ACE Response to Call for Evidence: Net Zero Review

Association for Consultancy and Engineering (ACE). Contact: Olivia Smalley, Policy and Advocacy Officer and Policy Lead for Climate Change Advocacy Group, osmalley@acenet.co.uk

1. Introduction to the ACE

The Association for Consultancy and Engineering (ACE) represents the UK's professional consultancies and engineering companies operating in the social and economic infrastructure sectors. We champion infrastructure and the built environment to government and other stakeholders, representing the views of around 400 members. Our members employ over 60,000 in UK and 250,000 worldwide, contributing more than £15 billion to the UK economy.

Considering previous commitments made and strategies released under previous Prime Ministers, this review is important in reinforcing the government's commitment to Net Zero. We are very pleased to have the opportunity to respond to the Skidmore Review and look forward to working with the government on the next steps to reaching Net Zero ambitions. Whilst the scope of the review is clear, it's important the wider context is also considered and the role other departments will have in reaching net zero.

This document summarises many of our members' views and outlines some of our own broader positions in relation to Net Zero. This response represents a consensus view of ACE members but does not necessarily reflect the view of individual ACE members. Many ACE members, some of the largest engineering consultancies UK-wide and SMEs have also responded individual to this call for evidence.

Reaching Net Zero is a priority for all ACE members. Specifically, our members' role in designing, building, and operating our infrastructure has and will change to adopt new sustainable processes, materials, and technologies. Work in this area is led by the ACE Climate Change Advocacy Group, which brings together ACE members, as well as members from our sister organisation, the Environmental Industries Commission: https://www.acenet.co.uk/groups/climate-change/

2. ACE Emerging Professionals

Our Emerging professionals' network was formed to help the emerging generation of consultants and engineers workings the natural and built environment.

Findings of a recent survey from those at the beginning of their careers in the built environment (see here) showed that both climate resilience and biodiversity are now more important than net zero for emerging professionals. It is thus evident that going forward the government should acknowledge that the next generation of industry wishes to go further than Net Zero, focusing on elements such as social values, water and air quality and biodiversity.

3. Overview

In May 2019, the Committee on Climate Change (CCC) recommended that the UK should achieve Net Zero greenhouse gas emissions by 2050. A month later, this ambition was signed into law – making the UK one of the first major countries around the world to take such as step. While COVID-19 inevitably diverted attention in recent years, there is no doubt that climate change remains the

defining challenge of our times in light of the energy security crisis, the war in Ukraine, and the ongoing economic situation.

While Government has made the right noises and, in many respects, taken bold and positive steps, there is no denying that we have focused on the "low hanging fruit" to date. Now comes the difficult and detailed work of embedding Net Zero across all aspects of our lives. Of course, this includes the built environment and infrastructure.

The Government's 10 Point Plan for Net Zero began putting in place some of the key building blocks. It began the process of targeting public sector investment on core Net Zero challenges while drawing in private sector funding to transform our economy. The impact of this investment in our built environment is shaped by national policies and regulations, but also by the approach taken at a project level by designers, consultants, contractors, and clients. To be ready to deliver a Net Zero built environment, it is clear that more work is needed to ensure these elements – the national and the project-specific work in tandem.

ACE welcomes the positive steps this review is taking and supports the green transition the government currently has on its agenda. If successful, the transition will fuel a number of new industries creating several green jobs, advanced manufacturing and a higher-skilled workforce. Going forward, the UK should look to capitalise on the business opportunity green growth provides and continue its efforts as a leader on the global stage through events such as COP27. As a nation staying ahead of the curve is imperative and the UK can continue to export its skills to support the rest of the world in its journey to decarbonisation.

Our members, as consultant engineers, are uniquely positioned to deliver Net Zero given their range of involvement in various large and small-scale infrastructure projects. Additionally, our members' workforces consist of a wide range of highly skilled individuals and have a global outreach again adding the UK's role on a global stage.

4. Net Zero and the Economy

A 2017 report by one of our members for the Committee on Climate Change suggests that the UK low carbon economy could grow from around 2% of UK Total Output in 2015 to up to around 8% by 20230 and around 13% by 20501. Government should ensure a strong link between economic growth and decarbonisation by encouraging economic activity through accelerated investment in energy efficiency and clean technology. It is imperative to note that Net Zero and the journey to it remains at the forefront of our members' agendas, irrespective of challenges the sector remains resilient and continues to increase productivity despite a lack of funding.

Our request would be that the Government attempt to do the same, reforming internal ways of work, and introducing more efficient and modern methods of working. Specifically, in relation to the relationship, the Treasury and BEIS must meet the ambition of Net Zero. The previous Treasury's cost review at the time was very limited and relied heavily on a series of observations regarding how certain households and businesses were assumed to be exposed to Net Zero costs. It is important that collaboration and internal efficiency are high on the government's agenda as well as nuanced policy to address changing costs during the transition.

5. Net Zero and Levelling Up

[1] https://www.theccc.org.uk/wp-content/uploads/2017/03/ED10039-CCC-UK-Bus-Opportunities-Draft-Final-Report-V7.pdf

The Government's levelling up agenda has an important part to play in ensuring Net Zero ambitions are met. In the ACEs report 'five principles for success', released earlier this year, we highlighted the need to strengthen the link to Net Zero by prioritising levering-off the existing Built Environment

80% or more of the buildings and infrastructure of 2050 already exist. The government agenda should explicitly explore how it links to the Net Zero Strategy, and criteria for accessing levelling up funding should prioritise the reuse of existing structures over new build. This will make a large contribution to the UK's Net Zero targets. It can also help break the link between a declining built environment, poor mental health, and low productivity.

6. Challenges and Opportunities

All built environment projects share common characteristics. They arise from the need to achieve an identified outcome. They involve different parties with different roles working together, such as designers, architects, contractors, and the clients themselves. They must fit within the context of national and sectoral policy and regulation and are hugely influenced by the client's business model and approach. A typical project context includes national policy, national regulators, local regulators, technical regulations, client priorities, client business models, client programmes, and procurement/commercial models.

To achieve a Net Zero outcome, this project ecosystem needs to be 'Net Zero ready'. Problems or disconnects in any part of the chain can undermine this. To assess the readiness of different built environment sectors, it is important to consider the following:

- Technical feasibility – are technologies identified in the CCC pathways understood and seen as technically feasible to deploy in real-world solutions?
- Capacity to deliver – does the relevant build environment sector have the business and skills capacity to deliver the pathway?
- Regulatory ease – do the current sector-specific regulations facilitate the necessary investment and deployment against the pathway?
- Social acceptability – is the public broadly supportive of the direction of travel
- Private sector readiness – does the pathway align with the business models and outlook of the major private sector clients in the sector?
- Public sector acceptability – does the pathway align with the outlook and processes of the main public sector clients?
- Procurement – are clients likely to specify product and technologies consistent with the pathway in their procurement?
- Investor appetite – do investors believe they can earn a return by investing in projects consistent with the pathway?

Previous analysis undertaken by the ACE looked at the readiness of the following areas: non-domestic buildings, water, airports, waste, rail, ports, energy, and roads. Few sectors were rated highly across all criteria used. Apart from one or two sectors such as ports and airports, the technology itself is not seen as an issue. Public views are broadly supportive, and the most common challenges across sectors often included client business models being incompatible with Net Zero pathways and disconnects between different regulators.

7. Policy Changes

Through our Climate Change Advocacy Group, ACE has been developing a series of advocacy positions in line with our new three-year Blueprint. These cover several themes from people and

skills, social value, innovation, and excellence. We will be working over the next year to take the positions outlined below to Government, industry, and public and private clients. Through these positions, we will champion infrastructure big or small through the lens of climate change and net zero.

Skills and Training

To achieve growth, it's imperative that the capacity and development of skills are increased in order to deliver the jobs that could be created by Net Zero. ACE Members have noted multiple issues in relation to recruiting, retraining and the retention of staff. Some examples include issues with having time or incentives to retrain specifically concerning SMEs, others note difficulty finding talent in the UK specifically at junior levels. Furthermore, problems have been raised with a lack of resources both client side to run projects and also in delivery. Additionally, problems are noted by members with a lack of clarity from the Government on current data on skills and the skills pipeline in relation to the green agenda.

The green agenda is one Government should capitalise on to engage young entrees to the industry or new applicants. This could be done through the creation of a Climate Emergency Future Skills Action plan, created in collaboration with organisations and the wider industry to recognise the importance of skills and training and the amount of support needed to enable people to access green jobs. This kind of plan currently exists in Scotland (see here) and the UK government could utilise a similar kind of plan to address current skills issues and heighten focus on Net Zero within the industry.

Additionally, ACE believes further skills dilemmas could be addressed through a review of the apprenticeship levy in order to strengthen opportunities for companies and the wider industry to invest in the green skills needed for the future and reach Net Zero. Similarly, a specific climate change apprenticeship programme focusing entirely on green skills may be useful to enable the industry to develop the necessary skills during the green transition and journey to Net Zero.

Innovation

Innovation is necessary to unlock all future technologies and possibilities to reach Net Zero. Currently, there exists a lack of confidence in our members that they will be supported in the process of innovating. It is vital that the government set out a stable policy framework and clear direction of travel in relation to construction and innovation as this would incentivise more climate-resilient approaches and methods. A clear direction and additional clarity of levels of funding will allow innovation to flourish.

Furthermore, the government should prioritise resilience and climate mitigation-based solutions using the Construction Playbook and Value Toolkit, we understand that spending more on infrastructure is difficult, yet this can be combatted by spending less to gain more prioritising low carbon, efficient and socially valuable projects.

Clarity, transparency, and flexibility

For our members to prioritise Net Zero and climate-resilient projects and processes government must outline a clear direction in relation to the journey to meeting Net Zero. This not only would assist our members in pre-planning and meeting the skills demand necessary, but it would also allow both public and private clients to prioritise Net Zero when making decisions. For example, it would be useful for our members to see government workings regarding Net Zero such as publishing its assumptions and calculations that lie behind decisions made. Transparency from the government

on their project pipelines and cost calculations would support our members in their work and give them the confidence or more confidence to readily use climate-resilient approaches.

Although clarity and transparency are imperative, it is vital that the government use flexible policy measures to identify the best way to meet climate change and Net Zero objectives. A level of flexibility allows for new and emerging technologies to be trialled and avoids locking-in technologies that may become inefficient in the future.

Support for SMEs

Although the Net Zero project has developed rapidly over the past few years, there is still a lack of clear messaging in relation to Net Zero and SMEs. Knowledge and awareness is low and limited when referring to SMEs and also consumers resulting in perhaps a lack of demand. The Government should look to educate and engage both consumers and SMEs specifically in relation to the actions and decisions they can take to achieve Net Zero.

The ACE are supportive of the recent recommendations outlined in the Climate Change Committee and Energy Saving Trust's report on 'How can policy better support SMEs in the pathway to Net Zero?[2] It recommends that Government need to enable a more joined-up approach to address common challenges that small businesses face such as time and knowledge constraints and funding issues. As well as a clear timetable of future dates for items in relation to net zero and low carbon to reduce risk. Finally, the report outlines the importance of communication and calls for a single point of contact for SMEs to enhance peer learning and knowledge of regulations and finance support.

Net Zero Strategy, Heat and Buildings Strategy, Greening Finance, Net Zero Cost Review

ACE welcomed the publication of these documents in the run-up to COP26 as part of the UK's attempts to 'lead by example', as it aimed to persuade other countries to match UK ambitions on carbon.

The result was a broad front strategy which made some progress on each of the main technologies deemed essential by the Committee on Climate Change (CCC) analysis: heat pumps; hydrogen; offshore wind; new nuclear; CCS; GHG removals. The aim was, and should still be, to put in enough funding and policy 'nudges' to pump prime private sector investment and innovation at scale, while keeping options open so that as a country we have the flexibility to exploit areas where falling costs and innovation allow big carbon cuts to be generated efficiently.

ACE recognised that this is just the start of a challenging 10 to 15 years. The decision to back a range of technologies was broadly welcomed, although in areas such as heat pumps, the amount of new funding allocated combined with the pledge not to force homeowners to buy them, means that the pace of deployment envisaged (600,000 per year by 2028), still seems a long way off.

Smart Environmental Solutions

Establishing a model based on collaboration, procuring for outcomes, smart data and apportioning risk to encourage innovation are vital to developing a new approach to procuring smart and green technology – all of which will support the race to Net Zero. At a national level, Government should ensure that 'procuring for value' is standard practice and that defining value is placed at its core.

[2] https://www.theccc.org.uk/publication/how-can-policy-better-support-smes-in-the-pathway-to-net-zero-energy-saving-trust/

This will unleash opportunities for smaller businesses and social enterprises to deliver innovative services.

Towns and cities are facing an increasing number of environmental challenges. While some of these have been around for a long time such as poor air quality and low urban recycling rates, others are newer issues such as Net Zero – many councils have now declared a climate emergency.

On top of this, the role of local authorities has broadened far beyond their historic responsibilities for regulating point source pollution towards managing wider ecosystems, for example through the Environment Act and the requirements for biodiversity net gain and nature recovery networks. This stems from the increasing recognition that environmental pressures should be seen holistically, and that at both national and local level a coherent response is required.

Across Europe, between two and five percent of public procurement budgets go towards updating smart practice which can support Net Zero ambitions. Tare a number of actions that need to happen to turn best into standard practice:

- Government should press ahead with making 'procuring for value' standard practice across the public sector, in particular through ensuring that the Construction Playbook is enforced and that the recent Green Paper on Transforming Public Procurement (which aims to "speed up and simplify our procurement processes, place value for money at their heart, and unleash opportunities for small businesses, charities and social enterprises to innovate in public service delivery), is fully implemented.
- Local authorities should take advantage of the tools available to make procurement of smart solutions more outcome focused, including the Construction Innovation Hub's Value Toolkit and the outputs of the Cities Standards Institute. Local authorities should also consider using the Crown Commercial Service Dynamic Purchasing System, which can be suitable for engaging with innovative SMEs.

Final comments

We are grateful for the opportunity to submit endears to this renew, and know that many of our members, as well as other business associations will have taken the time to also provide important insights. We look forward to the next steps of this review, and hill be been to work closely with government on ensuring not zero is still central to government policy.