

National Infrastructure Commission Written Evidence (ONZ0057)

Annex A – Response to questions

Following the Government’s policy announcements last week, do you believe that the UK now has a clear policy framework in place to support the objective of a net zero energy system?

The Net Zero Strategy brings together the relevant policy announcements government has made over the last year and sets out a range of commitments and timescales for further action. It is both hugely ambitious and must be delivered. The promised further announcements, including: development of hydrogen business models; a review of the frequency of contracts for difference auctions; an exploration of what further support is needed to decarbonise energy from waste plants; and business model development for engineered greenhouse gas removals, are needed to provide a fully formed and clear policy framework.

The Heat and Buildings Strategy provided welcome announcements after a long delay. Kick starting the heat pump market to reduce costs for households to make the switch from gas boilers is an important step. However, there are still major questions to be answered, including what level of insulation will be needed to efficiently operate heat pumps, whether hydrogen for heating will be available as a source of heat for all homes, what this means for the continuing use of the gas network, and how to deliver these major changes in people’s homes.

The other important area of policy making which is not fully articulated in the recent announcements is who is going to pay for the transition. Reaching net zero will require high levels of investment. This investment will ultimately need to be funded by either consumers, via bills, or taxpayers. Where costs sit and how the consequences of that are managed through policy making is noted in the HMT Net Zero Review but not resolved, with the implication that this needs to be considered on a policy by policy basis.

Were there any urgent policy decisions that the policy announcements did not address? If so, can you specify what these were and how and when they should be addressed?

The Net Zero Strategy clearly sets the government’s ambition and provides a basis for detailed policy making. In most areas

the strategy recognises the need to develop detailed policy to support delivery of this ambition. Areas of most relevance to the Commission and its remit are noted in response to the previous question.

In a number of key areas, the Strategy points to current or proposed consultations, such as on extending the Emissions Trading Scheme, rebalancing costs between electricity and natural gas, and how to fund business models for hydrogen and carbon capture and storage. It is right for government to consult on these complex issues. But those consultations need to lead to rapid decisions and not delay.

As independent advisers to government the Commission intends to address many of the longer-term outstanding questions in our next National Infrastructure Assessment, to be published in 2023. The Assessment will make recommendations to government on additional steps it needs to take to deliver on the ambitions it has set.

On 15 November the Commission published its first step in the process of developing these recommendations. The Commission's [Baseline Report](#) on economic infrastructure outlines three key challenges for delivering a net zero energy system that will be addressed in the next Assessment:

- Decarbonising electricity generation – The Commission will consider how a decarbonised, secure and flexible electricity system can be achieved by 2035 at low cost. The Net Zero Strategy notes that decarbonisation of the system is subject to security of supply and the Commission will focus its attention on characterising the flexibility needed to ensure a secure system and the actions needed to deliver this.
- Heat transition and energy efficiency – The Commission will identify a viable pathway for heat decarbonisation and set out recommendations for policies and funding to deliver net zero heat to all homes and businesses. The sixth carbon budget means resolving the challenges that the UK faces in decarbonising heating is now urgent. There are still major questions to be answered, as acknowledged in the Heat and Buildings Strategy. One question is whether hydrogen will play a role in heating homes. The government has committed to making a decision on this by 2026. If this decision is not made, the risk of not achieving net zero is very real.
- Networks for hydrogen and carbon capture and storage - The Commission will assess the capacity of hydrogen and carbon capture and storage networks that will be required across the country, and the policy and funding frameworks needed to deliver them over the next 10-30 years. On hydrogen, the Commission will examine the uses of hydrogen across the economy, which technologies are best placed to produce it, the infrastructure required, and the policy and funding frameworks needed, focussing on the longer term picture and how to build on the shorter-term actions set out in the Hydrogen Strategy. On carbon capture and storage, the Commission will consider what actions are needed to deliver government's ambition and what its longer term ambition should be to ensure that access to transport and storage does not become a barrier to efficiently reducing emissions.

The Commission will also be considering cross-cutting funding challenges in the Assessment, including the overall affordability of required investment, the distribution of costs and savings across groups in society, and who should pay.

Are there any necessary changes to Ofgem's regulatory framework and/or remit to enable net zero that have not been announced by the Government?

The Commission recognises the value of independent economic regulation across the regulated infrastructure sectors. The current model has generated significant investment over the past decades. But it was not set up to provide strategic direction for investment to tackle issues such as achieving net zero. The Commission has recommended, in its report [Strategic Investment and Public Confidence](#), that this model should be strengthened, not redesigned, so that it can address the country's long-term needs.

In particular, the Commission set out its views on how government should update the regulatory model for energy to support the transition to a net zero economy in [Strategic Investment and Public Confidence](#). The Commission argued that regulators' duties need to be coherent, covering price, quality, resilience and environment.

For Ofgem, government should ensure their decisions are consistent with, and promote the achievement of, the government's legislated greenhouse gas emissions targets. This should include government legislating for a net zero duty for Ofgem. The Commission also recommended a collaboration duty, which would require Ofgem to work with other regulators, where relevant, to avoid contradictory regulation and promote efficient outcomes for consumers on cross-sectoral issues.

Forward looking regulation must be embedded in a clear strategic framework for the long-term investment needs of the country. Government needs be clear what it wants from the regulator and it is critical that it gives direction to them on trade-offs. To delivery this, a strategic policy statement for energy should be published.

It has been over two years since the Commission made these recommendations, but it remains essential that government acts to deliver them.

26 November 2021