

CBI response to the Committee on Climate Change Call for Evidence on Building a Zero-Carbon Economy for the UK

1. The Confederation of British Industry (CBI) welcomes the Committee on Climate Change (CCC) Call for Evidence on building a zero-carbon economy as the first stage of consultation with business on raising the UK's ambition to meet long-term targets for greenhouse gas emissions (GHG) reduction and planning for the transition to a net-zero carbon economy. We are keen to ensure UK firms proactively contribute to the debate on a UK net-zero target and the CBI looks forward to building its relationship with the CCC via this cross-sector, internationally significant issue. The CBI is the UK's leading business organisation, speaking for some 190,000 businesses that together employ around a third of the private sector workforce. With offices across the UK as well as representation in Brussels, Washington, Beijing, and Delhi, the CBI communicates the British business voice around the world.
2. The CBI commends the UK's role in contributing domestically and globally to climate change targets with our existing ambition focused on an 80% reduction in GHG emissions from 1990 to 2050. With this target being set a decade ago as part of the UK's Climate Change Act, and with the publication of the IPCC's Special Report on 1.5C this autumn, it is a timely and urgent reminder that the threat of climate change endures. The UK must continue to reduce emissions and change behaviours to seek to keep within the warming limit of 1.5C whilst ensuring the competitive position of British business is retained as it adapts to the changes.
3. UK businesses have long been the driving force behind progress made on reducing the impact of climate change and with the legally binding Carbon Budgets, have the policy framework to ensure sectors remain on track to meet our 2050 target. The power sector, for example, has made substantial progress towards reducing emissions over the last decade, as a result of the switch from coal to gas – largely due to our domestic Carbon Price Support tax – and the growth in renewable generation. The energy intensive and manufacturing industry has also taken considerable early action to decarbonise (however it does remain vital that Government policy is structured in such a way to ensure carbon leakage is prevented). Whilst such progress in these sectors is notable, the CCC is correct to highlight that any change to the UK's existing long-term targets could have wide reaching impacts, which must be carefully considered when advising on a UK net-zero target.
4. As such, the CBI has set out a series of key challenges for the CCC to consider around setting a net-zero target. These challenges include ensuring:
 - **the UK builds on the decarbonisation progress made to date;**
 - **funding is available for R&D and innovation, especially for hard-to-decarbonise sectors;**
 - **the UK Government continues to provide low-cost, long-term policy frameworks and regulatory certainty to support businesses, to defend and promote their competitive position and encourage investment in the low-carbon economy and;**
 - **long-term behavioural change is supported by appropriate incentives.**

Building on Progress

5. The CBI recognises the priority being given to raising ambition towards a mid-century target of carbon neutrality, as UK businesses recognise the urgency in needing to combat the impacts of climate change on the environment, society and ultimately, the economy. Strong progress has been made, for example, in the decarbonisation of the power sector and in making renewable generation cost competitive with low-carbon fossil fuels such as natural gas. Offshore wind, for example is delivering significant cost reduction and export potential for the UK economy, and the industry is ready to deliver on its proposed sector deal ambition of 30GW by 2030. Whilst this progress has been achieved as a result of substantial subsidy, the UK Government must ensure that a decarbonised electricity system can provide the means to decarbonise other sectors of the economy.
6. A net-zero target is likely to require increased engagement and cooperation across sectors. For example, the next stage of decarbonisation will need similarly strong and accelerated action on heat and transport electrification, carbon capture, as well as both hydrogen fuel cell and battery electric vehicles and low-carbon liquid fuels all of which have a substantial role to play. The decarbonisation of heat poses a particular challenge one which requires strategic decisions to be taken by the Government as soon as the next two to five years. In achieving zero-emissions heating, it is yet unknown as to whether heat and/or hybrid heat pumps, low-carbon hydrogen (as highlighted by the CCC), or indeed improved building fabrics will provide the most cost-effective solution in the longer term. Progress to date has been slow on deciphering the lowest cost option to decarbonise the heat sector. Considerations must also be made sooner rather than later, on how this greater demand will need to be met – most likely by high deployment of a diverse range of low-carbon generation, including nuclear, offshore wind, onshore wind and solar, matched with a continued focus on delivering the Smart Systems and Flexibility plan, including network reinforcements.

Funding for R&D and Innovation

7. The type of progress made to date in the power sector, as well as industry to decarbonise has provided an environment within which pressure has been placed on businesses to innovate, to find the most cost-effective, low-carbon solutions to challenges like climate change. The CBI strongly believes the UK Government and Devolved Administrations must recognise and support the need for continued research and development to deliver innovative technologies such as CCUS, hydrogen and soil regeneration cost-effectively and at scale for further emissions reduction across all sectors of the economy towards net-zero. This is especially poignant for the agriculture sector, which requires accelerated cooperation and support from the Government on strategies to foster better use of organic waste, alternatives to vehicle usage on farms and increased crop cover materials, among others. Government support is also required for manufacturing industries to make a step-change in energy efficiency and wider decarbonisation, particularly in relation to decarbonising heat. In addition, land use, shipping, logistics, heat intensive sectors and aviation are all major contributors to the UK's emissions and the Government must also look to support such industries as well as encourage innovation in the development and deployment of existing technologies (such as offshore wind).
8. Negative Emissions Technologies (NETs) such as BECCS and direct air capture in particular, have been cited in several reports including the IPCC Special Report and by the Royal Society, as vital in achieving Paris climate goals. The UK has the opportunity to deploy these technologies at scale which will have a range of benefits across UK business sectors including power and industry.
9. Setting a net-zero target would provide a long-term market signal in support of zero or negative emission technologies, as opposed to those that can deliver lower emissions than existing technologies. Lower emission technologies can make significant contributions to 2030 carbon reduction targets but will not necessarily be sufficient alone to reach the deep decarbonisation needed to reach mid-century net-zero targets. As such, the CCC should look to create a Technology Roadmap, to detail how commercially viable technologies can fully contribute and enable carbon neutrality across sectors. In addition, the CBI urges the CCC to take a whole systems approach in their advice, noting that a supportive environment for cost-effective technology must be married with long-term stable policy frameworks including the development of targeted innovation policies, a transport and storage infrastructure for CCUS (this is especially vital given that none of the scenarios within the IPCC Special Report can take place without CCUS), and a need to consider how negative emissions are properly rewarded.

Long-term Policy Frameworks

10. The CBI believes effective policy requires open consideration of the opportunities and drawbacks of different energy sources. The most effective policies will be transparent, predictable, based on cost/benefit analysis, and allow market prices and open competition to determine the solutions and investments necessary to achieve climate change goals at the lowest cost. We also cannot forget that the most attractive environment for investment is one within which long-term clarity of the regulatory landscape is provided.

Aviation

11. Effective policy should be aligned across sectors where appropriate, for example it will be important to review the fit to regional agreements such as the EU Emissions Trading System (ETS) to prevent a double burden on European air carriers in the overlapping compliance requirements from the Carbon Offsetting and Reduction Scheme for International Aviation (CORSIA) 2021 regulation.

Carbon Pricing

12. The UK's Carbon Price Support (CPS) tax has encouraged substantial emissions reduction over the last five years. But as the UK Carbon Price continues to gain strength it will be important to ensure that those energy-intensive sectors which face strong international competition are able to compete on an international level. The Government should carefully evaluate the options available to them in their decarbonisation efforts, ensuring they remain competitive whilst being mindful of the need to be ambitious. The CCC could assist in this area by providing evidence on the role of the products produced by energy intensive industries in lowering the UK's emissions.

Contracts for Difference (CfD)

13. The UK's contracts for difference mechanism has been key to driving cost reduction in the renewables sector and delivering low-cost low-carbon electricity to UK households and businesses. However, some of the most cost-effective technologies (onshore wind and solar) have been excluded from auctions. To meet a net-zero target in the most cost-effective manner, the CBI recommend Government runs a Pot 1 auction for mature

renewable technologies, as the CCC recommended in their 2018 progress report to Parliament. We also recommend the continuation of the CfD mechanism in the long term as a tool to deliver low-cost renewable generation. Providing investors with a future view of auctions will ensure investor confidence and drive a strong renewable pipeline.

Energy Efficiency

14. The UK has the opportunity to be a world leader in energy efficiency policy, but to date progress on improving the energy efficiency of buildings has been slow. Whilst the CCC have already made recommendations to Government around improving this, the introduction of a net-zero target will require more ambition from Government and tighter efficiency targets for both existing and new build installations. To date, the CBI have called for Government to:
 - Set out a clear 10-year energy efficiency policy direction to improve the incentive landscape and awareness among businesses;
 - Streamline reporting regimes to improve business engagement and participation;
 - Tighten building standards for new and existing buildings by introducing new benchmarking and quality standards and reinstate the requirement that all new homes are built to zero carbon standards and;
 - Increase awareness of energy storage solutions and provide incentives to increase adoption of these technologies.
15. In addition, the delivery of energy efficiency schemes in buildings has long been characterised by peaks and troughs, leading to the loss of reputable and skilled providers from the market. Businesses need time to develop sustainable delivery models and skills to match the objectives of new policy and to reflect tightened standards. The CBI believes a clear, long-term signal of commitment is needed to maintain an experienced, skilled and competitive supply chain for energy efficiency improvements in the building sector. This is important because the fabric of a building is often as important as the technologies installed in buildings to their 'in-use energy efficiency', related to both heating and cooling.
16. Overall, the CBI believes a holistic policy approach is needed to deliver on a tighter target. However, this cannot lead to unintended consequences. The CBI sees merit in the Government creating sector specific Roadmaps, detailing the key measures and actions needed to reach a net-zero target as well as setting out the policy framework, including incentives the Government will put in place to get there. Of course, this will vary from sector to sector, but it will be important to ensure the effort is shared across power, industry, transport, buildings, land use and agriculture among others and we see Roadmaps as being the most effective way of communicating the effort and actions needed.

Credit system

17. Climate Change is a global challenge. As such, the CBI believes the CCC should consider whether a net-zero target should be met 100% domestically, or whether a credit system is introduced to provide flexibility. Should there be scope for a UK-action only target with no credits allowed instead of a tighter target allowing credits, the CBI would strongly encourage the CCC to consider this. The CCC should also produce an assessment of meeting the net-zero target entirely by domestic action based on consumption accounting to ensure that deeper emissions cuts are not met by exporting the UK's environmental liability by imported goods that would/could have been manufactured in the UK.
18. A target based on domestic action will provide greater certainty on the emissions reductions delivered and would ensure the UK adheres to its share of the burden which is important should the UK see itself as a world leader in emissions reduction. However, should the CCC support the introduction of a credits system, the CBI would emphasise the need to have a robust, verifiable system, which should only be a short-term mechanism to set the UK on a course towards net-zero, with clear timelines for its phase out and removal.

Behavioural change

19. Behavioural change towards climate change action is difficult to achieve. For businesses, this requires support from Government via robust policy, but for the public, this requires a more incentive based approach to encourage lifestyle change, such as 'in-use' incentives. With the IPCC report highlighting the clear actions needed from both the public sector and private enterprise, the CBI acknowledges the challenge in changing both together. But taking energy efficiency for example, it is unlikely that relying on behavioural change alone will deliver meaningful contributions to reducing building emissions, particularly when retrofitting. Indeed, there are several well-known barriers to building owners undertaking investment in the energy performance of their

buildings including challenging installation measures, upfront costs, misaligned incentives and lack of salience of energy efficiency itself. Whilst the Government has rightly attempted to create a supportive environment for energy efficiency, the experience of the Green Deal demonstrated that 'enabling' energy efficiency is not necessarily sufficient to drive consumer demand. The CBI encourages the Government to reconsider incentive schemes alongside supportive action for consumers to reach the UK's existing energy efficiency targets.

20. There is an element of behavioural change which focuses on design, either to modify a person's behaviour or to design out choices which would be sub-optimal for the environment. An example in buildings is to design a building with naturally ventilated cooling which would discourage the retrofitting of air conditioning. However, this requires investment in technology and development of policy, as highlighted above.

Conclusion

21. Whilst some sectors of the economy find meeting the existing 2050 target a challenge, the CBI fully supports the raising of ambition towards a mid-century net-zero target. In reaching this goal, we believe the UK must build on the decarbonisation progress made to date. Funding must be made available for R&D, and where appropriate, deployment of existing and new technologies such as CCUS and hydrogen (once commercially viable). The Government must also provide long-term, efficient and low-cost policy frameworks to support businesses and encourage investment in the low-carbon economy, which should include the creation of sector specific Roadmaps detailing how businesses may go about reaching a net-zero target and what incentives the Government will put in place to get there. Finally, behavioural change must be supported by appropriate incentives all whilst defending and promoting the international competitiveness of UK business.
22. The CBI believes that, if the transition is managed correctly with an effective policy framework, a net-zero target could help the UK retain its current position of international leadership on climate change policy and to position itself to maximise the economic opportunities and minimise the associated challenges.

CBI Infrastructure and Energy Directorate, December 2018