

Name
Caroline Bragg
Organisation
The Association for Decentralised Energy
Email
<div></div>
Question 1 - Climate science
The ADE has no comment.
Question 2 - CO2 and greenhouse gas emissions
The ADE has no comment.
Question 3 - Effort share
The ADE has no comment.
Question 4 - International collaboration
The ADE has no comment.
Question 5 - Carbon credits
The ADE has no comment.
Question 6 - Hard-to-reduce sectors
<p>Regarding this question, the ADE has expertise regarding carbon emissions from industrial heat and power demand but not industrial processes more generally.</p> <p>The ADE considers that more could be done on understanding industrial heat uses and needs – and the different ways that this can be met in the future without fossil fuels. We support, for example, the CCC’s recent work on the possible use of hydrogen in processes requiring high temperature steam. We also support current Government initiatives such as the Industrial Heat Recovery Scheme that should provide further information and understanding on this.</p>
Question 7 - Greenhouse gas removal

The ADE has no comment.

Question 8 - Technology and innovation

There is considerable scope for cost reduction of technology and outcomes through innovation.

The CfD regime has demonstrated how far a supportive policy framework for innovation can drastically cut costs – as shown most obviously by offshore wind. We are seeking to repeat this in other areas of energy policy such as the Heat Network Industry Council for heat networks that will be a similarly crucial part of heat decarbonisation.

Question 9 - Behavioural change

The ADE has no comment.

Question 10 - Policy

With regards to the decarbonisation of heat, it is clear this will not happen without Government intervention. Regulation will be necessary. There are some elements that only government can address in the first instance, and then the market can rise to meet them. In particular, mechanisms may be needed to reduce risk for the very large infrastructure that is likely to be required. Heat networks are a good example of this. They will not deliver the entirety of heat decarbonisation but they have a role to play in the right circumstances and will allow ongoing decarbonisation; including through changing the fuels used in energy centres. Regulation is needed to support the heat market to become self-sustaining.

There is also currently a need for further detailed policy to bring about the Government's welcome ambitions for energy efficiency to 2030 and beyond. At domestic level, we support the Government's work to improve fuel poverty. However, there is a need to improve the uptake of energy efficiency measures in Able to Pay households. This may require a stronger policy focus for ensuring that multiple energy efficiency measures are put in place during those times when work or activity is already going on in the home – including, for example, at the point of sale or building improvements. At the industrial and commercial level, there is more potential to act but the sector is far more diverse and more research is likely still required to understand which interventions will be most effective. Commercial buildings are retrofitted regularly as leases transfer or maintenance in contracts dictate, and it's likely that ensuring energy efficiency upgrades are incorporated into these arrangements would be effective. Further, SMEs often struggle to find the dedicated resource to be able to understand the complex energy system and make the right decision. Having dedicated resources and tailored advice available for SME's could also help improve uptake.

With regards to further power decarbonisation, electricity markets will need to continue to develop in order to manage very high penetrations of renewable energy. This is feasible with technology currently available but will require a big step change in the levels of demand-side flexibility, including on-site generation and storage, in the UK. This too is feasible as shown by

markets elsewhere that have higher levels of flexibility. However, it is likely to require further changes to the power markets to ensure they can compete on an equal basis.

Question 11 - Costs, risks and opportunities

The ADE has no comment.

Question 12 - Avoided climate costs

The ADE has no comment.

Question 13 - Devolved administrations

The ADE has no comment.

Question 14 - Work plan

The ADE has no comment.