

STERN REVIEW ON ECONOMICS OF CLIMATE CHANGE

CBI RESPONSE

INTRODUCTION

1. The CBI with a direct company membership employing over 4 million and a trade association membership representing over 6 million of the workforce is the premier organisation speaking for business in the UK. Our members – which include the broad range of business energy interests, from energy producers and suppliers to major energy users to SME and commercial sector companies – recognise that the potential cost of climate change could be significant and support the need to address climate change.
2. The CBI welcomes the Stern Review on the economics of climate change. The review is timely, providing support to the UK Climate Change Programme Review and the forthcoming Energy Review, as well as contributing to the debate on future international approaches to addressing climate change beyond 2012. The CBI response focuses on the former, but we believe that the broader objective – to deepen understanding of the impact and relative economic efficiency of climate change mitigation and adaptation – is an important one.
3. The CBI supports the UK government's target for a 60% reduction of carbon emissions by 2050, but the measures needed to meet this goal must be cost-effective and intelligently designed. The right approach should be built on greater energy efficiency and take up of low carbon power generation, which might potentially embrace a wide range of technologies, including nuclear, renewables, combined heat and power and clean coal. We attach our recently published energy brief, 'Powering the future: Enabling the UK energy market to deliver' which outlines businesses core policy objectives.

SET A LONG-TERM, STABLE FRAMEWORK FOR INVESTMENT

4. Carbon targets must be achievable and set in a realistic timescale that fits with business investment cycles. Current climate change policy, at both national and international level, is focused on achieving short-term emissions reduction targets. climate change targets and policies are traditionally focused on short-term political objectives.
5. The UK should set a clear, long term, emissions reduction target, which can be explicitly supported by all political parties. This target should be backed up with milestones, in the form of intermediate targets, that are realistic yet challenging in terms of what can be achieved, and are structured so that business investment cycles can take them into account.
6. A clear long-term target is needed, given the long-term nature of the issue. A long-term target also sends signals – which stimulate potential new markets for providers of

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environmental goods and services and which helps businesses plan and invest for the long term.

7. In view of the scientific consensus about the level to which concentrations of carbon need to be reduced, we think it right that the government's ambition should be for the world's developed economies to cut greenhouse gas emissions by around 60% by around 2050 – and that the UK should put itself on a path towards achieving such reductions.
8. Adopting and pursuing such a long-term target will be challenging, but this supports the UK role as global leader on climate change and the CBI welcomes that as part of the drive to secure global action. But we also need to recognise that the UK is only directly responsible for a small part (2%) of global emissions, and that we risk harming competitiveness of some parts of the economy to little environmental benefit if our action is not matched by efforts overseas.
9. At present, there is only partial global commitment to tackle climate change in the form of the Kyoto Protocol and there is no clear view as to what will succeed it. To avoid undue risks to competitiveness, the precise trajectory for the UK towards the long-term goal (and any supporting intermediate targets leading up to 2050) must reflect the degree of international commitment to emissions reductions. Work should be done now to agree two or three possible scenarios for moving towards the 2050 target, with a view to firming up on intermediate targets (as well as the long-term goal) for the UK as the international context becomes clearer and in the light of any further scientific development.

MINIMISE COMPETITIVENESS IMPACTS

10. A comprehensive global framework for the post-2012 period, which includes all international trading partners and, in particular major greenhouse gas emitters, is key to minimise the competitive distortions in the global market. In addition, to minimise the cost of any further action on climate change, government must:
 - **Ensure a cost-effective programme of policies:** Adopting a cost-effective programme of policies shared between businesses, individuals and other sectors, and considering an effective migration of policies beyond the Kyoto period. The mix of policies should include support for low carbon technologies and action focused energy supply, as well as energy efficiency improvements across the business, household and transport sectors.
 - **Promote market-based solutions to stated environmental objectives:** The CBI supports the use of well-designed market-based mechanisms to ensure least-cost achievement of internationally agreed climate change objectives. Joint implementation (JI), the clean development mechanism (CDM) and international emissions trading all have the potential to encourage wider participation in the current and future international climate change regime, providing companies and countries with greater flexibility to meet emissions reduction commitments at least cost. Through the UNFCCC process, government should seek to remove current bureaucratic barriers to the efficient use of JI and CDM.
 - **Encourage technology transfer and development:** Research and development and technology deployment in the market place are both key to speeding up technical change. Increased funding and international co-ordination can benefit research, development and diffusion of cleaner technologies. Policies and measures should be pursued to increase the use of energy-efficient technologies and zero- or low-emitting generation technologies.

PROMOTE THE RIGHT CONDITIONS TO ENCOURAGE DEVELOPMENT OF A WIDER RANGE OF LOW CARBON TECHNOLOGIES

11. While fossil fuels will remain a significant part of our immediate energy future, business recognises the need for investment in lower-carbon technologies – whether nuclear, carbon capture and storage, combined heat and power (CHP), microgeneration, hydrogen or renewables (including wind, geothermal, wave and tidal) – to enhance the energy sector’s contribution to meeting UK climate change objectives, with the added benefit of increasing diversity of electricity supply.

- **Ensure more equitable treatment across different low carbon technologies:** In contrast to renewables, the low-carbon nature of nuclear generation, for example, has not been explicitly recognised in the current market framework. There should be equitable treatment of all low-carbon technologies under emissions trading and the climate change levy. In addition, government must reaffirm its commitment to combined heat and power (CHP), providing clear delivery plans for achieving its 10GWe 2010 CHP target – including proper recognition for the carbon saving delivered through the use of CHP, a long-term guarantee of CHP exemption from the climate change levy, and revisiting the treatment of CHP under the EU ETS to remove perverse incentives.
- **Promote greater R&D in new energy technologies:** UK investment in energy research and technology funding should be increased towards the levels of the EU average in GDP terms in the first instance and then towards the levels of the US.

IMPROVE EFFICIENCY OF ENERGY USE

12. While businesses have already made significant progress in improving their energy efficiency, there is still scope for further cost-effective improvements across business sectors – as there is among domestic consumers, where the potential gains are perhaps most significant. Government needs to develop a range of energy efficiency measures targeted at different types of energy user. Key elements should be:

- Improve and streamline existing measures aimed at industry
- Provide particular assistance to SMEs (industrial or otherwise)
- Improve incentives for energy efficiency in commercial and household sectors
- Public sector market leadership

Improve and streamline existing measures aimed at industry

13. The proliferation of policy measures, all seeking to address industrial emissions, means that many industrial firms find themselves affected by a number of policy measures at once (Integrated Pollution Prevention and Control regulations (IPPC), CCL and Climate Change Agreements (CCA), EU ETS). This has led to double regulation, environmental anomalies and to additional paperwork where verification procedures differ.

14. To reduce overlaps, the CBI favours a move over time toward using emissions trading as the main route for delivery of carbon reductions, with industry covered by the scheme exempt from the CCL.

15. However, the relatively high monitoring, reporting and verification costs under the EU ETS means that it is not suitable for all industry sectors. Consequently, government should simplify the CCA eligibility criteria and monitoring, reporting and verification procedures, to allow any company which wishes to enter into an agreement to access the CCL discount.

Provide particular assistance to SMEs

16. Better publicising of government schemes and initiatives will help to ensure that SMEs are aware of the options and support open to them. In addition, we welcome the PBR announcement of additional grant finance for the Carbon Trust's existing SME interest free loan scheme.

Improve incentives for energy efficiency in commercial and household sectors

17. With the exception of the domestic aviation sector, the commercial sector has the fastest growing energy use in the UK. The framework set by government through planning and building regulations has already helped to raise the bar on energy efficiency, but more can be done to encourage changes in occupier behaviour and accelerate energy efficiency improvements by investor and developer companies, including:

- Better enforcement of and compliance with existing building regulations in both the commercial and household sector.
- Widen the scope of list of processes/products eligible for enhanced capital allowances (ECAs) to include the building fabric, lighting and energy services.
- Introduce fiscal incentives, eg a reduced VAT rate on selected energy efficient products and services, to encourage energy efficiency.

Public sector can also play a role

18. The public sector has an important role to play, through its own practices, in helping to shape the market for energy efficient buildings and encourage the development of energy services companies. Government policy to occupy only property in the top quartile of energy ratings is symbolically important, and an even more significant impact can be made through procurement policies on energy products and energy services. This should be addressed through the government's current task-force on sustainable procurement.

BUILDING INTERNATIONAL CONSENSUS ON THE ECONOMICS OF CLIMATE CHANGE

19. The review must make explicit the assumptions underpinning the economic models used. Macro-economic studies, such as the IPPC Third Assessment Report, the Markal analysis of the UK 2050 reduction target and the EU Climate Change Programme, generally assume participation by all industrialised countries, as well as developing countries (in particular major emitters) over time. If international negotiations fail to deliver comprehensive (and comparable) global action on climate change, these models will significantly underplay the macro-economic impacts of such emission reduction targets, while over-estimating the environmental benefit.

20. There are a range of ancillary costs and benefits that can be attributed to action on climate change, which must be included in the economic estimates.

21. Traditionally, economic modelling has not adequately reflected the sectoral impact of climate change policy and the ancillary costs that might arise from an economic shift. Reduction of greenhouse gases will naturally result in a reallocation of resources from emission intensive inputs and sectors and towards less emission intensive inputs and sectors. The distribution of costs, both between countries and within and between specific industrial sectors, is dependent on a range of factors:

- Whether targets and policies set are realistic and well-designed, taking into account business investment cycles, the extent of international commitment and the reduction potential
- Whether the split of the climate change burden between business, transport and domestic sectors (and between trading and non-trading sectors within business) is optimal. A sub-optimal split would increase the costs of climate change policy.
- Competitive distortions will arise if companies from one country face different climate burdens to their competitors in other countries. This could lead to relocation of industries or production from countries facing environmental constraints to those with lower or no constraints, resulting in significant 'carbon leakage'. Constraints and restrictions applied on a specific region of the world can affect its competitiveness in the global market, resulting in a loss of jobs and GDP, while failing to achieve significant climate change benefit.

22. In addition, there are difficulties in estimating direct and ancillary climate benefits. Climate models provide very coarse regional level detail and, consequently, direct climate benefits are difficult to characterise at a regional, national or local level. Climate change is a global problem, requiring a global solution. Direct global climate benefits will only be realised through wider action on climate change – a difference will be made by the number and size of players, not by the action taken in a single region.

23. In contrast, ancillary benefits are difficult to characterise at a global level as they tend to be nearer term and require a high level of geographic detail for their estimation. Such benefits may include:

- **health effects** – for example, mortality and morbidity benefits associated with collateral reductions in particulate matter, nitrogen oxides and sulphur dioxides from power plants and mobile sources
- **ecosystem change** – for example, reduced deposition of air pollutants, reduced changes in water runoff and soil erosion, reduced nitrate loading into marine and freshwater ecosystems
- **sectoral economic effects** – changes in fuel use have the potential to reduce jobs in a sector or region of a country, resulting in unemployment costs (which are likely to be permanent in the case of unskilled workers). New jobs in alternative technologies will counter some of the losses in more traditional sectors.
- **social effects** – for example, improvements to safety and congestion as an ancillary benefit of transport policy.

24. Given that ancillary benefits are largely experienced at a local, national or regional level, the type and scale of benefits will be dependent on the sectors targeted and the range of policies and measures put in place. Health benefits are the most researched, and possibly the most significant, of the ancillary benefits. Evidence suggests that the greatest gains in this area are to be made in developing countries. Focus should be on diffusing science and technology from industrialised countries to emerging economies.

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