



Unite response to the joint BIS/DECC consultation - meeting the low carbon skills challenge

This response is submitted by Unite the union. Unite is the UK's largest trade union with over 1.5 million members across the private and public sectors. The union's members work in a range of industries including manufacturing, financial services, print, energy, construction, transport, local government, education, health and not for profit sectors.

Executive summary

- It is vital that young people are encouraged to look at the wider benefits of studying STEM¹ subjects and their relationship to the transition to a low carbon economy (para 2.1)
- Unite believes the diplomas in engineering, construction and manufacturing are a welcome addition to the pathways to learning for young people, especially those who come from disadvantaged backgrounds (para 2.2)
- There needs to be a concerted marketing campaign to make careers in the manufacturing sector more attractive to young people. Research has shown that 91%² of students interviewed in a survey did not know how to access information about jobs and careers in engineering and manufacturing (para 2.3)
- Unite is opposed to cuts in funding for UK based students, which encourages universities to focus on recruiting overseas students as a way of 'topping up' their income (para 3.2)
- Evidence shows that many of the skills identified for the low carbon economy are not new skills; they are skills that already exist but may need to be adapted or reinforced to apply to a low carbon economy (para 4.1)

¹ Science, Technology, Engineering & Maths

² Institution of Engineering & Technology – unpublished research.

- It is a vital component of a fair transition to a low carbon economy that government takes the issue of skills gaps and skills shortages in the manufacturing sector seriously and invests accordingly (para 4.2)
- Employers have a pivotal role in encouraging and facilitating workers re-training or up-skilling to ensure a smooth transition to a low carbon economy (para 4.4)
- Unite would like to see government reinforce its commitment to the long term provision of funding for apprentices across all sectors. Unite believes adult apprentices are a key component to the resolution of the skills shortages which could be a serious issue for the low carbon economy (para 5.1)
- There is an ongoing issue with SMEs and workforce training. The transition to a low carbon economy training in small companies will become even more crucial as a huge amount of innovation occurs in this sector. As such there is a real need for a statutory training levy to force employers who do not train their workers to do so (para 6.4)
- Trade unions have an important role to play in the provision of skills and training. The life long learning programme has been instrumental in encouraging workers to re-engage with learning and training in a safe and secure environment.
- Unite believes that public procurement is a key area where government can transform the economy and stimulate growth while driving the transition to a low carbon economy (para 7.1)
- In the construction sector Unite has serious concerns that the lack of opportunity faced by the workforce to engage in direct employment and the barriers to continuity of employment will have a detrimental effect on the development of construction skills for the low carbon economy (para 8.2)
- As with other sectors in the UK economy the logistics sector suffers from an aging workforce, creating skills gaps and skills shortages. The industry will need to recruit and train an average of 24,000 new LGV drivers to address these issues (para 9.6)
- Across a number of sectors featured in this submission there is an issue with workers being allowed to take time off for training and also to be paid while undertaking training. Employers must be encouraged to invest in their workforce to reap the benefits and opportunities the shift to a low carbon economy could bring (para 10.1)
- The creation of the Unite backed national skills academy for rail engineering should help towards securing the long term future of the industry, but this may not be enough to ensure the UK is in a position to compete with train build companies from abroad (13.1)

- Unite believes that in the food and farming sector there needs to be a re-affirmation of sustainable skills and a comprehensive focus on creating a stable workforce that is not reliant on migrant labour (para 14.3)
- Because of the very high level of emissions involved in the production of fertilisers it is vital that government and industry invest in training and skills for the workers to create and use new ways of using organic based fertilisers (para 14.7)
- In the service and support sectors the economy has seen a technological shift in the means of production and it is inevitable that the skills requirements of the service and support sectors must also adapt to be in a position to offer suitable products and services to companies engaged in the transition to a low carbon economy (para 15.3)

1. Introduction

1.1 Unite the union welcomes the opportunity to respond to this consultation enquiring how the UK will meet the low carbon skills challenge. It is clear some commentators are anticipating a revolution in the industrialisation and manufacturing processes in the current UK manufacturing sector. To facilitate this revolution it is felt by some that there will need to be a plethora of new skill sets, new training programmes, new courses at FE colleges and university and a whole new set of quangos to manage all of this change.

1.2 Unite does not believe this. The union has clear evidence that the changes required to comply with carbon emissions legislation is already ongoing, with corresponding training to facilitate this. This is not a revolution but a manufacturing evolution. Of course there will be some changes to skill sets and training needs, but for many workers the crucial point is that their employer enables them to access the training to allow them to develop and adapt their skills.

1.3 There is an important debate about how the UK can ensure that workers are sufficiently skilled to allow them to undertake the new ways of working that a low carbon economy will bring. It is vital that government takes investment in education and training in the UK seriously and works with employers, academic institutions, trade unions and workers to ensure that the challenges of a low carbon economy are met and that the UK manufacturing sector is not disadvantaged by a lack of skilled workers forcing manufacturing companies to go overseas to find the highly skilled workers they require.

2. Education

2.1 Unite believes that it is through the current education system, starting at primary level, that new attitudes to STEM subjects and working in manufacturing industry can be forged. It is vital that teachers encourage young people to look at the benefits of different career paths and ensure that young people have access to positive role models and science and technology road shows such as BOOM³ which last year provided the

³ North East Engineering Road Show see www.boomnortheast.co.uk

opportunity for over 7,000 young people (11 – 17 years) and their teachers to sample the importance of engineering in modern day life, and appreciate the way STEM skills underpin careers in engineering.

2.2 Unite believes that the Diplomas in Engineering, Construction and Manufacturing are a welcome addition to the pathways to learning for young people. The Engineering Diploma is highly valued by the profession and most importantly is accepted as a route onto the vast majority of engineering courses at Russell Group universities⁴. The Diploma clearly offers opportunities for students who come from families who may have no experience of universities, women and young people from minority ethnic groups who are tragically under represented in the engineering profession.

2.3 It is clear that there needs to be a concerted marketing of engineering and manufacturing as a profession. This is especially relevant to the low carbon economy. Research has shown that in a survey carried out in 2008 regarding young people's attitude to engineering, 90%⁵ of year 9 and 10 students who responded agreed that 'engineering was important for the future', however, depressingly 91%⁶ of the students claimed to know nothing about how to access jobs and careers in engineering

3. Funding of University places

3.1 Unite has serious concerns about the future funding of university places for UK based students. The new government has already reduced the number of university places available to UK based students creating serious problems at a time of unprecedented demand, up 16.5% on 2009. It is very difficult to accept the lack of joined up government thinking behind these cuts to the university budgets.

3.2 The cuts give universities freedom to reduce the places for UK based students and increase the number of places made available to overseas students. With applications for 2010 up by 28.7%⁷, it is not difficult to see that overseas applicants are an incredibly lucrative income source for universities. Martin Davidson, Chief Executive of the British Council said 'it would be seriously counter-productive and, in the long run, potentially self defeating for universities to focus on overseas student recruitment drives as a knee jerk reaction to the financial shortfalls....or as a short term measure of boosting their income'⁸.

3.3 As a consequence, this strategy is sure to have an impact on home grown students being accepted for STEM subject courses and being available for the UK manufacturing sector to employ. Unite believes this will exponentially impact on the skills available for the low carbon economy and the growth of the sector in the UK. Government has acknowledged the issues around having enough home grown talent to replace the current aging workforce and has paid lip service to ensuring that there is opportunity for all, but is

⁴ Transforming Engineering Education – Institution of Engineering & Technology, 2009, p 3.

⁵ Institution of Engineering & Technology – unpublished research.

⁶ ibid

⁷ Higher Education Statistics Agency (HESA) – University application tables 2009/2010.

⁸ The Daily Telegraph – 26 March 2010.

effectively developing government policy to actively conspire against achieving this goal.

4. Skills

4.1 Evidence shows that many of the skills identified for the low carbon economy are not new skills; they are skills that already exist but may need to be adapted or reinforced in some way to make them applicable to new ways of working or to address technological change. Unite believes it is important that transferable skills are identified and the ways in which they can be adapted is investigated. This will then inform FE colleges and employers who want to up-skill or re-train their existing workforce.

4.2 It is vital that the present government take the issue of skills needs in the manufacturing sector seriously and ensure that there is sufficient financial investment to promote, increase and reinforce the teaching of STEM subjects. There is evidence that the use of the positive intensive approach adopted by countries such as Singapore in the teaching of science and maths has reaped significant results and has systematically improved the number of students studying STEM subjects, producing the highest number of science and maths graduates in the world.

4.3 This information is crucial to the UK economy and the low carbon skills challenge. If the skills challenge is not met by all stakeholders, government, the public sector, employers, workers and trade unions, jobs will be lost and the UK economy will lose the opportunities available for the creation of new companies, new technologies and new innovative ways of working.

4.4 It is vital that workers within existing companies have the opportunity to embrace the technological and industrial advances provided by the low carbon economy and up-skill or re-skill. Employers have a key role to play in this process, which is why Unite has consistently requested that a statutory training levy be imposed on any employer who does not train their workforce.

4.5 Unite has concerns about the complexity of the current skills delivery framework. Employers are clearly deterred from engaging with skills delivery due to this complexity. Unite welcomes any proposals to simplify the system and believes that any new skills required for the low carbon economy should be embedded within a new simplified system rather than to create a whole new set of bureaucratic strata and funding need for training that is already being undertaken by some of the existing Sector Skills Councils and Academies.

4.6 It should also be noted that a high proportion of the 2020 workforce have already finished their education and training, and therefore, special efforts need to be made to provide the infrastructure to enable these workers to up-skill and re-train. Unite also has concerns that the existing skills delivery programmes have been too focussed on lower skill levels. Unite has consistently advocated that training must be provided at level 3 and above.

4.7 Skill sets in the low carbon economy will reinforce the need for highly educated and highly skilled workers. It is vital that government and the public sector are aware that a short-term approach to skills in a low carbon economy

will be severely detrimental to the growth of industry. There needs to be a simple and dynamic policy framework for jobs, skills and innovation for industry and commerce, which can only be provided through government policy.

4.8 All of these issues impact on training and skills within the UK economy because a large proportion of the UK workforce still do not understand the importance of what is involved in the change to a low carbon economy, including the senior managers who are expected to manage the transition.

5. Apprentices

5.1 Unite believes that the government must reinforce its commitment for the provision of funding for adult apprentices. They are the key to the up-skilling and re-skilling for the low carbon economy. Adult apprenticeship starts grew by 88% between 2007 and 2009⁹. This is an impressive rate of growth and is clearly vitally important to UK manufacturing industry. What it also does is allow existing workers the positive opportunity to re-train and engage in further learning. The transient nature of the workplace means adult apprenticeships allows older workers the opportunity to re-train and change their skills in response to technological change while building on their existing knowledge and experience.

5.2 Apprenticeships for young people are also crucial and there are clear pathways for young people to access apprenticeships. The average age of workers in many manufacturing sectors is currently 49, presenting a series of problems for employers in maintaining a highly skilled workforce and addressing skills shortages. In the nuclear power sector 70% of the workforce is due to retire by 2025, creating a requirement for a large influx of highly skilled workers. It has been estimated that around 1,000 new graduates and apprentices will be needed to counteract the rising skills shortages.

5.3 However, the most crucial point is that there must be employer engagement and commitment to investing in apprentices. There needs to be a concerted campaign by government to encourage this process, one of the ways being to include clauses in the procurement tendering process. The Electrical Contractors Association president said 'my greatest wish from government is that anyone winning a government contract has to directly employ apprentices'¹⁰

6. Small and medium sized enterprises (SMEs)

6.1 Unite has indicated in previous submissions that SMEs are significantly less likely than larger companies to train their workers and allow their workers to have paid leave to attend off-site training courses. Training that does take place is often informal learning or on-the-job training and would be related to short term business objectives or problems rather than a specific programme of worker training and development that could aid productivity and economic growth for the company in the long term.

⁹ The Apprenticeship Renaissance - Engineering UK, 2010.

¹⁰ Construction News – 27th May 2010, page 19.

6.2 Unite considers that there is a desperate need for government investment to assist SMEs with training, re-skilling and up-skilling to enable them to adapt and enjoy the opportunities which will come about through the low carbon economy. There also needs to be a systematic process whereby SMEs can allow their workers to attend training courses so that it does not affect the business objectives. Business objectives are an excuse continually offered by SMEs as a reason not to allow their staff to attend training and Unite believes it is unacceptable.

6.3 If the UK is to be a part of the knowledge economy laid down by the Lisbon Treaty then all workers need to have access to good training. The onset of the need to address the development or transition of skills to meet the low carbon needs of industry and commerce makes government encouragement and intervention all the more relevant.

6.4 There is also an issue around the life long learning agenda and SMEs. It is almost impossible for workers in small businesses to engage with the same sort of trade union training opportunities that workers enjoy in companies such as BAE systems, Rolls Royce and Ford, where life long learning centres have been created. For this reason unions have a unique opportunity to encourage employers to find ways of allowing their workers paid time to train. Unite believes that if companies refuse to train their workers and refuse to allow them paid time off to attend off-site training courses then government should introduce a statutory training levy to address this. The issue of training and SMEs is going to become even more crucial in relation to the low carbon economy and solutions need to be found to address this.

7. Public procurement

7.1 Unite believes that one of the ways that government can transform the economy and stimulate growth is by using the public procurement of goods and services. At present public procurement is worth £222 billion per annum and accounts for 13% of GDP. In this way UK industry can have an increased role in driving the transition to a low carbon economy.

7.2 As part of government's procurement strategy it should work closer in product development with UK companies. This would allow UK companies to have a competitive advantage in the procurement process, as it would ensure that products developed meet government needs and specifications. To this end it is vital that training and development and the provision of apprentices are written into any procurement contract and, where appropriate, that preference is given to those companies committed to fair transition to low carbon systems or products.

7.3 Procurement contracts can also encourage supply chain purchases from smaller companies. This ensures that UK workers can benefit from the procurement process right through the supply chain. This is crucial for SMEs who find it very difficult to access the bidding information for procurement contracts.

8. Construction sector

8.1 Unite is clear that the UK construction sector is absolutely essential in achieving the long-term policy objectives for delivering a low carbon economy.

However, Unite has very real concerns that without a number of fundamental changes to the structure of the UK construction industry it will not be in a position to effect the required transformation.

8.2 Unite believes that the current lack of opportunities being faced by the workforce to engage in direct employment and the barriers to continuity of employment are of significant concern, along with the objective fact that the 'industry is highly fragmented'¹¹. The reality is that such structural constraints are detrimental to the development of the skills and training required for innovation, application and the deployment of the new technologies which are essential if the built environment is to meet its stringent carbon emissions targets.

8.3 In light of the highly complex nature of most construction industry supply chains, Unite questions the ability of major contractors to encourage their supply chains to de-carbonise leading to the requirement for legally binding constraints to be written into procurement contracts.

8.4 Unite has real concerns that innovation and improvements in productivity will not be delivered by a workforce that is disproportionately represented by self employed or bogusly self employed operatives in an industry where the main contractors have consistently sought to distance themselves from the responsibilities and costs involved in engaging a directly employed workforce.

8.5 Unite believes the development of the industry and its ability to deliver the infrastructure for a low carbon economy cannot be considered in isolation from the industrial relations framework which facilitates industry progression.

8.6 Unite supports the tenet that collective agreements provide the framework for developing the relationships between workers and employers that facilitate ongoing improvements in skills progression, re-skilling and up-skilling which is the way forward in developing the required skills for a low carbon economy. This position is supported by independent and objective research such as the Baker Mallet report¹².

9. Freight and logistics sector

9.1 Unite believes that any focus on skills for this sector should have the workers; drivers, storage workers, warehouse operatives, post workers, mail sorters, messengers and couriers as the priority target group. These groups of workers are central to all the different stages of the logistics supply chain and clearly have differing skill and training requirements.

9.2 The proposed changes to the logistics sector in adopting low carbon technologies will see Unite members offer a unique insight into what changes to their skill sets are needed. These changes to existing skill sets need to be officially recognised through formal accreditation and all stakeholders need to work with 'Logistics for Skills' to ensure the relevant training and accreditation is implemented.

¹¹ Construction Matters – HoC Business & Enterprise Committee, July 2008.

¹² A study of the implementation of the major projects agreement on the BAA Terminal 5 project – 2005.

9.3 In addition it is vital that workers in the logistics sector are seen as having skilled jobs and not viewed as being low skilled with menial jobs. Historically the sector was seen as stuck in a low skills equilibrium, whereby an industry becomes trapped in a vicious circle of low skills, low value added and low wages. Unite believes the shift to a low carbon economy will give the logistics sector an opportunity to move out of this equilibrium and enable the workers therein to become increasingly skilled and better trained.

9.4 Trade unions have a significant role to play in assisting in the up skilling of existing workers via the life long learning agenda. This can include supplying training for increases to educational attainment above level two (currently prevalent in the logistics sector) and opportunities to re-introduce workers to a learning agenda in a sensitive and secure way, the union can also work with management and workers to create an accredited skills pathway which could be linked to increased pay grades/points and workers can use this pathway to formalise their learning and see the benefits of training and increased skill levels.

9.5 This is especially crucial in areas such as British Waterways, where there is a proposal to supplement the existing workforce with volunteers. Unite believes this undermines the true nature of the skills set in logistics and will ensure that the Waterways sector remains in a low skills equilibrium.

9.6 As with other sectors of the UK economy the logistics sector suffers from an aging workforce. The industry will need to recruit and train an average of 24,000¹³ new LGV drivers. Just under half will be needed to replace drivers retiring from the industry and over one fifth will be needed to meet growth in the sector¹⁴. This skills shortage will clearly need to be addressed and Unite takes a very positive and pro-active role in encouraging employers to ensure their workers receive any re-training or up-skilling needed to support the move to a low carbon economy. However, employers must also engage with the learning agenda with a statutory requirement if employers refuse to train their workers.

10. Passenger transport sector

10.1 The key issue for the passenger transport sector is around the Certificate of Professional Competence (CTC). Unite has evidence that several companies within the sector are insisting that drivers will not be paid for attending the training sessions required to achieve this certificate. Clearly Unite is extremely concerned about this and would want to see employers invest in their workforce by paying for work related training and paying the workforce when they are training. This would give out a very positive message to both workers and other related companies in the sector that training is something to be embraced and a highly skilled workforce reaps economic benefits for the workers, the companies and the wider economy.

11. Ultra low carbon vehicles sector

11.1 There are several approaches to the development of low carbon vehicles. The most obvious would be to replace the fuel with something more

¹³ The MacKinnon Partnership, LGV driver occupation, shortage and recruitment research – stage 4, June 2007, page 4.

¹⁴ *ibid*

sustainable. Another option would be to reduce the drag on the vehicle due to wind resistance and friction, and finally by deriving an infrastructure which utilises the lowest possible carbon impact network by using various transport modes suited for bulk long distance or short haul light loads.

11.2 The simplest and most widely applicable approach to existing vehicles would be the development of a drop in fuel consumption obtained from a sustainable source. This would have the advantage of not requiring the wholesale scrapping of existing vehicles and could relieve the current demands on fossil fuels. The development of Biofuels derived from algae and other biomass sources have the potential to produce a fuel of a higher calorific value than traditional fuels (according to tests carried out in the aviation industry) resulting in a lower fuel consumption per mile.

11.3 Alternatively, hydrogen fuel cells have enormous potential as an alternative fuel source with the added advantage of producing almost zero green house gas emissions. The problem faced by this industry is finding ways of extracting and safely transporting the gas to a series of filling stations and producing the fleet of vehicles to utilise the fuel.

11.4 The key skills required are therefore in the sciences of biology, chemistry and physics to develop lighter and more efficient transport options and alternative fuel sources as well as logistical experts to examine the options and plan the most efficient and cost effective path for the transport of goods and people from A to B. Unite is opposed to any reduction in spending on STEM subjects and research as this is the future in achieving a low carbon economy.

12. Civil aerospace sector

12.1 The development of products for the civil aerospace industry takes ten to fifteen years to deliver a new aircraft from a blank sheet of paper as well as significant investment into onward development of the craft concerned. Once in service an aircraft could be utilised for twenty to thirty years and hence developments in this industry are far more technical. Designers are therefore required to ensure they can retro-fit any improvement to existing designs on existing aircraft.

12.2 The aviation industry has a long history of reducing fuel burn to extend the range of aircraft and reduce operational costs. Companies are clearly investing significant amounts of money in an attempt to reduce the carbon footprint and government investment in assisting companies with this long term goal is welcome.

12.3 The principal area where savings can be made is in aircraft engine design and maintenance. Rolls Royce anticipates that they can envisage a future engine which will be up to 20% more efficient by utilising modern composite materials¹⁵. Such improvements have already been achieved in smaller aircraft engines.

¹⁵ See www.rolls-royce.com

12.4 Again the key disciplines required are in chemistry, physics and in computer aided design as well as engineering skills such as aircraft avionics, hydraulics and engine maintenance are always in short supply. These skills shortages need to be addressed and in some cases it may involve government policy changes and further investment to facilitate the shift to a low carbon economy.

13. Railways sector

13.1 The creation of the Unite backed National Skills Academy for Rail Engineering should help towards securing the long term future of the rail construction and maintenance industry but this may not be enough to ensure that the UK is in a position to compete with competition from abroad. What is required is long term investment from government to ensure the future of the rail industry in the UK.

13.2 This investment must also include a commitment to keeping the one remaining train build operator in the UK, Bombardier, as a viable proposition. In this way technological changes brought about by a low carbon economy will ensure that workers in the UK industry will be in a position to compete successfully with workers in other countries.

13.3 Unite would also like to see all franchises have clauses in them that compel the train operating company to take on apprentices and train their workers, not only at the start of the franchise but right through the franchise period. It is vital that all stakeholders in the sector are committed to the benefits of training and life long learning.

14. Agriculture sector

14.1 Unite is concerned that government is completely ignoring the very important role of food production and farming in the low carbon economy. It would seem that government see farming in relation to biomass and renewable heat energies, rather than the growing of food in the UK. Adapting to the challenges and mitigating the effects of the changing environment will be a part of everyone's working life from now on.

14.2 It is recognised that food and farming are responsible for about one fifth of all green house gases – both in the UK and worldwide. It is vital that government realises that the best carbon capture and storage ever created is a plant. Food and farming are the only sector that can not only diminish its own emissions contribution but can also absorb the emissions of other sectors. Unite members in the sector are very clear that deforestation must stop and reforestation must be accepted as government policy. There is also a need to change government and public perceptions around the production of food and farming.

14.3 Unite believes that in the food and farming sector there needs to be a reaffirmation of sustainable skills. These are particularly crucial for people working on the land in food production. There also needs to be a concerted effort regarding the use of pesticides especially the EU Sustainable Use for Pesticides Directive. This Directive is asking for a more integrated system for pest management and as such will need a whole new skill set to address the

Directive's requirements. There are a number of skills shortages in the sector and one group in particular – agronomists, is particularly worrying.

14.4 In the food and farming sector the historical shift in technological change was to do with reducing the dependency on labour and introducing new machines and ways of working which meant machines could do the job quicker and be more productive. As such there was a need for workers on the land to be able to learn new skills and be trained to use big machinery and to manage the means of production involved in food and farming. The technological change for the sector now is to do with robotics installations¹⁶.

14.5 As with other manufacturing and production sectors in the UK, the food and farming sector are highly reliant on good calibre, broad based science and engineering graduates with good STEM subject degrees. This is to keep abreast of the pests and pathogens that are currently used but which need to be reduced to comply with the low carbon economy.

14.6 However, it is fertilisers that are of greatest concern. In the UK fertilisers are responsible for more greenhouse gas emissions than the whole of the aviation sector three times over. This is because a huge amount of oil is used in their production which gives rise to nitrous oxide which is three hundred times more potent than CO₂ emissions¹⁷.

14.7 As a consequence of this there is a growing need for future skill sets to enable companies to produce and use organic matter in a more productive and sustainable way and to encourage a natural nitrogen fixation. There is a clearly defined role for government and the industry in investing in the sector and training for the workers within the sector. There needs to be a clear skills pathway devised and programmes showing how workers in the sector can accomplish specific objectives and challenges with the huge changes that are about to happen in the sector.

14.8 Unite obviously has concerns around the high density of foreign migrant labour in the food and farming sector and has also expressed concerns about the ruthless nature of the big four supermarkets in relation to undercutting prices with suppliers. A reliance on migrant labour for agricultural work has de-skilled the sector and means there is no stable workforce. As a result skills are low and the sector is in a low/no skills equilibrium which will have serious consequences for the shift to a low carbon economy.

15. Service and support sectors

15.1 In any discussion about the low carbon economy the sectors which support other industrial areas of that economy must be considered. The Banking and Finance sector are at the forefront of engaging with businesses from all sectors which may want to borrow money, may want advice about how to access finance, subsidies or grants or may want advice about drawing up a business plan for the development of a low carbon business.

¹⁶ Packaging News – Food's auto focus, page 37.

¹⁷ For further information see www.sustainablefood.com/guide/nitrogenissue.html

15.2 The economy has seen a shift away from so-called traditional industries to newer technological methods of production. As such it is inevitable that the skills requirements of the service and support sector workers must also adapt to offer suitable products and services to companies in the low carbon economy.

15.3 The finance sector is also going to need to make some changes to the way it lends money and the services it offers to business customers. The finance sector generally obtains returns on lending based upon short to medium term returns. However, low carbon industries may require longer term funding and the finance sector may be required to consider how they can assist such projects over the long run.

15.4 Government announced the introduction of a Green Investment Bank in the 2010 budget and £20bn of equity has been made available specifically to fund green infrastructure financing. This is clearly an example where the workers across the service and support sector need to be sufficiently trained, with the required skills to enable them to be able to advise on the right products and services for companies to realise the opportunities available to them.

15.5 Historically, the banking and finance sector has been seen as an industry where the staff have a good training regime to enable the workers to maintain their skill and knowledge about new products and services. However, in the light of the recession, it is well known that when companies are looking at the bottom line on costs the training budget is often the first thing that is cut or reduced. This is clearly unsustainable and Unite would want to see committed investment from government and the companies involved to train their workers.

15.6 It is vital that all parts of UK industry, especially SMEs, is given the opportunity to borrow at reasonable interest rates and is offered good advice regarding the sustainable future of their businesses.

15.7 Government should also look at providing improved subsidies and tax breaks to companies who engage with the changes required for the low carbon economy and who seek to consider low carbon initiatives in their business model. This must also include training new staff and re-training or up-skilling existing workers with any new skills they require.

15.8 Unite would also like to see workers in the civil service receive training to ensure they are capable of advancing the transition to a low carbon economy. This would include (amongst others) workers in UK Trade & Industry (UKTI), regional development agencies, the office for government commerce and the government department for business, innovation and skills. There are crucial issues around the existing skill levels of the civil service and their ability to assist in the delivery of skills for a low carbon economy. To ensure the effectiveness of future government policy a thorough training review is required.

Unite recommendations

- Government investment in education, skills and training must be maintained and increased.
- Government must reinstate funding to UK universities.
- There needs to be a concerted review of the teaching of STEM subjects in the UK.
- The current investment in the Trade Union Learning Fund initiative must be maintained.
- Unite believes that a statutory training levy should be implemented for all employers who refuse to train their workforce.
- Public procurement contracts must be targeted at suppliers who agree to include clauses relating to workforce training, the recruitment of apprentices and a commitment to transition to low carbon systems or products where possible.
- Apprentice programmes must continue to be funded and government must commit to reviewing the link between apprentice pay and the national minimum wage.

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