

25 January 2023

Email to [FWP@Ofgem.gov.uk](mailto:FWP@Ofgem.gov.uk)

## **Thermal Storage UK response to Ofgem forward work programme 2023/24**

Dear Ofgem

Thermal Storage UK welcomes the opportunity to respond to Ofgem's forward work programme for 2023/24.

We agree with Ofgem focusing on four priorities and that one of those priorities is to “support a low-cost transition to net zero”. We also support Ofgem's Net Zero Strategy. Policy choices made over the next 3 years will determine whether the UK achieves emissions that are compatible with the fifth (2028-2032) and sixth (2033-37) carbon budgets.

### **Clarifying Ofgem's role in delivering net zero**

We welcome Ofgem setting a priority to “support a low-cost transition to net zero”. Coordination and action across various policy areas is required to deliver net zero. Energy efficiency, flexibility and shifting to low carbon electric heating and transport will reduce energy bills and carbon emissions.

Ofgem's role in delivering net zero requires clarification. It is unclear whether Ofgem will have a central coordinating role in delivering net zero, or will remain narrowly focused on economic regulation such as setting price controls for monopolies. The UK Government, Scottish Government, the Climate Change Committee and National Grid ESO all have their own visions of how to achieve net zero.

For Ofgem to have a central role in delivering net zero requires Ofgem to have a clear remit. We support the government placing an explicit statutory duty on Ofgem to deliver net zero, or at least providing a clear

steer via the Strategy and Policy Statement. The current approach of Ofgem relying on its duty to protect “future consumers” is too vague to support the substantive decisions required. For instance, Ofgem administers schemes such as the Energy Company Obligation and the Boiler Upgrade Scheme but its role is heavily constrained by legislation.

In December 2022, we welcomed Ofgem proposing its first reference to net zero in the licence conditions for energy suppliers. We encourage Ofgem to amend the definition of SLC 4B to ensure that net zero considers technologies that are “net zero emissions at point of use” and are installed both behind the meter and at network level.

We think Ofgem can go further on net zero. We recommend that Ofgem introduces a licence condition to require energy suppliers to consider net zero in how they run their businesses. This licence condition could have the same broad effect as SLC 0 (Treating Customers Fairly) and SLC 4B (Financial Responsibility).

## **Supporting heat decarbonisation**

23% of UK carbon emissions relate to buildings. The most effective way for most people to reduce their carbon emissions and reduce their bills is to decarbonise their heating. We recommend that Ofgem increases its work on heat decarbonisation to keep pace with the changes happening in the energy sector. Indeed, we recommend that Ofgem actively considers heat decarbonisation across all of its workstreams, including retail, network, wholesale and interconnection. Ofgem is best-placed to ensure that suppliers only install heating systems, whether fossil gas boilers or low carbon electric heating, that operate efficiently.

Electrification of heating requires at least the same focus as Ofgem and the government is giving to electric vehicles. Heat decarbonisation interventions are more complicated than the transition to electric vehicles. This might mean that Ofgem and the government will need to take deeper action to ensure that the regulatory framework supports progress at pace.

Ofgem can further support decarbonisation of heat by encouraging heat flexibility. Heat flexibility for electrified heat can keep people and businesses warm, while reducing bills and carbon emissions for the electricity system as a whole.

### **Increasing heat flexibility**

We welcome Ofgem working with the government to develop markets and regulatory frameworks that encourage flexibility. We recommend that this work increases its consideration of heat flexibility. Analysis by LCP Delta in 2022 for Thermal Storage UK on heat flexibility indicates that smart thermal storage could reduce peak electricity demand by up to 4.1GW by 2030. This requires that the benefits of flexibility to electricity networks and systems are reflected in pricing. A number of market reforms are required alongside the roll-out of low carbon heating and transport technologies. We recommend that Ofgem:

- **Introduces market-wide half-hourly settlement by December 2023.** Market-wide half-hourly settlement ensures the charges that energy suppliers face reflect the costs and carbon intensity of energy at different times of day. This accurately values the electricity produced, improving the ability and incentive for energy retailers such as energy suppliers and aggregators to offer time of use tariffs. We recommend a legislative backstop to reduce the risk of delays to the programme.
- **Requires energy suppliers to provide at least one time of use tariff for electric heating,** starting in December 2023. Along with reforms to half hourly settlement and wholesale prices, requiring suppliers to offer time of use tariffs for electric heating will facilitate the transition to low carbon electric heating.

We recommend that Ofgem works with the government to:

- **Reallocate legacy policy costs such as the Renewable Obligation from the electricity bill.** The government is currently financing these policy costs through the Energy Price Guarantee (EPG). When the EPG concludes in March 2024 (or if the EPG falls below the price cap in

2023), we recommend that general taxation continues to fund these policy costs.

- **Separates the low carbon and fossil fuel wholesale market.** This would mean developing pricing signals that reflect the lower cost of renewables in the wholesale electricity market, rather than the marginal cost of imported fossil fuels.

### **Future network regulation**

We support Ofgem ensuring that the price control process enables 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 see a role for Local Area Energy Planning in helping to decide which infrastructure is optimal for the system as a whole and for particular parts of the network.

We expect future price controls to place more emphasis on incentivising and managing electricity flexibility. This includes considering the trade-offs between flexibility on the demand side (such as people using smart thermal storage with or without heat pumps) and at least some 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.

We welcome Ofgem requiring distribution networks in the 2023 - 2028 price control to monitor their low voltage network, improve the granularity of their understanding and provide data to Ofgem. The limited visibility of the low voltage network is a potential barrier to electrification of heat and transport that monitoring and targeted investment can overcome.

We agree with Ofgem that DSOs should operate transparently. We recommend that:

- DSOs are required to publish their assumptions around future flexibility potential and

- DNOs and DSOs publicly report on the volume and type of flexibility procured.

As a minimum, this should cover heat pumps, thermal storage and electric vehicles.

We recommend that DSO governance arrangements consider how the electricity system interacts with and incentivises energy suppliers or other providers of demand side flexibility. In the current market structure, retailers and aggregators will provide the smart tariffs that incentivise the installation and operation of flexibility such as thermal storage.

## **Reforming the energy retail market**

We support Ofgem working with the UK government to reform the retail energy market. Developments in 2022 continued to demonstrate the need for deep reform of the energy retail market. Switching has fallen to very low levels as price competition has paused. Most domestic customers are supplied by Standard Variable Tariffs under the Domestic Tariff Cap, with the government intervening to protect customers through the Energy Price Guarantee.

If changes are made to energy price protection, for instance introducing social tariffs, we recommend that any enduring energy price support regime considers the shape of the future energy market. This includes the transition from fossil fuels to greater use of electricity in heating and transport. We recommend that customers, including those on social tariffs, receive rewards for flexibility and are incentivised to shift their electrical load away from times when electricity generation is high cost and high carbon.

This might mean:

- applying any social discounts to the electricity bill only (to reflect the gradual phasing out of fossil gas) and
- applying any social discounts to the standing charge or on a percentage basis to electricity consumed during off-peak hours (to avoid unhelpfully distorting signals to the grid about supply and demand)

It is important that, in future, energy retailers are incentivised to both deliver good service and support the transition to net zero. This means energy retailers, whether suppliers or aggregators:

- providing flexibility to the grid through smart time of use tariffs and
- helping people to purchase low carbon technologies such as electric vehicles and low carbon electric heating

As part of the Market Compliance Reviews undertaken by Ofgem during 2023/24, we would welcome Ofgem exploring how energy suppliers are decarbonising heating and providing energy efficiency advice and support.

### **Ofgem's capacity**

Last year we commented that Ofgem's Forward Work Programme for 2022/23 included a very wide range of activities for the size of the regulator. This wide range of activities continues in 2023/24 and, indeed, looks to have increased. During January 2023 alone, Ofgem has committed to undertake additional reviews into the non-domestic energy market and a Market Compliance Review into prepayment. While it is important to respond agilely during the gas crisis, we encourage Ofgem to focus as much as possible on reforms that reduce energy bills and emissions in the medium-term.

This response is not confidential and may be published by Ofgem.

Best wishes

Tom Lowe

Founding Director  
**Thermal Storage UK**