Nuclear energy powers almost 20% of the UK’s national grid. However, with 14 of the UK’s 15 nuclear reactors scheduled to begin decommissioning by the end of 2030, the country faces a looming shortfall in its power generation capability. Decreasing appetite for fossil fuels, combined with limitations on renewable energy sources, ensure Hinkley Point C and other new nuclear power plants will play a vital role in the UK’s objective to reach net-zero carbon emissions by 2050.

Hinkley Point C is the first of a new generation of nuclear power plants in the UK and will provide 7% of the UK’s electricity needs for the next 60 years.
WHAT IS HINKLEY POINT C?

Situated in Somerset on the South West coast of England, Hinkley Point C is a nuclear power station consisting of two pressurised water reactors, known as EPRs, which together will produce 3,200 megawatts of electricity.

As of June 2020, the foundations of the two reactors have successfully been built, with the second setting the UK record for the longest single continuous concrete pour, after it weighed in at 49,000 tonnes. Work has since started above ground, and the site is scheduled to begin generating energy from 2025.

Hinkley Point C is estimated to cost between £21.5 billion and £22.5 billion.

Delivering an Infrastructure Revolution

Whilst economic and social infrastructure projects are often in the headlines due to the amount of money spent on them and the disruption caused during their construction, they generate huge long-term benefits. By providing better local services, new jobs, cleaner air and faster connections, modern infrastructure helps to level up opportunity and prosperity across the UK.

Build UK’s factsheets cover a range of local and national projects explaining what they are and why they are being built in Britain today.
WHY WE NEED HINKLEY POINT C

Construction of Hinkley Point C will symbolise the resurgence of the UK’s nuclear power industry. Once completed, it will:

- Account for 7% of the UK’s electricity needs over the next 60 years
- Provide around 6 million homes with a low-carbon energy source
- Support 900 full-time jobs
- Offset 9 million tonnes of CO\(^2\) emissions each year by moving away from fossil-fuel based energy sources, which will help to improve air quality and reach the UK’s target of net zero emissions by 2050.

KEY ISSUES

- Reports have suggested that Hinkley Point C may not represent value for money, as the energy it generates will be sold at a rate higher than today’s market price. Whilst this difference will be added to UK energy bills, the UK taxpayer has not contributed to Hinkley Point C’s construction costs, despite the energy security and environmental benefits that it will provide.

- There is controversy around the use of nuclear power instead of renewable sources, with critics pointing to the Fukushima disaster. Whilst earthquakes of such magnitude have never occurred in the UK, the EPRs at Hinkley Point C have been designed with industry-leading safety features, including multiple backup systems and an aircraft crash protection shell.

- Concerns have been raised about the safe disposal of nuclear waste, and the Government is identifying a geological disposal site where waste will be isolated deep underground and contained as it decays naturally over time.

HINKLEY POINT C IN NUMBERS

- £21.5bn estimated investment
- 7% of the UK’s energy needs
- 1,000 new apprentices trained
WHO WILL BENEFIT?

The Environment

- 9 million tonnes of CO$_2$ emissions offset each year by moving away from carbon-burning energy sources, totalling 600 million tonnes over Hinkley’s 60-year lifespan
- Low carbon energy supply for 6 million homes. This would alternatively require four coal-fired power stations to supply, producing over 33 million tonnes of CO$_2$ emissions per year
- Adoption of new building methods and greater use of local materials during construction, which produced less carbon as a result of reduced transportation
- Net gain in biodiversity in the area surrounding the site, including landscape restoration and the planting of 65,000 new trees.

The Local Community

- £1.67 billion already spent with companies in the South West of England
- 40% of the workforce comes from the local area
- £119 million provided to date to develop local infrastructure, regional tourism, and health and leisure industries.

The Economy

- 10,300 jobs created or retained during the construction phase
- 644 apprentices trained to date, with an overall target of 1,000
- Opportunities provided to UK companies to develop expertise in nuclear power plant construction, which can be utilised for future projects (such as the planned Sizewell C power station in Suffolk) and exported abroad.

Further Information

Carbon Brief (2018)  How the UK Transformed its Energy Supply in Just a Decade
EDF Energy (2020)  New Build Projects: Hinkley Point C
EDF Energy and HPC (2020)  Hinkley Point C: Realising the Socio-Economic Benefits
Laing O’Rourke (2020)  Hinkley Point C
National Audit Office (2017)  Hinkley Point C
Radioactive Waste Management (2018)  About Us

With thanks to BYLOR, a joint venture between Bouygues Travaux Publics and Laing O’Rourke, for its help in producing this factsheet

Find out more
www.edfenergy.com

Contact us
www.BuildUK.org