

Sent by email to FutureNetworkRegulation@Ofgem.gov.uk on 18 October 2022

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Dear Akshay

Open Letter on the next network price control review process

We welcome Ofgem considering the future of electricity and gas price controls to ensure they remain fit for purpose as the pace of decarbonisation accelerates during the 2020s and 2030s.

One of the most significant changes is the shift from using fossil gas to heat our buildings. 23% of UK carbon emissions relate to buildings. Electrification of heating requires at least the same focus as Ofgem and the government is giving to electric vehicles. Indeed, as all pathways to heat decarbonisation require deeper intervention than supporting electric vehicles, it is likely that Ofgem and the government will need to take more action.

The price control process needs to find a way to manage the transition from a national and regional network of fossil gas infrastructure to an electricity network managing more demand from heat and transport. This may involve winding down some or all of the existing gas grid at the same time as increasing the resilience of the electricity grid.

We recognise the uncertainty about the speed and depth of the transition. Decarbonisation of heat is happening now and is expected to accelerate throughout the 2020s. The speed of this transition depends on the relative cost of fossil fuels, the design of wholesale power markets, the tax regime and standards for low carbon products, energy efficiency improvements and whether the sale of new fossil fuel heating systems are restricted. These factors are all outside of the control of Ofgem and the networks.

We agree that Ofgem requires more flexibility in the price control process to respond accordingly. All other things remaining equal, this regulatory flexibility may reduce certainty for the regulated companies and may increase the cost of capital. For this reason, we recommend that the price control regime continues to provide clarity upfront about investment over a set period of time, while building in mechanisms to account for the uncertainty.

We expect future price controls to place more emphasis on incentivising and managing electricity flexibility. This includes considering the competition between flexibility on the demand side (for instance people using smart thermal storage with or without heat pumps) and at least some additional investment in the physical networks. There is a material risk that the value of flexibility to the networks and the wider system is inadequately considered,

leading to unnecessary infrastructure investment. Recent analysis by LCP Delta for Thermal Storage UK on heat flexibility indicates that smart thermal storage could reduce peak electricity demand by upto 4.1GW by 2030. This requires that the benefits of flexibility to electricity networks are reflected in pricing.

We are uncertain of the benefits of moving to an ex post approach to network price controls. The only example that we know of such a regulatory approach to price controls is the DCC contract with Capita for smart metering. It is unclear to what extent this is a relevant example for Ofgem to use, given the DCC has a tightly defined role, with limited physical assets, limited exposure to the effects of climate change (such as stronger storms) and a relatively small budget.

We recommend that the future price control regime requires distribution networks to monitor their network and provide data to Ofgem. The lack of visibility of the lower voltage network is a potential barrier to electrification of heat and transport that good monitoring and targeted investment can overcome.

We welcome the ongoing dialogue with Ofgem about heat decarbonisation and are happy to discuss the points made above and answer any questions.

Best wishes

Tom Lowe

Founding Director
Thermal Storage UK

Questions

1. Do you have any views on the strategic issues we will face in the development of the next price control review process?

One of the most significant strategic issues is the shift away from using fossil gas to heat our buildings. 23% of UK carbon emissions relate to buildings. Electrification of heating requires at least the same focus as Ofgem and the government is giving to electric vehicles. Indeed, as all pathways to heat decarbonisation require deeper intervention than supporting electric vehicles, it is likely that Ofgem and the government will need to take more action.

We expect future price controls to place more emphasis on incentivising and managing electricity flexibility, building on the opportunities and steps required for flexibility through the updated Smart Systems and Flexibility Plan. This includes considering the competition between flexibility on the demand side (for instance people using smart thermal storage with or without heat pumps) and at least some additional investment in the physical networks. There is a material risk that the value of flexibility to the networks and the wider system is inadequately considered, leading to unnecessary infrastructure investment.

Delivering demand-side flexibility and doing so fairly will become a strategic issue for Ofgem, including in the price control process. This involves Ofgem incentivising or requiring energy suppliers to offer smart time of use tariffs, bringing forward the start date for market-wide half hourly settlement to December 2023 and encouraging flexibility through network charging reform. Network charging reform should maximise the use of renewable generation whenever it is available and optimise use of the electricity network.

We recommend that the future price control regime requires distribution networks to monitor their network and provide data to Ofgem. The lack of visibility of the lower voltage network is a potential barrier to electrification of heat and transport that good monitoring and targeted investment can overcome. During the 2023-2028 price control, we would expect to see DSOs develop a more granular understanding of their networks. This will support local grid management. As flexibility markets are established, we encourage Ofgem to ensure transparency over how DSOs procure and how DNOs decide whether to procure flexibility or invest in grid infrastructure upgrades.

2. Do you have any views on the case for change we have outlined?

We recognise the uncertainty about the speed and depth of the transition. Decarbonisation of heat is happening now and is expected to accelerate throughout the 2020s. The speed of this transition depends on the relative cost of fossil fuels, the design of wholesale power markets, the tax regime and standards for low carbon products, energy efficiency improvements and whether the sale of new fossil fuel heating systems are restricted. These factors are all outside of the control of Ofgem and the networks.

We agree that Ofgem requires more flexibility in the price control process to respond accordingly. All other things remaining equal, this regulatory flexibility may reduce certainty for the regulated companies and may increase the cost of capital. For this reason, we recommend that the price control regime continues to provide clarity upfront about

investment over a set period of time, while building in mechanisms to account for the uncertainty.

3. Do you have views on whether the changes to the electricity or gas sectors mean we should consider alternatives to the approach taken in the RIIO-2 price control?

The price control process needs to find a way to manage the transition from a national and regional network of fossil gas infrastructure to an electricity network managing more demand from heat and transport. This may involve winding down some or all of the existing gas grid at the same time as increasing the resilience of the electricity grid.

4. Are there any broad frameworks or options that you think we should consider, including variants and alternatives to those we set out?

We have limited views on the alternatives proposed.

We are uncertain of the benefits of moving to an ex post approach. The only example that we know of such a regulatory approach to price controls is the DCC contract with Capita for smart metering. It is unclear to what extent this is a relevant example for Ofgem to use, given the DCC has a tightly defined role, with limited physical assets, limited exposure to the effects of climate change (such as stronger storms) and a relatively small budget.