

## Aldersgate Group Consultation Response

### Meeting the Low Carbon Skills Challenge

June 2010

#### Introduction

1. The Aldersgate Group (AG) is a high-level coalition of progressive businesses, NGOs, professional bodies, MPs and others who put forward the case that high environmental standards will be a major part of future economic growth and international competitiveness.
2. By presenting objective evidence based on the diverse experience of our members, the AG believes that there is no inherent contradiction between regulating for high environmental standards at the same time as maintaining economic growth and stimulating wealth creation. Quite the reverse: no economic policy which sacrifices environmental quality can succeed in the long term.
3. The Group engages actively with government and other key decision makers to contribute to the future development of UK economic, environment and sectoral policies, as well as providing a distinct voice that advances the better regulation and sustainability agendas.
4. The views expressed in this document can only be ascribed to the Aldersgate Group and not to any individual member, organisation or individual. AG members are ACCA Global, Barry Sheerman MP, BIFFA, BT, CIWEM, Dinah Nichols CB, Drivers Jonas Deloitte, eftec, Environment Agency, Environmental Industries Commission, Environmental Sustainability Knowledge Transfer Network, Friends of the Earth, Green Alliance, Greg Barker MP, IEEP, IEMA, Institution of Civil Engineers, John Edmonds, Johnson Matthey, Lord Whitty, Martin Horwood MP, Michael Meacher MP, MITIE, National Grid, Pamela Castle OBE, PepsiCo, Peter Jones OBE, Professor Paul Ekins, Renewable Energy Association, RSPB, SEEDA, SEPA, Sir John Harman, SKM Enviros, Speechly Bircham, Sustain, UK Green Building Council, Willmott Dixon Group and WWF

#### Mind the Gap

5. In November 2009, the AG launched *Mind the Gap: Skills for the Transition to a Low Carbon Economy* with Greg Clark (Conservative Shadow Secretary of State for Energy and Climate Change at the time) and Lord Young of Norwood Green (BIS Minister at the time). The report was the second in a trilogy that examined how the low carbon transition can be accelerated, and economic benefits maximised, by intervention on the supply side. It built on the findings from high-level roundtables with leading representatives from the sector (including businesses, trade unions, recruitment consultants, trade associations, public sector bodies, academics and NGOs).
6. The AG hosted a follow up roundtable in May 2010 to discuss *Meeting the Low Carbon Skills Challenge* document. This was chaired by the AG's project lead, John Edmonds. It included input from Microsoft, TUC, Institution of Civil Engineers, Cogent, Eurostar, Sustainable Development Commission, Ecofys, EDF Energy, Friends of the Earth, Speechly Bircham, Parsons Brinckerhoff, Business in the Community, DHL and Veolia. Although this helped to inform our consultation response, as stated above, the views outlined cannot be ascribed to any individual or organisation.

## Overall

7. The AG welcomes the development of a comprehensive low carbon skills framework. This is vital for the UK to maximise the economic opportunities of the low carbon transition and ensure competitive advantage. The UK must ensure that its support for skills and training matches its ambition for reducing carbon emissions and promotes investment in green investment and infrastructure.
8. This consultation must provide a platform for greater urgency by government to drive this agenda forward. IPPR reports<sup>1</sup> that progress by a high-level skills group, led by BIS, to consider the skills needs for the transition to the low carbon economy has been relatively slow, with too much focus on work that employers are doing to develop skills in-house rather than looking across the board at the skills needed by low carbon industries.
9. The focus of the government's low carbon skills strategy should also be broadened to cover environmental skills more generally. The AG's *Beyond Carbon*<sup>2</sup> report demonstrates that as resource efficiency and related innovation increasingly become primary benchmarks of a successful economy, the UK will need an industrial strategy to address critical resource challenges. This is one of the leading conclusions from the TEEB analysis<sup>3</sup> which finds that policy makers who factor the planet's multi-trillion dollar ecosystem services into their national and international investment strategies are likely to see far higher rates of return and stronger economies in the 21st century.
10. The UK has started this process with the publication of an industrial strategy nearly exclusively focusing on carbon, the resource which is arguably the most pressing and politically acceptable for strong policy intervention. It is also where the strongest case for pragmatic and intelligent intervention to stimulate new jobs and industries can be made.
11. Now that the Low Carbon Industrial Strategy (LCIS) has been published and the relevant government departments are focusing on implementation, the Aldersgate Group believes that the Government's industrial strategy needs to go beyond carbon and to address other resource challenges comprehensively. While the LCIS acknowledges that businesses lose 2% of annual profit through inefficient management of energy, water and waste, with the potential for British businesses to save £6.4 billion per year from RE measures that cost little or nothing, the section on RE spans less than three pages and encompasses sparse policy commitments<sup>4</sup>. As resource constraints increasingly come under stress, the Government needs a more comprehensive strategy to ensure competitive advantage and maximise economic opportunities.
12. This should include a comprehensive environmental skills strategy. It should cover additional environmental industries which are vital areas of technology both for environmental protection and for the competitiveness of UK business and the more generic resource efficiency and full lifecycle analysis skills that will be required across the economy.

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<sup>1</sup> Jenny Bird and Kayte Lawton (October 2009) *The Future's Green: Jobs and the UK low carbon transition*, p63.

<sup>2</sup> Aldersgate Group (February 2010) *Beyond Carbon: Towards a resource efficient future*.

<sup>3</sup> The Economics of Ecosystems and Biodiversity (TEEB) for National and International Policy Makers (November 2009).

<sup>4</sup> HM Government (July 2009) *The Low Carbon Industrial Strategy*, p72-4. See also Defra (October 2007) *Quantification of the business benefits of resource efficiency*.

**Question 1: What more can employers, schools and Government do to promote the take up of STEM subjects by young people, and encourage them to consider careers in low carbon sectors?**

13. Young people will need to be encouraged to study STEM subjects to mobilise a new generation of engineers and scientists. The Government's strategy must incentivise the selection of STEM subjects from GCSE level onwards, such as through financial benefits for students (i.e. reduced fees for science and engineering based degrees). As research into the green skills needs of the West Midlands shows, more needs to be done to promote environmental technologies as a potential career choice through effective marketing, clearly articulating the range of jobs available and engaging schools and universities<sup>5</sup>. This is particularly important in high growth areas which have not yet achieved sufficient visibility and scale to entice students when they make choices on their education routes.
14. Schools are primarily motivated by their position in league tables. This can create an incentive to steer struggling pupils away from STEM subjects (which are often perceived to be harder). There should be an analysis of how the league table system could be modified so that subjects that the Government prioritises (such as STEM subjects) are given greater weighting.
15. A more active and practical approach is required to make STEM subjects more stimulating for pupils. Health and safety legislation is having an adverse effect on school trips (for example, to nuclear power stations) and science experiments (increasingly replaced by television programmes). Schools should become beacons of sustainability, demonstrating innovative technologies and practices such as solar panels and zero waste policies. Pupils must be fully involved in this process to gain inspiration and learn practical experience.
16. Careers advice is a barrier to entry and advisors need to be fully briefed on the range of careers that are possible. Gender discrimination means girls with aptitude for STEM subjects may not be informed about careers in manufacturing, engineering, science<sup>6</sup>. A recent National Grid study found that parents viewed manufacturing as 'northern' and a declining industry, reinforced by stereotypes of 'blue collar' jobs. Engineers were seen as people who fix rather than create. Teachers are sometimes embarrassed by their lack of understanding of engineering jobs and consequently are unlikely to recommend them as a career.<sup>7</sup>
17. More leverage must come from outside the school. For example, progressive business has a role in assisting the education process and this should be encouraged. Examples include EDF Energy's [www.jointhepod.org](http://www.jointhepod.org), which provides information teaching resources and practical activities that are designed to help make schools more sustainable<sup>8</sup>; Philips who have launched SimplyHealthy@Schools, seeking to encourage healthy lifestyles among school children and running a 'SchoolVisions' scheme which provides specifically designed systems for classrooms<sup>9</sup>; and Parsons Brinckerhoff, a long-term supporter of the UK's

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<sup>5</sup> West Midlands Regional Observatory (October 2009) *Environmental technologies skills review: key findings, issues and recommendations*.

<sup>6</sup> IPPR (2009) *The Future's Green: Jobs and the UK low-carbon transition*.

<sup>7</sup> National Grid (September 2009) *Engineering our Future. Inspiring and attracting tomorrow's engineers*.

<sup>8</sup> [www.jointhepod.org](http://www.jointhepod.org) now has over 9,200 registered schools and a target to engage with 2.5million children by 2012 in climate change and environmental education

<sup>9</sup> Philips Annual Report 2009 provides more information on this campaign:

[http://www.annualreport2009.philips.com/pages/our\\_people\\_planet\\_partners/working\\_in\\_our\\_communities.asp](http://www.annualreport2009.philips.com/pages/our_people_planet_partners/working_in_our_communities.asp)

Engineering Education Scheme (EES) which links teams of students with local companies to work on real, scientific, engineering and technological problems<sup>10</sup>.

18. Although it is right to focus on STEM skills, attention should also be given to broader sustainability knowledge and skills, such as lifecycle analysis and resource efficiency.

**Question 4: Is our overall analysis of the skills challenges, as outlined in this document, correct?**

19. The Aldersgate Group broadly agrees with the analysis of the skills challenges outlined in the consultation. In environmental sectors of the economy, a skills gap is well documented, with one in three firms being hampered by a shortage of skilled staff, from those needed to install new technology to scientists and engineers<sup>11</sup>. These skill sets take a long time to develop and action is required now to achieve the step change required to meet climate change targets for 2020 and beyond. In addition, existing skills will need to be enhanced to meet environmental challenges and generic resource efficiency skills must be developed across the economy. There will also be a need to focus on higher level skills to adapt to new technologies and business models. For example, the employment skills profiles for the aerospace<sup>12</sup> and automotive industries (that must develop low carbon technologies) are changing with an increase in the high-value, design-rich, intellectual capital intensive jobs.

**Question 5: What are the best ways to replicate the examples of good practice provided throughout this document quickly and effectively?**

20. The role of good regulation in forcing the pace of industrial change is now a central element of economic policy. But better regulation needs to be accompanied by investment in new capacity and supporting infrastructure so that the desired transition can be made in a manner which brings substantial economic and social benefits. So, for example, low carbon targets in the domestic sector need to be supported by investment in the corresponding skills needed for delivery.
21. The Aldersgate Group<sup>13</sup> argues that not only must demand side policy be matched by development on the supply side, but both must advance together as each promotes the progress of the other. A sudden and unexpected hike in standards may not lead to job creation because industry is either unprepared or unable to respond effectively. In these circumstances, new jobs may 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 employees to support and encourage further change.
22. The Government increasingly recognises the need for targeted support in areas where the UK has the greatest potential to lead world markets and where proportionate government intervention can unlock long-term competitive potential for British based firms. These are identified in the *Low Carbon Industrial Strategy*<sup>14</sup> and include offshore wind, wave and tidal power, civil nuclear power, ultra-low carbon vehicles and carbon capture and storage (CCS). Government support for low carbon sectors must include sufficient training programmes to ensure the economic benefits are maximised for the UK economy and the workforce.

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<sup>10</sup> Example provided by Parsons Brinckerhoff press office, June 2010

<sup>11</sup> HM Government (November 2007) *Commission on Environmental Markets and Economic Performance*.

<sup>12</sup> Low carbon engineering is integral to the National Aerospace Technology Strategy (NATS).

<sup>13</sup> Aldersgate Group (June 2009) *Commission Statement: Driving investment and enterprise in green markets*.

<sup>14</sup> HM Government (June 2009) *The UK Low Carbon Industrial Strategy*.

23. It is essential that all major environmental policies and regulations are accompanied with a corresponding skills strategy. The Government cannot rely on the market to respond to low carbon targets at the required scale and urgency. For example, if the Government increases the subsidy level for offshore wind, as it did in the 2009 Budget, it should also ensure it has the appropriate mechanisms in place to support the industry to meet its skill needs. The CRC Energy Efficiency Scheme, the UK's mandatory energy saving scheme for big businesses, should be accompanied by a skills package to enable businesses to reduce energy use and carbon emissions. Domestic energy efficiency initiatives must be complemented with training programmes to ensure there is the sufficient capacity to deliver. This principle of complementary policies should be driven by the Department for Business, Innovation and Skills (BIS) with a high degree of transparency, accountability and engagement with business, trade unions, professional bodies and the general public.
24. The consultation document demonstrates the need to exploit the power of public procurement to drive up demand for skills and Apprenticeships through the supply chain. Despite its vast potential to drive change, reforming mainstream public procurement practices remains a relatively low priority for Government and only modest developments were outlined in last summer's climate change strategies. Both the Environmental Audit Committee<sup>15</sup> and Sustainable Development Commission<sup>16</sup> find that the Government has performed badly in meeting its own targets for sustainable procurement and reducing carbon emission from its own buildings.
25. While greater leadership and commitment is required at Ministerial level, the Government must also ensure that it has the relevant skills to implement sustainable procurement policies. A recent report by the Innovation, University, Science and Skills Committee finds that several departments in key policy areas do not have sufficient in-house engineering expertise. 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"<sup>17</sup>.
26. As the Aldersgate Group has often argued, the Government must address this deficiency without delay, providing more extensive training, real opportunities in terms of career progression, and strengthening links between the public and private sectors through secondments<sup>18</sup>. Mainstreaming initiatives such as Forward Commitment Procurement that specify future performance standards (rather than relying on today's technologies) will only be possible with the appropriate in-house expertise in place.

**Question 7: How should employers and Government plan for the future re-deployment of skilled workers from high carbon industries to low carbon industries, and ensure a just transition?**

27. The transition to a low carbon economy has the potential to be a major source of wealth and employment. These benefits will need to be communicated effectively to the general public, so that the transition becomes accepted as a positive change. More needs to be done. The United States Government has published a website<sup>19</sup>

<sup>15</sup> Environmental Audit Committee (July 2009) *Greening Government*.

<sup>16</sup> Sustainable Development Commission (May 2009) *Sustainable Development in Government (SDiG) 2008: Challenges for Government*.

<sup>17</sup> Innovation, Universities, Science and Skills Committee (March 2009) *Engineering: Turning ideas into reality*.

<sup>18</sup> Aldersgate Group (June 2009) *Commission Statement: Driving Investment and enterprise in green markets*.

<sup>19</sup> [www.recovery.gov](http://www.recovery.gov)

providing easy access to data relating to its stimulus package, including regional spending, job creation by state and case studies (such as the employment and economic benefits of a domestic energy efficiency scheme in Ohio<sup>20</sup>). In comparison, the DECC website is not very accessible to the general public with too much focus on policy and not enough practical information.

28. However, the Government needs to beware of making simplistic claims. There are political advantages in claiming that, for example, the UK can expect 400,000 new environmental sector jobs over the next eight years<sup>21</sup>, but the current government classification for a “green job” is ill-defined and can be unhelpfully broad. This led *The Times* to report that figures for green collar jobs were a “sham” as they included workers from the North Sea gas industry, petrol stations attendants on forecourts where liquefied petroleum gas is dispensed and manufacturers of skylights, wooden pallets and slippers.<sup>22</sup>
29. In any event the whole notion of “new green jobs” fails to take account of the fact that the Government’s ambition is to transform the whole economy so that, over time, almost every occupation could be described as “green”. The Aldersgate Group believes that there is little advantage in arguing whether a particular job is “green”; the aim should be to accomplish a transition that brings widespread economic and social benefits.
30. On the other hand, the Government will obviously need to monitor the occupational changes in the workforce during the transition. For this purpose it would be sensible to build on the approach demonstrated in the Pro Enviro report commissioned by Defra. This published a skills checklist for a low carbon and resource efficient economy that can be applied to all sectors and contains all types of skills<sup>23</sup>. An example of how this can be done in practice is demonstrated by the Gold Standard approach adopted by Cogent SSC which enables Continuing Professional Development (CPD) for all job roles through upskilling job specifications<sup>24</sup>.
31. The concept of a “just transition”, developed by the TUC, is about recognising and planning fairly and sustainably for the huge changes that climate change policies will have for our whole economy. In the past, significant periods of economic restructuring have often left too many individuals and communities behind. Not only will the nature of all jobs change (requiring the development of more generic low carbon skills) but so too will the relative importance of sectors. There are significant challenges for UK’s energy-intensive heavy industries, such as iron and steel, aluminium, cement and lime manufacture, pulp and paper making, basic inorganic chemicals and nitrogen fertilisers, which collectively employ around 220,000 workers, mainly in highly skilled jobs<sup>25</sup>. The Government must ensure that new jobs and occupations are developed ahead of the decline of old ones associated with resource intensive activities, which the new low carbon economy will no longer demand.
32. To achieve this goal, the creation of a Forum for a Just Transition as part of the Low Carbon Industrial Strategy is positive. This body includes representatives from central government, national, regional and local bodies, trade unions, business organisations, and third sector bodies and advises the Government mainly on the development of low carbon skills. It now needs to play a much more fundamental role

<sup>20</sup> [www.recovery.gov/News/featured/Pages/OHWeatherizingHomes.aspx](http://www.recovery.gov/News/featured/Pages/OHWeatherizingHomes.aspx)

<sup>21</sup> Gordon Brown (March 2009) *Speech to Low Carbon Industrial Summit*.

<sup>22</sup> Robin Pagnamenta (July 2009) *Slipper makers and gas staff included in 1m green jobs ‘sham’*

<sup>23</sup> Pro Enviro (2008) *Skills for a low carbon and resource efficient economy: A review of evidence, p100*.

<sup>24</sup> [www.cogent-ssc.com/Gold\\_Standard/index\\_3.php](http://www.cogent-ssc.com/Gold_Standard/index_3.php)

<sup>25</sup> TUC (February 2010) *A Budget for Growth*, p28.

in driving forward the UK's industrial strategy. For example, it should review the social impacts of carbon budgets and have a formal advisory role to a future Green Investment Bank, linking investment decisions to social objectives. There is an urgent need for action due to the unemployment impact of the recession.

33. This needs to be coupled with a more transparent approach about the costs of the low carbon transition. Many policies, such as incentives for renewable technologies, either pass on costs to the public through higher future energy bills or involve upfront costs that are prohibitive to lower income families. If part of the economy is ill-equipped for the transition, it will result in communities missing out on the prosperity on offer and lead, inevitably, to social tensions. This will also make future policy harder to implement. In the United States, a group of Senators are calling for a suspension of President Obama's clean energy programme as a significant proportion of funds are supporting foreign manufacturing and jobs<sup>26</sup>. As with the UK, greater transparency on how public subsidies are being spent is required.
34. The UK must also learn from international experience. For example, the closure of the Lindoe Shipyard in Denmark was met with a rapid retraining programme for workers in offshore renewable energy and the Spanish region of Navarre is another success story that benefited from rapid renewable energy deployment and job creation through active industrial policy.

**Question 8: For the power sector skills we have identified, what is the best way to accelerate skills development beyond what is planned?**

35. Clear articulation of government policy is vital. Government policy, targets and commitments must be "long, loud and legal". Rapid changes can damage business confidence and skills development, as was the case with nuclear energy policy. The 1998 and 2003 Government Energy Bills ruled out the development of new nuclear electricity generation and this policy position gave a clear signal to engineers and those wishing to enter the profession that there was not a future career in the nuclear sector in the UK.
36. The current renewed government commitment to nuclear means that there is now a significant skills shortage in the sector, which will have to recruit between 5,900 to 9,000 graduates and 2,700 to 4,500 skilled trades over the next ten years<sup>27</sup>. The Institution of Civil Engineers understands that about 30 per cent of British Energy's staff is due for retirement over the next 10 years, creating a significant loss of knowledge and expertise. This comes at a time when demand for engineers with the skills required to deliver major infrastructure projects is increasing from an expansion in onshore and offshore wind, CCS, flood defence, high speed rail and upgrading the water infrastructure.
37. In response, the National Skills Academy for Nuclear was created in January 2008, a wholly owned subsidiary of Cogent, the relevant Sector Skills Council. In the short-term, much of the capacity gap in the nuclear sector is likely to be filled by importing skills from nations such as France which have an extensive nuclear programme. Longer term, the UK has an opportunity to grow its own cohort of skilled workers which will be important if the UK is going to progress with a nuclear programme. To realise this opportunity, the UK must ensure that all schools and colleges have

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<sup>26</sup> This is a direct result of the failure to develop US clean tech manufacturing during the George W Bush Presidency. See Senator Sherrod Brown (March 2010) *Senators Urge Administration to Suspend Stimulus Program Funnelling Billions Overseas*.

<sup>27</sup> National Skills Academy for Nuclear (January 2008) *Press Release: National Skills Academy for Nuclear Launched*.

appropriately qualified students and staff in STEM subjects and reverse the stop/start pattern of development, which has afflicted the nuclear sector (and much of UK infrastructure) in recent decades. A major research programme by Cogent is currently underway to ensure that future demand for nuclear skills can be delivered in the UK<sup>28</sup>.

**Question 10: How can we stimulate the demand for the skills required to meet the CCS market opportunity, including a range of skills; from advanced R&D skills, to crafts and technical skills?**

38. The UK has not seen an investment in a new coal-fired power station for a generation and so there is a significant lack of experience in comparison with competitors, such as China and the United States<sup>29</sup>. A sufficient domestic skills base will only develop through practical experience from real demonstration projects. However, progress can be accelerated by premeditated action in line with government policy. For this reason, a government research fund for training centres in conjunction with leading universities is welcome and should help develop the required skills for demonstration projects.

**Question 13: What more should Government and industry do to ensure that those retrofitting existing buildings have the necessary skills?**

39. The majority of environmental jobs are not entirely new in content. They are based on traditional occupations but enhanced with skills that are relevant to the low carbon economy. For example, research in the United States shows that retrofitting American cities requires workers with traditional construction skills who also have up-to-date training on energy-efficient construction<sup>30</sup>.

40. A few specialists will need training to a very high level but the investment required for upskilling or re-skilling most employees will be less onerous and expensive. In many cases, the fundamental skills already exist and these must be built on with additional knowledge and techniques so that they are relevant to emerging skill requirements. For example, the skills to install, maintain and repair low carbon energy systems can all be adapted from existing skill sets. Electricians will already have the core electrical skills to install and maintain solar panels but will require additional training to integrate connection into the existing mains power supply, install the means of feeding power back into the national grid and training to work safely at heights.

41. Funding must match the real life needs of businesses and their employees. At present, public funding is often only available for longer courses. Subsidies should also be available for shorter courses which build upon existing skill sets, creating new opportunities amongst already-skilled sections of the workforce. There is also a need for additional add-on modules to existing apprenticeships for adult employees. Often employers are prepared to upskill their staff but there are no regional facilities, so capital investment should be made available to create regional centres of excellence.

**Question 21: What actions should be taken to ensure that individuals working in carbon intensive industries have the skills to make the transition to a low carbon, resource efficient economy?**

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<sup>28</sup> Cogent (September 2009) *Power People: The Civil Nuclear Workforce 2009-2025*.

<sup>29</sup> Institution of Civil Engineers (October 2009) *Carbon Capture and Storage: Time to deliver*.

<sup>30</sup> Sarah White & Jason Walsh (2008) *Greener Pathways: Jobs and workforce development in the clean energy economy*.

42. In the shorter term, there will have to be greater focus on overseas recruitment. The UK immigration points based system should be adjusted to give greater preferences to those with an engineering and scientific background. Public-private investment in conversion courses would also help build on the core skill base of people working in relevant occupations in the Armed Forces and in the rail, oil, gas, chemical and steel industries.
43. It is essential that the Skills Funding Agency recognises these skill shortages as an area of strategic economic importance and makes sufficient funds available to meet this demand. It will need to be targeted to a small number of occupations to ensure competitive advantage in the key industries prioritised in the Low Carbon Industrial Strategy.

**Question 23: What are the key skill challenges in the service and support sectors to deliver improved resource efficiency and low carbon?**

44. Although the consultation recognises the need to step up the provision and quality of generic management skills, there is little in terms of further analysis. IPPR<sup>31</sup> demonstrates that the lack of management skills is not confined to the low-carbon sector but is regularly identified as a weakness in UK firms. This means that investment in this area of training represents a “no regrets” policy which will enhance UK competitiveness whatever the pace of industrial transformation. Nevertheless, employees will also need to look at how their organisation operates in the context of environmental challenges, building on the work that is already underway by Union environmental representatives.
45. The transition to a low carbon economy will be greatly eased if everyone at work understood more about the nature of the transformation in Britain’s economy and appreciated what it means to work in a business committed to resource efficiency and sustainability. These generic skills will be as essential to every employee as the protective skills learnt in basic health and safety training. The Government should explore requiring all employers to provide the appropriate level of training on sustainability issues to all workers. In essence, every profession would need to address what is necessary and sufficient to perform roles effectively in a low carbon economy. Every organisation would have champions and on-site representatives responsible for driving through reform and engaging the workforce.
46. Employees with environmental skills are also consumers that make choices in their domestic lives. Training at work will help develop greater awareness of sustainability issues at home and influence future consumer behaviour.

**Question 24: What will the key skills needed be, to build adaptive capacity for climate change, enabling organisations to minimise risks, and capitalise on the opportunities that climate change will bring?**

47. Building adaptive capacity will be vital for the UK economy but historically this is not one of its renowned characteristics.
48. Companies must position themselves to be receptive to the need for change. A number of large businesses have identified significant climate risks and are responding to them. This includes undertaking large education and awareness programmes to inspire staff of all levels. Typically, the commitment from CEO to adaptation is essential.

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<sup>31</sup> Jenny Bird and Kayte Lawton (October 2009) *The Future’s Green: Jobs and the UK low carbon transition*.

49. SMEs comprise the bulk of the economic base but have significantly reduced adaptive capacity. Progress can be made through measures such as carbon reporting which the Government recognises can lead to lower energy and reduced costs, a better understanding of their exposure to the risks of climate change and a demonstration of leadership which will help strengthen their green credentials in an increasingly environmental conscious marketplace<sup>32</sup>. Suppliers are increasingly expected by some of their global customers to demonstrate GHG emissions management, awareness and action, in order to maintain business relationships, as shown by a recent report by the CDP. Their supply chain survey finds that over half of respondents actually expect to deselect some suppliers in the future for failing to meet carbon management criteria set by the companies<sup>33</sup>.

### **Next Steps**

50. The AG would like to be kept informed of further developments and will continue to work with the public, private and third sectors to advance ambitious environmental skills policies and examples of corporate best practice.

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<sup>32</sup> Defra and DECC (October 2009) Guidance on how to measure and report your greenhouse gas emissions.

<sup>33</sup> Carbon Disclosure Report (February 2010) Supply Chain Report 2010