



Foreword from Energy UK

The energy sector is not only embracing change, but leading it.

Every one of us depends on energy, and each day we rightly expect it to be there to bring warmth, light and help us in myriad ways to live and work. Yet behind the switches we flick every day, a quiet revolution is happening.

The energy sector is transforming to a future system that will be unrecognisable from what we know today.

From decarbonising our electricity supply to embracing new data technologies, and from enhancing customer relationships to offering a wider range of heat and transport solutions, we see exciting ways to deliver our services at the lowest cost while enhancing the customer experience.

Indeed, 'customers' is a word you will see repeatedly in this report because they have been our starting point in examining the future of energy. The sector recognises its responsibility to get things right for all customers, and not just for those who can or want to engage in the market. And as we harness the power of innovation, it is critical that those in most need are not left behind. These customers must be among the first to benefit as they have the most to gain as we reduce energy consumption and keep bills down.

The energy sector is not only embracing change but leading it by delivering for customers, the economy and the environment. This is a challenge our industry is committed to delivering and it is well placed to succeed.

Since privatisation in the early 1990s, the sector has already invested over £170bn to radically transform itself and reduce the reliance on carbon-intensive fuels such as coal. And this is just the beginning: a similar amount now needs to be invested again by 2030 to further decarbonise our power sector through technologies such as nuclear, wind, solar, biomass, and carbon capture usage and storage as we ultimately target a zero-carbon economy.

Technological strides are already bringing forward competitive low carbon technology and energy storage potential, and the increasing demand for electric vehicles is helping to drive the decarbonisation of transport. Meanwhile, there is a growing and urgent need for a framework to bring forward low carbon sources of heat to meet domestic and international climate change commitments. These developments and challenges mean that the next decade and beyond will be a time of radical change for both the energy sector and its customers.

In this report, we explore possible solutions to meet the challenges of rising customer expectations, decarbonising our economy and keeping pace with rapid technological advances.

This complex puzzle has no single solution, but with the right direction and structures in place, the energy sector can deliver an exciting, customer-driven energy system that is fit for the future.

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