

PELHAM SPRING SOLAR FARM
ENVIRONMENTAL STATEMENT
MAIN STATEMENT
CHAPTER 5 – CLIMATE CHANGE, ENERGY,
PLANNING POLICY & GUIDANCE

On behalf of Low Carbon Solar Park 6 Limited

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5.1 INTRODUCTION

- 5.1.1 There is a plethora of Government legislation, guidance and policy which support the transition to a low carbon future and the continued roll out of renewables and low carbon energy and associated infrastructure. The background to the drive to increase the use of renewable sources of energy has its roots in the recognition that the burning of fossil fuels has an adverse effect on the climate of the world as a whole and that global measures are required to deal with it. The extensive use of fossil fuels that accompanied the industrialisation of the world's economy has released large volumes of CO2 back into the atmosphere. The accumulation of greenhouse gases in the upper atmosphere reduces the planet's ability to reflect solar radiation back into space, resulting in a gradual increase in mean global air temperature.
- 5.1.2 The scientific evidence on climate change is summarised in 'Climate Change Explained' first published on 23 October 2014 by the Department of Energy and Climate Change. To summarise, it states that there is clear evidence to show that climate change is happening. Measurements show that the average temperature at the Earth's surface has risen by about 0.8°C over the last century. 13 of the 14 warmest years on record have occurred in the 21st century and in the last 30 years each decade has been hotter than the previous one. This change in temperature hasn't been the same everywhere; the increase has been greater over land than over the oceans and has been particularly fast in the Arctic.
- 5.1.3 The UK is already affected by rising temperatures. The average temperature in Britain is now 1 Degree Celsius higher than it was 100 years ago and 0.5 Degree Celsius higher than it was in the 1970s.
- 5.1.4 Although it is clear that the climate is warming in the long-term, temperatures aren't expected to rise every single year. Natural fluctuations will still cause unusually cold years and seasons. Along with warming at the Earth's surface, many other changes in the climate are occurring:
 - warming oceans;
 - melting polar ice and glaciers;
 - rising sea levels; and
 - more extreme weather events.
- 5.1.5 Rising levels of carbon dioxide and other gases, such as methane, in the atmosphere create a 'greenhouse effect', trapping the Sun's energy and causing the Earth, and in particular the oceans, to warm. Heating of the oceans accounts for over nine tenths of the trapped energy. Scientists have known about this greenhouse effect since the 19th Century.
- 5.1.6 The higher the amounts of greenhouse gases in the atmosphere, the warmer the Earth becomes. Recent climate change is happening largely as a result of this warming, with smaller contributions from natural influences like variations in the Sun's output.
- 5.1.7 Carbon dioxide levels have increased by more than 40% since before the industrial revolution. Other greenhouse gases have increased by similarly large amounts. All the

evidence shows that this increase in greenhouse gases is almost entirely due to human activity. The main contribution to this is the burning of fossil fuels for energy.

- 5.1.8 About 43% of the carbon dioxide produced goes into the atmosphere, and the rest is absorbed by plants and the oceans. Deforestation reduces the number of trees absorbing carbon dioxide and releases the carbon contained in those trees.
- 5.1.9 The Government advises that if action is now taken to radically reduce greenhouse gas emissions, there's a good chance that we can limit average global temperature rises to 2 Degree Celsius. By taking action now we could:-
 - Avoid burdening future generations with greater impacts and costs of climate change;
 - Enable economies to cope better by mitigating environmental risks and improving energy efficiency there will be wider benefits to health, energy security and biodiversity; and
 - Benefit economically because if we delay acting on emissions, it will only mean more radical intervention in the future at greater cost.
 - It is also recognised that taking action now can also help to achieve long-term, sustainable economic growth from a low-carbon economy.

5.2 NATIONAL LEGISLATIVE CONTEXT

- 5.2.1 With regards to the need for development, the explicit need to introduce a step change in how the country deals with climate change was recognised via the UK Government's declaration of an environmental and climate change emergency on 1 May 2019, following the findings of the Intergovernmental Panel on Climate Change (IPCC) who concluded that, to avoid a greater than 1.5°C rise in global warming, global emissions would need to fall by around 45 per cent from 2010 levels by 2030, and reach net zero by 2050 at the very latest.
- 5.2.2 The recently published IPCC Sixth Assessment report is a stark warning of the devastation that will be unleashed if we fail to urgently limit global temperature rises, and has been referred to as a "Code Red for Humanity "by the Secretary- General of the UN, António Guterres, illustrating the urgent and desperate need for rapid decarbonisation.
- 5.2.3 Through their climate emergency declaration, the Government recognises the need to move swiftly to capture economic opportunities and green jobs in the low carbon economy while managing risks for workers and communities currently reliant on carbon intensive sectors. As part of its contributions to international efforts, the UK also has domestic legislation and policies in place to reduce greenhouse gas emissions. These are focused on a number of key climate change challenges, these include:
 - The reduction of CO2 emissions to tackle climate change;
 - The promotion of competitive energy markets in the UK; and
 - Security of decentralised energy supplies.
- 5.2.4 This subsection goes on to summarise the following relevant provisions:

5.3 COMMITTEE ON CLIMATE CHANGE JUNE 2020

5.3.1 The UK Committee on Climate Change advises the government on progress on tackling climate change.

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- 5.3.2 In June 2020, the Committee on Climate Change published its Reducing UK Emissions report which provides an annual review of UK progress in reducing greenhouse gas emissions. This is the first annual report since the UK set a legally binding 'net zero by 2050' target and was due to be released in the lead up to the UN climate conference COP26 in Glasgow (before this was postponed until 2021).
- 5.3.3 The report provides important new advice to Government on framing a recovery from the COVID-19 pandemic that both accelerates the transition to Net Zero and strengthens our resilience to the impacts of climate change, whilst driving new economic activity. The report states that energy networks must be strengthened in order to support the electrification of transport and heating. The report highlights five investment priorities, one of which addresses the UKs energy networks. The paper identifies how: -
- 5.3.4 It is 12 months since Net Zero became law, requiring the UK to reduce net emissions of greenhouse gases to zero by 2050. Initial steps towards a net zero policy package have been taken, but this was not the year of policy progress that the Committee called for in 2019. Current policy is insufficient for even the existing targets and a net zero target would not be credible unless policy is ramped up significantly.
- 5.3.5 Power sector plans are advancing in line with the large scale required for the net-zero target. The power sector has been a major success story in the past decade. Emissions have decreased around 62% over the period 2008 2018 reflecting real decarbonisation of energy produced in the UK.
- 5.3.6 This has resulted in a transition from fossil fuel-based power to renewables. For example, in Q3 2019, renewables provided more electricity than fossil fuels for the first time in the UK's history. This has wider importance when considering that electrification will increase demand for electricity over the coming decades.
- 5.3.7 The goal to substantially expand supplies of low-carbon power must be accompanied by steps in the Energy White Paper to encourage a resilient and flexible energy system.

5.4 CLIMATE CHANGE ACT 2008 AND THE CLIMATE CHANGE ACT 2008 (2050 TARGET AMENDMENT) ORDER 2019

- 5.4.1 As part of its contributions to international efforts, the UK also has domestic legislation and policies in place to reduce greenhouse gas emissions. The Climate Change Act 2008 established long-term statutory targets for the UK to achieve reductions in greenhouse gases by 2050 against a 1990 baseline. The Act originally set a legally binding target of an 80% cut in greenhouse gas emissions by 2050. On 12 June 2019, as a direct response to the climate change emergency declaration, the Government laid the draft Climate Change Act 2008 (2050 Target Amendment) Order 2019 to amend the Climate Change Act 2008 by introducing a target for at least a 100% reduction of greenhouse gas emissions (compared to 1990 levels) in the UK by 2050. This is otherwise known as a net zero target because some emissions can remain if they are offset by removal from the atmosphere and/or by trading in carbon units. The legislation was signed into law on 27 June 2019, following approval by the House of Commons and the House of Lords.
- 5.4.2 Following the Climate Change Committee's advice on the Sixth Carbon Budget, Prime Minister Boris Johnson agreed to legislate a new target to reduce national emissions by 78% by 2035, with the target enshrined in law at the end of June 2020. This builds on the nations new Nationally Determined Contribution (NDC) to the Paris Agreement, which will see the UK reduce emissions by 68% by 2030 compared to 1990 levels.

5.5 THE ENERGY WHITE PAPER (2020)

- 5.5.1 The Energy White Paper ("EWP") was presented to Parliament on 14 December 2020 and builds upon the Prime Minister's Ten Point plan for a Green Industrial Revolution (which is discussed below).
- 5.5.2 The EWP sets out ambitious plans offering support for a variety of technologies and committing funds to support the growth of low-carbon green-technologies. It is intended to entirely reshape British industry and the economy. At the core of the EWP is the commitment to achieve Net Zero and tackle climate change.
- 5.5.3 In the introduction to the EWP (pages 2 and 3), the former Secretary of State for Business, Energy and Industrial Strategy (BEIS), Alok Sharma MP, states (inter alia):
- 5.5.4 "The government presents this white paper at a time of unprecedented peacetime challenge to our country. Coronavirus has taken a heavy toll on our society and on our economy. But we will overcome COVID-19 and rebuild our economy, building back better and levelling up the country. As we do so, we must address the intergenerational challenge of climate change. Unchecked, the impact of rising global temperatures represents an existential threat to the planet. So, building back better means building back greener.
- 5.5.5 This white paper puts net zero and our effort to fight climate change at its core, following the Prime Minister's Ten Point Plan for a Green Industrial Revolution. The Ten Point Plan sets out how government investment will leverage billions of pounds more of private investment and support up to 250,000 jobs by 2030".
- 5.5.6 The way we produce and use energy is therefore at the heart of this. Our success will rest on a decisive shift away from fossil fuels to using clean energy for heat and industrial processes, as much as for electricity generation. These are more than academic considerations; the shift to net zero will affect us all. This white paper presents a vision of how we make the transition to clean energy by 2050 and what this will mean for us as consumers of energy in our homes and places of work, or for how businesses use energy to produce goods and services.".
- 5.5.7 The EWP seeks to put in place a strategy for the wider energy system that transforms energy and supports a green recovery (page 4).
- 5.5.8 Page 5 of the EWP sets out the Government's 'Compelling case for tackling climate change'. The salient points presented by Government are (inter alia):
- 5.5.9 We need to act urgently. The future impacts of climate change depend upon how much we can hold down the rising global temperature. To minimise the risk of dangerous climate change, the landmark Paris Agreement of 2015 aims to halt global warming at well below 2°C, while pursuing efforts to limit it to 1.5°C, increasing measures to adapt to climate change, and aligning financial systems to these goals.
- 5.5.10 At the global scale, however, we are not presently on track to reach the temperature goal of the Paris Agreement. Based on current national pledges, and assuming the level of ambition does not change, the world is heading for around 3°C of warming by the end of the century.
- 5.5.11 The cost of inaction is too high. We can expect to see severe impacts under 3°C of warming. Globally, the chances of there being a major heatwave in any given year would increase to about 79 per cent, compared to a five per cent chance now. Many

regions of the world would see what is now considered a 1-in-100-year drought happening every two to five years.

- 5.5.12 To meet the temperature goal of the Paris Agreement, the world must collectively and rapidly reduce global emissions to net zero over the next 30 years. Success will mean we are less exposed to flood and heat risks and preserve our national security, our prosperity, and our natural world which are threatened by the global disruption of climate change.
- 5.5.13 The Government recognises that decarbonising the energy system over the next thirty years means replacing, as far as it is possible to do so, fossil fuels with clean energy technology such as renewables (EWP Introduction, page 9). The EWP identifies how clean energy will become the predominant form of energy, entailing in a potential doubling of electricity demand and consequently a fourfold increase in low-carbon electricity generation (EWP Introduction, page 10). The Government recognises that growing and supporting green jobs across the country in green industries will also support a green recovery from COVID-19 (page 16).
- 5.5.14 The EWP, at page 43, identifies how the Government envisages that (inter alia) "While we are not planning for any specific technology solution, we can discern some key characteristics of the future generation mix. A low-cost, net zero consistent system is likely to be composed of predominantly wind and solar. But ensuring the system is also reliable, means intermittent renewables need to be complemented by technologies which provide power, or reduce demand, when the wind is not blowing, or the sun does not shine". Page 43 goes on to identify batteries as such a technology that can contribute towards the demand side response. Page 45 identifies how "Onshore wind and solar will be key building blocks of the future generation mix, along with offshore wind". It goes on to state how the Government recognised that sustained growth in the capacity of these sectors is needed over the next decade to ensure that we are on a pathway that allows us to meet net zero emissions in all demand scenarios.

5.6 UK ENERGY SECURITY STRATEGY (2022)

- 5.6.1 On 7th April 2022, the Government published the UK Energy Security Strategy, which responds to the current energy market position following the significant spikes in energy prices resulting from the COVID-19 pandemic and Russia's invasion of Ukraine. Following the reopening of the global economy after the impacts of the COVID-19 pandemic, the sudden surge in demand for everything from foreign holidays to new cars has driven a significant spike in the demand for oil and gas, and consequentially greatly increasing the price of these fossil fuels. This has only been further compounded following the Russian invasion of Ukraine and the restrictions placed on Russian gas to the European market, which has resulted in prices increasing even further. As result of these factors, we have seen the price of European gas increasing by over 200% in the past 12 months, with coal prices increasing by over 100%. This has seen a record increase in global energy prices and had led to an inevitable rise in the cost of living within the UK as our energy mix is highly reliant on natural gas to generate electricity and also to heat the majority of the 28 million homes in the UK.
- 5.6.2 The published Energy Security Strategy highlights the urgent need to both develop an energy system which is more self-sufficient and further accelerate the Country's transition away from oil and gas. It is acknowledged that this transition is not a fast process and is critically dependant on the speed at which we can deploy new renewable energy technologies. The UK Energy security Strategy outlines the urgent need for the rapid deployment of a range of renewable technologies including on and off-shore wind, nuclear, solar and other technologies. It is acknowledged that net zero targets

cannot be sustainably met through the exploitation of only one or a few technologies and requires the exploitation of all available renewable technologies. For ground mounted solar technologies, the new Energy Security Strategy states that the Government will:"...consult on amending planning rules to strengthen policy in favour of development on non-protected land, while ensuring communities continue to have a say and environmental protections remain in place. We will continue supporting the effective use of land by encouraging large scale projects to locate on previously developed, or lower value land, where possible, and ensure projects are designed to avoid, mitigate, and where necessary, compensate for the impacts of using greenfield sites."

5.7 UK'S NATIONAL ENERGY AND CLIMATE PLAN (NECP)

5.7.1 BEIS published the UK's National Energy and Climate Plan (NECP) for 2021 to 2030, on 7 June 2021, in order to uphold the Government commitments under the Withdrawal Commitments. The NECP (at page 30) identifies how the EU has a target under the Renewable Energy Directive of 32% of energy coming from renewable sources in 2030, with Member States required to set their own nonbinding contributions to collectively achieve the EU target. As of 31 January 2020, the UK has left the EU and will therefore not contribute to EU targets or be bound by the RED after the Transition Period ends. However, to comply with Government commitments under the Withdrawal Agreement with respect to the NECP, the UK has set out a proportion of renewables in final energy consumption in 2030 of between 22%-29%. This represents a significant challenge as RED progress in 2020 is only 13.6 per cent.

5.8 NET ZERO - OPPORTUNITIES FOR THE POWER SECTOR

- 5.8.1 The National Infrastructure Commission (NIC), official advisor to the Government on Infrastructure, has published a report (Net Zero Opportunities for the Power Sector, March 2020) setting out the key infrastructure requirements needed to meet the UK's 2050 net-zero target, including the amount of renewable energy development that would need to be deployed.
- 5.8.2 The NIC recommends that in meeting these targets, the UK's energy mix needs to be made up of around 90% renewables. At page 18 of the report, it is recommended that across all scenarios, significant levels of solar, onshore wind and offshore wind, will need to be deployed in order to ensure that between 129 237 GW (gigawatts) of renewable energy capacity is in operation by 2050. To achieve this, the report recommends the following split:
 - 56-121 GW of solar;
 - 18-27 GW of onshore wind; and
 - 54-86 GW of offshore wind.
- 5.8.3 To achieve the above targets would require a significant increase in installed solar capacity across the UK, including over nine times the current installed capacity of solar technologies in the UK, which as of September 2021 is around 13.6GW according to BEIS.

5.9 CLEAN GROWTH STRATEGY - LEADING THE WAY TO A LOW CARBON FUTURE (2017)

- 5.9.1 The Clean Growth Strategy, published in October 2017, sets out a comprehensive set of policies and proposals that aim to accelerate the pace of "clean growth", i.e. deliver increased economic growth and decreased emissions. The Executive Summary (page 9) confirms that for the UK to achieve its fourth and fifth carbon budgets (2023 2027 and 2028 2032) it will be necessary to drive a significant acceleration in the pace of decarbonisation.
- 5.9.2 To achieve the clean growth, the Government states that the UK will need to nurture low carbon technologies, processes and systems that are as cheap as possible, this includes subsidy-free ground mounted solar farms as per the proposed development. The Government places significant emphasis on securing increased investment across the energy systems whilst minimising, as much as possible, the public costs for securing such investments and makes multiple references to how they are seeking the delivery of solar without subsidy. Moreover, page 99 specifically states that the 'Government wants to see more people investing in solar without government support'. It estimates that the low carbon economy could grow 11% per year between 2015 and 2030, four times faster than the projected growth of the economy as a whole. The application proposal would clearly contribute to the delivery of the Clean Growth Strategy.

5.10 THE TEN POINT PLAN FOR A GREEN INDUSTRIAL REVOLUTION (NOVEMBER 2020)

5.10.1 'The Ten Point Plan for a Green Industrial Revolution – Building back better, supporting green jobs, and accelerating our path to net zero', was published on 18 November 2020 and is aimed at delivering a 'Green Industrial Revolution' in the UK, with the foreword by the Prime Minister stating that the Ten Point Plan will aim to mobilise £12 billion of government investment and potentially three times as much from the private sector, to create and support up to 250,000 green jobs. The Ten Point Plan is followed on from and built on by the Energy White Paper discussed above. Point ten seeks to accelerate the commercialisation of innovative low-carbon technologies, systems and processes in the power.

5.11 NATIONAL INFRASTRUCTURE PLAN (HM TREASURY, 2014)

- 5.11.1 The National Infrastructure Plan (NIP) 2014 presents an overview of the Government's policies, investments and record on infrastructure delivery since 2010 and details the Government's approach to ensuring that the Top 40 priority investments remain on track to deliver.
- 5.11.2 The report confirms a future pipeline investment of £80bn in energy infrastructure.
- 5.11.3 The stated objectives (paragraph 8.1) with regard to energy are to:
 - ensure power, heat and transport are affordable for households and businesses
 - provide energy security to facilitate day-to-day activities and support economic growth
 - reduce carbon emissions in order to mitigate climate change and meet its legally binding targets

5.12 NATIONAL INFRASTRUCTURE ASSESSMENT (THE NATIONAL INFRASTRUCTURE COMMISSION, 2018)

5.12.1 The first National Infrastructure Assessment (NIA) set out the Commission's plan of action for the country's infrastructure over the next 10-30 years.

- 5.12.2 The NIA sets out a number of recommendations to a pathway for the UK's economic infrastructure:
 - nationwide full fibre broadband by 2033
 - half of the UK's power provided by renewables by 2030
 - three quarters of plastic packaging recycled by 2030
 - £43 billion of stable long term transport funding for regional cities
 - preparing for 100 per cent electric vehicle sales by 2030
 - ensuring resilience to extreme drought
 - a national standard of flood resilience for all communities by 2050.

5.13 NATIONAL INFRASTRUCTURE STRATEGY: FAIRER, FASTER, GREENER (HM TREASURY, 2020)

- 5.13.1 The National Infrastructure Strategy (NIS) was published on 25 November 2020, a week after the Prime Minister's Ten Point Plan. The NIS sets out the Government's plans to deliver an infrastructure revolution in the UK, while "levelling the country up" and achieving its Net Zero target by 2050. The Government's plans to transform the UK's infrastructure networks. It is based around three central objectives: economic recovery (page 11); levelling up and strengthening the Union (page 12); and meeting the UK's net zero emissions target by 2050 (page 13).
- 5.13.2 Page 51 confirms (inter alia) "To deliver net zero, the share of generation from renewables needs to dramatically increase. While the UK leads the world in the deployment of offshore wind, greater generation capacity will need to come from onshore wind and solar as well".
- 5.13.3 Chapter 4 (page 68) recognises that record-breaking levels of investment in UK infrastructure will be required in the coming years to meet the Government's objectives for economic growth and decarbonisation. It goes on to state that the Government remains strongly committed to supporting private investment and maintaining the UK's status as a leading global destination for private investment.
- 5.13.4 Chapter 5 (page 78) of the NIS deals with the need to accelerate and improving delivery. It states (inter alia) "The government wants to deliver infrastructure projects better, greener and faster. That means addressing longstanding challenges such as complex planning processes, slow decision-making, and low productivity in the construction sector"

5.14 NET ZERO REVIEW: INTERIM REPORT (DECEMBER 2020)

- 5.14.1 HM Treasury's interim Net Zero Review (NZR) the first of its kind from a finance ministry was published on 17 December 2020 to inform next steps in the UK's transition to net zero by 2050. The NZR supports the government's work in maximising opportunities and benefits for the UK over the next 30 years as we transition to net zero and help to ensure an equitable balance of contributions between households, businesses and the taxpayer. The interim report contains initial analysis, rather than policy recommendations, which will guide further work ahead of the publication of the Review's final report next year.
- 5.14.2 The NZR (page 24) considers the potential changes in energy process for business and households and states (inter alia) "Costs of wind and solar energy have already seen significant falls, and some forms of renewable electricity generation in the UK, such as onshore wind, are expected to have lower estimated costs per unit than electricity

derived from fossil fuels. Lower long-run energy costs and greater energy efficiency could benefit both businesses and households. One of the priorities of the Energy White Paper is keeping energy bills affordable as the UK decarbonises, especially for the most vulnerable households. Analysis by the National Infrastructure Commission further suggests that household energy bills could be potentially lower or equal to current levels after switching to clean energy"

5.14.3 The NZR (page 56) identifies how solar is a proven technology where market institutions are well established, and the technology is commercially viable.

5.15 INTERNATIONAL LEGISLATIVE CONTEXT

- 5.15.1 This section summarises the following relevant provisions:-
 - 1992 United Nations Framework Convention on Climate Change;
 - 1997 Kyoto Protocol on Climate Change;
 - 2009 Copenhagen Accord;
 - United Nations Climate Change Conference, Durban, 2011; and
 - Warsaw Conference of the Parties 19 (COP19).

5.16 UNITED NATIONS FRAMEWORK CONVENTION ON CLIMATE CHANGE

5.16.1 This convention acknowledged the need to protect the global climate. It was opened for signature at the 'Earth Summit' that met in Rio de Janeiro in June 1992, coming into force in March 1994. Recognising that human-induced changes to the atmosphere are affecting the climate, it set out to ensure that atmospheric concentrations of greenhouse gases are stabilised at a safe level.

5.17 THE KYOTO PROTOCOL

5.17.1 The Kyoto Protocol to the United Nations Framework Convention on Climate Change (United Nations, 1997) was ratified by the UK in 2002. It sets obligatory targets for committed Annex I countries (including the UK) to take measures aimed at reducing greenhouse gas emissions, such as carbon dioxide (CO2), by an average of 5 % against 1990 levels over the five year period 2008 - 2012. Under the Kyoto Protocol, the UK's commitment is for a reduction in greenhouse gas emissions of 12.5 % from 1990 levels by 2012.

5.18 COPENHAGEN ACCORD

- 5.18.1 The Copenhagen Accord, agreed by leaders representing 49 countries, marks a significant step forward, with countries agreeing to limit global temperature increases to no more than 2°C and making substantial commitments to support developing countries to take action. As a party to the Copenhagen Accord, the United Kingdom has agreed a range of proclamations and objectives, including that:
 - climate change is 'one of the greatest challenges of our time', which must be combated 'urgently';
 - the ultimate objective is to stabilise greenhouse gas concentration in the atmosphere 'at a level that would prevent dangerous anthropogenic interference with the climate system';
 - any increase in global temperature should be 'below 2 degrees Celsius';
 - 'deep cuts' in emissions are required;
 - emissions should peak 'as soon as possible'; and

• lower emissions are 'indispensable to sustainable development'.

5.19 UNITED NATIONS CLIMATE CHANGE CONFERENCE, DURBAN, 2011

5.19.1 The Durban conference considered how to cut emissions to limit global temperature rise to below two degrees to avoid dangerous climate change. Over 120 countries formed a coalition behind the EU's proposal of a 'road map' to a global legally binding agreement, to be put in place by 2015, to curb emissions. The talks resulted in a decision to adopt the second commitment period of the Kyoto Protocol. The conference also agreed to establish a green climate fund to assist poorer countries to make the transition to a low carbon economy.

5.20 WARSAW COP19

5.20.1 At the UN Climate Change Conference in Warsaw 2013, governments took further essential decisions to stay on track towards securing a universal climate change agreement in 2015. The objective of the 2015 agreement is twofold: Firstly, to bind nations together into an effective global effort to reduce emissions rapidly enough to chart humanity's longer-term path out of the danger zone of climate change, while building adaptation capacity; Secondly, to stimulate faster and broader action now.

5.21 GLASGOW COP26

- 5.21.1 At the start of November 2021, the UK hosted the 26th UN Climate Change Conference of Parties (COP 26). As COP26 Presidency, the UK is committed to working with all countries and joining forces with civil society, companies and people on the frontline of climate change to inspire action ahead of COP26.
- 5.21.2 The COP26 Glasgow Climate pact achievements can be summarised as: -
 - Mitigation: secured near-global net zero, NDCs from 153 countries and future strengthening of mitigation measures Over 90% of world GDP is now covered by net zero commitments. 153 countries put forward new 2030 emissions targets (NDCs). The Glasgow Climate Pact accelerates the drumbeat and puts in place the underpinning rules and systems. In Glasgow, countries agreed to come back next year with new strengthened commitments, a new UN climate programme on mitigation ambition, and they finalised the Paris Rulebook. To deliver on these stretching targets, the Presidency has driven commitments to move away from coal power, halt and reverse deforestation, reduce methane emissions and speed up the switch to electric vehicles.
 - Adaptation & Loss and Damage: boosted efforts to deal with climate impacts 80 countries are now covered by either Adaptation Communications or National Adaptation Plans to increase preparedness to climate risks, with 45 submitted over the last year. The Glasgow Sharm el-Sheikh Work Programme on the Global Goal on Adaptation was agreed, which will drive adaptation action. Record amounts of adaptation finance have been pledged, including committing to doubling 2019 levels of adaptation finance by 2025. This is the first time an adaptation specific financing goal has ever been agreed globally. Nations have announced new partnerships to improve access to finance, including for Indigenous Peoples. A new Glasgow Dialogue on Loss and Damage funding arrangements was created. The Santiago Network on Loss and Damage was brought to life through clear functions and funding.
 - Finance: mobilised billions and trillions Developed countries have made progress towards delivering the \$100 billion climate finance goal and will reach it by 2023 at the latest. 34 countries and five public finance institutions will stop

international support for the unabated fossil fuel energy sector next year. Private financial institutions and central banks are moving to realign trillions towards global net zero. In Glasgow, countries agreed the way forward for the new post-2025 climate finance goal. Developed countries committed significantly increased funding to vital funds such as the Least Developed Countries Fund.

- Collaboration: worked together to deliver The Glasgow Breakthroughs will
 accelerate collaboration between governments, businesses and civil society to
 deliver on climate goals faster, whilst collaborative councils and dialogues in
 energy, electric vehicles, shipping and commodities will help deliver on
 commitments. At COP26, we finalised the Paris Rulebook agreeing the
 'enhanced transparency framework' (common reporting of emissions and
 support), a new mechanism and standards for international carbon markets,
 and common timeframes for emissions reductions targets.
- 5.21.3 Leading up to COP 26, the UK Government published its Net Zero Strategy which sets out how the UK will secure 440,000 well-paid jobs and unlock £90 billion in investment in 2030 on its path to ending its contribution to climate change by 2050. Building on the Prime Minister's 10 Point Plan, the UK Net Zero Strategy sets out a comprehensive economy-wide plan for how British businesses and consumers will be supported in making the transition to clean energy and green technology lowering the Britain's reliance on fossil fuels by investing in sustainable clean energy in the UK, reducing the risk of high and volatile prices in the future, and strengthening our energy security.
- 5.21.4 The commitments made will unlock up to £90 billion of private investment by 2030, and support 440,000 well-paid jobs in green industries in 2030. As part of the strategy, the new investment includes an extra £350 million to support the electrification of UK vehicles and their supply chains and another £620 million for targeted electric vehicle grants and infrastructure, particularly local on-street residential charge points, with plans to put thousands more zero emission cars and vans onto UK roads through a zero emission vehicle mandate. The COP26 declaration on accelerating the transition to 100% zero emission cars and vans is signed by national governments and vehicle manufacturers requires all parties to work towards a 100% zero emission vehicle sales by 2035 at the latest in leading markets, and by 2040 globally.

5.22 CLIMATE CHANGE COMMITTEE 2021 PROGRESS REPORT TO PARLIAMENT

- 5.22.1 This double report Progress in Reducing Emissions and Progress in Adapting to Climate Change provides a comprehensive overview of the UK Government's progress to date on reducing emissions and adapting to climate change. Together, the assessment offers more than 200 policy recommendations covering every part of Government.
- 5.22.2 In the latest progress report published by the Climate Change Committee, released in June 2021, they have identified that progress towards achieving Net Zero is not yet in step with the urgency of the challenge1.
- 5.22.3 The Climate Change Committee identify that a rapid build-out of renewables (particularly solar) would enable net zero emission from the power sector to be reached by 2035, however, the increase in 2020 of renewable energy projects was at a much slower rate than the last 5 years 2.

¹ Progress in reducing emissions 2021 Report to Parliament, page 16

² Progress in reducing emissions 2021 Report to Parliament, page 20

5.23 NATIONAL PLANNING POLICY FRAMEWORK 2021

- 5.23.1 The 4th edition of the NPPF was published in July 2021 and includes minor clarifications to the revised document that was updated in February 2019.
- 5.23.2 Overall, for the NPPF 4th edition, the over-arching presumption in favour of sustainable development remains. Material to this application is the Government's greater emphasis on the delivery of infrastructure, including energy and how this is integral towards fulfilling the economic arm of achieving sustainable development.
- 5.23.3 The Framework is clear that planning decisions must be made in accordance with Planning Law. Paragraph 2 states that planning law requires that applications for planning permission must be determined in accordance with the Local Plan, unless material considerations indicate otherwise. Paragraph 2 continues that:- "Planning policies and decisions must also reflect relevant international obligations and statutory requirements".
- 5.23.4 Paragraph 8 of the Framework identifies how the planning system has three overarching objectives towards achieving sustainable development. The NPPF stated how these objectives are interdependent and need to be pursued in mutually supportive ways so that opportunities can be taken to secure net gains across each of the different objectives. Paragraph 8(a) 'an economic objective' has been strengthened and the NPPF now makes it clearer how "identifying and coordinating provision of infrastructure" is integral towards fulfilling the economic arm of achieving sustainable development. The three overarching objectives are listed as:-
 - an economic objective to help build a strong, responsive and competitive economy, by ensuring that sufficient land of the right types is available in the right places and at the right time to support growth, innovation and improved productivity; and by identifying and coordinating the provision of infrastructure;
 - a social objective to support strong, vibrant and healthy communities, by ensuring that a sufficient number and range of homes can be provided to meet the needs of present and future generations; and by fostering a well-designed and safe built environment, with accessible services and open spaces that reflect current and future needs and support communities' health, social and cultural well-being; and
 - can environmental objective to contribute to protecting and enhancing our natural, built and historic environment; including making effective use of land, helping to improve biodiversity, using natural resources prudently, minimising waste and pollution, and mitigating and adapting to climate change, including moving to a low carbon economy.
- 5.23.5 Paragraph 10 advises how these overarching objectives should be delivered through the preparation and implementation of plans and the application of policies in the Framework. Paragraph 10 states "So that sustainable development is pursued in a positive way, at the heart of the Framework is a presumption in favour of sustainable development".
- 5.23.6 Paragraph 15 of the Framework sets out how the planning system should be genuinely plan-led. It goes on to state how succinct and up-to-date plans should provide a positive vision for the future of each and provide a framework for assessing the economic, social and environmental priorities. Paragraph 16 sets out how plans should be prepared with the objective of contributing to the achievement of sustainable development. Paragraph 20 identifies how, in line with the presumption on favour of

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sustainable development, plans should make sufficient provision for the provision of infrastructure and energy.

- 5.23.7 The identification and delivery of energy schemes is therefore acknowledged as one of the strategic policies that contributes towards achieving the presumption on favour of sustainable development.
- 5.23.8 Paragraph 81 confirms the Government's commitment to supporting sustainable economic growth and states (inter alia) "Planning policies and decisions should help create the conditions in which businesses can invest, expand and adapt. Significant weight should be placed on the need to support economic growth and productivity, taking into account both local business needs and wider opportunities for development. The approach taken should allow each area to build on its strengths, counter any weaknesses and address the challenges of the future".
- 5.23.9 Paragraph 84, supporting a prosperous rural economy, is also pertinent as the Development Plan identifies the site as being located in open countryside, it states how planning decisions should enable the sustainable growth of all types of businesses in the rural areas.
- 5.23.10 Section 14 of the NPPF relates to meeting the challenge of climate change, flooding and coastal change. Paragraph 155 of the NPPF sets out the planning policy perspective with regards to increasing the use and supply of renewable and low carbon energy. Through the paragraph, Government requires the decision maker to:-
 - provide a positive strategy for energy from these sources, that maximises the
 potential for suitable development, while ensuring that adverse impacts are
 addressed satisfactorily (including cumulative landscape and visual impacts);
 - consider identifying suitable areas for renewable and low carbon energy sources, and supporting infrastructure, where this would help secure their development; and
 - identify opportunities for development to draw its energy supply from decentralised, renewable or low carbon energy supply systems and for colocating potential heat customers and suppliers.
- 5.23.11 Paragraph 158 sets out that in determining renewable energy applications local planning authorities should approve the application if its impacts are (or can be made) acceptable and that applicant should not be required to demonstrate the overall need for renewable projects.
- 5.23.12 Section 15 of the NPPF relates to conservation and enhancement of the natural environment. Paragraph 174 highlights that new development should be prevented from contributing to or being put at unacceptable risk from, or being adversely affected by unacceptable levels of soil, air, water or noise pollution or land instability. It identifies how decisions should provide net gains for biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures.
- 5.23.13 Overall, the Framework confirms that the primary objective of development management is to foster the delivery of sustainable development, not to hinder or prevent it. Local Authorities should approach development management decisions positively looking for solutions rather than problems so that applications can be approved wherever it is practical to do so.

5.24 NATIONAL PLANNING PRACTICE GUIDANCE SUITE

- 5.24.1 On 6 March 2014 the Department for Communities and Local Government (DCLG) launched this planning practice guidance web-based resource. The guidance documents cancelled by its launch included the July 2013 edition of the 'Planning Practice Guidance for Renewable Energy'. The suite provides planning guidance on various planning policy and development management topics. The key topics relevant to this application are:
 - Climate Change; and
 - Renewable and low carbon energy.

Practical Guidance on Climate Change (last updated 27 March 2015)

- 5.24.2 Government's Practical Guidance on Climate Change identifies how addressing climate change is one of the core land use planning principles which the National Planning Policy Framework expects to underpin in both plan-making and decision-taking. Paragraph 3 sets out examples of mitigating climate change by reducing emissions, these include (i) Providing renewable and low carbon energy technologies and (ii) providing opportunities for decentralised energy. The development proposal achieves both.
- 5.24.3 Paragraph 5 of the guidance identifies how impacts of climate change needs to be taken into account in a realistic way. It goes on to state that local planning authorities should consider identifying no or low cost responses to climate change that also deliver other benefits. In this instance the proposals is applicant led; and as such there is no financial costs associated with the delivery of this response to climate change for the local planning authority. Furthermore, as stated elsewhere in this statement, Paragraph 7 recognises that all land uses have their own challenges for reducing carbon emissions and different sectors have different options for mitigation. It states "measures for reducing emissions in agricultural related development include anaerobic digestion, improved slurry and manure storage and improvements to buildings"

Renewable and Low Carbon Energy

- 5.24.4 This guidance reaffirms Government's commitment towards increasing the amount of renewable energy and low carbon technologies within the UK.
- 5.24.5 Paragraph 1 states: "Increasing the amount of energy from renewable and low carbon technologies will help to make sure the UK has a secure energy supply, reduce greenhouse gas emissions to slow down climate change and stimulate investment in new jobs and businesses. Planning has an important role in the delivery of new renewable and low carbon energy infrastructure in locations where the local environmental impact is acceptable".
- 5.24.6 Paragraph 7 of the guidance considers the role of criteria based polices in planning for renewable energy and states: -

Policies based on clear criteria can be useful when they are expressed positively (i.e. that proposals will be accepted where the impact is or can be made acceptable). In thinking about criteria the National Policy Statements published by the Department of Energy and Climate Change provide a useful starting point. These set out the impacts particular technologies can give rise to and how these should be addressed. In shaping local criteria for inclusion in Local Plans and considering planning applications in the meantime, it is important to be clear that: the need for renewable or low carbon energy does not automatically override environmental protections;

cumulative impacts require particular attention, especially the increasing impact that wind turbines and large scale solar farms can have on landscape and local amenity as the number of turbines and solar arrays in an area increases; local topography is an important factor in assessing whether wind turbines and large scale solar farms could have a damaging effect on landscape and recognise that the impact can be as great in predominately flat landscapes as in hilly or mountainous areas; great care should be taken to ensure heritage assets are conserved in a manner appropriate to their significance, including the impact of proposals on views important to their setting; proposals in National Parks and Areas of Outstanding Natural Beauty, and in areas close to them where there could be an adverse impact on the protected area, will need careful consideration; protecting local amenity is an important consideration which should be given proper weight in planning decisions.

5.24.7 Paragraph 13 of the guidance sets out the planning considerations that relate to large scale ground-mounted solar photovoltaic farms. It states:-

The deployment of large-scale solar farms can have a negative impact on the rural environment, particularly in undulating landscapes. However, the visual impact of a well-planned and well-screened solar farm can be properly addressed within the landscape if planned sensitively. Particular factors a local planning authority will need to consider include:

encouraging the effective use of land by focussing large scale solar farms on previously developed and non-agricultural land, provided that it is not of high environmental value;

where a proposal involves greenfield land, whether (i) the proposed use of any agricultural land has been shown to be necessary and poorer quality land has been used in preference to higher quality land; and (ii) the proposal allows for continued agricultural use where applicable and/or encourages biodiversity improvements around arrays. See also a speech by the Minister for Energy and Climate Change, the Rt Hon Gregory Barker MP, to the solar PV industry on 25 April 2013 and Written Ministerial Statement – Solar energy: protecting the local and global environment – made on 25 March 2015;

that solar farms are normally temporary structures and planning conditions can be used to ensure that the installations are removed when no longer in use and the land is restored to its previous use;

the proposal's visual impact, the effect on landscape of glint and glare (see guidance on landscape assessment) and on neighbouring uses and aircraft safety;

the extent to which there may be additional impacts if solar arrays follow the daily movement of the sun;

the need for, and impact of, security measures such as lights and fencing;

great care should be taken to ensure heritage assets are conserved in a manner appropriate to their significance, including the impact of proposals on views important to their setting. As the significance of a heritage asset derives not only from its physical presence, but also from its setting, careful consideration should be given to the impact of large scale solar farms on such assets. Depending on their scale, design and prominence, a large scale solar farm within the setting of a heritage asset may cause substantial harm to the significance of the asset;

the potential to mitigate landscape and visual impacts through, for example, screening with native hedges;

the energy generating potential, which can vary for a number of reasons including, latitude and aspect;

The approach to assessing cumulative landscape and visual impact of large scale solar farms is likely to be the same as assessing the impact of wind turbines. However, in the case of ground-mounted solar panels it should be noted that with effective screening and appropriate land topography the area of a zone of visual influence could be zero.

5.25 DEVELOPMENT PLAN

Uttlesford Local Plan 2005

- 5.25.1 The Local Plan was adopted in January 2005 and represents the latest planning policy expression put forward by Uttlesford District Council. The Local Plan sets out the following key policies pertinent to the development proposal:
 - Policy S7 The Countryside
 - Policy GEN1 Access
 - Policy GEN2 Design
 - Policy GEN3 Flood Protection
 - Policy GEN4 Good Neighbourliness
 - Policy GEN7 Nature Conservation
 - Policy E4 Farm Diversification: Alternative Use of Farmland
 - Policy ENV2 Development Affecting Listed Buildings
 - Policy ENV4 Ancient Monuments and Sites of Archaeological Importance
 - Policy ENV5 Protection of Agricultural Land
 - Policy ENV7 The Protection of the Natural Environment Designated Sites
 - Policy ENV8 Other Landscape Elements of Importance for Nature Conservation
 - Policy ENV11 Noise Generators
 - Policy ENV15 Renewable Energy



Town & Country Planning Act 1990 (as amended) Planning and Compulsory Purchase Act 2004

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