

Summary of Energy White Paper, December 2020

On 14 December 2020, the Government released the new Energy White Paper ([Energy White Paper \(publishing.service.gov.uk\)](https://www.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/92111/energy-white-paper-2020.pdf)) setting out, over 170pp, its four overall aims:

1. Transform energy supply to build a cleaner, greener future
2. Reform the energy system such that it is fit for future purpose
3. Create a 'fair deal' for energy consumers by increasing price transparency, providing more opportunities for consumers to save money on bills and by protecting the fuel poor
4. Support a green recovery from the COVID-19 pandemic by growing the economy in a sustainable way and supporting industry thousands of new 'green jobs' nationwide

It seeks to clean up the nation's energy systems and ensure the journey to net zero by 2050 is achievable and affordable. It reinforces/expands on the Prime Minister's recently announced Ten Point Plan to support a green recovery from Covid-19 (covering nuclear power; green public transport, cycling and walking; offshore wind; hydrogen; jet zero and green ships; greener buildings; protecting our natural environment; zero emission vehicles; carbon capture, usage and storage; and, green finance and innovation) for a Green Industrial Revolution and sets out the steps needed to cut emissions from industry, transport and buildings by 230 million metric tonnes. It commits to supporting up to 220,000 jobs in the new, greener economy over the next decade, with positions ranging from employment in major power generation, carbon capture storage and hydrogen projects, in addition to a nationwide programme to retrofit homes and buildings with energy efficiency and clean heat technologies.

Summaries of the headline pledges for each of these aims are set out below and those few that could have a direct relevance to Thurrock's Local Plan, but with limited relevance for the LTC DCO, are set out in bold text.

(1) Transforming Energy Supply

The Government:

- Has set a target of 40GW of offshore wind by 2030, of which 1GW will be floating wind. The Government will continue to hold Contracts for Difference (CfD) auctions every two years and onshore wind, solar and offshore wind will continue to be the cornerstone of sustainable energy for the UK's future. The Government will issue a Call for Evidence shortly to seek views on how the CfD scheme could evolve beyond the 2021 auction. The Government will also establish a Ministerial Delivery Group to bring together relevant government departments to oversee and streamline the expansion of renewable power.
- Will finalise plans for at least 1 large nuclear project before the end of Parliament. The Government notes that Hinckley Point C is due to commission in the mid-2020s, but as the remaining nuclear fleet will retire over the next 10 years, the Government suggests that an additional nuclear power site will be required.
- Will provide up to £385m in an Advanced Nuclear Fund for the next generation of nuclear technology, by the early 2030s. The Government aims to develop a Small

Modular Reactor (SMR) design and to build an Advanced Modular Reactor (AMR) demonstrator. An additional £40m will be invested in developing the requisite regulatory framework and supply chains associated with these technologies. The Government also intends to build a commercially viable fusion power plant by 2040.

- Will consult on steps to ensure that new thermal plants can convert to low carbon alternatives. The Government intends to consult in early 2021 on removing the 300MW minimum threshold on building thermal plants. This restriction was put in place to ensure that planning consents were only granted to thermal plants on which it was technically feasible to retrofit carbon capture technology. But, it has dis-incentivised the deployment of gas plants larger than 300MW, which tend to be more efficient.
- Consult on the role which bio-energy with carbon capture and storage (BECCS) can play in reducing carbon emissions across the economy. BECCS will play a vital part in the Government's wider biomass strategy (a new report is due in 2022, with a preliminary paper by summer 2021).
- Develop 5GW of low-carbon hydrogen production capacity by 2030. The Government will support industry to begin a 'Hydrogen Neighbourhood' trial by 2023, and a large 'Hydrogen Village' trial by 2025. They hope that the experience gained in delivering trials in communities will enable a strategic decision in the mid-2020s around the long-term role of hydrogen for heating. Additionally, the Government is developing a prototype hydrogen-ready boiler, cooker and fire through the Hy4Heat programme which will conclude in summer 2021.

(2) Energy System Reform

The Government will:

- Publish a new 'Smart Systems Plan' in spring 2021. The Government will continue to implement policies suggested by Ofgem in their 2017 'Smart Systems and Flexibility Plan'. The Government says it is on track to deliver the plan in full by 2022. However, it has set out a desire to go beyond that in the new Smart Systems Plan.
- Launch a competition in spring 2021 to address energy storage and flexibility challenges. This was announced as part of the Government's 10 Point Plan and is seen as one of key priority areas in the £1bn Net Zero Innovation Portfolio. Technologies of interest include lithium-ion and pumped hydro storage.
- Legislate to ensure competitive tendering in the building, ownership and operation of the onshore electricity network. The Government intends to open up competitive tendering at the distribution as well as transmission network level, with the Secretary of State to appoint a party to run the tender process. The Government also intends to open network innovation funding to third parties to encourage more whole-system funding.
- **Support the roll-out of charging and associated grid infrastructure to support driver to make the switch to Electric Vehicles (EVs). As part of £2.8bn package announced in the Ten Point Plan, the Government will provide £1.3bn to accelerate the roll-out of charge points in homes, workplaces,**

street and motorways. The Government will also invest a further £950m to 'futureproof' grid capacity along the strategic road network.

- Implement a more efficient approach to connecting offshore generation to the mainland grid. The Government has launched the Offshore Transmission Network Review to improve the delivery of transmission connections for offshore wind generation in a move away from the current model of single point-to-point connections. The review will consider the potential of hybrid, multi-purpose interconnectors. The hybrid projects could allow connection to neighbouring markets and sell of excess green power.
- **Consult on prohibiting gas grid connections to new homes built from 2025 – gas supply to be replaced by renewable or clean alternatives. Subject to the outcome of the ongoing consultation, the Government expects the Green Gas Support Scheme to launch in autumn 2021 and run for four years. The scheme will support continued deployment of anaerobic digestion biomethane plants in order to increase the proportion of green gas on the grid.**
- Build world-leading digital infrastructure for our energy system. The independent Energy Data Taskforce is set to publish the UK's first Energy Data Strategy in partnership with Ofgem in spring 2021.

(3) Consumer Fairness & Transparency

The Government will:

- Consult on creating an opt-in switching framework by March 2021, with the intention of setting out how such a framework should be designed, tested and scaled up. Since 2017 Ofgem (the electricity market regulator) has run consumer engagement tests and has found that customers who had not switched for many years can be prompted to do so by well-designed emails/letters. The most successful trials were 'opt-in' switching trials which removed as many steps as possible from the switching process.
- Consult on reforming auto-renewal and roll-over tariff arrangements by March 2021 and map out how opt-out switching could be tested as part of any future reforms. The Government does not believe that energy suppliers should be expected to roll over or continue contracts indefinitely. The Government has pledged to engage closely with stakeholders to test moving customers to new contracts with the option to 'opt-out', which could move consumers on default tariffs to cheaper contracts.
- Establish a market framework covering changes which may be required to facilitate the development and uptake of innovative tariffs and products. The Government intends to engage with industry and consumer groups throughout 2021 before a formal consultation. The market framework will need to enable innovation and competition, whilst protecting consumers. The Government has also promised to continue to review the current supply licence framework.
- Review retail market regulation and consult by spring 2021 on regulating third parties such as energy brokers and price comparison websites. The Government has acknowledged that the market has changed rapidly over recent years and more consumers are now using price comparison sites. As these sites are not currently

regulated by Ofgem, the Government wants to ensure that customers are protected from malpractice when receiving a service through these third parties.

- Ensure consumers are provided with more transparent and accurate information on carbon content when they are choosing their energy services and products. In addition to continuing the roll-out of smart meters and other digital technology, the Government has committed to assessing how effectively the market provides consumers with clear information on costs and clean energy choice. The Government will be consulting on reforms in early 2021.
- Consult on how the energy supplier thresholds of the Energy Company Obligation (ECO) and Warm Home Discount (WHD). ECO and WHD are obligations on suppliers to tackle fuel poverty by providing targeted energy efficiency measures and bill discounts. When these schemes were created, supplier thresholds were introduced to avoid creating barriers to entry for newer suppliers. However, the introduction of these thresholds may have created distortions as smaller suppliers have been able to undercut their larger competitors who have to pay the costs. The Government now wants to remove the thresholds and has pledged to extend ECO until 2026 and WHD to £475m per year from 2022 to 2025/26. The Government will consult on how to protect smaller suppliers upon removal of the thresholds.
- Take powers to regulate smart appliances based on principles including interoperability, data privacy and cyber security. The Government want ensure that any 'smart devices' can sync with any service provider's systems, such that consumers cannot be locked into one provider indefinitely. The Government also want to ensure that consumer data is protected and private. Industry standards for interoperability, data privacy and cyber security are to be published by summer 2021.

(4) Supporting a Green Recovery from COVID-19

(i) Building Reform and Transformation

The Government will:

- **Establish the Future Homes Standard to ensure all new-build homes are zero carbon ready. The Future Homes Standard will require new-build homes to be fitted with low-carbon heating and high level of energy efficiency.**
- **Ensure that as many existing home as possible meet EPC Band C by 2035. The Ten Point Plan confirmed that the Green Homes Grant Voucher and Local Authority Delivery schemes will be extended for another year to support homeowners and landlords to cover the cost of upgrading the energy performance of their buildings.**
- Consult on the regulatory measures required for energy performance of homes and on how mortgage lenders can support homeowners in making such improvements. The Government have said that growing the market for green finance products to leverage investment from businesses, homeowner and landlords will be essential. The Government has anticipated that changes will need to be made to the Energy

Performance of Buildings (England and Wales) Regulations 2012 in 2021 to strengthen regulatory compliance and support policies.

- **Require all non-domestic buildings to be EPC Band B by 2030. The Government intends to deliver this through a performance-based rating scheme, improving information and access to the upfront capital required to cover the costs of installation and by strengthening the existing Energy Savings Opportunity Scheme. Consultations on these three processes will take place in 2021.**
- Commit £122m in funding towards a Heat Network Transformation Programme. The Government are committed to developing additional low-carbon heat networks and will seek new powers to require heat networks to switch to low-carbon fuel sources and to support Local Authorities in designating new heat network zones no later than 2025.
- Expand the installation to electric heat pumps from 30,000 per year to 600,000 per year by 2028.

The Government also want to continue their roll-out of smart meters, including second generation smart meters (which are interoperable from the point of install). The Government has introduced a new smart meter obligation on energy suppliers, which will start in July 2021, to improve installation and operational performance rates.

(ii) Industry

The Government will:

- Publish an Industrial Decarbonisation Strategy in spring 2021. The Government intends to establish how the transition to clean energy will support the competitiveness of UK industry and a green economic recovery.
- Support the delivery of four low-carbon clusters by 2030 and at least one fully net zero cluster by 2040. The Government intends to invest £1bn up to 2025 to deploy carbon capture usage and storage (CCUS) in centres where related industries have congregated and could benefit from using shared clean energy.
- Implement the world's first net zero carbon cap and trade market, the UK Emissions Trading Scheme (UK ETS). To replace the current EU ETS. A cap is set on the greenhouse emissions from businesses (via the total number of allowances in circulation) which decreases over time. Businesses are permitted to buy and sell emissions allowances through government auctions or secondary markets. The UK ETS will initially apply to energy-intensive industries, electricity generation and aviation.
- Bring forward details of a revenue mechanism in 2021 to enable private sector investment into industrial carbon capture and hydrogen projects. The Government will also create a Net Zero Hydrogen Fund to support low-carbon hydrogen production, providing £240 million of capital co-investment out to 2024/25.