhauser,
Nicholas Stern and Dimitri
Zenghelis (February 2009)
*An Outline of the Case for a
‘Green’ Stimulus.*

12
HSBC Global Research
(22nd April 2009) *Green
Stimulus: Round 1 to Asia.*

13
Alex Bowen, Sam Fankhauser,
Nicholas Stern and Dimitri
Zenghelis (February 2009)
*An Outline of the Case for a
‘Green’ Stimulus.*

14
Committee on Climate Change
(December 2008) *Building
a low carbon economy: the
UK’s contribution to tackling
climate change.*

Overall Findings

‘Progress on CEMEP will be complex and cannot be achieved overnight. There have been some good strands, not least announced in the recent Budget, but there is still a lot of room for more ambition and urgency.’

Commissioner Frances O’Grady, Deputy General Secretary, TUC

There has been a steady stream of progress in environmental policy-making since the launch of CEMEP and incremental advancements have been made in relation to specific recommendations. A number of developments in the Climate Change Act, zero carbon homes, EU Emission Trading Scheme (EU ETS), the Carbon Reduction Commitment (CRC), feed-in tariffs and a host of other initiatives, frameworks and regulations have been very positive and help at least partially to justify the UK’s self-declared assertion to be a global leader in combating climate change.

However, there is still much room for improvement. This is evident in our wider analysis, which assesses government performance in relation to the four key themes identified by the Government in its response to CEMEP: setting a long term policy framework to encourage the confidence for business to invest; creating the conditions to allow innovation to flourish; ensuring the economy has the skills needed to be successful; and delivering this agenda through collaboration between government, business, trade unions, educational institutions and others.

Commissioners also identified general barriers that are slowing down progress towards the UK’s ambition to be a leader in environmental markets. These can be summarised as the need for: an injection of urgency, particularly in the progression of a low carbon industrial strategy; a more unified, joined up and coherent approach; a step change so that CEMEP recommendations move from the margins to the centre ground of policy-making; and effective delivery to match the rhetorical commitment to the environment.

Lack of urgency

Climate change and resource depletion are critical market failures that demand an urgent and comprehensive policy response. CEMEP showed that beyond the associated short term cost, there are economic benefits in taking the lead and exploiting ‘early mover’ advantage. Against this backdrop of urgency, the Government has been too protracted in responding to the CEMEP recommendations and in wider management of environmental policy.



One major concern that was often cited by Commissioners was that the Government has taken its foot off the pedal after the publication of the CEMEP report. It should have published its response as a consultation and immediately embarked on a corresponding industrial strategy. While this is now due to be published imminently it has taken over a year and a half to materialise and the material released to date appears inferior to the CEMEP analysis. Professor Paul Ekins of King's College London summarises this lackadaisical approach as follows:

“Although the CEMEP report was by no means the last word, it was a publicly funded process that brought together a huge resource of expertise to produce twenty four well substantiated recommendations. But the process seems to have stopped there. The vision for the Low Carbon Industrial Strategy (March 2009) has reverted to crass consultation mode, asking the world what needs to be done in a way that is not extremely helpful, especially as CEMEP had got a great deal further than that.”

Despite these setbacks, Commissioners eagerly await the publication of the Low Carbon Industrial Strategy as if it builds on CEMEP it could make a huge contribution to the growth of the UK environmental sector. Accordingly, Commissioner Frances O'Grady stated that the “TUC has long argued for the need for an intelligent industrial strategy, recognising climate change as a market failure, accelerating success and generating quality jobs. It should build on CEMEP and the practical measures required to deliver it.”

A coherent approach

If the Government wants to realise its ambitions to be a leader in the low carbon and resource efficient economy, a thorough step change across the piece is required, penetrating all government departments and all levels. This is the challenge that CEMEP set, and although acutely demanding and multifarious, the pace of change has been too sluggish and sporadic.

Some headway has been made. The creation of the new Department for Energy and Climate Change (DECC), merging these two inextricably linked areas of policy, was viewed very positively by Commissioners. Then again, it is evident that fractions of Government, particularly officials at the Treasury and Number 10, have not been fully won over by the CEMEP recommendations. Moreover, progress can be hampered by civil service officials all too often only responding to the narrow set of interests of their function and department without sufficient incentive to consider the broader picture (for example, see carbon reporting on page 32).



To develop a more unified Government approach, a number of Commissioners proposed the formation of a Cabinet Committee on Climate Change and Resource Depletion. Commissioner Jim Brathwaite, Chairman of SEEDA, suggested that such a body, chaired by the Prime Minister or Chancellor, would “get all the government departments to move forward in a more coherent way and help join the dots on issues such as green public procurement and skilling-up the civil service.”

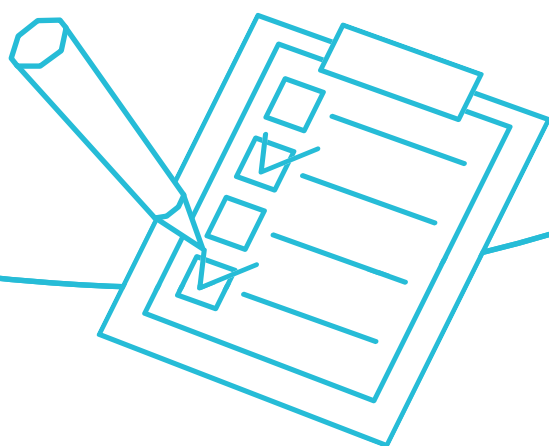
The Climate Change Act provides a unique opportunity to ensure departmental priorities are co-ordinated to optimise carbon budgets like fiscal ones. They should be implemented with similar powers and mechanisms in place to ensure strict compliance and a coherent Government approach.

Another prevalent obstacle identified by Commissioners was the disconnect between strategic Ministerial commitment on the one hand and tactical implementation by civil service officials on the other, who could be much more conservative in their views on climate change and resource depletion. Under this perspective, implementation of CEMEP has been like “pushing string – you get some progress but an awful lot of bend”¹⁵. A sustained change of culture is required – which would have to be initiated at both Ministerial level and the National School of Government, the body that provides management training for the civil service.

While vast improvements could be made, it would also be unhelpfully unrealistic to expect the Government to always act in an entirely consistent and amalgamated way. Commissioner David Fisk explained that “if the country is not joined up, companies are not joined up and NGOs are not joined up, you cannot expect the Government, with its myriad of constituency interests, to be fully joined up either.” However, in addition, it is of paramount importance to ensure that wider Government policies are not in conflict with environmental objectives, whether fiscal (locking the UK economy into high-emissions growth) or regulatory (such as a renewed focus on deregulation in response to the recession with the implied delay and/or avoidance of new legislation).

Transparent and comprehensive implementation

While there has undoubtedly been productive action in regard to strands of environmental policy, good practice has generally been confined to the margins of policy-making. This now needs to be stepped up to become the centre ground of public policy. To take one example, CEMEP recommended the scaling up of Forward Commitment Procurement (FCP) in the public sector – an agreement to purchase a product that currently does not exist, at a specified date, providing it delivers agreed performance levels and cost. While DIUS have supported a number of innovative flagship projects, there is a massive opportunity to scale this up to make FCP common practice and be used in major public procurement contracts.



There has also been a lack of accountability and transparency in the implementation of the CEMEP report which is overseen by a cross-Whitehall body, jointly chaired by BERR, Defra and DECC. After the Commission disbanded, the recommendations were divided and distributed across the civil service. Some departmental teams recognised the enormity of the CEMEP challenge and the implementation process has been relatively successful. Yet other government officials have seemed to shirk their responsibilities, preferring to focus on other priorities.

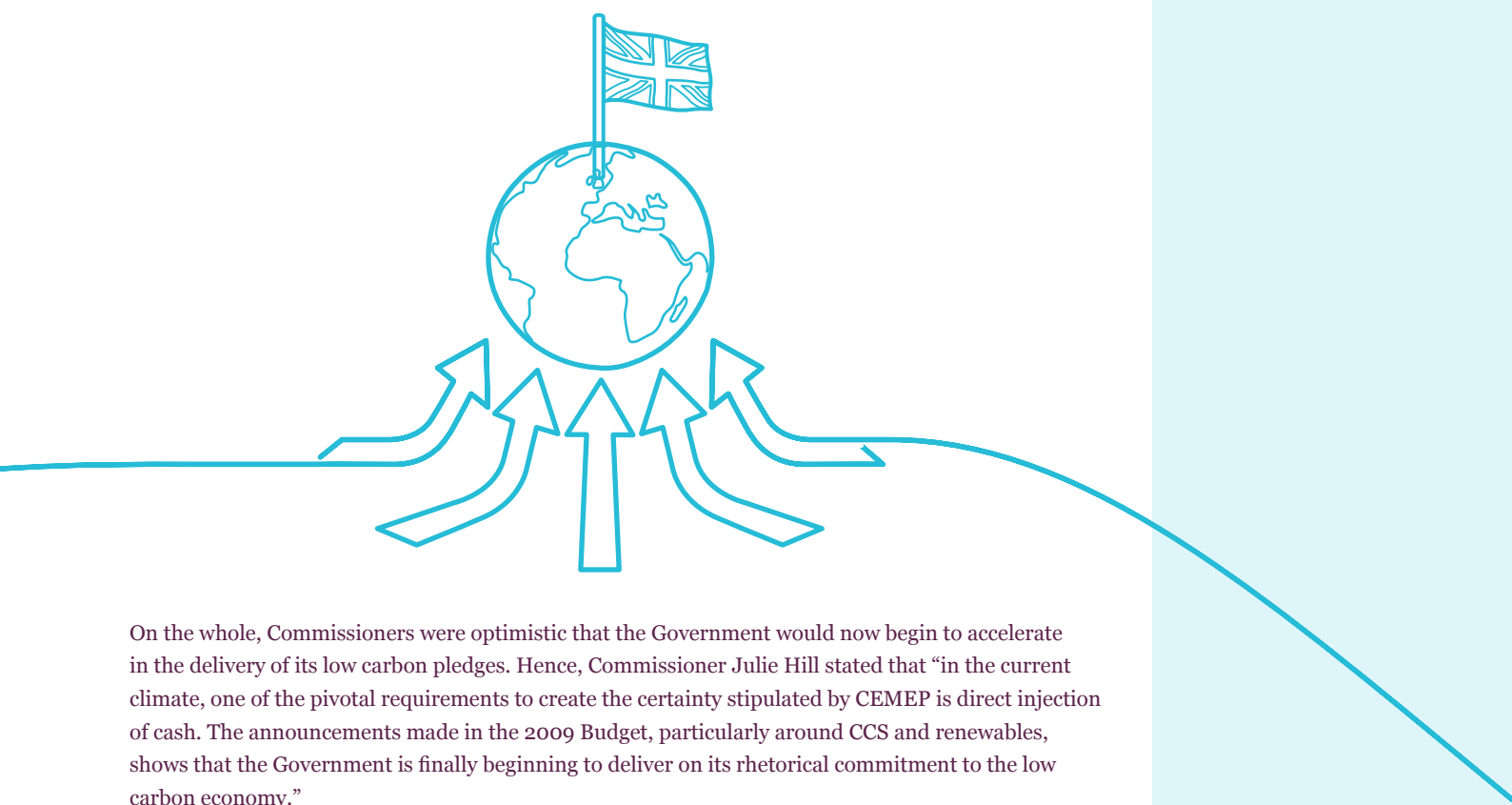
16
Brown, Gordon (6th March 2009) *Speech to Low Carbon Industrial Summit*.

17
See HSBC Global Research (22nd April 2009) *Green Stimulus: Round 1 to Asia*.

This has been further exacerbated as the over-arching implementation body has no formal commitment to monitor progress under the pretext that a more adaptive and evolutionary process is more appropriate. Naturally, recommendations should be constantly updated to reflect ever changing circumstances but this could still be undertaken in a more formal, transparent and systematic way. Commissioner Peter Young noted that “the big danger identified at the time of CEMEP was that it might all be to no avail if there were no systems in place to ensure transparent implementation moving forward, and these concerns have been realised to a certain extent”. This must be rectified and a more methodical implementation approach is required for the Low Carbon Industrial Strategy, with independent scrutiny from a body such as the Climate Change Committee.

Delivery to match the rhetoric

Commissioners generally felt that government progress is often beleaguered by an almost paradoxical approach to environmental challenges. Global leadership, valiant rhetoric and aspiring target-setting are rarely complemented with the sufficient action to achieve these laudable aims, resulting in a shortfall in credibility. For instance, Gordon Brown has committed to constructing a “green new deal that will pave the way for a low carbon recovery and help us build tomorrow’s economy today”¹⁶, but the actual size of the green component of the UK’s fiscal stimulus was considerably below the global average and major international competitors¹⁷.



On the whole, Commissioners were optimistic that the Government would now begin to accelerate in the delivery of its low carbon pledges. Hence, Commissioner Julie Hill stated that “in the current climate, one of the pivotal requirements to create the certainty stipulated by CEMEP is direct injection of cash. The announcements made in the 2009 Budget, particularly around CCS and renewables, shows that the Government is finally beginning to deliver on its rhetorical commitment to the low carbon economy.”

However, the inability to plan ahead has put the UK at a competitive disadvantage and it has much ground to make up, above all in scaling up domestic capabilities. Sir John Harman, Director of the Aldersgate Group, pointed out that “one result of the Danes forcing the pace on windpower by public subsidy or the Germans expanding their small-scale renewables by paying a reasonably attractive price for electricity fed into the grid, has been that we are now scrambling to buy the products of the industries that they created, and doing so in a seller’s market. Last summer the Government announced a massive expansion of offshore wind generation which will raise demand through the roof but there has been almost no forward planning on the supply side. As a result, other economies’ order books are full and costs are escalating.”

1 Long Term Framework

A key principle of CEMEP was that the Government should create a 'long, loud and legal' policy framework: one that is clear, credible and unambiguous and applies over a long enough timescale for investment. This is essential to provide industry with the confidence to make the major investments needed to design and bring sustainable products and services to the market. As Commissioner Julie Hill explained, "providing the certainty stipulated by CEMEP is even more important during the credit squeeze, as investors become more risk averse."

In terms of implementation, Commissioners indicated that the Government has set a number of ambitious regulations to achieve keystone policy objectives in areas such as climate change mitigation, energy efficiency and waste reduction consistent with the "long, loud and legal" mantra advocated by CEMEP. The Climate Change Act was singled out for particular praise, although the Government must now be more transparent about how individual policy decisions are consistent with its carbon budgets. In response to the recent collapse in the carbon price of the EU ETS, Commissioners advocated the need for an urgent policy response and serious consideration needs to be given to the implementation of a price floor to advance investments in low carbon technologies during the global recession. Other priority areas for the UK are the setting of dynamic performance standards (for example, standing firm in the face of counter pressures to weaken the EU Eco-design legislation), building on recent reforms to the impact assessment process to ensure that it incorporates the potential of innovation to deliver better, cheaper solutions, and clarification on future specifications for smart meters.

Government should create credible, long term goals

The introduction of the Climate Change Act with laudable medium and long term carbon reduction targets is exactly the kind of legally binding framework that CEMEP called for. The unique framework, including the publication of carbon budgets and independent scrutiny from the Committee on Climate Change, endows credibility and demonstrates leadership on the global stage. As such, Commissioners offered the following endorsements:

"Business knows it needs to invest heavily to get us on a trajectory to achieve our low carbon reductions. But it stands no chance of doing that if it doesn't have certainty about where government policy is going forward. Independent carbon budgets give that framework of certainty that will encourage business investment."

Commissioner John Cridland, CBI Deputy Director-General.

"The system of budgets and targets incorporated in the Climate Change Act is an innovative, transparent and useful framework for combating climate change."

Commissioner Professor Jim Skea, Research Director, UK Energy Research Centre.



CO₂

CO₂

CO₂

To enhance business and investor confidence, the Government must be transparent about how individual policy decisions and carbon budgets relate to each other. For that reason, Lord Nicholas Stern states that big transport decisions “should be taken only if they make sense in the context of a coherent carbon and transport policy”¹⁸ and after examination from the Committee on Climate Change. Commissioner Peter Young agreed with this point, declaring that “businesses must be clear what the trade-offs are and how the carbon budgets directly relate to them, sector by sector, product by product”.

There are a number of other encouraging examples of clear, long term and driving government policy frameworks. A noticeable example is the commitment for all new homes to be zero carbon by 2016, with two interim targets along the way. This sets out the future direction of building regulation (despite continuing uncertainty over the definition of zero carbon which has not been made clear enough from the outset) and will both drive innovation and bring down the cost of zero-carbon solutions. There is also the Waste Strategy for England 2007 which includes bold targets for waste up to 2020 and a range of measures to achieve them. The Carbon Reduction Commitment, a legally binding, mandatory scheme to promote energy efficiency, has already led to a step change in business attitudes towards emissions reductions, but it should be made more ambitious in terms of absolute emission reductions and the number of companies incorporated¹⁹, as well as resolving a number of outstanding design issues.

Lastly, CEMEP recommended that policy on material resources would benefit from a clear, long term direction and tasked the newly established Products and Materials Unit in Defra to facilitate this. While this body has done some useful analysis drawing up measures and timetables for reducing the environmental impact of ten priority products and engaging business in a useful way, it is a voluntary mechanism and so is not a forceful enough driver for change. For example, while aspects of the Sustainable Clothing Action Plan²⁰, launched at London Fashion Week, builds on existing initiatives and coordinate stakeholder action, it does not set firms challenging goals to work towards. This is in contrast with the “long, loud and legal” framework advocated by CEMEP.

Reducing uncertainty of carbon prices

“Governments across Europe must implement a price floor into the EU ETS so that real, focused progress can be made.”

Commissioner Jim Brathwaite, Chairman, SEEDA

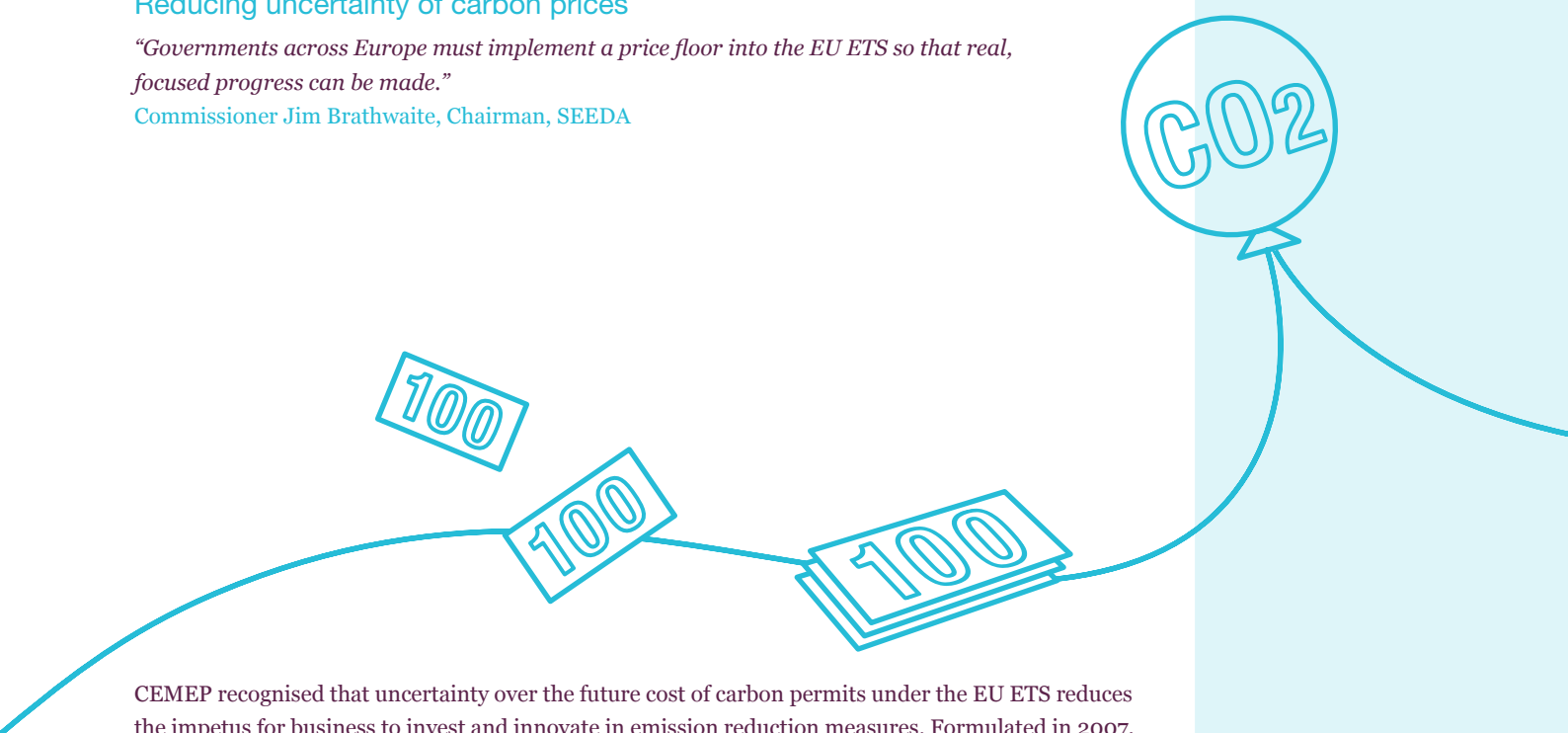
CEMEP recognised that uncertainty over the future cost of carbon permits under the EU ETS reduces the impetus for business to invest and innovate in emission reduction measures. Formulated in 2007, the CEMEP analysis centred on the over allocation of emission permits in Phase I of the scheme. Similarly, it is now becoming evident that the emissions cap in Phase II is also too high and current policy design does not allow for its adjustment to effectively address the fall in output (and hence emissions) in relation to the economic recession. The carbon price has recently fallen by around 75% to just over eight euros a tonne – a trend which has reportedly been accelerated by firms cashing in now on 2008 permits by borrowing from their 2009 quota²¹.

18
Stern, Nicholas (21st April 2009) *The Times: Enough green talk, now make it happen.*

19
For example, in its blueprint to create 300,000 green collar jobs in the recession, the Environment Industries Commission recommends lowering the threshold from 6,000 to 1,000 megawatt-hours of electricity use per year, bringing in thousands more large and medium-sized firms.

20
Defra (February 2009) *Sustainable Clothing Action Plan*

21
www.reuters.com/article/rbssEnvironmentalServices/idUSLH45991720090217



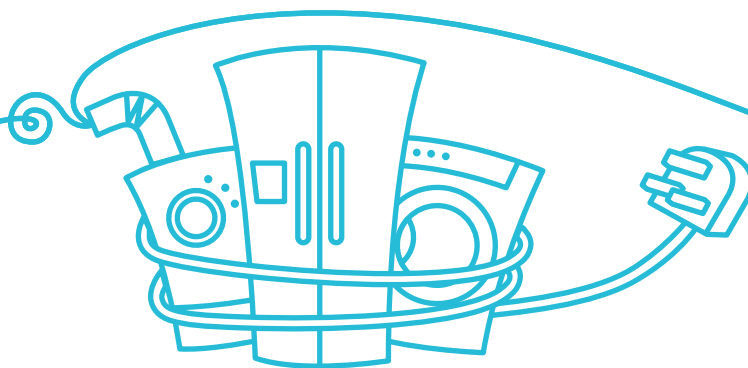
Such volatile and depressed carbon prices²² undermine the business case for long term investments in emission reductions and low carbon infrastructure. Governments must address this and demonstrate a strong commitment to reducing the risk associated with a low and fluctuating carbon price. During the CEMEP discussions, Commissioner Dr Anthony White advocated the introduction of a hybrid duty mechanism, where governments would introduce a duty when the carbon price falls below a certain level (such as £15/tCO₂). This would provide investors with confidence over the long term, provide Government with a guaranteed source of revenue and provide UK industry with a competitive advantage. Dr White stated that although it is not too late to introduce a hybrid duty mechanism, the Government has “already lost around two years since CEMEP, with a negative impact on low-carbon investments such as energy efficiency, renewable energy and advanced coal gasification with sequestration”. Lord Turner, Chairman of the Committee on Climate Change, recently supported calls for a price floor and expressed “concerns [that] if the carbon price continued at its present level it would not send the signals which are required [to investors].”²³

Dynamic performance standards

A current barrier to environmental innovation is a regulatory framework that locks in existing technologies by enforcing minimum standards or specifying best available technology. CEMEP recommended that these can be overcome by making performance standards ‘dynamic’; deliberately setting them just beyond the current best technology on the market, and progressively updating them as performance improves. In the current economic climate, bold standards will entail an additional cost for industry but are still desirable as they will ensure competitive advantage and can be designed in a flexible way to reduce the additional burden.

A key opportunity to drive such improvements is the EU Directive on the Eco-design of Energy-Using Products (EuP), which will set mandatory measures and minimum performance requirements on everyday appliances (such as boilers, white goods and office equipment). It is not widely recognised that this legislation addresses half of the EU’s entire carbon emissions. Given the high stakes, the UK must stand firm in the face of intense lobbying from Member States and industry groups who are seeking to weaken the provisions. The results so far have not been encouraging, although there is still a long way to go. For example, a labelling system for new fridges and energy efficiency standards for industrial motors have been criticised for not being ambitious enough and there is even a chance that they could be further diluted by industry. In summary, Commissioner Julie Hill stated that:

“The UK has been proactive in the eco-design process but it must keep on its toes to deliver the clear trajectories of product standards promoted by CEMEP. To ensure this certainty is bankable for companies, the UK must resist any counter pressures from other EU Member States. Performance standards have to be set high enough to warrant low carbon investment in the current financial climate.”



A missed opportunity has been in regard to tougher vehicle emissions standards, where a long standing voluntary agreement between the EU and the car industry has failed to drive the agreed improvements. A new mandatory law, passed in December 2008, has been widely criticised by environmental groups for watering down proposals on deadlines, targets and penalties. The UK has championed a much more stringent target of 95g CO₂ per km by 2020 and it must ensure that this is comprehensively implemented to ensure competitive advantage²⁴. The EU approach contrasts markedly with the Top Runner model in Japan, referenced by CEMEP, where forward mandatory targets have led to the establishment of one of the most efficient and competitive vehicle fleets in the world.

22 The Climate Change Committee project a price of £40/t CO₂ by 2020.

23 <http://www.guardian.co.uk/environment/2009/mar/04/emissions-trading-carbon-price>

24 Another missed opportunity was the car scrappage scheme announced in the 2009 Budget which should be designed in such a way as to encourage consumers to buy low-emission vehicles and not giving them “a £2000 bonus for buying a four-by-four” according to Commissioner Paul Noon.

Innovation and cost-benefit analysis

CEMEP found that the policy appraisal process has tended to focus on currently available solutions and current costs, largely because this is where reliable, monetarised data is most easily found. It states that too narrow a conception of economic efficiency, based on short run costs and benefits, risks locking in business and the economy to today's technologies, and can prevent desirable environmental goals even from being articulated. As a consequence, novel technologies with promise in the longer term, but still high on the experience (cost) curve, will be neglected and remain far from the market.

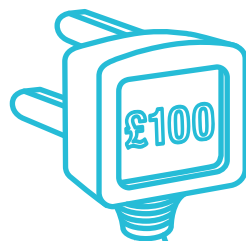


The Government has made little headway in this area. CEMEP recommended that the Government should commission a study of how the long term needs and opportunities from innovation can be incorporated into cost-benefit analysis guidance but no study has been undertaken. Furthermore, none of the inter-departmental working groups set up by the Treasury to examine issues relating to cost-benefit analysis focus on innovation. The Government must urgently address this oversight and ensure that the policy-making process incorporates the potential of innovation to deliver better, cheaper solutions.

Smart metering

CEMEP acknowledged that 'smart' metering of utilities has great potential to improve the engagement of consumers (both domestic and business) with their electricity, gas and water use. It stressed the need to avoid a fragmented and piecemeal approach which would hinder the cost-effective market deployment of smart metering technology, and noted that suppliers would be unwilling to invest without certainty about a secure future market and clarity about the required functionality.

Although the Government remains committed to rolling out smart meters to all domestic customers by 2020 and advanced smart meters to all large business within five years, a 'long, loud and legal' policy signal has been slow to materialise. The Government has recently launched another consultation on smart metering²⁵ and must ensure outstanding issues are dealt with quickly. These will be complex to overcome (not least the incorporation of heat in addition to gas and electricity) but a degree of future proofing will ensure any meters can be easily upgraded to respond to future needs (and could even be upgraded remotely).



In the water sector, CEMEP advised that smart meters, along with a clear government commitment to introduce flexible tariffs, would create a future market requirement against which suppliers could invest in product development. Commissioner Sir Peter Mason, Non-executive Chairman of Thames Water, noted that current regulation "does not adequately address the need for smart metering and this might be a missed opportunity."

2 Creating the Conditions for Innovation

‘A much stronger link between the UK’s climate change and innovation objectives needs to be established quickly. Without this the UK is in danger of being overtaken by other countries in key low carbon technology markets’.

Commissioner John Cridland, Deputy Director General, CBI

Innovation will be central to building the low carbon and resource efficient economy. A fundamental observation of the CEMEP report was that “governments are not generally good at picking winners”²⁶. It advised policy makers to clearly articulate the market failure and specify the support it would provide to overcome it, thus allowing the market to find the solutions. Yet the Government has persistently done the reverse and attempted to prescribe the solutions to environmental problems, whether in the design of the Renewables Obligation (which the Government is reforming so it is no longer skewed towards specific technologies such as onshore wind generation), carbon capture and storage or the infrastructure for low carbon cars.

During the recession, targeted deployment support mechanisms for renewables must be ambitious and sufficiently joined up to prevent job losses and ensure UK firms can compete with international entrants to the UK marketplace. While there has been sufficient support in the development of Forward Commitment Procurement (FCP) projects, specifying future performance levels and cost as opposed to locking in current technologies, this now needs to be scaled up to become common practice and used in major procurement contracts. There is also a strong case for increasing levels of research, development and demonstration to match international competitors, but in the context of restricted public spending, good value for money must be ensured so that technologies are successfully brought through to the market. In the energy and water sectors, the economic regulators (Ofgem and Ofwat) should have a more explicit duty to promote innovation and sustainable development.

Targeted deployment support for renewables

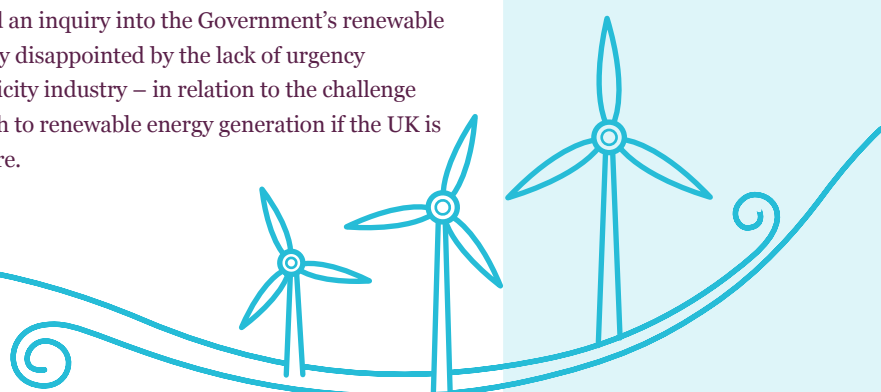
CEMEP noted that targeted support is essential to build scale and reduce costs for renewable and low carbon energy technologies which are not currently cost competitive. While the UK has committed to a tenfold increase in renewable energy generation by 2020 and is anticipating spawning £100 billion of investment, there continues to be a general lack of direction on how this objective will be achieved. Such concerns were voiced by Phil Willis MP, who chaired an inquiry into the Government’s renewable energy strategy, and stated that “we have been consistently disappointed by the lack of urgency expressed by the Government – and at times by the electricity industry – in relation to the challenge ahead”²⁷. The Government must revolutionise its approach to renewable energy generation if the UK is to meet its targets and lead in the technologies of the future.

In terms of specific sectoral support mechanisms, government performance remains mixed. On the positive side, recent announcements on the Renewables Obligation, the main support scheme for renewable electricity projects in the UK, are welcome and will provide business with longer term confidence. These include increased support for offshore wind and the extension of the scheme by ten years to 2037. It is hoped that other planned reforms, particularly to the banding system, greatly increase the uptake of the quantity, novelty and diversity of technologies. To encourage microgeneration, the Government has belatedly agreed to introduce a feed-in tariff as part of the Energy Act and this must be designed in such a way as to maximise small scale sustainable electricity generation which the mechanism has been so successful in driving worldwide²⁸.

26
HM Government
(November 2007) *Commission on Environmental Markets and Economic Performance*, p21.

27
Innovation, Universities, Science and Skills Committee
(16th June 2008) *Press Release: Renewable Electricity-Generation Technologies*.

28
See Renewable Energy Association (March 2009) *Tariff Blueprint Document*.



A significant impediment identified by Commissioners was an overall lack of strategic approach and apparent disconnect between different government subsidy programmes. For example, only four days after the Government launched its vision for a low carbon industrial strategy, it announced that it would be suspending funding for solar power grants under the Low Carbon Building Programme. According to Jeremy Leggett, Executive Chairman of Solar Century, this would have led to a “death year” before feed-in tariffs were introduced, severely hampering the industry’s ability to compete with German, Chinese and American entrants into the market. While the Government belatedly filled this funding hole in the 2009 Budget, it gave the industry very little notice, which is not consistent with the principles of certainty and credibility stipulated by CEMEP.

Planning permission also remains a key barrier, and it is hoped the new Planning Act will help to progress planning applications for renewable energy projects. Another general observation was that Government support mechanisms on innovation tend to target “big companies that are already established rather than SMEs and new entrants to the market”²⁹ and this should be rectified.

Forward commitment procurement model

CEMEP recommended the scaling up and replication of Forward Commitment Procurement (FCP) in the public sector – an agreement to purchase a product that currently does not exist, at a specified date, providing it delivers agreed performance levels and cost. While DIUS deserves a lot of credit for its earnest response to this recommendation, including running an Innovation for Sustainability Competition which supports a number of innovative flagship projects, it still remains at the margins of policy-making. Commissioner Dr Jonathan Frost said:

“The strategic and tactical approach by DIUS certainly has its merits, but FCP urgently needs to become a mainstream public procurement tool and, for example, used in the Private Finance Initiative (PFI). These cumbersome and old fashioned contracts for major capital projects make excruciatingly detailed specifications up to twenty five years in advance and the technologies quickly become outdated, obsolete and costly.”



DIUS must heed this advice and ensure it puts into place a more encompassing, longer-term strategy for wider implementation. Commissioner David Fisk argued that “it would be a crime if the pilot proved successful and FCP was not rolled out much more extensively”. In order to scale up the implementation, the implications on the skills side must be addressed to ensure that public procurers have the expertise to undertake complex FCP contracts on a large scale³⁰.

Support for research, development and demonstration

“The Technology Strategy Board and DIUS have been a breath of fresh air in terms of ‘technology push’ R&D. While this is driving forward new capabilities, ideas and potential, these technologies are not being successfully brought through to the market place and this is the greatest challenge.”

Commissioner Dr Jonathan Frost, Director, Johnson Matthey Fuel Cells

Support for research, development and demonstration (RD&D) leverages private sector investment into the technologies required to meet future environmental objectives and potentially create competitive advantages. To achieve this, CEMEP recommended supporting a diverse portfolio of emerging technologies consistently through the different development stages and developing transparent criteria to target those technologies with the greatest environmental and economic benefits.

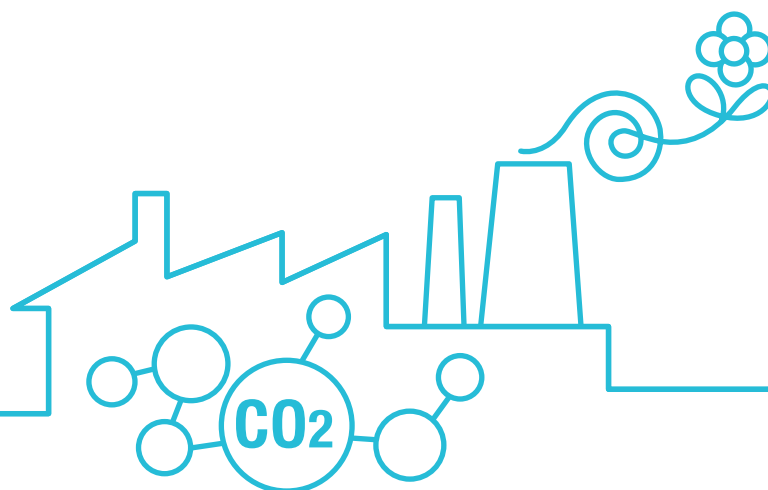
29
Commissioner Jim Brathwaite,
Chairman, SEEDA

30
Commissioner Peter Young
said that “even now most
public procurement officers
are unaware of what FCP is,
let alone being in a position
to apply it to meet their future
needs.”

All too often the Government has not heeded this advice. The most apparent example is the Government's approach to developing carbon capture and storage (CSS). In its ambitions to be a world leader in this technology, the Government had previously opted to develop merely one post-combustion demonstration project; which it only recently rectified in the 2009 Budget. CCS embodies a family of technologies and techniques which are at various stages of maturity. As it is not possible to predict which will be viable and competitive in the future, a number of demonstration projects are required that incorporates both pre- and post- combustion³¹. Commissioner Jim Skea noted that the Government must get its approach right as "CCS is one of the low carbon technologies that could have the biggest potential environmental impact and it is where there is the most to lose economically". The announcement in the Budget of a new funding mechanism that will put into place up to four demonstration projects is encouraging, as are the proposals put forward by Secretary of State Ed Miliband on the 23rd April 2009 that energy companies must demonstrate CCS on a substantial proportion of any new coal-fired power station (which should be scaled up to 100% capture when the technology is more mature).

Overall, RD&D in low carbon technologies will have to increase significantly if the UK is to meet its carbon reduction targets and match international competitors. Accordingly, Commissioner Jim Skea stated that "while there has been progress on increased funding for research and development in the energy and environmental sectors, there is still a long way to go to catch up with competitors, such as Germany, the US and Japan."

This will be challenging under current economic restraints and Commissioners were undecided if this was a prudent area for increased spending in a time of severely limited resources. On the one hand, RD&D does not always translate into tangible economic benefits and is often hampered by the patent system which needs comprehensive reform so it can better protect research outcomes. Equally, RD&D will help facilitate the development of new products and services, building options to meet future environmental needs, and create competitive advantages. There was also an impression amongst Commissioners that the private sector would be more attracted to a country with high levels of public RD&D support, complemented by tax breaks and a stream of graduates and professionals with relevant skills and expertise. This is reinforced by the Climate Change Committee, who suggest that "countries or economic regions which are early adopters of specific technologies often gain competitive advantage from the creation of self-reinforcing clusters of research, development and manufacturing expenditure."³²



In the water sector, the recent Cave review (see section below) finds that while many companies see research and development as an important driver in their business, support for such activity is low, ranging from 0.02 per cent to 0.66 per cent of turnover and the UK is responsible for fewer innovations per capita than other countries such as Australia, Germany, the Netherlands, Spain and the United States³³. Commissioner Sir Peter Mason, Non-executive Chairman of Thames Water, agreed with the Cave recommendation for the creation of an industry led research and development body, stating that "shared R&D and a co-operative approach lends itself well to industries where competition is restricted".

31
For more information, see CBI (November 2008) *Low carbon innovation: Developing technology for the future*, p3.

32
The Climate Change Committee (December 2008) *Building a Low-Carbon Economy – the UK's contribution to tackling climate change*.

33
Martin Cave (April 2009) *Cave Review: competition and innovation in water markets*, p6.

Innovation in energy and water sectors

In the key environmental markets of energy and water, the CEMEP report found that the market failures that result in the under-investment in environmental innovation are further compounded by a regulatory failure that provides energy and water suppliers with little incentive to innovate to meet environmental challenges. The economic regulators' primary duty is to deliver an efficient and cost-effective service to the consumer and it was recommended by CEMEP that there should be greater prominence to the importance of environmental innovation.

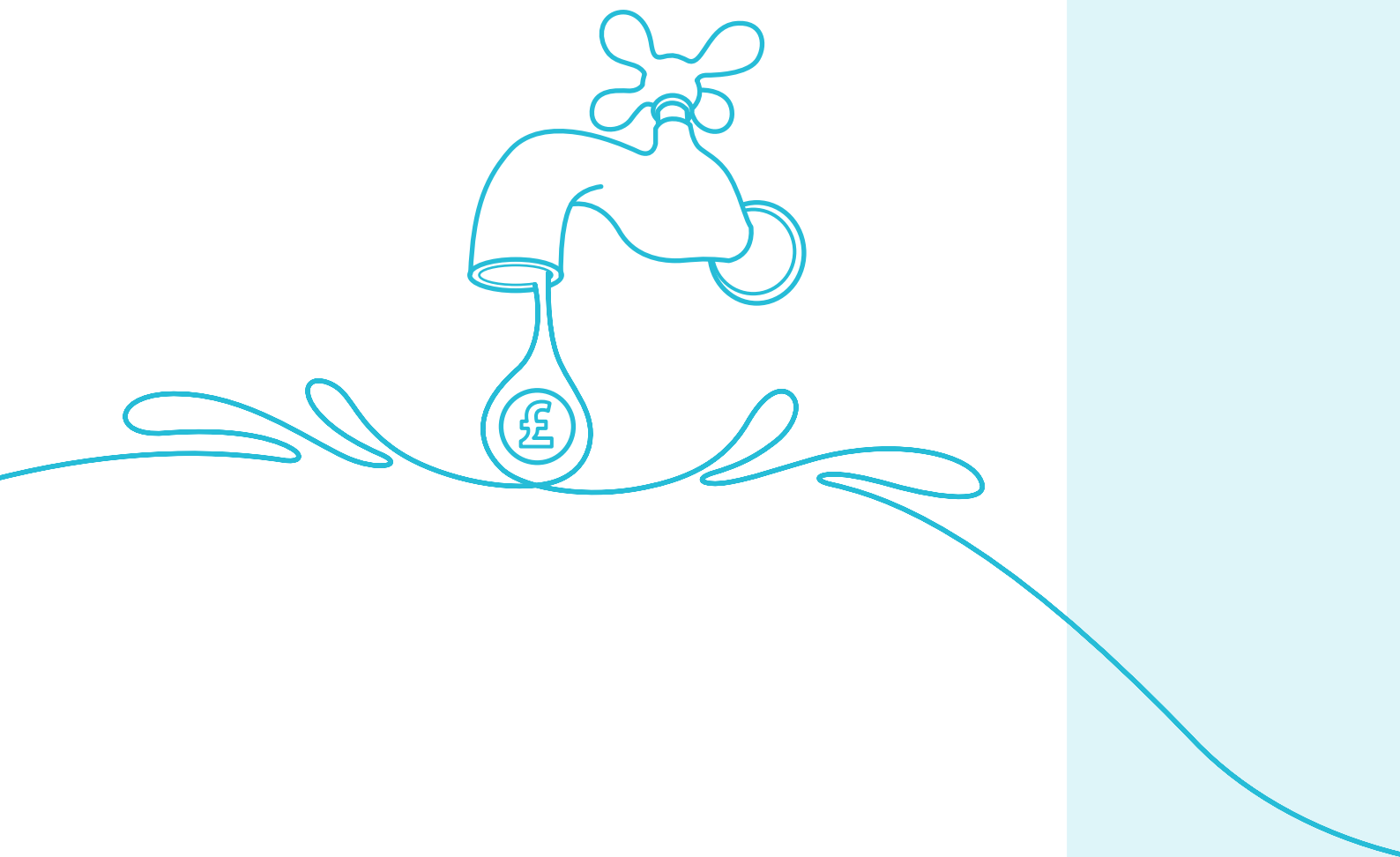
The Energy Act 2008 addressed this issue by placing Ofgem's duty to contribute to the achievement of sustainable development on an equal footing with its duties to meet reasonable demand and financing authorised activities, as well as highlighting that its principle objective, to protect the interest of consumers, refers to future as well as existing customers. These reforms are welcome, even if they could have gone further by amending Ofgem's primary duty in line with the recommendations from the Sustainable Development Commission³⁴.

In the water sector, Professor Martin Cave led an independent review of competition and innovation in water markets between March 2008 and April 2009³⁵. It recommended that Ofwat be given a statutory duty to promote innovation, giving even greater credence to the CEMEP analysis. In agreement with this proposal, Commissioner Sir Peter Mason, Non-executive Chairman of Thames Water, said:

"There is a clear mismatch between the future benefits that both government and society seek and Ofwat's remit to drive down customer bills. Without a statutory duty for innovation, there will not be the required sea change to meet long-term challenges: industry needs confidence that it will get returns from such investments."

34
Sustainable Development
Commission (September 2007)
*Lost in Transmission:
The role of Ofgem in a
changing climate.*

35
Martin Cave (April 2009)
Cave Review: competition and
innovation in water markets.



3 Developing the Necessary Skills

‘We have a mountain to climb to ensure the economy can provide the necessary skills for a low carbon and resource efficient economy’

Commissioner Jim Skea, Research Director, UK Energy Research Centre.

36
HM Government (May 2008)
*Unlocking Talent: Building a
low carbon economy, p14.*

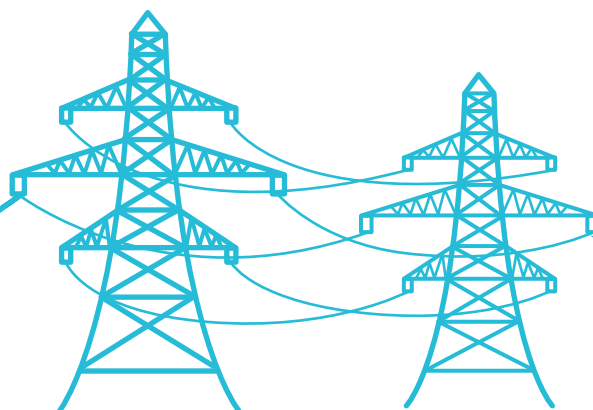
The Government acknowledged in its response to CEMEP that the “jobs of today will not be the jobs of tomorrow”³⁶ and that the UK must ensure that it is well equipped to respond to the anticipated scale of market opportunity in environmental markets. It is clear that a more coherent and joined up approach is required if the UK is to realise these ambitions and deliver the skills required in every sector of the economy.

The skills gap remains a major barrier to UK success in environmental markets, particularly in renewable and low carbon energy generation and this urgently needs to be addressed by the new National Skills Academy for Power. More widely, slow progress hampers efforts to ensure that the entire workforce is ‘sustainability literate’ and greater government ownership of the low carbon skills agenda is required. In the short term, investment in green public infrastructure would stimulate employment and economic growth and ensure the UK workforce gain the necessary skills and expertise to compete in future markets. As the largest customer in the UK economy, public procurement is an under-utilised driver in shaping the environmental market and Government must ensure that it has sufficient in-house engineering and sustainable procurement skills, as well as committed management.

Addressing the skills gap

CEMEP notes that one in three firms in the environmental sector are being hampered by a shortage of skilled staff, from those needed to install new technology to scientists and engineers. Government has responded to this challenge by creating a new National Skills Academy for Power, which will address current and future skills shortages to ensure a secure supply of electricity, and a new Sector Skills Compact to deliver more highly skilled and qualified workers in the nuclear, petroleum and oil and gas industries. However, the skills gap still represents a major barrier to UK success in environmental markets, particularly in renewable and low carbon energy generation. As such, Commissioner Frances O’Grady, Deputy General Secretary at TUC stated:

“There have been genuine steps forward in terms of developing a vision and identifying skill requirements both now and in five to ten years down the line. But there needs to be more certainty. Renewable companies will not scale up unless they can be sure the workforce will have the expertise to deliver.”



To take one example, there is a major risk that the grid infrastructure needed to meet the 2020 renewables target will not be built due to a shortage of suitably skilled labour. In an open letter dated the 13th February 2009, John Overton from the Electricity Networks Strategy Group declared:

“The availability of the suitably skilled people needed to deliver these network projects represents a major risk, as many of the people with the necessary skills are approaching retirement. Moreover, the lead time through training to full competence is long - five years or more. On top of this, there is a limited capacity to train people. The sector will need to attract new people that have the necessary skills, education and training.”³⁷

The new National Skills Academy for Power must address these skills gaps without delay to ensure the UK can compete globally in environmental markets. Commissioner Jim Skea attributed these skills shortages to a “persistent lack of high level leadership”, particularly in addressing post-graduate, high skilled, apprentice level training.

Developing an innovative supply-led approach

The demand-led approach to skills has dominated policy thinking in recent years. However, the Government has recognised the limitations of this strategy and recent research commissioned by Defra finds demand for environmental skills “is not being articulated by many employers and as a result the current ‘demand led’ skills delivery framework is ill equipped to anticipate and respond”³⁸. Hence, the Government has modified its approach to anticipate future growth in certain economic sectors³⁹ and must continue to do this (with some developments outlined in the previous section). Accordingly, Commissioner Frances O’Grady stated that:



“Climate change is the classic and most deadly example of market failure and this must be reflected in the Government’s skills strategy. The market cannot be left to its own devices. Government intervention is required to plan and invest in our skills future, with businesses also contributing their fair share of resources.”

Government leadership

CEMEP acknowledged that beyond narrow, specialist environmental knowledge, a prerequisite of a low carbon and resource efficient economy is a workforce that is ‘sustainability literate’ across the board, from formal education, to working professionals and the mainstream civil service. The sheer scale and cross-cutting nature of this challenge should not be underestimated, but progress is hampered by a “glacial pace of change” according to Commissioner Peter Young.

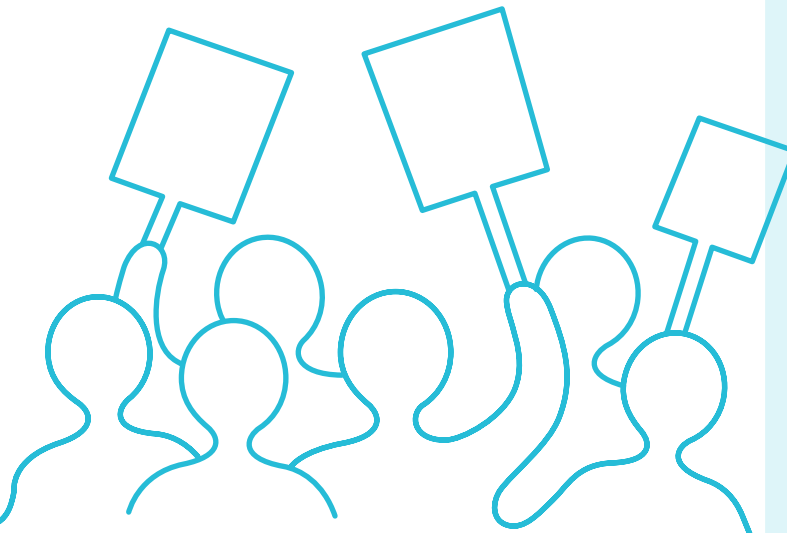
37
www.ensg.gov.uk/assets/ensg_pwg_chairmans_report_final.pdf

38
Pro EnviRo (2008) *Skills for a Low Carbon and Resource Efficient Economy: A review of evidence*.

39
HM Government (April 2009) *New Industry, New Jobs: Building Britain's future*, p15.

This was echoed by Commissioner Paul Noon, General Secretary at Prospect, who stated that although there has been progress in the right direction, it has been slow, and suggested the need for “an overarching road map detailing where we want to be in the future and how we are going to get there.”

Moreover, Commissioners were concerned that there does not seem to be effective ownership of the low carbon skills agenda within Government. CEMEP envisaged a leadership role for the UK Commission on Employment and Skills (UKCES), the body that ensures that employment and skills systems contribute to the highest levels of productivity. However, the Government has since decided that other priorities, such as the simplification of the entire skills system, should take precedence and it would not be desirable to divert effort from the core mission of UKCES at an early stage of its development. Commissioners suggested that this view needs to be balanced with the immense implications of the environmental transition for every UK business and the need for greater responsibility to formulate strategies, gather intelligence and develop key drivers. It is hoped that the Government might reconsider the role that UKCES could play in the near future, or ensure another or new body takes responsibility going forward.



DIUS have also set up a cross departmental advisory group on low carbon skills but this does not involve wider stakeholders. Trade unions, businesses and NGOs must be fully engaged in the development of the low carbon skills agenda as they have a large responsibility for its implementation and ultimate success.

Stimulating green employment in the recession

As proponents of a ‘Green New Deal’ have argued, investment in green public infrastructure would stimulate employment and economic growth in the short term and ensure the UK workforce gains the necessary skills and expertise to compete in a low carbon, resource efficient economy in the medium and long term. Commissioner Tom Delay, Chief Executive of the Carbon Trust, stated that “a green stimulus during the recession is attractive to taxpayers and a good use of their money. Energy efficiency schemes in particular could create a large number of jobs and build up the skills in the workforce that will help drive the move to a prosperous low carbon economy.”

To take one example, Commissioner James Brathwaite stressed the need for “big programmes that would have a big impact”. For example, a street by street home insulation programme for social housing that was on a scale to the conversion to ‘high speed gas’ of the 1960s would “create thousands of jobs, develop low carbon skills and re-invigorate the construction sector during the recession”. To deliver current and future environment policy, the Government must ensure it has the capacity in the system.

Training public procurers

Public procurement was identified by Commissioners as a massively underused lever for progression towards a low carbon, resource efficient economy. The UK’s £150 billion per annum public procurement budget represents a major opportunity to boost competitiveness and stimulate the market for environmental technologies. As carbon increasingly becomes a material commodity and global pressures progressively demand greater resource efficiency, there is no room for short terminism, and analysis of full life-cycle costs can save money in the future.

A recent report by the Innovation, Universities, Science and Skills Committee found that Government, in key policy areas of several departments, does not have sufficient in-house engineering expertise. In no uncertain terms, Committee members “were shocked to discover that engineering advice had been lacking in the formulation of policies as important and diverse as eco-towns, renewable energy and large IT projects”⁴⁰. Commissioner David Fisk observed that “while procurement professionals are very good at contract negotiation, greater analytical engineering skills are necessary to assess innovative and provocative bids”. The Government should address this deficiency without delay, providing real opportunities in terms of career progression, and strengthening links between the public and private sectors through secondments.



More widely, there needs to be a comprehensive transformation in public sector attitudes towards procurement. If procurers are seen as “buying tomorrow’s answers to today’s problems”, as proposed by Commissioner Dr Jack Frost, it would attract the personnel, resources and senior management attention that would lead to the sweeping cultural changes required. While there has been progress in setting sufficient standards, the more challenging task of implementation has been “like pushing a boulder up a hill” according to Commissioner Frances O’Grady. As with the wider skills agenda, nothing can be achieved overnight but an injection of urgency will be crucial for the Government to realise its ambitions to lead the low carbon, resource efficient economy.

4 Building Partnerships

The Government is committed to working in partnership with private, public and third sector organisations to ensure that they meet the challenges and seize the opportunities of a low carbon, resource efficient economy. A collaborative approach is even more essential to deliver the Government's more 'activist' approach which it sets out in its strategic vision for Britain's economic recovery⁴¹.

41
HM Government (April 2009)
*New Industry, New Jobs:
Building Britain's future.*

Resource efficiency is good for business, the competitiveness of the economy and the environment. While the Government recognises these benefits, its overall framework is inadequate to drive the massive step change that would hugely benefit the economy during the recession. In particular, there should be more short term measures to compliment the Heat and Energy Saving Strategy and a greater role for the private sector to install household energy saving measures. The publication of guidance for standardised carbon reporting is hugely welcome and if, as expected, this becomes mandatory by 2012, it will help enhance London's leading position as the carbon finance capital of the world.

Resource efficiency

"As UK companies look for strategies to weather the recession it makes business sense to cut costs by cutting carbon. Supported by the Carbon Trust, all businesses, whether big or small, should be able to realise direct bottom line cost savings through straightforward energy efficiency measures."

Tom Delay, Chief Executive, Carbon Trust

Environmental efficiency is good for business (with potential savings of billions of pounds a year), the economy (utilising funds for more productive means) and the environment. For example, the Carbon Trust has launched a campaign to help save businesses at least £1 million a day during the recession through cost effective action on energy, while similar savings can be gained through waste and water efficiencies. CEMEP noted that much of the potential can be realised by adopting best practice and utilising often simple technologies and processes. Despite rapid economic benefits, these actions are not always pursued, and the lack of information, in-house expertise and finance (confounded by the current economic climate) are constraining action.



To overcome this market failure, CEMEP proposed the need for a longer-term, better-resourced system to advise business on resource efficiency. Progress was made with an announcement in March by Defra that it would provide a one-stop-shop for business and household advice by bringing together a range of organisations under WRAP's leadership. Although welcome, it is not yet clear what objectives the new body has been set and whether it will have additional funding.

Commissioners viewed the overall Government approach to resource efficiency as inadequate to drive the indicative shift that would hugely benefit the economy and felt that more robust frameworks were required. The legally binding Carbon Reduction Commitment is welcome but could be more ambitious in terms of scope and emission reduction targets (see page 19). Additionally, sectors not covered by binding policy levers (comprising of small non-energy-intensive companies) collectively account for up to 45% of total emissions reduction potential from non-residential buildings and industry according to the Climate Change Committee⁴². Aside from carbon, there has not been enough headway made in developing a material resources policy which would benefit from a clear, long term direction (see the section on the Products and Materials Unit on page 19)

In light of the recession, resource efficiency should be aggressively pursued as it will save households and businesses money on their bills, protect the economy against future rises in energy, water and waste costs, create jobs and ensure that the UK will be more competitive when growth returns. Commissioner Paul Noon, General Secretary at Prospect, noted that “there are a lot of jobs in resource efficiency and while there has been progress, not least in the Budget, plenty more can be done.”

Commissioners welcomed the aspirations, in principle, of the Government’s Heat and Energy Saving Strategy, which was published for consultation in February⁴³. While it sets a number of ambitious targets, such as cost-effective energy saving measures to be installed in all UK households by 2030, there was concern about the lack of immediate, short term measures. Highly significant was the announcement of new finance models that will spread the costs of the investment over time, so that savings on bills are more than offset by the cost of repayments. In summary, Commissioner Anthony White, Senior Adviser at Climate Change Capital, said:



“The new finance mechanism which will be linked to the actual dwelling rather than the occupant is a very positive development as it would allow a greater role for the private sector and ensure that those who enjoy the energy savings are those who pay, over the long term, for the measures. This is an essential development since the present system makes all customers pay an annual amount for a few customers to receive subsidised measures installed in their homes. Whilst this is currently acceptable when the cost of these measures is small, such as a few £100 for roof insulation, in the future, we will need to be installing heat pumps and solar devices which cost many £1,000s and it is difficult to justify from a social equity point of view.”

The announcement in the Budget that the landfill tax escalator will be extended a further three years to 2013 is welcome, although businesses now struggling to fund the establishment of alternatives to landfill would still welcome longer-term certainty about the trajectory of landfill costs. The Government should also accelerate its work to consider the role of landfill bans in ensuring that more waste, particularly non-household waste, is recycled.

Defra’s recent work to consider the merits of a carbon metric for judging the environmental impacts of different forms of packaging has great long term importance, and this is an area that is crucial to get right, to ensure that businesses are sent the right signals. It is still imperative, as highlighted in the CEMEP report, to consider what other environmental impacts of resource use need to be considered alongside carbon – water availability, material security and biodiversity must not be left aside by the development of these new metrics and reporting methods.

42
The Climate Change Committee (December 2008) *Building a Low-Carbon Economy – the UK’s contribution to tackling climate change*, p245.

43
HM Government (February 2009) *Heat and Energy Saving Strategy Consultation Document*.

Standardised carbon reporting

The Government should be commended for tabling an eleventh hour amendment to the Climate Change Act which commits Defra to publishing carbon reporting guidance this year and paves the way for possible mandatory reporting by 2012. While the consultation on the guidance is due to be published as this goes to print, it is essential that the standards are both comprehensive and applied extensively. For example, mandatory reporting should be rolled out in 2012 to all companies that have to produce a Business Review under the Companies Act in the first instance (not affecting small companies) and not only to firms that are already part of the EU ETS and CRC (which was recently proposed by the CBI). If suitably thorough, the guidance would be a significant driver for emission reductions in the corporate sector and allow “business and consumers to behave in a more resource efficient way”⁴⁴ by ensuring transparency and creating a level playing field.

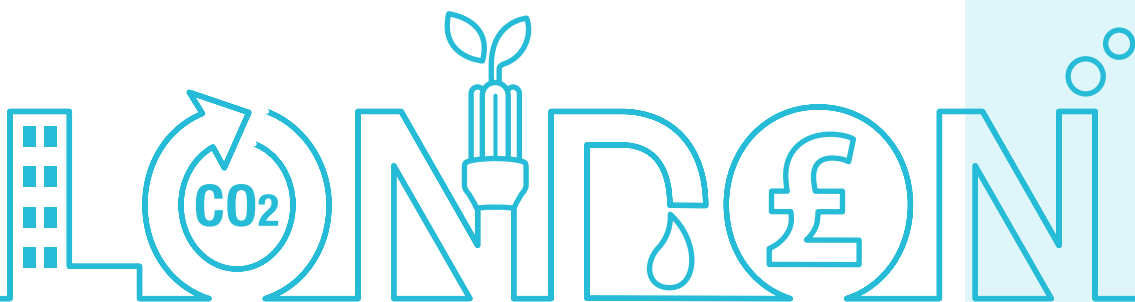
“The recession must not dampen the Government’s commitment to carbon reporting. The rapid implementation of a mandatory framework, consistent with international reporting standards, would not only be of immense value to UK plc but also help enhance London’s leading position as the carbon finance capital of the world. Without forceful action, there is every chance that New York will seize the initiative, re-invigorated by the Obama administration.”

Commissioner Peter Young, Chairman, Aldersgate Group

“There is a real opportunity for UK companies to deliver high quality carbon reporting, which will help inform them how best to adapt to a low carbon future.”

Emma Howard Boyd, Director, Jupiter Asset Management

In addition, the carbon reporting guidance must also not perversely undermine the business case for on-site renewable energy generation and in doing so put at risk a large number of innovative eco-projects. In an Aldersgate Group letter to Joan Ruddock dated the 21st March 2009⁴⁵, fifty five organisations, the majority of which were leading UK businesses, voiced their concerns over the current regulatory framework. The letter claims that this is creating barriers for corporate and public sector renewable investments as it insists that end users who receive subsidies for low carbon electricity generation must report this electricity as zero carbon. This highlights a lack of joined up and coherent policy-making, cutting right across the Renewables Obligation and Carbon Reduction Commitment (DECC), carbon reporting (Defra) and electricity tariffs (Ofgem), with insufficient scrutiny of the wider picture and perverse outcomes of individual government initiatives.



Aside from establishing standard carbon disclosure protocols, CEMEP also recommended that Government should encourage pension funds to report annually to their members on how they implement their Statements of Investment Principles (SIPs), including the extent to which they take environmental considerations into account. This has not been taken forward by the Government, missing an opportunity to ensure that long term investment decisions are consistent with sustainable development principles and help to prevent future economic shocks on an even greater scale than the current one. This is particularly disappointing in the light of the recent government focus on the ownership responsibilities of institutional investors, with no mention of this aspect in a recent consultation on reforming disclosure requirements for pension funds⁴⁶.

44
HM Government
(November 2007) *Commission on Environmental Markets and Economic Performance*, p67.

45
www.aldersgategroup.org.uk/reports

46
Department for Work and Pensions (March 2009) *Review of Disclosure of Information Requirements applying to Occupational, Personal & Stakeholder Pension Schemes*.

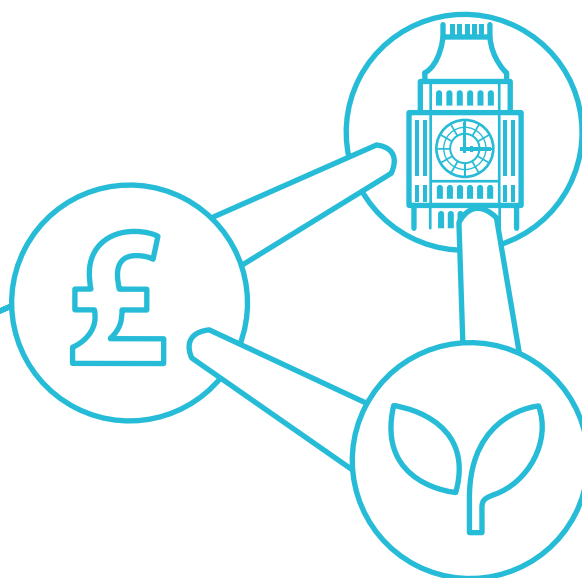
Conclusion

‘The reason for taking action now, even at short term cost, is enlightened self-interest to protect our standard of living and to make us better able to compete in the future – a future in which the triple pressures of population growth, natural resource constraint and the demand for equitable access to those resources are the forces that will shape our economy’

Sir John Harman, Aldersgate Group Director

As the Government publishes and then develops its Low Carbon Industrial Strategy, the message from the panel of experts who initiated the process is clear: the starting point must not be a blank page. A wealth of expertise, time and resources went into producing the CEMEP recommendations which are still relevant despite the current economic crisis.

The policies required to drive this transformation are not cost free and emerging challenges must be addressed, but there are considerable gains for the economies that create the right conditions for environmental markets to prosper. In truth, key recommendations such as ‘long, loud and legal’ frameworks, dynamic performance standards, Forward Commitment Procurement, a high and stable carbon price, addressing the skills gap and robust policy appraisal are arguably even more desirable to combat the global recession and keep pace with increasingly invigorated and enlightened competitors. Therefore, if the Government is going to realise its ambitions to be a world leader in environmental markets, it would be well advised to revisit the CEMEP analysis, ensure it is explicitly incorporated into any industrial strategy moving forward and that more robust and transparent monitoring and reporting mechanisms are in place – alongside strengthened pan-departmental structures that can more effectively manage the unprecedented cross-cutting nature of environmental policy-making.

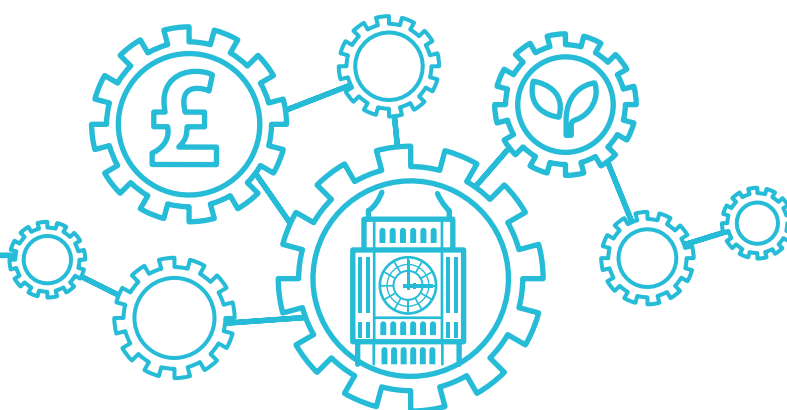


The CEMEP report, alongside the more recent Low Carbon Economy publications that follow it, make clear that environmental standards are important today for economic efficiency as well as public protection. Undoubtedly, good environmental regulation is an economic as well as a social imperative and this is the focus of this analysis. While, in the past, the design of environmental regulation had to consider the best way of delivering environmental benefits for the public, it now also has to consider how it can best deliver economic benefits. Thus, the role of good regulation in forcing the pace of industrial change should be a central element of economic policy.

As CEMEP made clear, these economic benefits arise not only from better regulation but the deliberate design of supporting infrastructure to enable the desired transition to be made in the most economically beneficial way. So, for example, low carbon targets in the domestic sector need to be supported by investment in the supply chain, skills, and new technology; or the recent Budget incentives for offshore wind need to go hand-in-hand with explicit development of UK-based engineering and construction capacity. Demand side policy must be matched by development on the supply side.

This interaction between demand side and supply side needs much greater focus within Government. In reality, both must advance together because each promotes the progress of the other. This is particularly true, for example, in the case of employment, where a sudden hike in standards may not be met by rapid job creation, because industry is either unprepared or not able to respond effectively; in these circumstances new jobs may in fact be exported while old ones dwindle. Where there is good infrastructure support for new standards, employment patterns respond much more flexibly and the very creation of new opportunities encourages both employers and labour to support and encourage further change.

The very nature of this interaction creates a number of additional, complex challenges for government. Individual CEMEP recommendations cannot be pursued in isolation – there needs to be strategic, overarching and responsive systems in place to ensure key regulatory drivers are supported by corresponding supply side measures and that they reinforce each other, underpinning its success and ensuring benefits to the UK economy are maximised. Winners should be picked in the sense of viewing industrial policy and competitive strengths in a more pragmatic and considered way, building up capabilities and expertise in targeted sectors such as offshore wind and carbon capture and storage. Simultaneously, winners should not be picked in the CEMEP interpretation, ie relying on one type of technology or demonstration project within a sector which requires development of the best solution from a whole ‘family’ of technologies.



Looking beyond the CEMEP report, the current low carbon economy agenda narrowly seeks to generate inward investment, export potential and employment while perhaps overlooking other benefits to the UK economy of high environmental standards⁴⁷. Above all, it is imperative that government policy responds to an increasingly resource constrained world and not just a carbon constrained one. As water and other resources progressively come under stress, resource efficiency and innovation will become primary benchmarks of a successful economy and total factor productivity, as the quote from Sir John Harman above testifies. The economic transition to low carbon and resource efficiency will impact on the whole economy, and not just one facet of it.

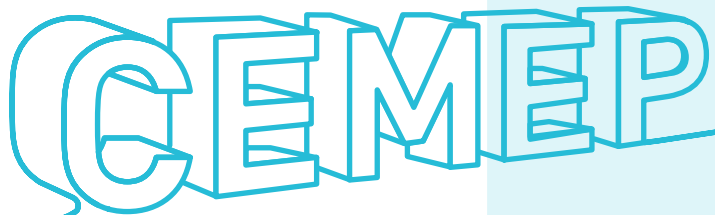
In conclusion, not only should the CEMEP recommendations be fully integrated into a strategy for industrial regeneration, but there must be renewed focus on how demand side and supply side policies interact and reinforce each other, as well as the wider economic benefits that can flow from high environmental standards. The Government cannot leave these things wholly to the market and just as it is their job to regulate, it is also their job to make consistent and holistic policy to create absolute certainty on the direction of travel. Only then can the private sector invest and drive to maximum pace the industrial transition to a low carbon economy.

Annex A:

List of CEMEP Recommendations

The long term framework

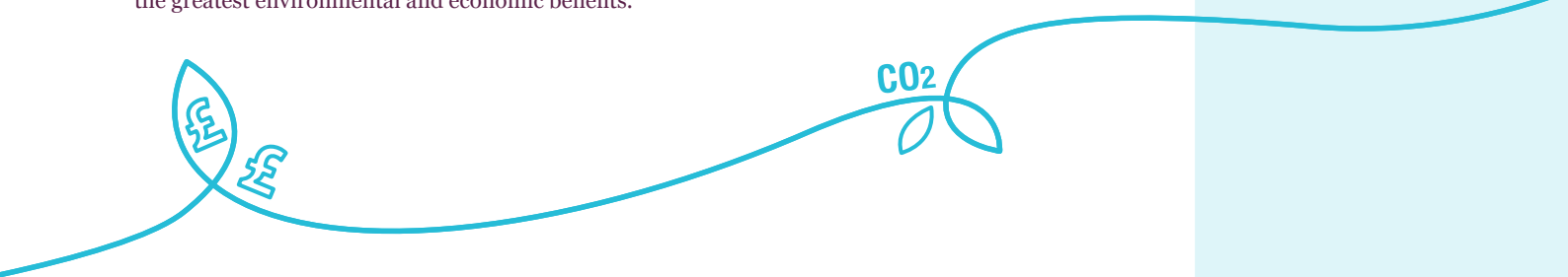
1. Government should set **credible, long term environmental goals**, consistent with business investment cycles. One means of achieving this is through building national consensus by opening decision making to wider society. 'Credible' and 'consensus' need not mean unambitious. Where a pressing environmental case can be made, goals should be set in areas other than climate change, such as products and materials. The newly established Products and Materials Unit within Defra should facilitate this.
2. Government, working with EU partners as necessary, should urgently consider options to **reduce the uncertainty in carbon prices** under the EU Emissions Trading Scheme, or at least its impact on business, and so increase the incentives to invest and innovate to cut carbon emissions.
3. Government should explore the scope for making greater use of progressively updated or **'dynamic' performance standards** to drive improvements in the resource efficiency of products, particularly at the EU level.
4. Government should ensure that it sets out and adheres to **well-defined timetables for the implementation of environmental legislation**. Examples of where this would be relevant are implementation of the Energy Using Products (EuP) Directive, and the proposals in England's Waste Strategy 2007 to consider landfill bans for certain materials (should these be taken forward).
5. Government should commission a study of how the long term needs and opportunities **from innovation can be incorporated into cost-benefit analysis guidance**, with a view to assessing longer-term impacts on economic performance routinely in environmental policy appraisal.
23. Policies on the introduction of **smart metering** should create a clear and credible market requirement against which business can invest in the cost-effective deployment of technology. In the water sector, for example, a clear commitment to the introduction of flexible tariffs would achieve this.



Creating the condition for innovation

6. Government departments' and regulatory agencies' **science and innovation strategies** should not focus only on the use of science to support policy, but should address their role in inducing and rewarding private sector innovation that furthers the Government's environmental objectives.
7. Government, business and the relevant bodies should review the **product approvals regime in the construction sector** to better understand the barriers to introducing innovative, sustainable products. Measures should be identified to overcome these barriers and, where appropriate, applied more widely.
8. Government should review the **duties of the economic regulators in the energy and water sectors** to give greater prominence to the importance of environmental innovation in meeting sustainability goals, and back this up with guidance as to how a more complex set of duties might be interpreted.

9. Government should facilitate the scaling-up and replication of the **Forward Commitment Procurement (FCP)** model in the public sector by: identifying where better, more cost effective solutions are needed to achieve environmental policy objectives; developing the public sector's capability to engage effectively with the market using FCP, including by establishing a 'Challenge' scheme; and adopting the FCP model for the 'Zero Waste Places' initiative.
10. Government should establish '**Environmental Innovation Zones**' where local area partnerships are empowered to use a range of policy measures to bring forward innovative solutions to deliver unmet environmental goals. This should be seen as the first in a series of progressive steps to transforming market sectors and creating economic opportunities on a wider scale. Successful examples should be replicated and participants encouraged to collaborate, where appropriate, to create economies of scale.
11. To improve the development and uptake of renewable and low carbon energy technologies in the UK, Government should **use targeted sectoral deployment support measures** more widely, with careful attention to the choice of instrument for different stages of technology maturity.
12. To leverage best overall value for money from the funds available, existing **capabilities and new initiatives in RD&D** across the public sector and industry should be better coordinated. Synergies should be sought between different strands of innovation support, including linking RD&D support to procurement opportunities.
13. An '**Options Approach**' should be taken to **RD&D support**, whereby: a diverse portfolio of emerging technologies is supported as consistently as possible beyond early-stage R&D and through the development lifecycle; but progress is reviewed at the end of each development stage, and support withdrawn for underperforming technologies.
14. Government should develop a strategic capability to prioritise its **RD&D support for innovation** in environmental markets, using transparent criteria to target those technologies with the greatest environmental and economic benefits.



Developing the necessary skills

17. Government and industry should work together to improve the provision of training and professional development for supply chain management and **public and private procurement professionals**, to enable them to better manage the environmental implications of their supply chains.
20. To better understand where **employment opportunities and skills needs** are emerging in environmental markets, all stakeholders have a responsibility and a role to play. Government should map the various fora where these issues are already under discussion to help identify whether existing bodies are sufficient to take the agenda forward.

Following the Energy White Paper request to Sector Skills Councils (SSCs) to report on skills gaps in the energy sector, Government should invite the UK Commission for Employment & Skills to review with SSCs the implications for employment and skills of the move to a sustainable, low-carbon and resource efficient economy, and to make recommendations to Government.

Building partnerships


15. To create market opportunities by improving the **eco-efficiency of their operational performance** and developing environmentally improved products and services, business should:

address the whole life cycle of products, to enable all environmental impacts from 'cradle to grave' to be identified and reduced; investigate the scope for 'cradle to cradle' or 'closed-loop' production, where recycled materials become the feedstock for new products, and spreading new practices through the supply chain; assess how to re-engineer processes to cut costs while reducing pollution and resource consumption and avoiding environmental risk; investigate the scope for re-designing or re-manufacturing goods, incorporating environmental factors from the beginning of the design process; and consider how to create higher profits while reducing resource (including energy) consumption, by selling added-value services rather than more products.

16. Government should consider the need for a **longer-term, better-resourced system to advise business on resource efficiency**, with more emphasis on upstream measures and dissemination. This should inform the Government's ongoing Business Support Simplification Programme.

18. Government, business, trade unions and other stakeholders should jointly develop, agree and adopt **standardised protocols for measurement and reporting of carbon and other impacts**, such as use of material resources and water. These should provide clear and simple, yet robust and credible, information to allow business and consumers to behave in a more resource-efficient way, and should be applied at intermediate stages as well as the end of supply chains.

19. Government, along with business, should sponsor a study of how reliable an indicator the **carbon footprint is for resource use** and environmental consequences more broadly, and which aspects it fails to reflect.



21. Trade Unions should continue to press for companies to commit to and work for **socially and environmentally responsible values**. They should provide the necessary support frameworks for their members to lead and participate in workplace initiatives (such as training on resource efficiency) that will generate environmental improvements and increased employee loyalty and satisfaction.

22. To facilitate investor scrutiny of environmental markets, Government should consider integrating **agreed standards of disclosure into corporate reporting guidance**, and should encourage the establishment of voluntary benchmarks and consistent methods for corporate, pension fund and charity environmental disclosure.

24. All interested parties, including Government, business, investors, employees and consumers, should consider how they can contribute to the implementation of CEMEP's recommendations. This cross-cutting agenda must be driven forward across Government, and Government should consider whether **existing structures and organisation can achieve this**. It should also put in place capacity-building measures, such as **training at the National School of Government**, to increase awareness among officials of the links between environment, competitiveness and innovation.

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Notes



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