

Hitachi Energy response to Ofgem's 2022/23 Forward Work Programme Consultation

Introducing Hitachi Energy

Hitachi Energy is an exciting global business founded on two iconic companies – Hitachi and ABB Power Grids – with a ground-breaking heritage of innovation in pioneering technologies. As a global technology leader, we serve the energy, industrial, mobility, IT and smart cities sectors. We are a major investor in the UK, with a turnover of £500 million.

We are advancing the world's energy system to be more sustainable, flexible and secure. As the pioneering technology leader, we collaborate with customers and partners to enable a sustainable energy future – for today's generations and those to come. In the UK, we are already helping to bring clean energy to 4.5 million homes by connecting the world's largest offshore windfarm at Dogger Bank to the grid.

We strongly believe that the UK can lead the world in creating a secure, Net Zero-ready energy system through investing in technologies to make the energy system more sustainable, flexible, and secure.

Our response

Overview

We welcome Ofgem's overall focus and agree with the areas they have identified. Embracing digitalisation and accelerating deployment of low carbon infrastructure are fundamental to creating a more sustainable, flexible and secure energy system for the future. However, Hitachi Energy believes that the energy industry would benefit from a more prescriptive approach from Ofgem, that sets out in detail the changes necessary to deliver a Net Zero-ready system in this critical decade. We must all find ways of going faster to achieve our common goals.

We have focused our response on the areas where we have most to offer.

Point 1: Enduring priorities

Ofgem's programme sets out to protect the interests of consumers and minimise their costs, however, we believe that the definition of consumer cost is too narrowly defined as today's capex. Prioritising the lowest capex does not sufficiently consider the broader financial, environmental, and societal costs associated with any delays to investment in a low carbon energy system. At its most visible, the financial risk of delaying the transition away from fossil fuels has been highlighted by the volatility caused by high wholesale gas prices. Upfront investment today can minimise volatility and protect consumers tomorrow.

Point 4: Low carbon infrastructure

We strongly agree with Ofgem's focus on the need for a system-wide strategic network plan and for investment in technologies. However, we would place more emphasis on the need for infrastructure to have resilience at its core, in this time of low system inertia.

Currently, resilience tends to be looked at through the lens of extreme weather events. We recommend taking a broader view and incentivising the regulated utilities to invest in resilience-enhancing technologies to combat other issues, like ageing assets, increasing complexity and intermittent generation. For example, digitalisation of substations is key to enable real time monitoring of asset condition to prevent failure. We would welcome further engagement with Ofgem to explore how best to incentivise the adoption of these critical technologies, to better protect the energy system as its nature evolves over the next five to ten years.

Point 6: Data and Digitalisation

We support Ofgem's position that open and sharable data is fundamental. However, we believe that the Forward Work Plan would benefit from more specificity about what and how much data is required. Given

the criticality of data in delivering Net Zero ambitions and enabling new services, we feel that Ofgem should set baseline expectations so energy system participants understand clearly what's required so they can invest ahead of time. Moving at pace is key to achieving ambitious Net Zero targets, and slow adoption of open data and digitalisation is currently at risk of holding back the development of a future-ready energy system.

We believe that Ofgem should be more prescriptive on the outputs it wants to see in some areas; for example, on the level of digitalisation needed by the end of this price control period. Digitalisation and data analysis are key enablers of decarbonisation, improved asset management, and lowest cost reliable capacity – so setting clear digital strategies is vital to success. Presently, there is no end target for the industry to coalesce around.

Ofgem could then set specific allowed, base line expenditure to reach this target, as well as incentives to go further than this, with connection agreements also aligned. This target should also be interoperable across the gas network. An example of how this could work in practice can be found in the good work done by the Government and Ofgem on cyber security.

We would urge separate investment in innovation or early development support specifically targeted at developing data science capabilities for DNOs. Much emphasis is placed on data's ability to offer significant potential to unlock new value in the electricity supply chain but turning this data into actionable insights requires an infrastructure that does not currently exist. While DNOs have made some progress with data management and analytics, unlocking the true value will require a step change in capability.

The Forward Work Programme correctly identifies the need for Ofgem to invest in skills. Similarly, DNOs may struggle to attract the required teams of data scientists and related technical expertise without specific and targeted innovation investment. There is a common need to enhance skills across the entire energy system, and we believe that Ofgem has a role in enabling the regulated utilities to ensure they have diverse and skilled teams.