Department for Business, Innovation and Skills and the Department of Energy and Climate Change: “Meeting the Low Carbon Skills Challenge”

ACE response – June 2010

Introduction to the views of ACE

The Association for the Conservation of Energy is a lobbying, campaigning and policy research organisation, and has worked in the field of energy efficiency since 1981. Our lobbying and campaigning work represents the interests of our membership: major manufacturers and distributors of energy saving equipment in the United Kingdom. Our policy research is funded independently, and is focused on three key themes: policies and programmes to encourage increased energy efficiency; the environmental, social and economic benefits of increased energy efficiency; and organisational roles in the process of implementing energy efficiency policy.

We welcome this opportunity to respond to this consultation.

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Introduction

1. ACE welcomes the opportunity to respond to this consultation on the actions required to meet the low carbon skills challenge. ACE has responded to only a selected number of questions in its response below, mainly those relevant to the construction industry, in particular the refurbishment of existing buildings.

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

2. ACE feels that the emphasis in this document on the skills needs and challenges for moving to a low carbon economy is misplaced.

3. Firstly, ACE feels that the proposed investment in skills the energy generation sector is overstated. Government has made no long-term (post 2025) assessment of electricity demand. Calculations of both electricity demand up to 2050, and the potential generating capacities that can be supplied through a mix of renewables submitted to a recent DECC Select Committee suggest that nuclear power would not be needed to meet an energy gap.\(^1\) ACE feels that investment in energy saving measures and demand reduction obviate the need for expansion in expensive new generation to the extent outlined. The consultation document also notes that “all nuclear power stations except for Sizewell B are set to close by 2023” and that “up to 70% of the current nuclear workforce will retire by 2025.” Therefore, rather than invest further in an unnecessary and costly energy sector, this seems to the perfect opportunity to oversee the safe closure of the plants without losing many jobs.

4. For the construction industry ACE feels that the consultation places too much emphasis on promoting Science, Technology, Engineering and Maths (STEM) skills and states that for decarbonising buildings ‘the required skills will be mainly at graduate level’ and the purposes of these enhanced skills will be to ‘develop, manufacture and implement new technologies, and to enhance existing practical construction skills for installing new adaptation and mitigation technologies’ (p5). ACE disagrees that the new skills required in this sector will be mainly at graduate level and also disagrees that emphasis will be on developing and manufacturing new technologies.

5. Within the buildings sector there are many existing fit-for-purpose energy efficiency and micro-renewable energy generation technologies that have not yet been realised. These constitute the extensive low hanging fruit of carbon reduction. Many of the skills required are already partly held by existing general builders and trades people. Up-skilling of the existing workforce in this sector is, for a large portion of the work required, closer to the level of investment in training necessary than graduate level qualifications. Developing the appropriate training for existing trades people that work within a fragmented market is the greater challenge that has not been well addressed by this consultation.

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\(^1\) Sustainable Energy Partnership submission to the DECC Select Committee on the Draft National Policy Statement for Energy Infrastructure (April 2010)
6. Largely ACE finds the information contained in Annex 1 on Sectoral Challenges to be a fair and sensitive assessment but unfortunately the complexity of the challenge in the existing buildings refurbishment sector has not permeated into the main document. Most importantly, the Annex indicates the need to provide training to actors across the whole of the building supply chain.

7. The lack of knowledge of energy efficiency in buildings in two areas of the supply chain was recently highlighted by the Royal Institute of Chartered Surveyors (RICS) in a piece of work on energy efficiency value in the housing market, published in collaboration with the Department for Communities and Local Government. In the report RICS make a number of recommendations about further training needed for all property professionals and Solicitors involved in conveyancing. This is just one example of an essential skills gap that is not covered in the main body of this consultation. Further essential training is necessary for other professions including planners, compliance and enforcement bodies, mortgage providers and of course (as outlined in the Annex) building users.

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

8. The Prime Minister’s commitment to reduce energy usage across government by 10% in one year is a potential source of bountiful good practice and is a good example of the public sector leading by example and driving good practice and uptake. Achieving the savings to honour this commitment will require a crash course in implementation. The skills obtained and lessons learned through planning, managing and contracting to achieve the reductions can be fed into the private sector through the inter-ministerial steering group which comprises representatives from key departments and the private sector.

6) Is stimulating innovation in skills development and delivery the best way forward?

9. ACE believes that stimulating investment in skills is an essential tool in smoothing the road to a low carbon economy. It is a tool that is particularly relevant to the building sector which is a fragmented sector with a large number of diverse players. It is also a sector that suffers from a poor reputation and has suffered from underinvestment in training.

10. The development of relevant skills in the workforce, however, will only be effective as part of a pre-announced policy framework that incentivises demand to the level that allows employers to commit with confidence to investing in skills.

11. The mechanisms within this framework must have long enough lives to maintain stable levels of demand to avoid replicating the stop-start nature of the successive supplier obligations and the Low Carbon Buildings Programme which have been very damaging.

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for the industries needed to deliver. As part of this framework of policy measures, which should include more generous incentives, access to affordable finance, support and advice, minimum standards of energy efficiency which incrementally increase over time would help to promote such constant and stable demand. The framework of policy measures must also ensure quality control and recourse for building owners and occupiers.

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

12. If the government is looking to provide as many jobs as possible then nuclear is very clearly not the best option. Out of the predicted 9,000 jobs that the Sizewell B nuclear plant was due to provide, there were in fact only 2,166 local jobs (less than a quarter). For new nuclear, mining and transport of nuclear fuels were never expected to be UK-based jobs but a suggestion by the Office of Nuclear Development\(^4\) indicates that, due to new techniques, not even all the construction jobs would be UK-based either. The Existing Homes Alliance’s estimate that the retrofitting of existing homes could support 100,000 new jobs per year, indicates that energy efficiency in buildings would be a much better choice for creating employment. In the consultation document the Government announces that it plans to provide 1,000 new apprenticeships per year and 150 foundation degrees, with the support of the National Skills Academy for Nuclear. ACE believes that the funding needed to provide these would be better spent on apprenticeships in renewable energy sectors, and training in energy efficiency.

11) Can the Zero Carbon Hub approach be used as a model for identifying skills needs, and stimulating demand for those skills, across the construction sector?

13. There is considerable potential for a structure similar to the Zero Carbon Hub to develop skills and expertise which can usefully be rolled out to the refurbishment industry.

12) What more could it do to deliver low carbon and resource efficient skills in all parts of the construction industry?

14. As is outlined more fully in our response to Question 13, more emphasis needs to be given to up-skilling the existing workforce in the construction industry and across the entire building industry including small builders and trades people. Funding needs to be provided to encourage uptake of this up-skilling and holistic skills need to be developed that promote an understanding in of how measures installed interact with one another and how whole house package refurbishments can be managed.

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

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\(^4\) Letter from Michael Sugden, Office of Nuclear Development. DECC 12th Jan 2010
15. ACE was surprised at the relatively low emphasis placed in the consultation document on the skills required for those retrofitting existing buildings. For many reasons, scale being the most obvious, this sector is more important than the transport, manufacturing, power generation or new building sectors.

16. The potential contribution to the ‘new green economy’ of the national programme of energy efficiency refurbishment that is necessary to meet our carbon targets is enormous. The Low Carbon Skills Cluster report\(^5\) estimates current domestic repair and maintenance spend at around £24m per annum and indicates that energy efficiency refurbishment could add at further 50% to this total. The Existing Homes Alliance raises this estimate considerably putting the figure that we should aim to see invested in retrofit each year at £6bn.

17. In terms of jobs, the consultation document quotes 65,000 as the number of jobs to be created in domestic retrofit and advice, but including all direct and indirect jobs oriented around the successful promotion and delivery of retrofit works, the Existing Homes Alliance estimates over 100,000 new jobs each year to 2020.

18. More so than in power generation and many manufacturing processes, the building refurbishment sector needs a workforce with varied skills at varied levels, starting at entry level. This means that the sector could provide opportunities for large numbers of young people without Science, Technology, Engineering and Maths (STEM) qualifications required for other sectors and for the growing number of unemployed.

19. The sector therefore holds enormous potential to drive new green economic growth, but it is one that has thus far suffered from underinvestment. The lack of investment in skills in the construction industry, identified in the consultation document, is true also for the, mostly smaller, firms and trades people undertaking refurbishment. Skills in the new build construction sector have been driven by the introduction of the Code for Sustainable Homes, to which construction firms have been forced to respond, but no similar standards are currently in existence or proposed to trigger such a response from those undertaking works on existing homes.

20. Finally and essentially, there is an urgency around the need to up-skill those in the refurbishment sector to deliver significant energy efficiency improvements in the building stock that is not reflected in the consultation document. Previous and present Governments have agreed on the potential to make vast Carbon reductions in existing buildings with significant overall economic benefit, making these works the first on the carbon reduction path. In addition, the growing issue of fuel poverty, which affects the health, educational achievement and wellbeing of 4.6m households at the government’s latest projection also acts as a key barrier to the introduction of strong energy pricing or carbon taxing policies to drive energy demand reduction. Government’s target for eradicating fuel poverty, most effectively achieved through

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home energy efficiency improvements, in these 4.6m or more households is 2016. This means that significant refurbishment works are necessary in the next 6 years.

21. In light of the importance of this sector, the provisions for training for energy efficiency refurbishment skills in the Buildings and Construction Section of the consultation are thin. The proposed new NVQs and new National Occupational Standards will help to update and make more relevant existing further and higher education courses. However, many of the basic insulation and air-tightness measures that are at the centre of building energy efficiency refurbishment can be performed by existing trades people (general builders, electricians, plasterers) if provided with appropriate awareness and up-skilling inputs.

22. ACE feels that the provisions should contain much more emphasis on the SME and self employed builder which are best placed to identify, recommend and undertake much of the trigger point works.

23. The cross-party support for apprenticeships which has led to an emphasis on this type of training and the emphasis on entry level qualifications and training of young people in this consultation document overlooks the more pressing need in SME builders to focus more on training and up-skilling of existing workers.\(^6\)

24. SME builders have expressed dissatisfaction with the current training system, indicating it is not well-suited to meet their needs now or in the future.\(^7\) Interviews undertaken for the FMB’s Housing Futures Report indicated that, “Training is viewed to be complex, expensive and overly bureaucratic with too much focus on paperwork and not enough attention given to work experience and job based training.”

25. There are examples of modular, on the job, relevant training for small building businesses appearing, for example the QCF accredited Ecobuild Training for builders by builders developed by the Oxfordshire Construction Training Group. More emphasis needs to be placed on this form of practical up-skilling that is more suited to small builders’ businesses and needs. Funding of the sort directed to apprenticeships through the CITB – Construction Skills for Apprenticeships need to be channelled into up-skilling of the existing workforce.

26. This up-skilling needs also to be built into a framework that, over time, produces trades people with the combined and overarching skills that will be needed to manage whole house retrofit packages. A sizeable workforce with knowledge not only of one measure or skill set but of how measures installed into a building interact will be necessary to avoid the unintended consequences of different trades people undermining previous sets of energy efficiency works. Only with this rounded skills set

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will the enormous volume of energy efficiency works required to bring the English housing stock up to standard be delivered efficiently, and in a fashion that is acceptable to householders.

27. Finally, there is a need for a broader campaign to raise awareness of the carbon impact of buildings in small builders and trades people, perhaps along the lines of the ‘Cut the Carbon’ campaign to be launched by Construction Skills in the Autumn. This campaign must, most importantly, communicate the huge potential of energy efficiency works as a business proposition.

28. All of this needs to be set in the current context of the poor reputation of the building trade in the UK. The up-skilling of trades people with valuable new skills within the carbon reduction agenda offers an opportunity to start to revolutionise the delivery of building refurbishment services and add value and kudos to the service.