

Why Clean Power by 2030?



Our whole way of life relies on our energy supply. But the world is changing, and the way we have powered our nation for decades, built around oil, gas, and coal is no longer something we can take for granted. Millions of us have experienced hardship in recent years, as the dangers of relying too much on oil and gas, in an increasingly volatile world, have become all too clear.

The solution is clean homegrown power.

The answer to some of the biggest challenges we face – building an energy system that is affordable for the long term, keeping our supply secure, and cutting our emissions before it's too late – now all point

in one direction: towards the clean power sources that have become the core of modern energy systems.

A clean, affordable, and secure system is a realistic prospect – and we must seize this opportunity. The National Energy System Operator has produced independent advice which indicates what infrastructure we will require to deliver Clean Power 2030.

If we get this right, this is a huge opportunity for our country. We can protect households and businesses from price shocks, we can attract substantial amounts of investment and employment,

and we can set the stage for further growth as we decarbonise our heat and transport – while also building a path towards 2050 and beyond.

We start with some sizeable advantages.

As a nation we pioneered several of the renewable technologies that have become the low-cost workhorses of a modern energy system. We have an abundance of natural resources, and so the gradual decline of our oil and gas reserves can be more than offset by our substantial wind and solar energy resource.

But to get this right we need to act – and act quickly – because 6 years is a short time in building energy infrastructure.

We are not alone in wanting to rebuild our energy system and are competing with other countries for investment and to secure supply chains.

Many of the new investments that will be part of our 2030 power system have already started their journey and a core focus of our work will be ensuring that an ambitious pipeline of new projects with potential to be up and running by 2030 are successfully delivered.

This plan therefore sets out practical actions across every part of the power system, where we are determined to remove the blockages that have, for too long, added cost and delay to the development process. These actions will accelerate delivery in many of the core generation areas – removing barriers, untangling blockages, and accelerating support. Some of our priorities will not come as a surprise: we have to put an end to interminable delays in the system that mean it can take over a decade to develop and build renewables projects. We also need to reform the connections queue process, where the current queue adds up to 739 GW.⁸

However, we are also acting to raise the level of ambition right across the system, as well as taking action to deliver the industrial supply chains, and the skilled workforce, that we need to build a vast amount of new infrastructure.

The energy consumer is at the very heart of Clean Power 2030, because as a government our core aim is making sure everyone has a reliable and affordable energy supply, in a way that protects our environment and quality of life. We also want everyone to have the benefit from the new power sources and technology that can keep bills down for good.

This means a real change to how we deliver as a government. We will now be working with specific projects on the ground to understand their ongoing development in detail, and we'll be ready to do what it takes to keep key investments on track. This also means we'll be working across traditional department lines, and that we'll be ready to adapt and learn as we go, developing new actions wherever we need them to support delivery.

Clean Power 2030 supports the wider missions of this government, to make working people better off by delivering economic growth for every part of our country. Clean power also contributes to improving health outcomes for the British people, including through reducing air pollution.

Clean Power 2030 will set in motion an age of electricity. A time where we have an abundance of clean, homegrown energy, backed by a host of British companies in all four corners of the country. It's about fixing the foundations of our economy so we can protect businesses and families from increased energy bills resulting from volatile global gas markets, give ourselves

⁸ Including Demand. Correct as of end-October 2024. Connections data is published monthly by the [Connections Delivery Board](#).

a secure energy supply for the long term,
and create stable and well-paid new jobs
and growth in our manufacturing heartlands.

This is the real story of Clean Power 2030;
transforming the way this country invests in
and builds its future.



Impact of Clean Power 2030

Consumers	<p>CP2030 will protect and empower consumers by:</p> <ul style="list-style-type: none"> • Helping to shield consumers from international energy price spikes by reducing our reliance on fossil fuels. • Providing the foundation to build an energy system that can bring down bills for households and businesses for good. • Ensuring communities benefit from hosting new clean energy infrastructure. • Developing more consumer-friendly digital products and services to increase consumer understanding and control over their electricity products, such as apps to manage smart appliances. By increasing the use of digital technologies, consumers can choose to save money on their bills by using appliances when electricity is cheaper or via automated systems managing this on their behalf – for example charging their car overnight and selling excess energy back to the grid, or programming their smart electronic appliances such as dishwashers to complete their cycle within cheaper timeslots. • Increasing consumers' ability to reduce their global footprint by making green spending and lifestyle choices easier/the default. • Increasing consumers' energy independence through the rollout of rooftop solar panels alongside domestic batteries, EV charging, heat pumps, and other green technologies to cut down on the cost of bills and to flatten the peak demand curve. • Reducing our reliance on fossil fuels, which contribute to air pollution - cleaner air will benefit both human health and wildlife.
Business	<p>CP2030 will provide stability for businesses and confidence for investors by:</p> <ul style="list-style-type: none"> • Accelerating the transition to clean energy sources to create a more stable environment that helps create growth, minimises energy-price-led inflation and also helps shield businesses from energy price spikes. • Giving developers greater route-to-market certainty through a clear national plan for our power system and reforming our planning and grid connections processes, enabling developers to plan and mobilise the supply chains and workforce they need to deliver new infrastructure, unleashing £40 billion of investment per year. • Maximising domestic opportunities for clean energy supply chains, including mobilising investment into the clean power sector and through the upcoming Industrial Strategy where clean energy industries are a priority growth sector. • Stimulating local economies through investment in innovative clean energy projects and accompanying employment opportunities.
Workers	<p>CP2030 will help workers by:</p> <ul style="list-style-type: none"> • Playing a key part in supporting hundreds of thousands of jobs, as part of the wider transition to net zero • Stimulating skilled new jobs and economic opportunities across the country, including our industrial heartlands. • Boosting awareness of well-paid, high quality jobs in clean energy sectors, in collaboration with the Office for Clean Energy Jobs



Protecting energy consumers for good

The UK's dependence on fossil fuels has left us vulnerable to unstable energy prices, a vulnerability that was exposed by Putin's invasion of Ukraine and saw the electricity price cap increase by over £1,300 in a year, peaking at £2,000⁹. Government spent over £44 billion supporting energy bills between October 2022 and March 2024, the most ever provided to subsidise household bills in UK history¹⁰. By producing the clean energy we need at home and being more efficient in how we use it, we can boost our energy independence. This transition is the only way to protect businesses and families for good from increased energy bills resulting from volatile global gas markets.

By accelerating the switch to domestic renewable electricity sources and accelerating the application of clean electricity to the wider energy system, we will be able to reduce our reliance on fossil fuels faster. This enhances energy security, making the UK less vulnerable to global market disruptions or geopolitical tensions that affect energy prices.

⁹ Office of Gas and Electricity Markets (Ofgem) (2024), '[Energy price cap \(default tariff\) policy](#)' (viewed in December 2024).

¹⁰ National Audit Office (NAO) (2024), '[Report – Value for Money – Energy bills support: an update](#)' (viewed in December 2024).

Central to delivering decarbonisation in the energy system is ensuring it benefits consumers and businesses.

By building a diverse energy system, we can make the most of our abundant natural resources to protect consumers from future price shocks. However, this mission will not be delivered from Westminster alone – local communities, the clean power sector (comprising industry, academia, and investors) and local government also have a key role to play, and we will empower them to participate in and benefit from decisions on local infrastructure.

We want to ensure that consumers are supported to make choices that benefit them, which will help us deliver on our net zero ambitions.

Market reform and the rollout of flexible technologies will give consumers greater control over their energy bills. For example, consumers might see the impact of Clean Power by installing solar panels which give them greater energy independence or having smart flexible technologies, such as electric vehicles or heat pumps, which enables consumers to take advantage of cheaper tariffs at different times of day.

The government's Warm Homes Plan will provide help for people, including those from fuel poor households, to live in better insulated homes with the ability to take advantage of these new flexible home heating technologies.