

Response submitted to  
[netzeroreview@beis.gov.uk](mailto:netzeroreview@beis.gov.uk)

27<sup>th</sup> October 2022

Dear Sir/Madam,

Please find below a joint response from EAUC, Association of University Directors of Estates (AUDE), Universities UK (UUK), GuildHE and Association of Colleges (AoC) on the following consultation:

- BEIS Net Zero Review – call for evidence

EAUC are the Alliance for Sustainability Leadership in Education. Our passion is to create a world with sustainability at its heart. That's our vision. We exist to lead and empower the post-16 education sector to make sustainability 'just good business'.

AUDE promotes excellence in the strategic planning, management, operation and development of Higher Education estates and facilities. AUDE offers membership to publicly funded UK bodies whose primary remit is higher education teaching and/or research. There are also membership categories for commercial bodies and alternative providers.

Universities UK (UUK) is the collective voice of universities in England, Scotland, Wales and Northern Ireland. With 140 members, UUK acts on behalf of universities, represented by their heads of institution.

GuildHE is a recognised representative body and official voice for UK higher education, especially for universities and colleges with a tradition of learning, research and innovation in industries and professions. GuildHE promotes and maintains a distinctive, diverse and inclusive higher education sector.

Association of Colleges is the national voice for further education, sixth form, tertiary and specialist colleges in England. They are a not-for-profit membership organisation established in 1996 by colleges, for colleges. Their members make up more than 90% of the sector - educating and training two million people each year.

EAUC has collated a Further and Higher education sector response with feedback from AUDE, UUK, GuildHE, AoC and EAUC members. Information provided on the relevant Business and Academia / Innovators questions are below:

## Questions for Business

### 8. What growth benefits/opportunities have you had, or do you envisage having, from the net zero transition?

*Universities and colleges have captured opportunities across different aspects of their roles in delivering education, generating research, advising global, national and local leaders and in supporting green recovery and growth at the local level. Examples of the benefits are illustrated in [‘How UK universities are addressing the climate emergency’](#).*

*There is increasing interest from students in courses with a focus on green skills and leadership. This includes both domestic and international students, where there is an opportunity to build HE and FE as an export with leadership in green skills.*

*There is high potential for Transnational Education (TNE) – with an increasing interest in the net-zero transition worldwide, there will be interest in green skills education internationally, embedded within communities across the globe, which many universities and colleges are well-placed to meet. There are reputational benefits, both for the students we recruit and the staff that we employ as well as organisations at home and abroad we work with.*

*There is increased resilience and security for universities and colleges when they are able to generate their own power or rely on renewable sources.*

### 9. What barriers do you face in decarbonising your business and its operations?

*It is only with significant new investment can we substantively repurpose vocational training with the urgency required, which we believe is critical to Government delivering the green jobs of the future and a resilient and sustainable post-COVID-19 recovery.*

*In July 2020, Association of Colleges wrote a joint [letter](#), in partnership with the University and College Union and Students Organising for Sustainability UK, to the Minister for Apprenticeships and Skills and the Chancellor of the Exchequer urging them to commit to major new investment in further education to close the skills gap that is rapidly widening across the low carbon sectors. This letter called for £500m of new money for green jobs allocated to colleges over this parliament. This would allow cash-strapped colleges to bring in experienced additional staff to prioritise the development and delivery of low-carbon vocational training and reskilling. £400m of this money should be delivered directly to colleges alongside a framework for implementation and monitoring, which we can draft, working in partnership with industry. The remaining £100m should be used to establish a new network of National Centres of Excellence in Low Carbon Skills at a number of further education colleges (with the funding being ringfenced for colleges, rather than the private sector), each focusing on different aspects of the low carbon skills gap.*

*International strategy is a key area of concern, particularly flights under Scope 3. The education business model is highly dependent on international students and research networks. The funding system currently requires high levels of cross-subsidy which is often found from international student fees, which is challenging for universities’ net-zero ambitions.*

*Estates are a significant barrier in decarbonisation. This has different dimensions for different institutions: universities and colleges with historic estates are faced with costly retrofitting, sometimes of listed buildings; research-intensive institutions must address the impact of their laboratories and other research facilities; and institutions with a large physical footprint need to join up strategy across a diverse estate. There is also the challenge in many smaller universities and colleges that they do not have large staff teams working in sustainability to drive forward these initiatives.*

*The cost of decarbonisation is a huge barrier for many institutions. As referred to in Universities UK's '[Confronting the Climate Emergency](#)' publication, a challenging funding and wider economic context makes decisions around environmental impact increasingly difficult.*

*Data is an issue which underpins all of these areas: accurately capturing data across the board, particularly in Scope 3, is necessary for making informed decisions and balancing the many factors which feed into decision-making. For example, it can be difficult to justify a costlier approach if the positive environmental impact of this choice cannot be fully captured.*

*As the HE sector has adopted the HES CET tool which uses the DEFRA carbon conversion factors, calculating current carbon emissions for Scope 3 (purchased goods and services) is based on spend and therefore it proves near impossible to reduce carbon emissions (unless spend is significantly reduced). As a minimum, improvements should be made to allow users to report where tangible actions and options have been taken to make purchases that favour/decrease reducing carbon emissions.*

*The lack of clarity/pressure from Government as to exactly what is required by the sector and when pushes net-zero down the agenda. This links to regulation and legislation. There is very little reporting which the sector *\*has\** to do. Much of it is voluntary. Again, this leads to mixed signals and a sense that net-zero is not, despite the UK commitment to be net-zero by 2050, a national priority and therefore not a local one either.*

*Other barriers include:*

- *Project implementation, including but not limited to: securing grid infrastructure, disruption of daily activities, space requirements, listed buildings restrictions, planning restrictions*
- *Limited public transport and connectivity*
- *Limited availability of products manufactured within the UK*
- *The fleet/transportation infrastructure for delivering goods is not sufficient/mature enough to contribute towards net-zero. There is a severe lack of electric HGV's, general fleet etc.*

## **10. Looking at the international market in your sector, what green opportunities seem to be nascent or growing?**

*There is high potential for collaborative international research. The transition to net-zero will require input from researchers across the globe, with diverse experiences of the immediate physical and sociological impacts of climate change. This is a growing area of research, and one which universities are well-placed to facilitate.*

*Similarly, there is a growing need for climate education. This will apply both in courses which are focused on green skills, and in courses where the remit is not specifically climate-focused, but skills and awareness should be embedded across curricula.*

*There are particular opportunities around research to support international communities deal with climate change, in particular our agricultural and land-based institutions are working internationally to look at different farming practices and food security. But this would also apply to all courses - such as fashion courses looking at the supply chain of materials to ensure that they are more sustainably produced.*

*Considering the relative benefits of teaching international students within the UK or having satellite teaching sites closer to their homes needs much wider thought and may offer new and exciting opportunities for major reductions in emissions. There are clearly much wider considerations to this than carbon emissions alone, but new approaches and new technologies offer much potential for the future.*

*The UK education sector has the potential to be world leading but this needs the leadership and resources from Government to achieve this.*

## **11. What challenges has the net zero transition presented to your business?**

*Cost is clearly the main challenge but there is arguable a pathway of challenges to negotiate along the journey to becoming net-zero, from understanding 'the art of the possible', to creating a plan with senior buy-in and addressing the challenges of funding. There is also a challenge around limited leadership time and therefore knowing where to focus their limited time and resources. The whole challenge of dealing with the climate emergency can seem so large and difficult that it can sometimes be put in the "too difficult" box, especially with so many other pressing issues at the top of people's agendas.*

*This is before the more practical challenges begin, such as implications on estate for the physical space required for heat decarbonisation technologies. There is a lack of resources (financial, staff and systems) and there are challenges with the consistency and alignment of net-zero carbon scope, reporting and pathway.*

*For universities and colleges there is tension between what the institution knows it must do, both due to its public commitment and its "moral" responsibility, and what it feels able to do due to competing pressures (saving money, enhancing student experience etc.) and lack of available funding. These challenges can feel insurmountable and risk a feeling of paralysis which can only be overcome by continuing to take steps forward, however small, which add up to a greater whole. An existential challenge is the conflict between a business model which demands fee-paying international students, versus the environmental impact caused by flights to and from the students' home countries, which contribute significantly to the Scope 3 carbon footprint for the sector.*

*Universities and colleges transform lives and are at the heart of our communities. They are a fundamental piece of the education and skills system as centres of lifelong learning, and as anchor institutions within their communities. They also train and educate across a wide range of sectors which will all have to adapt to net-zero, including healthcare, hospitality, and agriculture. All jobs in*

*the future will need to be green jobs to meet environmental targets, and the Government's recently published [Industrial Decarbonisation Strategy](#) is clear about the important role colleges and other education providers will need to play in that; "the future workforce will also need to be equipped with the right skills to help them succeed in a low carbon world; supporting sustainability through the education system will be crucial".*

*Despite this, all too often, college resources and expertise can be poorly understood, underutilised and insufficiently funded in relation to other parts of the education and skills system. In order to ensure that the necessary skills and capacity are developed in time to meet our environmental targets, it's absolutely essential that the strong and central role colleges can and must play in this process is recognised. They also need to be invested in as a key vehicle for delivering the skills needed for green jobs and in supporting business innovation.*

## **12. What impacts have changing consumer choices/demand had on your business?**

*Students are increasingly interested in holding universities and colleges accountable for their environmental strategies, from data publication to investment and research collaboration. This is affecting students' choices about where they study.*

*As well as interest in institutional strategy, there is increasing demand for courses delivering green skills and preparing students to work in a green economy. This is shaping the teaching provision that universities and colleges are choosing to develop, and creating opportunities for teaching staff. Yet there is a lack of funding and resources to upskill existing teaching staff with the knowledge they need to teach and this should be a mandatory element for all future teacher training. Ethically and sustainably sourced is of high interest for students.*

## **13. What impacts have decarbonisation/net zero measures had on your business?**

*Delivering energy efficiency initiatives has delivered multi-million pound revenue savings. Decarbonisation projects are less clear-cut in terms of the financial returns; though designed well, they can offer revenue savings in the short and longer term. They also boost reputations and of course directly reduce local air pollution.*

*For some institutions, moving towards self-sufficiency in terms of energy has provided some resilience against increasing energy prices. This can shield institutions and students from rising costs of keeping accommodation and other facilities running.*

*Funding allocated to net-zero means less to spend in other areas; decarbonising heating is likely to bring some degree of disruption to campus life due to the need to decant from buildings (the extent of this is unknown at present). In the long term, with sufficient clarity, commitment and funding from Government, net-zero will be a very positive force for the education sector, leading to innovation, future-proofing, greater comfort, reputational benefit, financial security and energy independence. In the short term it is of course disruptive, but necessarily so.*

## **14. What more could be done to support your business and/or sector to decarbonise?**

*Universities and colleges are significant players in their local and regional economies in achieving net-zero ambitions. National planning laws can make it difficult for institutions to get permission for renewable energy initiatives and to make changes to historic estates. Such planning laws need refreshing to enable net-zero policies.*

*National and local government procurement strategies have a valuable role to play – they should support the development and adoption of technologies for net-zero.*

*Funding or loan systems which are focused on net-zero initiatives would help institutions to remain focused on this mission, without needing to weigh it up against other priorities. While Salix funding from BEIS is highly valued by the sector and enables real change, particularly in long-term initiatives, there does need to be greater funding allocated. The sums involved are at a scale that cannot be funded internally.*

*Additional funding which supports innovation in how universities and colleges approach research and teaching (for example greening labs or digital conference facilities), as well as funding for fundamental research (which can go on to help other sectors around the globe) is much needed. Research and innovation, as well as international development funding, should recognise the global connections UK institutions have which are essential to seizing the benefits from innovation and technology.*

*A clear direction on data and guidance for its use would be highly valued and unlock a lot of conversations in the sector. EAUC are already leading the way on this review with the support of the Department for Education, but support with integrating this approach and ensuring harmony with other reporting systems will ensure widespread take-up and a sea change in sector reporting.*

*Other forms of support could include:*

- *Grants or tax relief on low carbon technologies*
- *Subsidised training for installation and maintenance of new technologies*
- *VAT exemption on refurbishment projects*
- *Consistent policy framework for decentralised heat projects*
- *Accelerated programmes of hydrogen development*
- *Expand on funding opportunities, considering the particular needs of the sector (large estate, 24/7 occupational use, listed buildings, etc.).*
- *Regulate the energy market, supporting the customer confidence in energy prices to deviate from fossil fuels towards the electric grid*
- *Provide assistance with EV charging infrastructure*

## **15. Do you foresee a role for your business within an expanded UK supply of heat pumps, energy efficiency, electric vehicles, hydrogen economy or clean power?**

*Further and Higher Education institutions are committed to accelerate the net-zero transition, setting an example for other sectors to implement the latest technology.*

*Such activity on the up/re-skilling of the labour market and the training of new entrants needs to be considered in the broader context of training delivery. Colleges specifically need to be supplying to the immediate needs of local employers, most of whom are not yet in the market for the green jobs in question. In the case of heat pumps – a heating company might only fit a very small number of pumps currently and will be more focussed on the skills required to fit gas-fired boilers. The servicing skills for heat pumps are also currently low comparative to what will be needed in the reasonably near future. A college can only really implement training in the new skills set when there are jobs for those who undertake the training to progress in to.*

*The 'Skills for Jobs White Paper' sets out the important role colleges will play in providing the green workforce of the future. Colleges are already doing a huge amount of important work in in this area, working in partnership with employers and other training providers across the country to provide the new and updated skills urgently needed for to transition to net-zero. With much needed funding they could be doing much more of this work.*

*There is a disconnect between Government strategies and the training and education required to implement them. The Government needs to align the various strategies that will move the UK to be net-zero and have a comprehensive strategy of how the education sector will be supported to deliver these.*

#### **17. How many green jobs do you estimate will be created in your sector by 2030?**

*All sectors have a role to play in achieving net-zero so they should have staff with responsibility of green transition, so framing by industry or sector should not refine green job measurements. There will be new and emerging jobs that relate directly to the transition as well as existing jobs that will be needed in greater numbers as a result. For example, if we take the supply chain and procurement there will be an increase in Project Managers, Project Assistants, Data Analysts, Contract Managers/SRM's, trainers and systems officers focusing on net-zero. All jobs should be seen as green jobs.*

### **Questions for academia and innovators**

#### **29. How can we ensure that we seize the benefits from future innovation and technologies?**

*We can analyse our research to identify potential benefits early. We can promote and invest in research and knowledge exchange programmes that work with industry partners to develop and deliver new technologies and/or improve existing ones. By setting Government policies to incentivise innovation this would include guaranteeing intellectual property rights and assistance for research projects. There needs to be further support and discounts for electric vehicles in particular electric bus travel.*

#### **30. Is there a policy idea that will help us reach net zero you think we should consider as part of the review?**

*Carbon taxing for certain sectors could be a consideration as well as including UK peatland restoration as a carbon offsetting option for UK businesses, as well as other emerging carbon sequestration*

*systems such as salt marshes, kelp etc. There is a clear link for the education sector to be at the heart of direct carbon capture and storage innovations as well as providing reskilling opportunities for those in the fossil fuel industry and providing community support in areas that are currently reliant on the fossil fuel industry to ensure a just and fair transition.*

*The existing focus on hydrogen and the energy sector should be expanded to include 'green methane' (green Hydrogen + Carbon from CC). This would allow the very large, existing gas infrastructure to be part of the net-zero solution. This could reduce the overall cost and impact of the 'net-zero transition' very significantly.*

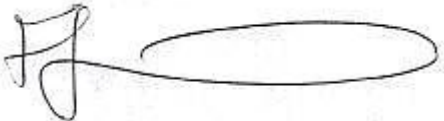
*Other areas to consider are:*

- *Construction standards*
- *Transport emission standards*
- *Tax relief on low carbon technologies*
- *Training programmes / educational policy in FE and HE.*

The Further and Higher Education sector are leading the transition to Net Zero but further funding, support and legislation is required for the sector to drive forward.

If we can provide more information, please do not hesitate to get in touch.

Yours sincerely



Fiona Goodwin  
CEO (Interim), EAUC and on behalf of Association of Colleges, Universities UK, GuildHE & AUDE