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# Future Gas Series: Part 3- Consumers and the Future of Heat

## Call for Evidence

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The following questions are divided into two sections. The first section comprises questions we are specifically looking to answer in this report, the third part of the *Future Gas Series*. The second section covers the questions we would like the entire *Future Gas Series* to explore. Carbon Connect are accepting written evidence to some or all of the questions. Submissions will be accepted until the **15<sup>th</sup> of March 2019**.

### Consumer and Appliance Questions

#### Questions relating to low carbon heat in general

1. What do consumers think about low carbon gas for heating, and heating in general? Are they aware that the way they heat their homes will have to change? How can consumers be engaged in how they use their energy, particularly with regards to heating? Are there points in time where consumers are likely to be more engaged in how they heat their homes?
2. How can public consent for a transition to low carbon heat be ensured? What are the different models for engaging with the public on this topic, and which might be best to pursue here? Who should have the responsibility for informing and engaging the public?
3. How does both the economic cost and non-economic costs of a transition to low carbon gas for heating compare to other options for heat decarbonisation? How should those funds be raised by Government?
4. What rights do consumers have over the type and quality of their heating systems and how can they be protected both during and after the transition to low carbon heat?
5. How far can consumer choice be allowed to be exercised in the process of decarbonising heat? How far will it require mandatory requirements from government? To what extent will it need to be incentivised? What support will vulnerable and low-income consumers need?
6. How might we design a framework to ensure a decision on low carbon heat is made in time for meeting our climate obligations? Is current governance on heat decarbonisation adequate?
7. What is the distributive impact likely to be and how can be financial equity be ensured?

#### Questions specifically relating to low carbon gas

8. What are the potential safety implications of using low carbon gas to provide heat? Is there a perception amongst consumers that hydrogen is unsafe?
9. What domestic and non-domestic hydrogen appliances are being developed currently?
10. How can we build up hydrogen appliance supply chains? What signals from government are required for the manufacturers of appliances to plan for the delivery of appliances able to use low carbon gas?

11. What is the potential for low carbon gas in off-gas-grid homes in the short to medium term?
12. How might a transition to using low carbon gas to provide heat be managed? What are the administrative and practical steps required? How could a transition be encouraged incrementally to avoid a nationwide decision on heat? What is required for existing heating and cooking appliances to be replaced or converted on a mass scale to use low carbon gas?

## General Inquiry Questions

1. How is the decarbonisation of heat currently being planned, managed and regulated by the UK Government? How could this be improved?
2. What are the technologies which could provide low carbon heat by 2050 and what potential does each of them have to contribute to the system as a whole?
3. What opportunities are offered by the use of low carbon gas as a route to decarbonise heat supply in the UK? What are the potential costs and problems associated with using low carbon gas?
4. What current legislation and regulations govern the gas system in the UK?
5. What policy levers are available to government to guide the decarbonisation of heat and how could they be used to support the increased use of low carbon gas?
6. What should the different roles be for national and local government in managing the decarbonisation of heat and the use of low carbon gas?
7. How can low carbon gas best be employed across the whole energy system, especially with regard to storage potential?
8. How should a potential transition to the use of low carbon gas to provide heat be funded? Are there particular costs or savings associated with the use of low carbon gas to provide heat? How does this compare to other solutions?
9. What impact would a potential transition to the use of low carbon gas to provide heat have upon consumers' energy bills? How far could demand reduction measures mitigate increases in the unit cost of energy?
10. What lessons could be learnt from other large-scale infrastructure programmes such as the transition from town to natural gas, the digital switchover, the iron mains replacement programme, or the rollout of smart meters?