PLANNING STATEMENT

HILFIELD SOLAR FARM AND BATTERY STORAGE FACILITY

LAND NORTH OF BUTTERFLY LANE, LAND SURROUNDING HILFIELD FARM & LAND WEST OF HILFIELD LANE, ALDENHAM

MAY 2021

CONTENTS:

1. INTRODUCTION

1.1 This Planning Statement has been prepared on behalf of Elstree Green Limited ("the Applicant") to accompany a 'Free Go' amended planning application to Hertsmere Borough Council (HBC) for the proposed installation of a solar farm and battery storage facility with associated infrastructure ("the Proposed Development") on land north of Butterfly Lane, land surrounding Hilfield Farm & land west of Hilfield Lane, Aldenham ("the Site"). The application is made following the refusal of a previous planning application (reference: 21/0050/FULEI) by HBC on 19th November 2021 on the same site. This application, with amended proposals reduces the extent of Proposed Development by removing 'Field 1' (land west of Hilfield Lane), to address the reasons for refusal.

1.2 The Proposed Development will provide a reliable source of clean renewable energy which will be supplied to domestic and commercial consumers via the National Grid network. The battery storage facility would be utilised to reinforce the power generation of the solar farm.

1.3 The Proposed Development would supply up to 49.9 MW to the National Grid, providing the equivalent annual electrical needs of up to 15,600 family homes. The anticipated CO_2 displacement is of up to 25,400 tonnes per annum, which represents an emission saving equivalent of a reduction in approximately 8,100 cars on the road every year.

1.4 A significant increase in renewable energy generation is supported by national and local planning policy and relevant material considerations, such as the UK Governments 2050 'net zero' target, which will require a rapid and expanded deployment of low-carbon electricity generation, including solar farms, if climate change is to be tackled within our lifetimes.

1.5 This report sets out the planning policy context relating to the benefits and acceptability in principle of the Proposed Development assessed against the applicable planning framework and details how environmental issues have been addressed and should be read in the context of the entire submission documentation to fully understand the Proposed Development, its potential impacts and planning merits.

The Applicant

1.6 Elstree Green Limited is a joint-venture partnership between Enso Energy and Cero Generation.

1.7 Enso Energy is one of the UK's leading developers of renewable energy projects. Cero Generation is a leading solar energy company, working across Europe to support the transition

to a net-zero future, for this and every generation. Active throughout the project lifecycle, from development through to construction and operations, Cero's highly experienced team collaborates with local partners to bring world-class industrial, commercial and technical expertise to its projects.

1.8 Cero's 8 GW solar development portfolio is one of the largest in Europe, covering both utility-scale and on-site generation projects, as well as integrated energy storage solutions. Dedicated to delivering high-quality, high-performing assets, and providing its corporate and industrial clients with the solutions to accelerate their pathway to a net-zero future, we are Cero Generation. Cero Generation is a Green Investment Group portfolio company, operating on a stand-alone basis.

EIA Screening

1.9 An Environmental Impact Assessment (EIA) Screening Request in accordance with the Town and Country Planning (Environmental Impact Assessment) Regulations 2017 (as amended) for a proposed solar farm and battery storage facility on the Site was submitted by the Applicant to HBC in August 2020. This provided details of the baseline condition, the proposed approach to the assessment and the likely potential effects arising from the Proposed Development.

1.10 A Screening Opinion was received in September 2020 (reference: 20/1183/EI1) confirming an Environmental Statement (ES) would be required under the Town & Country Planning (Environmental Impact Assessment) Regulations 2017.

1.11 The Screening Opinion advised that aviation safety and glint and glare impacts would be required to be addressed within the ES. Accordingly, an Environmental Impact Assessment (EIA) Scoping Opinion was not submitted. This single topic is considered in the accompanying ES and supporting environmental assessments. The Screening Opinion is attached to the ES as Appendix 1.1.

Application History

1.12 As noted in para 1.1, a previous application (reference: 21/0050/FULEI) was made to HBC by Elstree Green Limited at the same site for the same form of development in January 2021. The description of development was:

> "Installation of renewable led energy generating station comprising ground-mounted photovoltaic solar arrays and battery-based electricity storage containers together with substation, inverter / transformer stations, site accesses, internal access tracks,

security measures, access gates, other ancillary infrastructure, landscaping and biodiversity enhancements"

1.13 Following consultation, scheme amendments and consideration of the application by Officers, the Councils Planning Committee refused the planning application at a meeting held on 14th October 2021. The decision was against the Officers recommendation that planning permission should be granted, subject to completion of a Section 106 Agreement and the imposition of 24 planning conditions.

1.14 The decision notice sets out two reasons for refusal, which state:

Reason 1: Inappropriate development in the Green Belt

"The proposal would be an inappropriate development that would be harmful to the openness of the Green Belt in which it would be located. The Council considers that the benefits that the scheme would bring are not such as would amount to very special circumstances sufficient to outweigh the harm to the Green Belt, even when the wider environmental benefits associated with the increased production of energy from renewable sources have been taken into consideration (pursuant to paragraph 151 of the National Planning Policy Framework 2021). As such, the proposal would be contrary to paragraphs 147 and 148 of the National Planning Policy Framework and contrary to Policy SADM26 (Development Standards in the Green Belt) of the Hertsmere Local Plan (Site Allocations and Development Management Policies Plan) 2016."

Reason 2: Harm to the significance of designated heritage assets

"The proposal would cause less than substantial harm to the significance of the following neighbouring designated heritage assets by reason of its impact on their settings: Slades Farmhouse (listed building, Grade II, entry 1103614), Hilfield Castle (listed building, Grade II star, entry 1103569), Hilfield Castle Lodge (listed building, Grade II, entry 1103570), Aldenham House Registered Park and Garden (Grade II, entry 1000902) and Penne's Place (Scheduled Monument entry 1013001). The public benefits of the development would not be sufficient to outweigh the less than substantial harm that would be caused to the significance of those designated heritage assets, and therefore the proposal is considered unacceptable, pursuant to Policy CS14 (Protection or Enhancement of Heritage Assets) of the Hertsmere Local

Plan (Core Strategy) 2013 and pursuant to paragraph 202 of the National Planning Policy Framework 2021."

1.15 The Decision Notice is included as Appendix 3.1 to the ES. The original application is subject to an appeal (reference: APP/N1920/W/22/3295268).

1.16 This application, with amended proposals reducing the extent of the proposed development by removing 'Field 1' (land west of Hilfield Lane), to address the reasons for refusal in lessening further the less than substantial harm identified to heritage assets and demonstrating the Very Special Circumstances (VSC) necessary given the Green Belt location.

1.17 This application qualifies as a 'Free Go' application within the terms of the Town and Country Planning (Fees for Applications, Deemed Applications, Requests and Site Visits) (England) Regulations 2012 (as amended) being made on behalf of the same applicant, on the same site and within 12 months of the refusal date (19th November 2021). The development is of the same character and description as the previous development with a description of development:

> "Installation of renewable led energy generating station comprising ground-mounted photovoltaic solar arrays and battery-based electricity storage containers together with substation, inverter/transformer stations, site accesses, internal access tracks, security measures, access gates, other ancillary infrastructure, landscaping and biodiversity enhancements. (Amended 'Free Go' resubmission)."

2. SITE AND SURROUNDINGS

Existing Site

2.1 Hilfield Solar Farm is located on land north of Butterfly Lane, land surrounding Hilfield Farm & land west of Hilfield Lane, Aldenham (the original site address used in preparing the previous application was land to the north east and west of Elstree Aerodrome, Hertfordshire). The Site is unchanged and the same as the previous refused application. Field 1 will no longer be developed.

2.2 The Site comprises two parcels of land, totalling approximately 130 ha and will be connected via an underground cable route to the point of connection at Elstree Substation where the renewable energy generated will be exported to the electricity grid. The connection between the two parcels forms approximately 2 ha. This corridor will revert back to agricultural use following the installation of the underground cable connection.

2.3 The westerns parcels are numbered 1 to 5 and eastern parcels 7 to 20 (no field 6). See Figure 1.

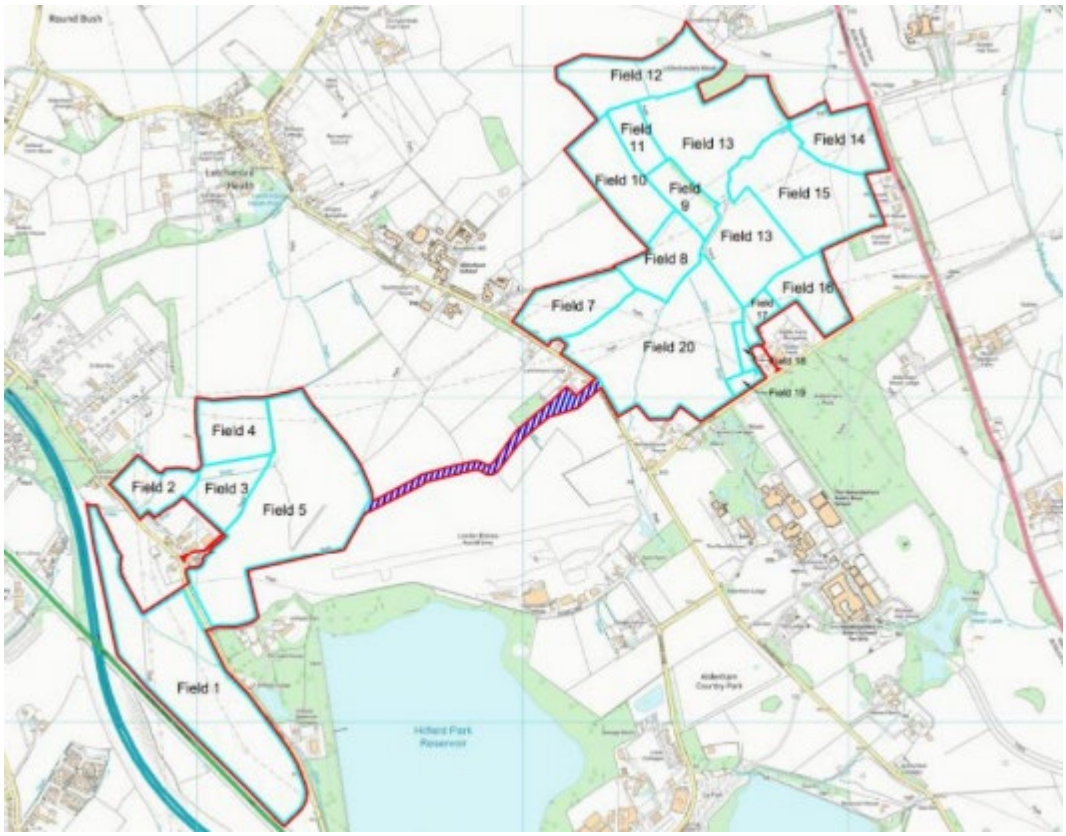

Figure 1.

2.4 The Site is semi-rural in character with some localised intrusion of man-made features.

2.5 The Site is currently accessed via an existing access from Hilfield Lane to the west for Field 2 to 5 and the substation/battery energy storage compound (through Hilfield Farm) and from Butterfly Lane to the east (through Slades Farm) for Field 7 to 20.

2.6 Several Public Rights of Way (PRoW) cross the site and on land nearby.

2.7 The Site is located within Green Belt.

2.8 Part of the Site has been subject to 'historical landfilling activity' which is recorded in the southwestern and western areas of the eastern Site parcel (Fields 17, 18, 19 and 20). It is likely that landfilling activity took place pre-1974 with a Ground Investigation Assessment (GIA) accompanying the application.

Surrounding Area

2.9 The Site is located approximately 3 km east of Watford and approximately 2 km west of Borehamwood and sits within an agricultural landscape with a semi-suburban setting, surrounded by energy and transport infrastructure, including the adjacent Elstree Aerodrome and major transport corridors of the M1 and A41. The Hilfield Reservoir lies approximately 250 m south east of Field 5 (western parcel)/100 m south of Field 1 (development now removed) and Aldenham Reservoir lies approximately 1 km to the south of Field 20 (eastern parcel). The Midland Main Line railway is located to the east, approximately 660 m from the Proposed Development at its closest point. The 400kV Elstree Substation is located approximately 100 m to the northwest of the western parcel (Fields 2 and 4).

Planning History

2.10 The following development control applications are most relevant to the Site and application:

- Reference: 21/0050/FULEI. "Installation of renewable led energy generating station comprising ground-mounted photovoltaic solar arrays and battery-based electricity storage containers together with substation, inverter / transformer stations, site accesses, internal access tracks, security measures, access gates, other ancillary infrastructure, landscaping and biodiversity enhancements". This relates to the previous refused application made by Elstree Green Limited.

- Reference: 20/1183/EI1. "Proposed solar farm and battery storage facility". Screening Opinion in September 2020 for the proposed development. This relates to this application.

Designations

2.11 The Site is not covered by any statutory or non-statutory designations or assets that relate to biodiversity, landscape and cultural heritage.

2.12 There are no designated landscapes, such as Areas of Outstanding Natural Beauty, within the study area that would be potentially affected by the Proposed Development. There are approximately 40 heritage assets located within 1km of the site, the closest, including those which were listed in the previous reason for refusal:

- Slades Farmhouse (Grade II, list entry no: 1103614);
- Hilfield Castle (Grade II*, list entry no: 1103569);
- Hilfield Castle Lodge (Grade II, list entry no: 1103570);
- Aldenham House Registered Park and Garden (Grade II, list entry no: 1000902); and
- Penne's Place Moated Site (Scheduled Monument, list entry no: 1013001).

3. PROPOSED DEVELOPMENT

3.1 The proposal is for the construction, operation, maintenance and decommissioning of a ground mounted solar farm which will generate electricity for distribution to the national grid. Provision is also made for a battery storage facility which would be utilised to reinforce the power generation of the solar farm. All associated plant and equipment, together with associated development (such as CCTV and fencing) is included within the proposals. The proposal would operate for a temporary time period of up to 35 years.

3.2 The description of development for the application is:

> "Installation of renewable led energy generating station comprising ground-mounted photovoltaic solar arrays and battery-based electricity storage containers together with substation, inverter/transformer stations, site accesses, internal access tracks, security measures, access gates, other ancillary infrastructure, landscaping and biodiversity enhancements. (Amended 'Free Go' resubmission)."

3.3 The main components of the proposal comprise:

- Solar photovoltaic panels, ground mounted to a piled frame made of galvanized steel or aluminium. The posts would be pile-driven (like a fence post) into the ground to a suitable depth based on site ground conditions to secure the framework without the need for concrete foundations. The Solar photovoltaic panels are of bifacial design which improves the efficiency. The framework is designed to hold panels secure in high winds and will be designed according to the relevant codes and standards. The solar panels are of a 'fixed' design. This means that the supporting metal framework is installed at 15^{o} to 30^{o} from horizontal having a maximum height of 3 m above existing ground levels in long linear rows running from east-west. The panels face south. The installed angle (^{o}) is dependent on the existing ground topography and spacing between solar rows;

- No. 14 Inverter, transformer and switchgear stations are distributed evenly across the solar arrays housed within green metal containers. The containers measure 12.2 m (L) x 2.4 m (W) x 2.9 m (H). The inverter, transformer and switchgear stations are essential pieces of infrastructure required to convert the electricity generated by the solar array from direct current (DC) to alternating current (AC), increase the electricity voltage thereby minimising losses and ensure the on site electrical system operates safely;

- The battery storage facility comprises a series of linked batteries housed in No. 20 shipping containers (or similar structures in appearance). Adjacent to the batteries, also enclosed within containers, are transformers, cooling systems and other electrical plant and equipment required. These will typically also be housed within (or externally on) containers. The containers measure 12.2 m (L) x 2.4 m (W) x 2.9 m (H) and are placed within a compound. The compound forms crushed aggregate to the same specification of the access roads and substation compound. Safety systems, including automatic shut off and temperature monitoring of battery units are built into the battery storage facility which are designed to the same electrical safety standards as the solar farm and other high voltage electrical equipment;

- Adjacent to the battery storage facility are a series of buildings and electrical infrastructure, forming the substation, control room, auxiliary transformer and storage containers, within a fenced crushed aggregate compound. The buildings and electrical infrastructure comprise the plant and equipment necessary to export the electricity generated (or stored) onsite to the electricity network. The substation building measures 11.7 m (L) x 4 m (W) x 3.9 m (H). The control room measures 6 m (L) x 4 m (W) x 4 m (H) and has a single 5.7 m high weather station and communications satellite dish. The storage containers measure 12.2 m (L) x 2.4 m (W) x 2.9 m (H). The auxiliary transformer is enclosed in 3.2 m high fencing, has a footprint of 4.1 m (L) x 4.1 m (W);

- Underground cabling to connect the panels, inverters/transformer stations and battery storage facility to the proposed on-site substation and control room are included within the proposals;

- Underground cabling to link the proposed substation to the existing Elstree National Grid Substation form part of the application;

- Security deer type fencing with gates at necessary locations, up to 2.1 m in height, enclose the perimeter of the Site;

- Security and monitoring CCTV/infra-red cameras mounted on up to 2.4 m high posts along the internal perimeter of the Site;

- Combiner boxes are placed at the end of solar array rows;

- Weather station poles, approximately 3 m in height, are located around the site perimeter, typically including at least one in each parcel of land;

- Site access from the public highway off Hilfield Lane via the existing access which serves Hilfield Farm (fields 2 to 5) and Butterfly Lane through the existing access which serves Slades Farm (fields 7 to 20), together with the required access improvement works and visibility splays, are included within the site and proposals;

- Compacted internal crushed aggregate tracks to allow vehicular access between fields are to be laid having a width between 3.5 m and 6 m. These connect the associated plant and equipment onsite; and

- Landscape planting, biodiversity enhancements and surface water attenuation measures are included in the scheme having been designed as part of the evolving proposals.

3.4 Individual elevations and component parts of the proposals described above are shown on the supporting drawings to the application and are includes as part of the ES Technical Appendix.

3.5 The connection to the grid will be made at the National Grid Elstree Substation, located north west of the western parcel of the site. The cable would run below ground from the boundary of the Site directly to National Grid owned land at the substation.

3.6 While the Site extends to 130 ha only a small portion of this land will be "developed" by the proposals. Grassland habitats will be established and/or remain and improved underneath and between the solar panel rows. Development would cover approximately 67 ha (51.2 %) of the Site area, including grassland under panels. Both beneath and between the rows of PV solar panels remains vegetation, existing and further improved through the implementation of a Landscape Ecological Management Plan (LEMP). Land west of Hilfield Lane (field 1) will remain in an agricultural use. The establishment and careful management of the land between and around the solar arrays will lead to significant biodiversity and ecology improvements of 66.75 % habitat gain and 21.06 % hedgerow gain. A Biodiversity Net Gain calculator accompanies the application.

4. COMMUNITY ENGAGEMENT

4.1 The Applicant has been committed to early engagement with the local community and other parties as it recognises that good quality, pro-active pre-application discussions should lead to better informed planning applications and improved outcomes for all involved. A full and detailed account of the consultation process and engagement with the local community is provided in the Statement of Community Involvement.

4.2 Additionally, consultation was undertaken by HBC as part of the previous application. The Officers Report to committee notes the application received 111 comments of support, 1,967 comments against and 16 neutral comments. Statutory consultees and others also commented on the application.

4.3 Consideration has been had to all previous comments made in the preparation of this 'Free Go' application.

5. RENEWABLE ENERGY AND CLIMATE CHANGE

International Context

The Paris Agreement (2016)

5.1 The UK commitment to the reduction of greenhouse gas emissions through the ratification of the United Nations Framework Convention on Climate Change (UNFCCC) Paris Agreement in November 2016. The Paris Agreement committed its signatories to *"hold the increase in the global average temperature to well below 2°C above pre-industrial levels and pursuing efforts to limit the temperature increase to 1.5°C above pre-industrial levels''*. The agreement, that was adopted by nearly every nation, also made it clear that the global economy will need to be zero-carbon by the second half of the 21st Century.

5.2 Six years after the commitments made in the Paris Agreement several research studies have suggested that at current rates of action by Governments around the world the average global temperatures are still likely to increase above 2°C. Further action is rapidly required to reduce global temperature rises.

Intergovernmental Panel on Climate Change Sixth Assessment Report: Climate Change (2022)

5.3 The Intergovernmental Panel on Climate Change (IPCC) is working on the Sixth Assessment Report which consists of three Working Group contributions and a Synthesis Report. The Working Group 1 contribution was finalised in August 2021; the Working Group 2 contribution in February 2022; and the Working Group 3 contribution in May 2022. These reports asses the physical science basis of Climate Change; the Impacts, Adaptation and Vulnerability; and the Mitigation of Climate Change. Taken together, the multiple lines of scientific evidence confirm that the climate is changing due to human influence. The reports make, *inter alia*, the following points:

- Global Green House Gas emissions are projected to peak between 2020 and at the latest before 2025 in global modelled pathways that limit warming to 1.5°C with no or limited overshoot and in those that limit warming to 2°C and assume immediate action… Without a strengthening of policies beyond those that are implemented at the end of 2020, Green House Gas emissions are projected to rise beyond 2025, leading to a median global warming of 3.2°C [2.2 to 3.5°C] by 2100.

- The global energy system is the largest source of CO_2 emissions. Warming cannot be limited to well below 2°C without **rapid and deep reductions in energy system CO_2**

and Green House Gas emissions (our emphasis). Multiple energy supply options are available to reduce emissions over the next decade

- Human-induced climate change is already affecting many weather and climate extremes in every region across the globe; the increased frequency and intensity of hot extremes, marine heatwaves, heavy precipitation, agricultural and ecological droughts in some regions, and proportion of intense tropical cyclones, as well as reductions in Arctic sea ice, snow cover and permafrost.

- Global surface temperature will continue to increase until at least the mid-century under all emissions scenarios considered. Global warming of 1.5°C and 2°C will be exceeded during the 21st century **unless deep reductions in CO_2 and other greenhouse gas emissions occur in the coming decades**. (our emphasis)

- Stringent emissions reductions at the level required for 1.5°C and 2°C are achieved through the 'increased electrification of buildings, transport, and industry, consequently **all pathways entail increased electricity generation**'. (our emphasis)

- All global modelled pathways that limit warming to 1.5°C with no or limited overshoot, and those that limit warming to 2°C involve **rapid and deep and in most cases immediate GHG emission reductions in all sectors**. Modelled mitigation strategies to achieve these reductions include, *inter alia*, '*transitioning from fossil fuels… to very low or zero-carbon energy sources, such as renewables*'. (our emphasis)

- It is unequivocal that human influence has warmed the atmosphere, ocean and land. The scale of recent changes across the climate system as a whole and the present state of many aspects of the climate system are unprecedented over many centuries to many thousands of years.

- A low-carbon energy transition will shift investment patterns and create new economic opportunities. Some mitigation options can provide more immediate and cost-effective emissions reductions than others, but a **comprehensive approach** will be required **over the next ten years to limit warming to well below 2°C**. (our emphasis).

5.4 From a physical science perspective, the IPCC outline limiting human-induced global warming to a specific level requires limiting cumulative CO_2 emissions, **reaching at least net zero CO_2**

emissions, along with strong reductions in other greenhouse gas emissions. Strong, rapid and sustained reductions in nitrogen emissions would also limit the warming effect.

5.5 With a high level of confidence, the IPPC conclude the 'Emissions pathways that reach and sustain net zero Greenhouse Gas emissions defined by the 100-year global warming potential are projected to result in a decline in surface temperature after an earlier peak'. Achieving net zero emissions is therefore essential to limiting future Climate Change.

National Context

5.6 The objectives of the UK renewable energy policies are in accordance with the overall international policy objectives. These are focused on a number of key climate change challenges, which include:

- The reduction of CO_2 emissions to tackle climate change;
- The promotion of competitive energy markets in the UK;
- Affordability to customers; and
- Security of decentralised energy supplies.

5.7 This support is rooted in the Government's policy of growing the economy in a decarbonising way and achieving its legally binding target of net-zero greenhouse gas emissions by 2050 [1] following a national climate emergency being declared by UK Parliament in May 2019 building upon the previous target to reduce greenhouse gas emissions by at least 80 % relative to 1990 levels by 2050. To achieve this ambitious target many commentators note it will require a step change in the way in which the UK generates electricity and in many other ways of life (including food production, travel and business).

5.8 To help achieve this net-zero target the Government is rapidly seeking to transition from a traditionally fossil fuel dependent economy to increasing amounts of secure, resilient renewable and low carbon energy, including solar power. The fact that solar technology has advanced to the point where it no longer requires public subsidy to make it commercially viable lends it further support from Government compared to other innovative means of renewable energy generation which are still reliant on subsidy.

[1] Climate Change Act 2008 (2050 Target Amendment) Order 2019

5.9 Recent announcements by the Prime Minster and Government Ministers in 'The Ten Point Plan for a Green Industrial Revolution' (November 2020), the 'National Infrastructure Strategy' (November 2020), Energy White Paper (December 2020), Net Zero Strategy (October 2021), hosting of the international climate summit, COP26 in Glasgow (November 2021), and proposed changes in law to reduce carbon emissions by 78 % by 2035 (bringing forward our current target by 15 years) and ambition to fully decarbonising our power system by 2035 is expected to further reinforce the requirement for change.

5.10 The following reports provide further context of the Governments direction to achieve its climate targets and following from the advice provided in the Energy Security Strategy (2012) and UK Solar PV Strategy (2014) which emphasised the need to increase the deployment of renewable energy across the UK, including solar PV. While not planning policy, these are material considerations to this planning application.

Clean Growth Strategy (2017)

5.11 The Government's Clean Growth Strategy sets out how it envisages the delivery of the clean, green economic growth needed to combat global warming. It identifies the policies necessary to drive a significant acceleration in the pace of the UK's decarbonisation to achieve the 2032 carbon budget targets that in turn will keep us on track to achieve the net zero target by 2050. The Strategy recognises the potential offered by solar to grow low carbon sources of energy and the Government confirms it wants to see more investment in this sector without public subsidy.

UK 25 Year Environment Plan (2018)

5.12 The sister document to the Clean Growth Strategy is the Government's UK 25 Year Environment Plan. This sets out the goals for improving the environment within a generation and the actions Government will take over the next 25 years to achieve them. It supports the shift away from coal towards cleaner forms of energy as a way of reducing air pollution; confirms that the environmental protection already enshrined in national policy will be maintained and strengthened; and, importantly, indicates the existing requirement to provide biodiversity net gains is likely to be expanded to providing a wider environmental net gain which will be consulted upon as a mandatory requirement. These mandatory net gains are included within the Environment Act.

National Infrastructure Assessment (2018)

5.13 The National Infrastructure Assessment is highly supportive of building low cost, low carbon energy sources. The Assessment prepared by the independent National Infrastructure Commission (NIC), was the first of its kind in the UK and recommended an increasing deployment of renewables such that by 2030 half of the UK's power should be provided by renewables. This is now just 9 years away with the generation by renewables being approximately 43 % in 2020 according to DUKES [2]. Further renewable generation is urgently required if the NIC 2030 recommendation is to be achieved.

5.14 In its Interim Response (October 2018) to the Assessment the Government confirmed its ongoing commitment to promoting renewables. It recognised that the private sector has an important role to play in the delivery of renewable energy schemes.

Net Zero – The UK's contribution to stopping global warming advice report (2019)

5.15 The UK's declared National Climate Emergency in May 2019 was informed by the publication of this report, prepared by the Committee on Climate Change, an independent advisor to Government on these matters. It recommended the new emissions target for the UK of net-zero greenhouse gases by 2050 (100 % compared to 80 % of 1990 levels). The accompanying Net Zero Technical Report suggested the potential for 29-96 of GW of onshore wind, 145-615 GW of solar power and 95-245 GW of offshore wind in the UK. A number of findings were made in these report that are relevant to the Proposed Development:

- Scenarios for 2030 and 2050 see variable renewables providing 50-75 % of overall electrical energy production;
- Improvements in system flexibility can come from increased deployment of battery storage;
- Significant new renewable generation capacity is needed to accommodate rapid uptake of electric vehicles and hybrid heat pumps. Over the period to 2035, up to 35 GW onshore wind, 45 GW offshore wind and 54 GW solar PV could be needed; and
- The UK's onshore wind, offshore wind and solar PV resource are likely to be more than adequate to deliver an expanded and decarbonised electricity system to 2050.

[2] Digest of UK Energy Statistics (DUKES), published on 29th July 2021, by the Department for Business, Energy and Industrial Strategy (BEIS).

5.16 These scenarios show the requirement for a significant increase in renewable generation, including solar, if the net-zero target is to be achieved. The Committee on Climate Change report sets out that low-carbon electricity must quadruple by 2050. While battery storage, of energy generated by renewables, will be vital to provide flexibility on the transmission and distribution networks as the demands on the electricity grid change in the next three decades.

Leading on Clean Growth (2019)

5.17 The Government Response, 'Leading on Clean Growth' (October 2019), reported on key achievements in the UK power sector including a record 33 % of electricity generation from renewables in 2018, a rise of low carbon generation to some 52 %, and 18 consecutive days of coal-free generation (during May 2019). It also recognises ongoing reform of the energy system to deliver greater system flexibility in order to integrate significant quantities of low carbon generation.

Reducing UK emissions - 2020 Progress Report to Parliament (June 2020)

5.18 The Committee for Climate Change published a report to Parliament assessing progress in reducing UK emissions over the past year (2019-2020). The report included new advice to the UK Government on securing a green and resilient recovery following the COVID-19 pandemic, including the need to seize the opportunity to turn the crisis into a defining moment in the fight against climate change. Although a limited number of steps have been taken over the past year to support the transition to a net-zero economy and improve the UK's resilience to the impacts of climate change, the Committee identified that much remains to be done.

5.19 One of the Committee's recommendations to the Department for Business, Energy & Industrial Strategy is to deliver plans to decarbonise the power system to reach an emissions intensity of 50 gCO_2/kWh by 2030, with at least 40 GW of offshore wind and a role for onshore wind and largescale solar power, with a clear timetable of regular auctions. The report states that reaching net-zero emissions will require all energy to be delivered to consumers in zero-carbon forms (i.e. electricity, hydrogen, hot water in heat networks) and come from low carbon sources including renewables such as solar.

5.20 The path to achieving net-zero emissions by 2050 will necessarily entail a steeper reduction in emissions over the intervening three decades and, to reach the UK's new net zero target, emissions will need to fall on average by around 14 $MtCO_2e$ every year, equivalent to 3 % of

emissions in 2019. The regular reporting by the Committee for Climate Change highlights the steps which must be taken if we are to achieve the level of emmissions reductions required.

National Infrastructure Strategy (November 2020)

5.21 This Strategy sets out the Government's plans to deliver on the net zero ambition and to transform the UKs infrastructure. It is the first of its kind: rooted in the expert advice of the National Infrastructure Commission (NIC) and responding to its ground-breaking 2018 assessment of the country's infrastructure needs.

5.22 This Strategy sets out how the Government will address these issues and do things differently: how it will build back "fairer, faster and greener". It describes how the Government will put the UK on the path to meeting its net zero emissions target by 2050 and that *"bold action is needed to transform the UK's infrastructure to meet net zero and climate change commitments. The government will continue to decarbonise the UK's power, heat and transport networks – which together account for over two-thirds of UK emissions - and take steps to adapt to the risks posed by climate change*".

5.23 The report goes onto state that 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.

The Sixth Carbon Budget (December 2020)

5.24 This report provides the Climate Change Committee's recommendations for the UK's Sixth Carbon Budget which will run from 2033 to 2037 and describes the path to net zero.

5.25 The 'Balanced Net Zero Pathway' is the basis of the advice on the Sixth Carbon Budget and was built on multiple lines of evidence, taking into account what is feasible over time and what is necessary to get on track to net zero by 2050.

5.26 The recommended pathway requires a 78 % reduction in UK territorial emissions between 1990 and 2035. In effect, it brings forward the UK's previous 80 % target by nearly 15 years. The pathway meets the Paris Agreement stipulation of 'highest possible ambition'. It is challenging but also hugely advantageous, creating new industrial opportunities and ensuring wider gains for the nation's health and for nature. The scale of ambition is clear, but requires immediate action if the ambition is to be achieved.

5.27 The report is clear that the utmost focus is required from Government over the next ten years (up to 2030). If policy is not scaled up across every sector; if business is not encouraged to invest; if the people of the UK are not engaged in this challenge - the UK will **not** deliver net zero by 2050. The 2020s must be the decisive decade of progress and action (our emphasis).

5.28 The report demonstrates that the Balanced Net Zero Pathway very largely decarbonises electricity generation by 2030, and decarbonises it completely by 2035, with action thereafter focused on meeting rising energy demand with low-carbon generation. The key features of the scenario are an increasing demand for electricity, decreasing carbon intensity of generation, and a more flexible system, which includes:

- Increasing variable renewables to 80 % of generation by 2050. Under the Balanced Pathway variable renewables reach 60 % of generation by 2030, 70 % by 2035, and 80 % by 2050. This generation allows new electricity demands, arising from changing behaviours (such as the uptake of electric cars), to be met with minimal emissions and at low cost.
    - Wind, particularly offshore, is the backbone of the system, providing 265 TWh of generation in 2035 and 430 TWh in 2050. That requires deploying 3 GW per year of new wind capacity, plus repowering of older sites as they reach the end of their (25-30 year) operating lives.
    - Solar generation increases from 10 TWh in 2019 to 60 TWh in 2035 and 85 TWh in 2050. On average, **3 GW per year** will need to be installed to reach this level of solar generation (our emphasis).
    - Achieving an average 3 GW increase in solar generation every year up to 2050 is a significant challenge and one which will require planning permission to be granted for many more solar farms within the next fews years in order to make progress to achieving the 2035 target included in the Climate Change Committee's Balanced Pathway model.

Energy White Paper (December 2020)

5.29 This white paper puts net zero and the UK Governments effort to fight climate change at its core, following the Prime Minister's Ten Point Plan for a Green Industrial Revolution.

5.30 The report states that renewables now account for over one third of electricity generation, up from seven per cent in 2010. Yet, this green revolution has been delivered without disruption to the reliability of our electricity supply and the scale of deployment has contributed to a significant reduction in the cost of renewables. Increasingly, green power is the cheapest power.

5.31 Building on this foundation, with the exception of Sizewell B and Hinkley Point C, all of the existing nuclear power plants are due to have ceased generating by the end of 2030. The UK has already committed to ending coal in the electricity mix no later than 2025.

5.32 While retiring capacity will need to be replaced to keep pace with existing levels of demand, modelling suggests that overall demand could double to 2050. This is because of the electrification of cars and vans and the increased use of clean electricity replacing gas for heating. As a result, electricity could provide more than half of final energy demand in 2050, up from 17 % in 2019. This increase in demand must be matched in increased supply, produced by renewable sources, if net zero is to be achieved.

5.33 Whilst the report does not target a particular generation mix for 2050, the report goes on to state that a low-cost, net zero consistent system is likely to be composed predominantly of 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. Such technologies include the storage and flexibility provided by batteries. This proposal is consistent with the vision set out in the Energy White paper.

Independent Assessment of UK Climate Risk (June 2021)

5.34 The Adaptation Committee's Independent Assessment of UK Climate Risk sets out the priority climate change risks and opportunities for the UK. The report draws on an extensive programme of analysis, consultation and consideration by the Committee involving over 450 people, 130 organisations and more than 1,500 pages of evidence and analysis.

5.35 This is the third independent assessment of the UK's climate risks under the Climate Change Act, coordinated by the Climate Change Committee. The advice draws on extensive new evidence gathered for the accompanying Climate Change Risk Assessment (CCRA3) Technical Report. Sixty-one risks and opportunities have been identified, fundamental to every aspect of life in the UK: our natural environment, our health, our homes, the infrastructure on which

we rely, the economy. Alarmingly, this new evidence shows that the gap between the level of risk we face and the level of adaptation underway has widened. Adaptation action has failed to keep pace with the worsening reality of climate risk. The UK has the capacity and the resources to respond effectively to these risks, yet it has not done so. Acting now will be cheaper than waiting to deal with the consequences. Government must lead that action.

2021 Progress Report to Parliament (June 2021)

5.36 The Committee for Climate Change have published a double report '*Progress in reducing emissions'* and '*Progress in adapting to climate change'* providing 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.

5.37 Progress in reducing emissions states that Government will need to address potential barriers to deploying and using low-carbon generation at scale (e.g. the planning and consenting regime for renewables and networks).

5.38 Progress in adapting to climate change report also makes it clear that there will be significant implications for energy infrastructure resilience and water abstraction as a result of the transition to a Net Zero economy. The UK will become heavily dependent on electricity as our dominant energy source as we reduce our greenhouse gas emissions to Net Zero. While electricity provides about 15-20 % of our energy today, by 2050 it could account for 55-65 %, used for light, heat, communications, transport, industry and delivery of other critical services such as water. This is alongside a potential increased reliance on renewables for electricity generation to 80 % by 2050 [3]. This will necessitate the development of new energy infrastructure, energy supplies will need to become increasingly resilient to climate change and interdependencies will need to be better understood and managed.

5.39 The joint recommendation report highlights the following '2022 Priority Recommendation' in relation to renewable energy deployment:

"Address potential barriers to deploying and using low-carbon generation at scale (e.g. the planning and consenting regime for renewables and networks, exposure to climate risks)".

Net Zero Strategy: Build Back Greener (October 2021)

[3] Under the CCC's Balanced Pathway to Net Zero from the Sixth Carbon Budget Report.

5.40 The UK's new Net Zero Strategy sets out, for the first time, how the UK Government plans to deliver its emissions targets of Net Zero in 2050 and a 78 % reduction from 1990 to 2035 (- 63 % relative to 2019). It puts forward an achievable and affordable vision that will bring net benefits to the UK.

5.41 Whilst there are a range of ways in which net zero could be achieved in the UK, the Strategy sets out a delivery pathway showing indicative emissions reductions across sectors to meet targets up to the sixth carbon budget (2033-2037).

5.42 The policies and proposals for power in the Net Zero Strategy state that:

"The net zero economy **will be underpinned by cheap clean electricity, made in Britain**. A clean, reliable power system is the foundation of a productive net zero economy as we electrify other sectors – **so we will fully decarbonise our power system by 2035**, subject to security of supply. Our power system will consist of abundant, **cheap British renewables**, cutting edge new nuclear power stations, and be underpinned by flexibility **including storage**, gas with CCS, hydrogen and ensure reliable power is always there at the flick of a switch. The transformation of the power sector will bring high skill, high wage job opportunities right across the UK" (our emphasis).

5.43 The key policies include "40GW of offshore wind by 2030, with more onshore, solar, and other renewables" and "Deployment of new flexibility measures including storage to help smooth out future price spikes".

5.44 Although the Energy White Paper published December 2020 envisaged achieving an overwhelmingly decarbonised power system during the 2030s, the Government have since increased their ambition further. *"By 2035, all our electricity will need to come from low carbon sources, subject to security of supply, bringing forward the government's commitment to a fully decarbonised power system by 15 years, whilst meeting a 40-60 % increase in demand. However, the Energy White Paper's fundamental approach remains unchanged. A low-cost, net zero consistent electricity system* ***is most likely to be composed predominantly of wind and solar generation, whether in 2035 or 2050"*** (our emphasis).

5.45 The Strategy acknowledges that to achieve such targets will require a sustained increase to the deployment of land-based renewables such as solar in the 2020s and beyond.

5.46 The Committee for Climate Change (CCC) have published their response to the Net Zero Strategy, in this assessment they independently appraise the Government's ambitions, its proposed policies to deliver these (both across the economy and in the major emitting sectors), areas that will require further detail and clarification, and the next steps required to proceed to implementation.

5.47 The CCC's overall assessment is that it is an ambitious and comprehensive strategy that marks a significant step forward for UK climate policy, setting a globally leading benchmark for COP26. Further steps will however need to follow quickly to implement the policies and proposals mapped out in the Net Zero Strategy if it is to be a success, which include a Net Zero Test "*to ensure that* ***all policy and planning decisions are consistent with the path to Net Zero***" (our emphasis).

Environment Act 2021 (November 2021)

5.48 Almost two years after the Environment Bill had its first reading, it has been passed into law becoming the Environment Act 2021.

5.49 The Act implements Government's ambitions for 'improving the natural environment', which were previously set out in publications including the 25 Year Environment Plan (2018), with the UK becoming the first country to set a legal target to halt species decline by 2030.

5.50 Through the Act, the Government will clean up the country's air, restore natural habitats, increase biodiversity, reduce waste and make better use of our resources. This includes the delivery of biodiversity net gain to ensure developments deliver at least 10 % increase in biodiversity.

UK Climate Change Risk Assessment 2022 (January 2022)

5.51 As required by the Climate Change Act 2008, the UK government has undertaken the third five-year assessment of the risks of climate change on the UK. This is based on the Independent Assessment of UK Climate Risk, the statutory advice provided by the CCC, commissioned by the UK government and devolved administrations.

5.52 The report is clear that "climate change is happening now. It is one of the biggest challenges of our generation and has already begun to cause irreversible damage to our planet and way of life. We have clear evidence demonstrating the pace of warming in recent decades and the impacts we will face should this continue. As we redouble our efforts to achieve net zero, we

must also continue to raise ambitions on adaptation to ensure the UK is resilient to the challenges of a warming world" and that "To achieve net zero, we must integrate adaptation action into mitigation efforts. Successful mitigation will in turn ensure adaptation remains achievable. This includes the need to ensure our increasingly electrified power system, nature-based solutions and other low carbon infrastructure are resilient to future climate impacts".

IPCC WGII Sixth Assessment Report – Summary for Policymakers (February 2022)

5.53 This report recognises the interdependence of climate, ecosystems and biodiversity, and human societies and integrates knowledge more strongly across the natural, ecological, social and economic sciences than earlier IPCC assessments. The assessment of climate change impacts and risks as well as adaptation is set against concurrently unfolding non-climatic global trends e.g., biodiversity loss, overall unsustainable consumption of natural resources, land and ecosystem degradation, rapid urbanisation, human demographic shifts, social and economic inequalities and a pandemic.

5.54 Global warming, reaching 1.5°C in the near-term, would cause unavoidable increases in multiple climate hazards and present multiple risks to ecosystems and humans. The level of risk will depend on concurrent near-term trends in vulnerability, exposure, level of socioeconomic development and adaptation. Near-term actions that limit global warming to close to 1.5°C would substantially reduce projected losses and damages related to climate change in human systems and ecosystems, compared to higher warming levels, but cannot eliminate them all.

5.55 Beyond 2040 and depending on the level of global warming, climate change will lead to numerous risks to natural and human systems. The magnitude and rate of climate change and associated risks depend strongly on near-term mitigation and adaptation actions, and projected adverse impacts and related losses and damages escalate with every increment of global warming.

5.56 Safeguarding biodiversity and ecosystems is fundamental to climate resilient development, in light of the threats climate change poses to them and their roles in adaptation and mitigation. Recent analyses, drawing on a range of lines of evidence, suggest that maintaining the resilience of biodiversity and ecosystem services at a global scale depends on effective and equitable conservation of approximately 30% to 50% of Earth's land, freshwater and ocean areas, including currently near-natural ecosystems.

British Energy Security Strategy (April 2022)

5.57 The 'British energy security strategy' builds on the 'Ten point plan for a green industrial revolution' and the 'Net Zero Strategy'. This strategy was prepared in response to rising global energy prices, provoked by surging demand after the pandemic as well as conflict in Eastern Europe.

5.58 The Strategy States "Accelerating the transition away from oil and gas then depends critically on how we can roll out new renewables… The growing proportion of our electricity coming from renewables reduces our exposure to volatile fossil fuel markets. Indeed, without the renewables we are putting on the grid today, and the green levies that support them, energy bills would be higher than they are now. **But we have to be bolder in removing the red tape that holds back new clean energy developments and exploit the potential of all renewable technologies**" (our emphasis).

5.59 Under the heading 'Solar and other technologies' the strategy states:

- There is currently 14GW of solar capacity in the UK… We expect a five-fold increase in deployment by 2035.
- For ground-mounted solar, we will consult on amending planning rules to strengthen policy in favour of development on non-protected land, whilst ensuring communities continue to have a say and environmental protections remain in place.
- We will support solar that is co-located with other functions (e.g. agriculture, onshore wind generation, or storage) to maximise efficiency of land use.

Local Context

Climate Emergency

5.60 On a local level, in September 2019 HBC joined a growing number of local authorities who have declared a climate emergency. HBC has committed to achieving net zero carbon emissions no later than 2050 having prepared a Climate Change and Sustainability Strategy with associated Action Plan and published an 'Interim Planning Policy Position Statement' (November 2020).

6. PLANNING POLICY CONTEXT

National

Overarching National Policy Statement For Energy (EN-1)

6.1 Whilst directed at Nationally Significant Infrastructure Projects (NSIP) over 50MW, paragraph 1.2.1 confirms the National Policy Statements (NPSs) are material considerations to applications under the Town and Country Planning Act 1990 (as amended). EN-1 is the national policy on energy and establishes the need for energy related development, with the Government not requiring decision makers to consider need on individual applications because of this. The Proposed Development will help meet this need and, moreover, with the battery storage it will address intermittency and help to relegate the role of fossil fuels as a back-up.

6.2 Paragraph 1.7.2 states that energy National Policy Statements should speed up the transition to a low carbon economy and help to realise UK climate change commitments sooner than continuation under the current planning system. It is also acknowledged that the development of new energy infrastructure, at the scale and speed required to meet the current and future need, is likely to have some negative effects on biodiversity, landscape/visual amenity and cultural heritage, however in general it should be possible to mitigate satisfactorily the most significant potential negative effects.

6.3 The Government's policy on energy infrastructure development in Part 2 of EN-1 is critical to understanding the policies on need. Paragraph 2.1.1 states that there are three key goals, namely reducing carbon emissions, energy security and affordability. Large scale infrastructure plays a "vital role" in ensuring security of supply (paragraph 2.1.2).

6.4 The transition to a low carbon economy is dealt with at paragraphs 2.2.5 to 2.2.11. The UK needs to wean itself off a high carbon energy mix, to reduce GHG emissions, and to improve the security, availability and affordability of energy through diversification. Under some of the "illustrative" 2050 pathways electricity generation would need to become virtually emission-free.

6.5 Paragraph 2.2.23 states that "The UK must therefore reduce over time its dependence on fossil fuels, particularly unabated combustion. The Government plans to do this by improving energy efficiency and pursuing its objectives for renewables, nuclear power and carbon capture and storage".

6.6 Paragraph 3.3.10 also states that as part of the UK's need to diversify and decarbonise electricity generation, the Government is committed to dramatically increasing the amount of renewable energy capacity. With paragraph 3.3.11 going onto state that an increase in renewable electricity is essential to enable the UK to meet its commitments under the EU Renewable Energy Directive.

6.7 Paragraph 3.3.12 highlights that there are a number of other technologies which can be used to compensate for the intermittency of renewable generation, such as electricity storage. Although Government believes these technologies will play important roles in a low carbon electricity system, the development and deployment of these technologies at the necessary scale has yet to be achieved. The Proposed Development has provided provision to include battery storage within the design.

6.8 Overall, section 3.4 identifies that large scale deployment of renewables will help the UK to tackle climate change, reducing the UK's emissions of carbon dioxide by over 750 million tonnes by 2030. Paragraph 3.4.5 makes it clear that *"The need for new renewable electricity generation projects is therefore urgent".*

6.9 In September 2021, the Government published the revised energy NPSs that support decisions on major energy infrastructure. These documents, when finalised, will guide decision-makers on the application of government policy when determining development consent for nationally significant energy infrastructure under the Planning Act 2008.

6.10 Both the existing and proposed energy NPSs state that they can also be a material consideration in decision making on applications that fall under the Town and Country Planning Act 1990 (as amended). As the Proposed Development is just under the 50MW threshold for NSIPs, the energy NPSs are clearly a material consideration when determining the Application.

6.11 Below is a summary of the material considerations set out within the newly published draft energy NPSs as they apply to the Proposed Development. Importantly, a significant planned change to the draft energy NPSs is the introduction of solar PV, technology unviable above 50MW when the original NPSs were designated in 2011.

The Draft Overarching National Policy Statement for Energy (EN-1)

6.12 Paragraph 2.3.2 is clear that the "objectives for the energy system are to ensure our supply of energy always remains secure, reliable, affordable, and consistent with meeting our target to cut GHG emissions to net zero by 2050".

6.13 Electricity meets a significant proportion of our overall energy needs and our reliance on it will increase as we transition our energy system to deliver our net zero target. However to achieve this the sources of energy we use will also need to change. Paragraph 2.3.4 states that *"Today, our energy system is dominated by fossil fuels. Although representing a record low, fossil fuels still accounted for just over 79 per cent of energy supply in 2019. We will need to dramatically increase the volume of energy supplied from low carbon sources and reduce the amount provided by fossil fuels"*. Paragraph 3.3.20 also goes further to state that *"there is an urgent need for new electricity generating capacity to meet our energy objectives".*

6.14 Solar is identified in Paragraph 3.3.21 as being one of the lowest cost ways of generating electricity "helping reduce costs and providing a clean and secure source of electricity supply (as they are not reliant on fuel for generation). Our analysis shows that a secure, reliable, affordable, net zero consistent system in 2050 is likely to be composed predominantly of wind and solar" with Paragraph 3.3.22 calling for sustained growth in the capacity of onshore wind and solar in the next decade.

6.15 In terms of good design for energy infrastructure, Draft EN-1 makes clear that good design goes beyond visual appearance and landscape fit. It states *"The functionality of an object - be it a building or other type of infrastructure - including fitness for purpose and sustainability, is equally important. Applying "good design" to energy projects should produce sustainable infrastructure sensitive to place, efficient in the use of natural resources and energy used in their construction and operation, matched by an appearance that demonstrates good aesthetic as far as possible. It is acknowledged, however that the nature of much energy infrastructure development will often limit the extent to which it can contribute to the enhancement of the quality of the area".*

The Draft National Policy Statement for Renewable Energy Infrastructure (EN-3)

6.16 The Draft EN-3 makes it clear that electricity generation from renewable sources of energy is an essential element of the transition to net zero, stating that *"Our analysis suggests that demand for electricity is likely to increase significantly over the coming years and could more*

than double by 2050. This could require a fourfold increase in low carbon electricity generation, with most of this likely to come from renewables".

6.17 Paragraph 2.47.1 is clear that "Solar farms are one of the most established renewable electricity technologies in the UK and the cheapest form of electricity generation worldwide. Solar farms can be built quickly and, coupled with consistent reductions in the cost of materials and improvements in the efficiency of panels, large-scale solar is now viable in some cases to deploy subsidy-free and at little to no extra cost to the consumer. The government has committed to sustained growth in solar capacity to ensure that we are on a pathway that allows us to meet net zero emissions. **As such solar is a key part of the government's strategy for low-cost decarbonisation of the energy sector**" (our emphasis).

6.18 Draft EN-3 confirms that the connection of the proposed solar farm into the relevant electricity network will be an important consideration for applicants of solar (Paragraph 2.48.10) and that the connection voltage, availability of network capacity, and the distance from the solar farm to the existing network can have a significant effect on the commercial feasibility of a development proposal (Paragraph 2.48.11).

6.19 Details on site selection, technical considerations, potential impacts, how they should be assessed, best practice in mitigation and the issues to be considered in decision making in relation to solar photovoltaic generation are set out in further detail in Draft EN-3.

National Planning Policy Framework

6.20 The National Planning Policy Framework (July 2021) (NPPF) sets out the Government's planning policies for England and how these should be applied. At its core is the need for the planning system to contribute to the achievement of sustainable development – meeting the needs of the present without compromising the ability of future generations to meet their own needs.

6.21 Paragraph 8 of the NPPF explains that achieving sustainable development means the planning system has three overarching and interdependent objectives:

- "**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 well-designed, beautiful and safe places, with accessible services and open spaces that reflect current and future needs and support communities' health, social and cultural well-being; and

- **an environmental objective** - to protect and enhance our natural, built and historic environment; including making effective use of land, improving biodiversity, using natural resources prudently, minimising waste and pollution, and mitigating and adapting to climate change, including moving to a low carbon economy."

6.22 The environmental objective in particular is applicable to renewable energy developments.

6.23 Paragraph 11 of the NPPF stipulates when determining planning applications a presumption in favour of sustainable development should be applied and specifically:

> "c) approving development proposals that accord with an up-to-date development plan without delay; or
>
> d) where there are no relevant development plan policies, or the policies which are most important for determining the application are out-of-date, granting permission unless:
>
> > i. the application of policies in this Framework that protect areas or assets of particular importance provides a clear reason for refusing the development proposed; or
> >
> > ii. any adverse impacts of doing so would significantly and demonstrably outweigh the benefits, when assessed against the policies in this Framework taken as a whole."

6.24 Paragraph 12 underlines that the presumption in favour of sustainable development does not change the statutory status of the development plan as the starting point for decision making. The policies within the Local Development Framework are considered below.

6.25 Section 6 of the NPPF refers to the economy and paragraph 84 in particular states that in supporting a prosperous rural economy planning decisions should enable the development and diversification of agricultural and other land based rural business.

6.26 Paragraph 100 states that planning policies and decisions should protect and enhance public rights of way and access, including taking opportunities to provide better facilities for users, for example by adding links to existing rights of way networks including National Trails.

6.27 Paragraph 111 directs that development should only be prevented or refused on highway grounds if there would be an unacceptable impact on highway safety, or the residual cumulative impacts on the road network would be severe.

6.28 Paragraph 120 (a) states that planning policies and decisions should "encourage multiple benefits from both urban and rural land, including through mixed use schemes and taking opportunities to achieve net environmental gains – such as developments that would enable new habitat creation or improve public access to the countryside."

6.29 Paragraph 137 outlines that The Government attaches great importance to Green Belts. The fundamental aim of Green Belt policy is to prevent urban sprawl by keeping land permanently open; the essential characteristics of Green Belts are their openness and their permanence.

6.30 Paragraph 138 sets out that "Green Belt serves five purposes:

a) to check the unrestricted sprawl of large built-up areas;

b) to prevent neighbouring towns merging into one another;

c) to assist in safeguarding the countryside from encroachment;

d) to preserve the setting and special character of historic towns; and

e) to assist in urban regeneration, by encouraging the recycling of derelict and other urban land."

6.31 Paragraph 147 of the NPPF states "inappropriate development is, by definition, harmful to the Green Belt and should not be approved except in very special circumstances".

6.32 Paragraph 148 states "When considering any planning application, local planning authorities should ensure that substantial weight is given to any harm to the Green Belt. "Very special circumstances" will not exist unless the potential harm to the Green Belt by reason of inappropriateness, and any harm resulting from the proposal, is clearly outweighed by other considerations."

6.33 Paragraph 151 states "When located in the Green Belt, elements of many renewable energy projects will comprise inappropriate development. In such cases developers will need to demonstrate very special circumstances if projects are to proceed. **Such very special circumstances may include the wider environmental benefits associated with increased production of energy from renewable sources**".

6.34 Paragraph 152 sets out that the planning system should support the transition to a low carbon future in a changing climate and it should help minimise vulnerability and improved resilience. It states that it should shape places in ways that contribute to radical reductions in greenhouse gas emissions, minimise vulnerability and improve resilience, and support renewable and low carbon energy and associated infrastructure.

6.35 Paragraph 157 states that local planning authorities should expect new development to take account of landform, layout, building orientation, massing and landscaping.

6.36 Paragraph 158 sets out that when determining planning applications for renewable and low carbon development, local planning authorities should **not require applicants to demonstrate the overall need for renewable or low carbon energy**, and recognise that even small-scale projects provide a valuable contribution to cutting greenhouse gas emissions; and **approve the application if its impacts are (or can be made) acceptable**.

6.37 Paragraph 159 sets out that Inappropriate development in areas at risk of flooding should be avoided by directing development away from areas at highest risk. Where development is necessary in such areas, the development should be made safe for its lifetime without increasing flood risk elsewhere.

6.38 Paragraph 167 directs that when determining any planning applications, local planning authorities should ensure that flood risk is not increased elsewhere. Where appropriate, applications should be supported by a site-specific flood-risk assessment. Development should only be allowed in areas at risk of flooding where, in the light of this assessment (and the sequential and exception tests, as applicable) it can be demonstrated that:

a) within the site, the most vulnerable development is located in areas of lowest flood risk, unless there are overriding reasons to prefer a different location;

b) the development is appropriately flood resistant and resilient such that, in the event of a flood, it could be quickly brought back into use without significant refurbishment;

c) it incorporates sustainable drainage systems, unless there is clear evidence that this would be inappropriate;

d) any residual risk can be safely managed; and

e) safe access and escape routes are included where appropriate, as part of an agreed emergency plan.

6.39 Paragraph 174 states that planning policies and decisions should contribute to and enhance the natural and local environment by protecting and enhancing soils, minimising impacts on biodiversity and preventing new development from contributing to, being put at unacceptable risk from, or being adversely affected by, unacceptable levels of air or noise pollution.

6.40 Paragraph 180 sets out the principles that local planning authorities should apply with regard to habitats and biodiversity when determining planning applications including refusing applications where significant harm to biodiversity cannot be mitigated/compensated for; protecting SSSIs; refusing developments that result in the loss or deterioration of irreplaceable habitats unless there are wholly exceptional; and opportunities to improve biodiversity in and around developments should be integrated as part of their design, especially where this can secure measurable net gains for biodiversity or enhance public access to nature where this is appropriate.

6.41 Paragraph 185 states that planning policies and decisions should also ensure that new development is appropriate for its location taking into account the likely effects (including cumulative effects) of pollution on health, living conditions and the natural environment, as well as the potential sensitivity of the site or the wider area to impacts that could arise from the development.

6.42 Paragraph 194 states that in determining applications, local planning authorities should require an applicant to describe the significance of any heritage assets affected, including any contribution made by their setting. The level of detail should be proportionate to the assets' importance and no more than is sufficient to understand the potential impact of the proposal on their significance. As a minimum the relevant historic environment record should have been consulted and the heritage assets assessed using appropriate expertise where necessary. Where a site on which development is proposed includes, or has the potential to include, heritage assets with archaeological interest, local planning authorities should require

developers to submit an appropriate desk-based assessment and, where necessary, a field evaluation.

6.43 Paragraph 202 outlines that where a proposal will lead to less than substantial harm to the significance of a designated heritage asset, this harm should be weighed against the public benefits of the proposal including, where appropriate, securing its optimum viable use.

6.44 The Glossary of the NPPF defines renewable and low carbon energy, including energy for heating and cooling as well as generating electricity. Renewable energy covers those energy flows that occur naturally and repeatedly in the environment including from the sun. Low carbon technologies are those that can help reduce emissions (compared to conventional use of fossil fuels).

Planning Practice Guidance

6.45 The key aim of the Planning Practice Guidance (PPG) is to provide easily accessible and understandable guidance on the implementation of the policies within the NPPF. It contains specific guidance on planning policies for renewables energy developments and on how planning applications should be determined with regards to their impact on the natural and historic environment. Consideration of the fundamental aspects of this guidance in relation to the application are detailed below.

Renewable and Low Carbon Energy

6.46 The guidance provides further advice on renewable and low carbon energy projects to facilitate the delivery of the low carbon future. It states that the government remains committed to increasing the amount of energy from renewable and low carbon technologies to ensure that the UK has a secure energy supply, to slow down climate change and to stimulate new jobs and businesses.

6.47 Paragraph 13 within the guidance specifically relates to large scale ground-mounted solar [4]. It states that:

"The deployment of large-scale solar farms can have a negative impact on the rural environment, particularly in very undulating landscapes. However, the visual impact of a well

[4] Paragraph: 013 Reference ID: 5-013-20150327, published 27 March 2015

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;

- 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 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; and

- 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."

Climate Change

6.48 Addressing climate change is stated as being one of the core land use planning principles which the NPPF expects to underpin decision-taking on planning applications. The guidance seeks to ensure that the planning system helps to implement the objectives of the Climate Change Act 2008 by radically reducing greenhouse gas emissions and adapting to the forecast impacts of climate change. The guidance makes it clear that Councils need to take account of global climate change including, for example, providing opportunities for renewable and low carbon energy technologies.

Natural Environment

6.49 The guidance was updated in July 2019 to address how planning can take account of the quality of agricultural land and that an agricultural land classification assessing the quality of farmland can enable informed choices to be made about its future use within the planning system. Planning decisions should take account of the economic and other benefits of the best and most versatile agricultural land. There are five grades of agricultural land, with Grade 3 subdivided in 3a and 3b. The best and most versatile land is defined as Grades 1, 2 and 3a.

Green Belt

6.50 Guidance was published in July 2019 to address the of Green Belt in the planning system and in particular what factors can be taken into account when considering the potential impact of development on the openness of the Green Belt. It states that:

"Assessing the impact of a proposal on the openness of the Green Belt, where it is relevant to do so, requires a judgment based on the circumstances of the case. By way of example, the courts have identified a number of matters which may need to be taken into account in making this assessment. These include, but are not limited to:

- openness is capable of having both spatial and visual aspects – in other words, the visual impact of the proposal may be relevant, as could its volume;

- the duration of the development, and its remediability – taking into account any provisions to return land to its original state or to an equivalent (or improved) state of openness; and

- the degree of activity likely to be generated, such as traffic generation" [5].

Local Plan

Development Plan

6.51 The Site is located within the jurisdiction of HBC as the Local Planning Authority and determining authority for this application. The Local Development Plan for the purposes of determining the application for the proposed development is therefore:

- Local Plan 2012 – 2027: Core Strategy Development Plan Document (January 2013); and

- Local Plan 2012 – 2027: Site Allocation and Development Management Plan (November 2016).

6.52 The above documents are supported by a series of Policies Maps and Supplementary Planning Documents. An extract of the Borough Wide Policies Map is provided in Figure 2. Despite the limited height of the Proposed Development the Site is within the Elstree Aerodrome Safeguarding Chart consultation zone. The site is outside of the Elstree Way Corridor Area Action Plan (July 2015).

[5] Paragraph: 001 Reference ID: 64-001-20190722, published 22 July 2019

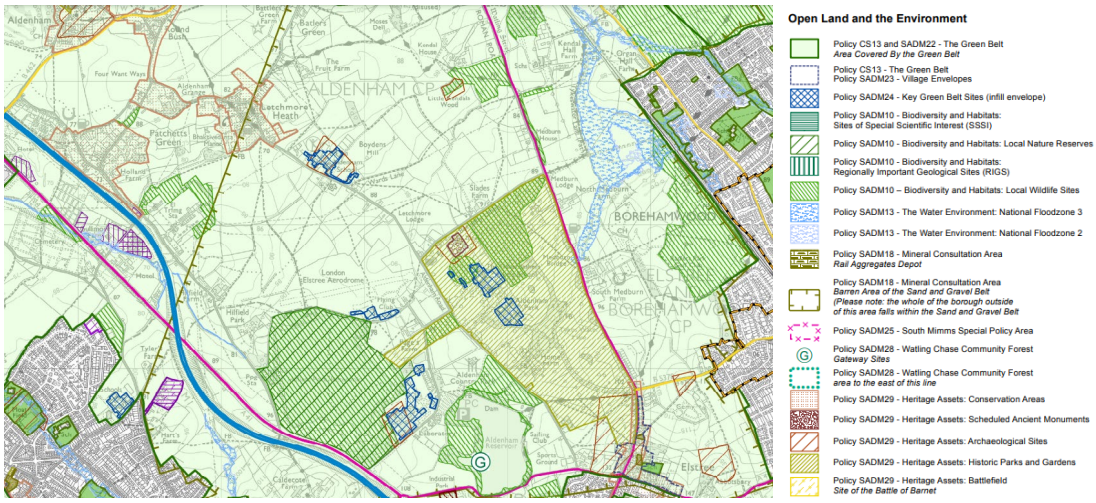

Figure 2.

6.53 HBC is currently in the process of preparing a new Local Plan. The most recent version of the draft plan, which was intended to guide development up to 2038, was consulted on through late 2021. Nearly 18,000 responses we received though the period of engagement. Following consideration of the responses, at a Full Council meeting on the 27th April 2022 the decision was been made to 'set-aside' the Hertsmere's new draft Local Plan. The decision was unanimous (all 39 Councillors) voted to "to set aside the current version of the draft plan, but continue the plan-making process". There is current no draft of the renewed draft plan following the decision of 27th April 2022 or a detailed timetable for its production, therefore it is considered there is no emerging planning policy. No weight should be given to the 'set-aside' the Hertsmere's new draft Local Plan given it is no longer being progressed. Weight given to the policies of the Development Plan should be given according to their degree of consistency with the NPPF (2021).

Local Plan 2012 – 2027: Core Strategy Development Plan Document (January 2013)

6.54 The Core Strategy sets out in its strategic aims and objectives to;

"To protect the Green Belt" within Core Strategy Objective 2;

"To improve environmental and streetscape quality in town centres and protect and enhance the built heritage of Hertsmere" within Core Strategy Objective 6;

"To provide a planning framework which promotes sustainable and competitive economic performance, in support of jobs growth requirements" within Core Strategy Objective 11; and

"To protect and enhance local biodiversity" within Core Strategy Objective 13.

6.55 A number of policies are of direct relevance to the Proposed Development are set out with the Core Strategy, including:

6.56 Policy SP1 'Creating sustainable development' details that the Council will work with key local stakeholders to enable development in the Borough to make a sustainable contribution to delivering the Core Strategy Spatial Vision and Strategy promoting decentralised and renewable or low carbon sources without unacceptable impacts on (inter alia) the characteristics and features of the natural and built environment, green belt, heritage, biodiversity, flood risk or the historic environment.

6.57 Policy SP2 'Presumption in Favour of Sustainable Development' states that when considering development proposals the Council will take a positive approach that reflects the presumption in favour of sustainable development contained in the National Planning Policy Framework.

6.58 Policy CS12 'Enhancement of the Natural Environment' requires all development proposals to conserve and enhance the natural environment of the Borough, including biodiversity, habitats, protected trees, landscape character, and sites of ecological and geological value, in order to maintain and improve environmental quality, and contribute to the objectives of the adopted Greenways Strategy and the Hertsmere Green Infrastructure Plan. Proposals should provide opportunities for habitat creation and enhancement throughout the life of a development.

6.59 Policy CS13 'The Green Belt' sets out a general presumption against inappropriate development within the Green Belt (including the Site, as defined on the Policies Map) and details such development will not be permitted unless very special circumstances are demonstrated.

6.60 Policy CS14 'Protection or enhancement of heritage assets' notes that development proposals must conserve or enhance the historic environment of the Borough in order to maintain and where possible improve local environmental quality. Development proposals should be sensitively designed to a high quality and not cause harm to identified protected sites, buildings or locations of heritage or archaeological value including Conservation Areas, Listed Buildings, Historic Parks and Gardens, Scheduled Ancient Monuments or their setting, and identified and as yet unidentified Archaeological Remains. This policy is noted as a reason for refusal to the previous application.

6.61 Policy CS15 'Promoting recreational access to open spaces and the countryside' outlines that the Council will work with its partners and relevant agencies to safeguard, enhance and facilitate access to parks, open spaces, rural visitor attractions and to the wider local countryside. Measures which secure the provision of safer and more secure car-free access including enhancements and additions to the rights of way / Greenways network as set out in the Council's Greenways Strategy, will be actively sought where they do not present a risk to the biodiversity value and intrinsic environmental quality of the locality.

6.62 Policy CS16 'Environmental impact of new development' states that the Council will ensure that development proposals do not create an unacceptable level of risk to occupiers of a site, the local community and the wider environment. Proposals are required to incorporate sustainability principles, minimising their impact on the environment and ensuring prudent use of natural resources by measures including (inter alia) avoiding development in the floodplain and close to river corridors unless the requirements of the sequential and exceptions tests have been met and flood prevention/mitigation measures are in place as required by the Environment Agency. Following the publication of the position statement on the Hertsmere Climate Change and Sustainability Action Plan (HCCSAP), applicants are requested to go further than creation of an 'unacceptable level' but to make a positive contribution towards the area, its biodiversity alongside climate change adaptation and mitigation.

6.63 Policy CS22 'Securing a high quality and accessible environment' requires all development to be of high-quality design, which ensures the creation of attractive and usable places. Development proposals should take advantage of opportunities to improve the character and quality of an area and conserve the Borough's historic environment.

6.64 The assessment of the Proposed Development against these policies is made in Section 7 of this Planning Statement.

Local Plan 2012 – 2027: Site Allocation and Development Management Plan (November 2016)

6.65 The following Site Allocation and Development Management Plan policies apply to the proposal:

6.66 SADM10 'Biodiversity and Habitats' expects developers to avoid significant harm to sites of importance for ecology, geology and biodiversity by relocating their proposed development. Where this cannot be achieved adequate mitigation measures can be employed, which will

outweigh the harm caused or adequate compensatory measures will be provided and the benefits of the development are clearly shown to outweigh the harm to the natural environment. The acceptability of any development proposal will further be assessed with regard to the level of impact that the development proposal would have on the ecological interest of the habitat concerned and the wider ecological network. Opportunities should also be available to create, incorporate, enhance, or restore habitats or biodiversity as part of the development.

6.67 Policy SADM11 'Landscape Character' sets out that development will be managed to help conserve, enhance and/or restore the character of the wider landscape across the borough. Individual proposals will be assessed for their impact on landscape features to ensure that they conserve or improve the prevailing landscape quality, character and condition, including as described in the Hertfordshire Landscape Character Assessments. The location and design of development and its landscaping will respect local features and take opportunities to enhance habitats and green infrastructure links. Landscaping schemes should use native species which are appropriate to the area.

6.68 Policy SADM12 'Trees, Landscaping and Development' details that planning permission will be refused for development which would result in the loss, or likely loss, of healthy, high quality trees and/or hedgerows that make a valuable contribution to the amenity or environment of the area in which they are located.

6.69 Policy SADM13 'The Water Environment' outlines the natural environment of watercourses and areas of water will be improved wherever possible (including through Policy SADM16). Watercourses, including culverts, land adjacent to rivers, functional floodplains and flood storage areas should be restored to their natural state.

6.70 Policy SADM14 'Flood risk' requires development to avoid the risk of flooding or be reduced by locating development within areas of lower flood risk through the application of the sequential test and then applying an exception test in line with the NPPF; and ensuring that development proposals in flood risk areas actively manage and reduce flood risk by applying the sequential approach at site level. Where new development is proposed in a flood risk area, a site-specific Flood Risk Assessment is required.

6.71 Policy SADM16 'Watercourses' outlines that development on sites that contain a watercourse or are situated next to a watercourse will comply with the principles of conserving or improving the natural environment of the watercourse, maintaining a minimum 9 m wide

undeveloped buffer zone will be provided from the top of the bank of any watercourse and supporting opportunities for restoration and enhancement within the catchment of the watercourse.

6.72 Policy SADM20 'Environmental pollution and development' requires that development should not result in any adverse impact to public health or wellbeing, or significantly add to contamination or pollution, taking into account the situation following any mitigation and remediation measures. Development on land that is known to be or suspected to be contaminated (or polluted) will only be permitted where a contaminated land assessment shows that the proposed development would not be likely to result in a threat to the health of the future users or occupiers of the site after any remediation measures are taken into account. The use of the Site must be considered compatible with the level of pollution or contamination that is present or would be present after remediation measures are taken into account.

6.73 Policy SADM26 'Development Standards in the Green Belt' directs that the Council will assess all applications for development in the Green Belt to ensure they comply with the following principles (inter alia); developments should take advantage of site contours and landscape features in order to minimise the visual impact; the scale, height and bulk of the development should be sympathetic to, and compatible with, its landscape setting and not be harmful to the openness of the Green Belt; developments should use materials which are in keeping with those of the locality, and, where modern materials are acceptable, they should be unobtrusive; and existing trees, hedgerows and other features of landscape and ecological interest should be retained and enhanced. This policy is noted as a reason for refusal to the previous application.

6.74 Policy SADM27 'Diversification and Development Supporting the Rural Economy' supports diversification and development supporting the rural economy. Proposals for the diversification of farm enterprises which involve new building and/or works, will be permitted provided (inter alia) the site is of a lower agricultural land grade (i.e. Grade 3b, 4, 5 or non-agricultural); and there is a reliable prospect that the land will be restored to at least its original quality. All development which is supported in principle under this policy must also satisfy the requirements of Policy SADM26.

6.75 Policy SADM29 'Heritage Assets', including Registered Parks and Gardens explains (inter alia) that planning applications will be considered in accordance with the NPPF. When applications

are submitted for proposals affecting any heritage asset the applicant must clearly explain what the proposal is for and provide sufficient detail to allow for an informed decision to be made. When assessing proposals, the Council will have regard to the significance of the heritage asset and the potential harm to it. The Council expects features of known or potential archaeological interest to be identified, assessed, surveyed, recorded and wherever possible retained. Developers will therefore be required to undertake an archaeological field assessment and submit a report on the findings before the Council will grant planning permission.

6.76 Policy SADM30 'Design Principles' outlines development which makes a positive contribution to the built and natural environment; recognises and complements the particular local character of the area in which it is located, and results in a high quality design will be permitted. In order to achieve a high quality design, a development must respect, enhance or improve the visual amenity of the area by virtue of its scale, mass, bulk, height, urban form; and have limited impact on the amenity of occupiers of the site, its neighbours, and its surroundings in terms of outlook, privacy, light, nuisance and pollution.

6.77 Policy SADM40 'Highway and Access Criteria for New Development' sets out that development will be permitted where it will not harm the safety of any users of the highway network, cause or add significantly to road congestion or unduly harm the flow of vehicles.

6.78 Policy SADM41 'Aviation Safeguarding' explains the Council will consult with the Elstree Airport Licensee on relevant proposals for development. It will only permit development proposals which will not compromise the Aerodrome's operational integrity and general safety and are compatible with the continued use of the site as an aerodrome.

6.79 The assessment of the Proposed Development against these policies is made in Section 7 of this Planning Statement.

Neighbourhood Plan

6.80 There are no Neighbourhood Plans relevant to the Site. The Radlett Neighbourhood Plan lies approximately 400m to the north at its closest boundary.

Supplementary Guidance Documents

6.81 There are no Supplementary Planning Guidance or Supplementary Planning Documents relevant to the generation of renewable energy.

6.82 The Hertsmere Climate Change and Sustainability Action Plan together with the 'Interim Planning Position Statement on Climate Change' have been prepared by HBC to encourage and help steer the Borough towards sustainable, net zero carbon development by clarifying how existing policies (including policies in the Development Plan) will be interpreted.

7. PLANNING APPRAISAL

7.1 In determining an application for planning permission a decision maker is required by section 70(2) of the 1990 Act to have regard to the provisions of the development plan so far as material to the application. Section 38(6) of the Planning and Compulsory Purchase Act 2004 requires that a determination *"must be in accordance with the plan unless material considerations indicate otherwise"*.

7.2 The Courts have determined that it is enough that a proposal accords with the Development Plan when considered as a whole. It is therefore not necessary to accord with each and every policy contained within the Development Plan. Indeed, it is not at all unusual for Development Plan policies to pull in different directions [6].

7.3 The local development plan for the purposes of determining the application for the proposed development on this site is the Local Plan 2012 – 2027: Core Strategy Development Plan Document (January 2013) and Local Plan 2012 – 2027: Site Allocation and Development Management Plan (November 2016) insofar as they are consistent with the NPPF.

7.4 The NPPF is a key material consideration. It holds a presumption in favour of sustainable development which states that for decision making this means "approving development proposals that accord with an up to date development plan without delay" (paragraph 11c) and in paragraph 12 reminding decision makers that that the presumption in favour of sustainable development does not change the statutory status of the development plan as the starting point for decision making.

7.5 This section contains a detailed analysis of the Proposed Development against the identified relevant national and local planning policies and any other material planning considerations. The key issues for the determination of this application are:

- The principle of the development as renewable energy;
- Landscape and visual impacts;
- Impacts on biodiversity;
- Heritage impacts;

[6] Laura Cummins and London Borough of Camden, SSETR and Barrett Homes Limited [2001]; R. v Rochdale MBC ex parte Milne [2000] & City of Edinburgh Council v. Secretary of State for Scotland [1997]

- The use of agricultural land;
- Farm diversification;
- Impacts on amenity;
- Flood risk impacts;
- Traffic impacts and access; and
- Development within the Green Belt.

The Principle of The Development

7.6 The Proposed Development comprises a solar farm and battery storage facility, a renewable energy generating station supplying clean energy to the National Grid. The battery storage facility would be utilised to reinforce the power generation of the solar farm, maximising renewable energy production from the Site whilst providing security of supply.

7.7 The Glossary of the NPPF defines renewable energy as covering those energy flows that occur naturally and repeatedly in the environment including from the sun. The Proposed Development meets the definition therefore of renewable energy as defined in national planning policy.

7.8 National policy is strongly supportive of renewable energy as a means of meeting our increasing energy demands, tackling climate change and transitioning to a prosperous and low carbon sustainable economy. Privately funded, large scale solar developments such as the Proposed Development are recognised as being not just necessary but central to meeting an urgent need. Moreover, with the battery storage proposed, the Application goes further by helping to address the intermittency issues associated with renewables generally and will assist to relegate the role of fossil fuels to being one of a back-up.

7.9 Paragraph 158 of the NPPF is clear that there is no requirement to demonstrate the need for renewable energy development. The urgency of the need for substantially greater quantities of renewable energy (including large scale solar) is self-evident in light of the recent dramatic step change in Government energy policy driven by its declared Climate Emergency to achieve a 100 % reduction in greenhouse gas emissions by 2050 (net zero). This is a legally binding target.

7.10 The 'Sixth Carbon Budget' and '2021 Progress Report to Parliament' prepared by the Committee on Climate Change makes it clear that the utmost focus is required from Government over the next ten years. If policy is not scaled up across every sector; if business is not encouraged to invest; if the people of the UK are not engaged in this challenge - the UK will not deliver net zero by 2050. The 2020s must be the decisive decade of progress and action.

7.11 The Sixth Carbon Budget demonstrates that in the recommended 'Balanced Net Zero Pathway', solar generation increases from 10 TWh in 2019 to 60 TWh in 2035 and 85 TWh in 2050. On average, 3 GW per year will need to be installed to reach this level of solar generation. The Proposed Development would contribute significantly to meeting these targets.

7.12 HBC declared its own Climate Emergency in September 2019, committing to a target of becoming carbon neutral by 2050. Its Climate Change Strategy commits the Council to matching challenging national targets on low carbon and renewable energy. The HCCSAP directs that applicants are requested to take full account of and positively design for sustainability, net zero carbon emissions, mitigation of climate change.

7.13 The NPPF (paragraph 11) contains a presumption in favour of sustainable development – meeting the needs of the present without compromising the ability of future generations to meet their own needs (paragraph 7 of the NPPF).

7.14 NPPF paragraph 152 states that the planning system should support the transition to a low carbon future and support renewable and low carbon energy and associated infrastructure. Paragraph 157 goes onto state that in determining planning applications, local planning authorities should expect new development to *"take account of landform, layout, building orientation, massing and landscaping to minimise energy consumption."*. With paragraph 158 concluding that when determining planning applications for renewable and low carbon development, local planning authorities should *"not require applicants to demonstrate the overall need for renewable or low carbon energy, and recognise that even small-scale projects provide a valuable contribution to cutting greenhouse gas emissions"* and *"approve the application if its impacts are (or can be made) acceptable".*

7.15 Making prudent use of natural resources is one of the Government's four aims for sustainable development and is reflected in the objectives of the Core Strategy and HCCSAP. It is therefore

considered by the Council important for the Local Plan to contain policies, which help to secure a more efficient use of natural resources.

7.16 The Core Strategy stresses that the promotion of renewable energy technology, subject to adequate mitigation of any adverse impacts, is supported by the Council. The Council considers that it is preferable for carbon omissions to be reduced through sustainable design and construction, before requirements for on-site renewable energy generation or allowable solutions are considered. Larger, commercial renewable energy source developments, whilst broadly acceptable in principle, will need to be considered on their merits including their impact on designated and non-designated landscapes in the Green Belt. The Council recognises that embracing climate change may require historic notions of urban design to be challenged.

7.17 The Proposed Development would supply clean renewable electricity for distribution to the National Grid, contributing to the objective of sustainable development in accordance with NPPF paragraph 11, adopted Local Plan Policy and increasing renewable energy generation in accordance with NPPF paragraph 152. This quantity of additional renewable energy is a significant contribution to meeting both national and local renewable energy targets. It is a significant environmental benefit, displacing as it does 25,400 tonnes of CO_2 per annum, which represents an emission saving equivalent of a reduction in approximately 8,100 cars on the road every year. It is also estimated the solar farm will increase the total amount of renewable electricity generated in Hertsmere from 5.4 % to 20 %, bringing Hertsmere closer to the national average of 33 % electricity generated from renewable sources. This is being provided at a time of a national and locally declared Climate Emergency.

7.18 From the assessments accompanying the application it is clear that the Proposed Development as mitigated would not significantly adversely affect landscape designations, biodiversity (in fact a significant biodiversity net gain of 66.75 % habitat biodiversity net gain and 21.06 % for hedgerow would be delivered) or the historic environment. Designated heritage assets are suitably screened and distant from the Site (with additional separation with the removal of field 1) so as to avoid significant adverse impacts and the targeted archaeology trial trenching found the areas assessed to be archaeologically sterile. Safe road access has been designed in accordance with the advice received from the Highway Authority, and residential amenity has been demonstrated to be protected from noise and glint and glare impacts. Soil health would be improved as a result of the Proposed Development and there would be no loss of best and most versatile agricultural land, the site being wholly assessed

as being Grade 3b. Sheep grazing around the solar arrays would maintain the land in agricultural use.

7.19 Detailed assessments submitted with this application demonstrate that the Proposed Development would not compromise the Elstree Aerodrome operational integrity or aviation safety.

7.20 In applying the relevant national and local policy therefore regarding the principle of the development as renewable energy it is clear that the Proposed Development is entirely consistent with both nation and local objectives.

Landscape and Visual

7.21 The NPPF paragraph 130, adopted Local Plan Policy CS12 and SADM11 all require the protection or enhancement of the landscape and visual quality of the area. The HCCSAP position statement directs that HBC wish to see proposals for real and significant landscape and green infrastructure improvements integrated for all planning applications. Green infrastructure should be integrated as a key component of all schemes but in particular for major developments. Developers will be expected to include proposals for the management and maintenance of such infrastructure as part of their proposal. This is provided in the submitted LEMP.

7.22 Policy SADM26 in consideration of development standards in the Green Belt requires developments should take advantage of site contours and landscape features in order to minimise the visual impact in order to be sympathetic to, and compatible with, its landscape setting. Policy CS15 also states that the Council will support proposals which improve links and remedy identified deficiencies in the GI network, and enhancements sought to protected PRoW.

7.23 These policies have all been used to inform the layout and design of the Proposed Development and its integration with the surrounding environment.

7.24 Both the NPPF and local plan Policy SP2 also encourage an iterative approach to design and early engagement with the local community is also encouraged. Policy SP2 states that when considering development proposals the Council will take a positive approach that reflects the presumption in favour of sustainable development contained in the NPPF. It will always work proactively with applicants jointly, in particular through the preapplication process, to find solutions which mean that proposals can be approved wherever possible, and to secure

development that improves the economic, social and environmental conditions in the area. The PPG advises that the visual impact of a well-planned and well-screened solar farm can be properly addressed within the landscape if planned sensitively.

7.25 The Design and Access Statement and the Statement of Community Involvement explain in detail how the design evolution (Concept Scheme, Assessment Scheme, previous (refused) Planning Application and the resubmission Planning Application) has responded directly to the landscape setting of the Site and to local community concerns about landscape and visual impacts. This has included:

- Sensitive siting of panels, inverters and on-site substation;
- Retention of existing tree and hedgerow field boundaries within and around the Site, with the solar farm development confined to individual field parcels to ensure it is well integrated into the landscape and provide screening;
- Creation and enhancement of GI corridors through the Site linking existing woodlands and enhancing the overall GI of the area. This has included the creation of four principal new structuring landscape components and the retention of smaller field parcels and woodland within the Site with potential for ecology and/or amenity enhancements;
- New planting along the boundaries of the Site is proposed to filter, screen, and help integrate the Proposed Development into its landscape context. Advanced or early planting of certain landscaping features around the Site's perimeter is proposed to enable new planting to become established at the earliest opportunity. It is proposed all boundaries along the Site's perimeter are enhanced where necessary, using native species' appropriate to the Site and the surrounding area;
- Careful consideration of the internal access road network has been undertaken to limit the number of field boundary crossings. Where crossings are necessary, they have been carefully aligned to either use existing access points or pass through vegetated areas where it will have the minimal impact and minimize the loss of mature trees;
- PRoWs have been retained, with proposed enhancements including the creation of a new wildflower meadow corridor, and mitigation with new vegetative hedgerows screening close views, as well as 578 m of new permissive paths allowing a new

connection to the Hertfordshire Way and an alternative route around Belstone Football Club's pitches;

- Creation of new amenity through two Nature Areas and two restored ponds, allowing greater connection and for local visitors and children to learn about their local environment and the role of solar farms specifically and green energy generally in combating climate change;

- Improved biodiversity across the Site through the creation of a variety of new habitats and management of existing habitats within the Site to improve their quality and functioning; and

- Removal of Field 1 (west of Hilfield Lane) from the Proposed Development.

7.26 The HCCSAP position statement adds to the design principles set out in SADM30 with the Council expecting all new development, appropriate to the scale of works proposed, to incorporate appropriate design, technological, landscape and ecological solutions to aimed at achieving net zero carbon emissions, incorporate sustainability and build resilience against climate change and its impacts.

7.27 Both the DAS and the LEMP make clear that great care has been taken in designing as a high a quality proposal as possible, with the site layout taking its lead from the environmental and community sensitivities wherever possible including the varied and sympathetic treatment of PRoWs to enhance their recreational amenity value (including in the removal of development in field 1 leaving open views) and the provision of additional permissive footpaths. New planting of native species woodland, tree belts, hedgerows, wildflower meadow, neutral grassland with wildflowers and scrub, and tussocky grassland is proposed across the Site, in conjunction with the careful management of the existing vegetation on-site as part of the comprehensive landscape strategy set out in the LEMP. The objective of the landscape strategy is to help integrate the Proposed Development into its surrounding landscape, minimise potential negative visual and landscape impacts (in so far as possible) and enhance the existing landscape structure, amenity value and biodiversity.

7.28 The likely landscape and visual impacts of the Proposed Development have been fully assessed in the LVIA.

7.29 There are no landscape designations within the Site or study area that would be potentially affected by the Proposed Development. Effects on landscape character would be greatest

within the Site (such as on PRoW) and its immediate context where the present land use would change from an agricultural landscape to a solar farm development (field 1 would not be developed). Effects would reduce rapidly with distance from the Site, as the Proposed Development would be increasingly screened by a combination of vegetation, landform and buildings in the intervening landscape.

7.30 The extent of Large scale visual effects, where the Proposed Development would form a major alteration to key elements, features, qualities and characteristics of the view such that the baseline will be fundamentally changed, would generally be limited to locations within the Site from PRoW, and from those adjacent to the site boundaries.

7.31 Beyond this area, the extent of Medium scale effects is limited due to the screening effects of numerous woodland blocks and extensive tree lined hedgerows and tree belts within and in close proximity to the Site within approximately 150 m, and are generally restricted to areas with glimpsed views through gaps in hedgerows/intervening vegetation.

7.32 Small scale effects would occur within an approximate 600 m distance to the north but would reduce over time to Negligible as boundary screening matures.

7.33 Negligible effects would occur to receptors beyond 600 m, including those at Bushey.

7.34 The screening effect of planting associated with the Proposed Development, coupled with the relaxation of management of existing field boundaries allowing them to grow out, would reduce visual effects over time and essentially limit them to within the Site and it's the immediate vicinity. In view of the above findings, it is considered that the Proposed Development would therefore accord with the relevant provisions of the NPPF and Local Plan Policies SP2, CS12, CS15, SADM11, SADM12, SADM13, SADM16 and SADM30.

Biodiversity

7.35 Both national and local policy place great importance on the protection and enhancement of biodiversity, including achieving a biodiversity net gain when mitigating impacts of new development. Nationally and locally important nature conservation sites should be protected, along with protected species unless the benefits of the proposed development outweigh the harm.

7.36 The likely effects of the Proposed Development on nature conservation and biodiversity have been fully assessed in the Ecological Appraisal Report accompanying the application.

7.37 There are no statutory or non-statutory nature conservation sites within the Site.

7.38 The HCCSAP position statement states that applicants will be expected to demonstrate more than 'avoid significant harm', but to take positive steps to protect, enhance and improve sites of and opportunities for ecology, geology and biodiversity. Applicants for major developments will be encouraged to demonstrate how they can work towards a positive biodiversity net gain on site. The Biodiversity Net Gain Assessment calculates that biodiversity value of the site would be significantly improved with a 66.75 % habitat biodiversity net gain and 21.06 % hedgerow biodiversity net gain arising from the positive habitat creation and enhancement measures proposed in the Proposed Development. This is a major beneficial residual effect and should be given substantial weight in the planning balance.

7.39 The HCCSAP further directs that Applicants will be expected to work with local and other partners to minimise impacts of and maximise opportunities for biodiversity, habitats. The designed-in and additional mitigation measures proposed will mitigate or compensate for all ecological impacts, will produce a biodiversity net gain in accordance with planning policy and will comply with wildlife legislation.

7.40 The provisions of the LEMP can be secured through the imposition of an appropriately worded planning condition in the event permission is granted. By adhering to the recommended objectives, implementation provision and monitoring set out in the LEMP, the Proposed Development will accord with the relevant NPPF paragraphs and Local Plan Policies SP1, CS12, CS15, CS16, SADM10, SADM12, SADM13 and SADM16.

Heritage

7.41 The Archaeological Desk Based Assessment and Heritage Impact Assessment (ADBA and HIA) has considered the potential impacts of the Proposed Development upon the physical fabric of heritage assets within the Site, and the potential impacts on the setting of heritage assets within the wider landscape.

Archaeology

7.42 A desk-based study, walkover survey and site visits including a partial geophysical survey with targeted trial trenching have been undertaken in order to identify assets that may be affected by the Proposed Development and establish their current condition and baseline setting.

7.43 The ADBA has identified that any currently unrecorded archaeological remains that may be present within the site are unlikely to be of more than low importance. Although a geophysical survey was initiated as part of this assessment process it was not completed due to ground contamination (in agreement with the archaeological advisor) leading to inconclusive survey results. Although the survey was abandoned prematurely, initial results of the north-eastern part of the PDA suggested that remains associated with Sawyers Lane may still exist below the present ground surface.

7.44 Targeted archaeological trial trenching of the areas of greatest impact and potential (Field 14 which lies adjacent to Watling Street and the areas of the proposed substation, battery storage facility and construction compound in agreement with the HCC Heritage advisor) has been carried out to inform the application and the findings of an interim report found the areas investigated to be archaeologically sterile, revealing only one archaeological feature an undated ditch. A full report on the trial trenching evaluation will be archived separately with the Hertfordshire Historic Environment Record and the interim report accompanies the ADBA and HIA (see Appendix 4).

7.45 Archaeology was not a reason for refusal of the previous application.

Heritage Assets

7.46 There are no designated heritage assets on the site. No harm is predicted to the majority of designated heritage assets in the study area, generally 1 km from the Site boundaries, through change in their setting. The exception is Slades Farmhouse, a Grade II Listed Building, which is predicted to experience much less than substantial harm as a result of the change of land use.

7.47 One of the two reasons for refusal of the previous application was that the “proposal would cause less than substantial harm to the significance of the following neighbouring designated heritage assets by reason of its impact on their settings: Slades Farmhouse (listed building, Grade II, entry 1103614), Hilfield Castle (listed building, Grade II star, entry 1103569), Hilfield Castle Lodge (listed building, Grade II, entry 1103570), Aldenham House Registered Park and Garden (Grade II, entry 1000902) and Penne's Place (Scheduled Monument entry 1013001)”.

7.48 This application, with amended proposals reducing the extent of the proposed development by removing ‘Field 1’ (land west of Hilfield Lane), has been made to address the reasons for refusal in lessening further the less than substantial harm identified to heritage assets.

7.49 This updated ADBA and HIA considers the effects of proposed revisions to the solar farm layout. The assessment has found that removal of panels from the western land parcel will result in no change to the setting of Hilfield Castle Lodge and will maintain the current views of the tower of Hilfield Castle grade II* listed building from the west in Field 1, thereby maintaining its current setting. There will be no harm to the significance of any of the other designated assets as a result of the proposed development with the exception of Slades Farmhouse which is considered to experience a slight loss of significance equating to much less than substantial harm.

7.50 At the November 2021 committee, members in debating the previous application, held concerns over the level of harm and weighting afforded to the public benefits arising from the scheme. This application has lessened further the less than substantial harm previously identified to heritage assets.

7.51 Overall, the DBA and HIA has not identified anything in respect of archaeology or heritage that would preclude the Proposed Development in this location. As such it is concluded that the Proposed Development complies with the policies of the NPPF and Local Plan Policies SP1, CS14 and SADM29. The less than substantial harm to Slades Farmhouse should be weighed against the benefits of the Proposed Development in line with paragraph 202 of NPPF and local planning policy including Policies SP1, SP2 and CS14 of the Core Strategy and SADM29 of the Hertsmere Local Plan.

7.52 In this instance, the public benefits are predominantly the generation, storage and supply of clean renewable energy to the National Grid. The Proposed Development provides the equivalent annual electrical needs of up to 15,600 family homes with anticipated CO_2 displacement around 25,400 tonnes per annum, which represents an emission saving equivalent of a reduction in approximately 8,100 cars on the road every year. This is substantial public benefit. Additionally, as set out below, there are a number of other public benefits arising from the scheme including benefits such as securing significant biodiversity net gains.

7.53 It is considered the public benefits outweigh the less than substantial harm to Slades Farmhouse.

Agricultural Land

7.54 Both the NPPF and Local Plan Policy SADM27 supports diversification and development supporting the rural economy provided the site is of a lower agricultural land grade (i.e. Grade

3b, 4, 5 or non-agricultural); and there is a reliable prospect that the land will be restored to at least its original quality seeking to resist the permanent loss of Best and Most Versatile (BMV) land, meaning grades 1, 2 and 3a as defined in the MAFF 1988 guidance for grading the quality of agricultural land. Guidance requires the proposed use of any agricultural land to be necessary and for poorer quality land to be used in preference to higher quality agricultural land.

7.55 An assessment of agricultural land quality, involving a desktop study and a semi-detailed Agricultural Land Classification (ALC) survey, has been undertaken to determine the quality of agricultural land on Fields 1-20 (the Study Area).

7.56 A semi-detailed ALC survey of the Site was carried out in July 2020 which determined that the quality of agricultural land at the whole Site is limited by soil wetness to Subgrade 3b (medium sensitivity receptor) and does not affect any BMV agricultural land.

7.57 The installation of the Proposed Development is reversible, i.e. the agricultural land can be returned to its former agricultural productivity once the generation of renewable electricity has ceased, and the solar panels and associated infrastructure is removed. Local Plan Policy SADM26 supports diversification where there is a reliable prospect that the land will be restored to at least its original quality.

7.58 PPG also recognises that the duration of the development and its remediability, taking into account any provisions to return the land to its original state or to an equivalent state of openness is a factor to be taken into account when considering development within the Green Belt.

7.59 The agricultural land at the Site is currently used mainly for arable crops. In many respects, the management of the land under solar panels as grassland can benefit soil health. It is likely that soil health will be improved over the operational life of the generating station, i.e. increase in soil organic matter, increase in the diversity of soil flora, fauna and microbes, and improve soil structure. The amended proposals, through this 'Free Go' application, retain Field 1 for continued agricultural use.

7.60 The semi-detailed ALC survey is sufficiently robust to have determined the location and extent (area in ha) of Subgrade 3b land over the whole Site. Therefore further, more detailed, ALC survey is not necessary.

7.61 Therefore, development of agricultural land at this Site would not significantly harm national agricultural interests in accordance with paragraph 174 of the NPPF and would comply with Local Plan Policy SADM27. All development which is supported in principle under this policy must also satisfy the requirements of Policy SADM26.

Farm Diversification

7.62 There is support in national (NPPF paragraph 83 (b)) and Local Plan policy SADM27 for farm diversification projects that meet sustainable development objectives and help sustain the rural economy and encourage agricultural enterprise, subject to development proposals being well designed and of a use and scale appropriate to the location when considering landscape, heritage and environmental impacts and safe and acceptable site access and highway impacts.

7.63 Due to the relatively low income from farming, many farmers have had to diversify to secure an economically sustainable profit. Farm diversification is broadly defined as 'the entrepreneurial use of farm resources for a non-agricultural purpose for commercial gain'. Hence, diversification reflects the reduced dependence of farmers on agriculture as a source of income. Diversification also implies entrepreneurial activity on behalf of the farmer.

7.64 The Proposed Development will be an important stream of farm diversification income whilst allow underpinning the continuation of the overall farming businesses.

7.65 Farming businesses play a vital role in the rural economy, particularly supporting the agricultural supply chain to include feed merchants, machinery sales, maintenance and repair businesses, local builders, delivery drivers and professional services, to name but a few – therefore farm diversification is key to the long-term overall survival of farms. The Proposed Development would help to support the local agricultural supply chain via the income to the farming business.

7.66 Renewable energy is an important form of farm diversification, recognised by the National Farmers Union (NFU) as an important step towards making British agriculture carbon neutral within two decades. As farming is responsible for around a tenth of UK greenhouse gas emissions, supporting renewable energy farm diversification projects will be a vital step to reaching net zero.

Amenity

Noise

7.67 A Noise Assessment Report has been produced to accompany the application.

7.68 The assessment considers the potential noise generation from the plant associated with the Proposed Development, with respect to existing sound levels in the area. The assessment methodology contained in British Standard 4142:2014+A1:2019 Method for rating and assessing industrial and commercial sound has been used in conjunction with supplementary acoustic guidance.

7.69 The assessment identifies that the Proposed Development will give rise to rating noise levels that are typically below the measured day and night-time background sound levels in the area, at the closest assessed residential receptors, thus giving rise to a Low Impact.

7.70 Consequently, the assessment demonstrates that the Proposed Development will give rise to noise impacts that would be categorised as No Observed Adverse Effect Level (NOAEL) within the PPG Noise.

7.71 The amenity of the closest residential receptors would therefore not be affected by noise arising from the Proposed Development.

Glint and Glare

7.72 Solar panels are made up of silicon based PV cells that are encased in a glass covering. Glass does not have a true specular reflection but does reflect a certain magnitude of light. Reflection of sunlight from PV panels is unwanted by the Applicant. This is because the greater the amount of light which can be captured at the PV cell, the greater the amount of electricity that can be produced. The manufacturers of the panels therefore use anti–reflective coating in the glass that changes the reflectivity from specular distribution to diffuse distribution. Therefore, as light falls onto the PV panels, most of the sunlight is transmitted to the cell beneath the glass with only a small amount reflected back in a multiple of angles and magnitudes. The result is an object that is perceived to have very little glare.

7.73 Nonetheless, and for the purposes of completeness and a robust impact assessment of the Proposed Development a Glint and Glare Assessment has been prepared and submitted (see Appendix 5.1 of the ES). The assessment pertains to the possible effects upon surrounding aviation, road users and dwellings. Potential effects on aviation safety from the Proposed Development are considered in Chapter 5 of the ES.

7.74 The glint and glare assessment has shown that the mitigation forming the proposed landscape screening will be sufficient to block all views of the reflective areas therefore no impact on dwellings is expected. For only four road receptors the impact is moderate and mitigation is recommended along Butterfly Lane. Impacts on Elstree Aerodrome are considered low for pilots on the approach paths to the runway with mitigation not required and negligible for the Air Traffic Control Tower.

7.75 Overall, therefore the Proposed Development is acceptable in amenity terms and meets the requirements of the NPPF and Local Plan Policy SADM30. The Proposed Development is considered acceptable in aviation safety terms and meets the requirements of Local Plan Policy SADM41.

Flood Risk

7.76 The requirements for Flood Risk Assessment (FRA) are provided in the NPPF and its associated PPG, together with the Environment Agency's (EA's) Guidance Notes.

7.77 The EA's flood map for planning indicates that the majority of the Site is located within Flood Zone 1 (low risk). An area of Flood Zone 2 and 3 (medium and high risk, respectively) is located in the north-western part of Field 1 associated with Hilfield Brook which is not proposed to be developed in the amended 'Free Go' scheme.

7.78 The EA's risk of flooding from surface water mapping identifies that the majority of the Site has a very low risk of flooding from surface water and some small areas have up to a high surface water flood risk.

7.79 The Site is potentially at risk of flooding from sewers and groundwater; however, flood risk to the Site from these sources is considered to be low.

7.80 Part of the Site is at risk from reservoir flooding; however, as reservoirs are regularly inspected ensuring that they are maintained in a stable condition. It is therefore considered that flood risk to the Site from reservoirs is negligible to low and, therefore, no specific mitigation is considered necessary from this source. Nonetheless, the most sensitive part of the Proposed Development (i.e. the battery storage area and substation) will be located outside the area at risk of reservoir flooding, as a precautionary approach.

7.81 The Proposed Development will not be adversely affected by flooding from the Hilfield Brook, with climate change, for the operational lifetime of the development. The EA's flood map for

planning does not include flood extents for Aldenham Brook, Aldenham Tributary or the other unnamed watercourses within the Site. These watercourses have small catchment areas of significantly less than 3 km^2 and, therefore, are excluded from the JFLOW model and EA's flood map for planning. As such, it is considered that these watercourses are unlikely to pose a significant source of flood risk.

7.82 In this instance, the EA's Risk of Flooding from Surface Water mapping appears to show that the majority of the surface water flood risk is interlinked with the fluvial flooding.

7.83 An appropriate buffer will be provided from the top of the bank of the watercourses in order to ensure access for maintenance, including 8 m for 'main rivers' and 6 m for ordinary watercourses.

7.84 This FRA has therefore demonstrated that the Proposed Development will be safe and that it would not increase flood risk elsewhere. The Proposed Development should therefore be considered acceptable in planning policy in terms of its location in accordance with the NPPF and Local Plan Policies SADM13, SADM14 and SADM16.

Traffic and Access

7.85 A Construction Traffic Management Plan (CTMP) has been prepared and accompanies the application. This explains in detail the proposed Site access points, vehicle movements and the construction vehicle route from the strategic highway network to the Site.

7.86 It is expected that there will be approximately five HGVs per day (10 two-way movements) accessing the Site over the construction period. There will also be construction workers arriving at the Site in the morning and departing in the evening, although the numbers involved are forecast to be relatively low on a day-to-day basis and will occur outside of peak hours. The level of traffic forecast during the temporary construction phase is therefore low. It is concluded that construction traffic associated with the Proposed Development will not have a material effect on the safety or operation of the local highway network. Mitigations measures have also been proposed to further minimise impact from resulting construction activities on the local road network and are provided in Section 6 of the CTMP.

7.87 Operational traffic is very low, at approximately one to two light van maintenance visits per month.

7.88 The existing PRoW are not proposed to be diverted or closed and will remain open to users during the temporary construction period and during operations. A Permissive Path is proposed.

7.89 Overall, the Proposed Development is acceptable in traffic and access terms and meets the requirements of the NPPF and Local Plan Policy SADM40.

Green Belt

7.90 In regard to assessing the Proposed Development in the Green Belt, the starting point is as set out by the NPPF:

> "The Government attaches great importance to Green Belts. The fundamental aim of Green Belt policy is to prevent urban sprawl by keeping land permanently open; the essential characteristics of Green Belts are their openness and their permanence" (paragraph 137).

7.91 Paragraph 138 goes on to state that:

> "Green Belt serves five purposes:
>
> a) to check the unrestricted sprawl of large built-up areas;
>
> b) to prevent neighbouring towns merging into one another;
>
> c) to assist in safeguarding the countryside from encroachment;
>
> d) to preserve the setting and special character of historic towns; and
>
> e) to assist in urban regeneration, by encouraging the recycling of derelict and other urban land."

7.92 Paragraph 147 states that inappropriate development is, by definition, harmful to the Green Belt and should not be approved except in Very Special Circumstances.

7.93 Paragraph 148 states "When considering any planning application, Local Planning Authorities should ensure that substantial weight is given to any harm to the Green Belt. "Very special circumstances" will not exist unless the potential harm to the Green Belt by reason of

inappropriateness, and any other harm [7] resulting from the proposal, is clearly outweighed by other considerations."

7.94 Very Special Circumstances is thereby the outcome of the balancing exercise and that the harms must be clearly outweighed by the benefits.

7.95 The policies in the NPPF set out those types of development that are appropriate (i.e. not inappropriate) in the Green Belt (paragraphs 149 and 150). The Proposed Development is inappropriate development in the Green Belt and Very Special Circumstances needs to be demonstrated.

7.96 In this regard paragraph 147 is relevant. It shows the Government contemplates development of the nature now proposed in the Green Belt. Paragraph 151 states:

"When located in the Green Belt, elements of many renewable energy projects will comprise inappropriate development. In such cases developers will need to demonstrate very special circumstances if projects are to proceed. Such very special circumstances may include the wider environmental benefits associated with increased production of energy from renewable sources" (our emphasis).

7.97 The test of Very Special Circumstances is a planning balancing exercise (which is a matter of planning judgement) to establish whether the harm to the Green Belt and any other harm is clearly outweighed by the scheme benefits. This is also consistent with the approach identified in Policy CS3 and SADM26. The balancing exercise is carried out below.

Openness

7.98 The concept of *"openness"* in paragraph 137 of the NPPF is naturally read as referring back to the underlying aim of Green Belt policy that is *"to prevent urban sprawl by keeping land permanently open..."*. Openness is the counterpart of urban sprawl and is also linked to the purposes to be served by the Green Belt. It is not necessarily a statement about the visual qualities of the land, though in some cases this may be an aspect of the planning judgement involved in applying this broad policy concept. Nor does it imply freedom from any form of

[7] The phrase "any other harm" means any harm, not only Green Belt harm (see Redhill Aerodrome [2014] EWCA Civ 1386).

development; some forms of development are appropriate and as such are compatible with the concept of openness [8].

7.99 The Proposed Development is inappropriate development, thereby it is acknowledged that there would be harm to the openness of the Green Belt through the imposition of built form, albeit this impact would be fully reversible owing to the temporary planning consent being sought.

7.100 The word 'openness' is open-textured and a number of factors are capable of being relevant when it comes to applying it to the particular facts of a specific case. Prominent among these will be factors relevant to how built up the Green Belt is now and how built up it would be if redevelopment occurs… and factors relevant to the visual impact on the aspect of openness which the Green Belt presents [9]. It is clear from 'Samuel Smith' that visual impact is a factor that may be material to the assessment of openness and it will be for the decision maker to determine whether or not it is to be taken into account in any individual case.

7.101 One factor which can affect the preservation of openness and conflict with Green Belt purposes, is the duration of development and the reversibility of its effects [10]. The application is proposed for a lifetime of 35 operational years. It is, therefore, of limited duration. It is also completely reversible. It will not, therefore, permanently affect the Green Belt. It will not harm, the Green Belt by a failure to keep land permanently open which is the underlying aim of the Green Belt.

7.102 The PPG provides further guidance to the decision maker under the heading of:

"'What factors can be taken into account when considering the potential impact of development on the openness of the Green Belt?':

Assessing the impact of a proposal on the openness of the Green Belt, where it is relevant to do so, requires a judgment based on the circumstances of the case. By way of example, the courts have identified a number of matters which may need to be taken into account in making this assessment.

[8] R (oao Samuel Smith Old Brewery (Tadcaster) and others v North Yorkshire County Council [2020] UKSC 3 at [22]
[9] per Sales LJ Turner v Secretary of State for Communities and Local Government [2016] EWCA Civ 466 at [14]
[10] Europa Oil and Gas Ltd v Secretary of State for Communities and Local Government [2013] EWHC 2643 (Admin) at [67]; (upheld at [2014] EWCA Civ 825)

These include, but are not limited to:

- openness is capable of having both spatial and visual aspects – in other words, the visual impact of the proposal may be relevant, as could its volume;
- the duration of the development, and its remediability – taking into account any provisions to return land to its original state or to an equivalent (or improved) state of openness; and
- the degree of activity likely to be generated, such as traffic generation." [11]

Paragraph 13 of the PPG also provides specific guidance on solar farms stating that "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."

7.103 In so far as visual impacts are considered relevant to the assessment of the impact on openness, it is necessary to draw upon the LIVA. As set out above, this assessment identifies the limited visibility of the Site, principally a result of the Site's visual connectivity to the wider landscape is, in general, limited to its local context up to 1 km. Coupled with the landscape-led iterative design process, the Proposed Development has sensitivity sited various elements of the scheme to reduce landscape and visual effects and potential harm to the Green Belt. This has involved the confinement of solar panels to the existing fields present within the Site; the omission of solar panels on the rising ground; the siting of the proposed battery storage facility to the immediate south of the Elstree Substation and removal of development from field 1. The Proposed Development would also retain the existing vegetation on-site in-combination with proposals to strengthen it with new planting where necessary. This will only be further contained through the long-term future management identified in the Landscape and Ecological Management Plan. It assesses the visual impacts as being limited in scale and extent and would reduce over time as the proposed mitigation planting matures. The effects would be reversible with the removal of the Proposed Development.

7.104 A comprehensive assessment of the Site in relation to the purposes prescribed under paragraph 138 of the NPPF is provided in the accompanying Green Belt Assessment.

[11] Ref. ID: 64-001-20190722 published 22 July 2019

7.105 The assessment concludes the Site would result in limited harm to purpose 3 'To assist in safeguarding the countryside from encroachment' only, however the remaining strategic performance and function of the remaining Green Belt would remain effective. The Site does make a contribution to this purpose of the Green Belt and there would be limited harm to this purpose as a result of the Proposed Development. This harm would be limited given the design of the Proposed Development and its limited visibility, being well contained by field boundaries and woodland within the Site and wider landscape. Notwithstanding the operational duration of the proposed Development, it would be entirely reversible and would be decommissioned after 35 years. In addition, as a farm diversification scheme, a proposed solar farm is not a form of development that is unusual or cannot be accommodated within a rural context.

7.106 It is acknowledged that substantial weight is to be applied to the openness of the Green Belt, however the reversibility of the Proposed Development and limited impact on the purposes of the Green Belt are a key consideration in the planning balance.

Other Harm

7.107 As demonstrated above, consideration has been given to 'other harm' regarding heritage, biodiversity, agricultural land, farm diversification, amenity, flood risk, traffic and access. Landscape and visual impacts have also been assessed in relation to landscape character and visual receptors, we include it below but it should not be double counted if taken into account in considering openness.

7.108 The supporting assessments are clearly set out below in Table 1, indicating mitigating measures taken to reduce harm as part of the Development:

Assessment	Mitigation Measures	Harm
Landscape and Visual	Input into the design to ensure suitable distances from PRoW and location of key infrastructure such as the onsite substation and battery storage facility. Enhancement measures incorporated within the LEMP.	Limited Temporary Harm (35 years)

Assessment	Mitigation Measures	Harm
Heritage	Undertook a partial geophysical survey and targeted trial trenching prior to submission to identify any unknown archaeology on Site. Suitable offsets and landscape improvements (LEMP) and removal of field 1 further lessens less than substantial harm.	Limited, Indirect and Reversible Harm (35 years)
Biodiversity	Suitable avoidance measures applied for both habitats and species identified. Enhancement measures incorporated within the LEMP. 66.75 % habitat biodiversity net gain and 21.06 % hedgerow biodiversity net gain.	Enhancement
Use of Agricultural Land	All of the land is not BMV. Land will be retained in agricultural use through sheep grazing. Temporary use and fully reversible. Benefits demonstrated to soil health due to change in management of the land.	Enhancement
Farm Diversification	The site would support the rural economy by providing farm diversification for the landowner.	Benefit
Amenity	Noise: location of noise generating equipment has been moved as far practicable from sensitive receptors and is below background levels. Glint and Glare: choice of technology, configuration of technology, site topography, new vegetative screen planting and positive management of existing planting to improve screening (LEMP).	Noise: No Harm Glint and Glare: Limited Temporary Harm

Assessment	Mitigation Measures	Harm
Flood Risk	Liaison with the Environment Agency to ensure suitable siting of equipment and sustainable drainage methods. Removal of field 1 which had formed part Flood Zone 2 and 3.	Limited Temporary Harm
Traffic and Access	Liaison with Highway Authority to agree safe access design. Inclusion of signage, procedures and pre-commencement and post condition surveys to further minimise impacts on the local road network.	Limited Temporary Harm
Aviation Risk	Continued liaison with Elstree Aerodrome to agree safe design.	Limited Temporary Harm

Table 1: Mitigation Measures taken to reduce harm

7.109 It is concluded from the accompanying assessments that limited weight should be applied to 'other harm' when undertaking the planning balance in accordance with paragraph 148 of the NPPF and local policies.

Very Special Circumstances

7.110 It is a key planning policy requirement that very special circumstances need to exist for inappropriate development to be approved in the Green Belt.

7.111 It is incorrect to suggest that every circumstance in itself has to be 'very special'. Some factors which are quite ordinary in themselves could, cumulatively, become Very Special Circumstances [12]. Thus, the correct approach is to consider whether the Very Special Circumstances relied upon by an Applicant (and any other identified by the decision maker), when considered as a whole, are sufficient to outweigh any harm to the Green Belt and any other harm arising from the Proposed Development.

7.112 The following are considered to be benefits of the Proposed Development:

[12] R. (on the application of Basildon DC) v First Secretary of State [2004] EWHC 2759

Increasing Renewable Energy Generation

7.113 The Proposed Development would supply clean renewable energy to the National Grid, providing the equivalent annual electrical needs of up to 15,600 family homes. The anticipated CO_2 displacement is around 25,400 tonnes per annum, which represents an emission saving equivalent of a reduction in approximately 8,100 cars on the road every year.

7.114 As demonstrated extensively in Section 5, the UK and HBC is at a time of climate emergency and there is an urgent requirement for renewable energy infrastructure, particularly when considered in the context of the June 2019 ambitious target to reduce greenhouse gas emissions to net zero by 2050 in accordance with the Climate Change Act 2008.

7.115 Whilst there is no requirement for an applicant to demonstrate the need for renewable energy in planning policy, national energy policy makes clear that renewable and low carbon energy is vital to our economic prosperity and social well-being and that it is important to ensure that the UK:

- Transitions to a low carbon economy and reduces greenhouse gas emissions to address the predominant challenge of our time, climate change;
- supports an increased supply from renewables;
- continues to have secure, diverse and resilient supplies of electricity as the UK transitions to low carbon energy sources and to replace closing electricity generating capacity;
- increases electricity capacity within the system to stay ahead of growing demand at all times whilst seeking to reduce demand wherever possible; and
- delivers new low carbon and renewable energy infrastructure as soon as possible- the need is urgent.

7.116 The 'Sixth Carbon Budget' report prepared by the Committee on Climate Change in December 2020 and 'Progress Report to Parliament' (June 2021), make it clear that the utmost focus is required from Government over the next ten years. If policy is not scaled up across every sector; if business is not encouraged to invest; if the people of the UK are not engaged in this challenge - the UK will not deliver Net Zero by 2050. The 2020s must be the decisive decade of progress and action.

7.117 When located in the Green Belt, paragraph 151 is clear in stating that "Such very special circumstances may include the wider environmental benefits associated with increased production of energy from renewable sources".

7.118 The NPS EN-1 and NPPF state that renewable energy and associated infrastructure should be supported in the planning system, as part of working towards a radical reduction of greenhouse gases to tackle climate change. Paragraph 155 encourages local panning authorities to maximise the potential for renewable energy and to approve such applications where their impacts are acceptable.

7.119 This is afforded significant weight in the planning balance.

Climate Emergency

7.120 In September 2019 HBC joined a growing number of local authorities who have declared a climate emergency. HBC has committed to achieving net zero carbon emissions no later than 2050 having prepared a Climate Change and Sustainability Strategy with associated Action Plan and published an 'Interim Planning Policy Position Statement' (November 2020).

7.121 The Proposed Development would make a significant and valuable contribution to achieving emission targets on a national and local level.

7.122 This is afforded substantial weight in the planning balance.

Energy Security

7.123 The Proposed Development supplies clean renewable energy to the National Grid, comprising secure, distributed and diversified energy generation which accords with the Government's policy on energy security as identified within NPS EN-1 which explains the need for energy security allied with a reduction in carbon emissions.

7.124 This is afforded substantial weight in the planning balance.

Best Available Technology

7.125 The use of best available and state of the art technology on the Site aims to maximise the use and productivity of the land for the generation of renewable energy. The Proposed Development proposes utilising high-efficiency bifacial panels and at a fixed tilt of between 15-30 degrees and orientated broadly facing south. Bifacial panels absorb light on both sides

of the panel, both directly on the top-side, and reflected light is also absorbed on the rear-side. The panel technology also utilises high efficiency monocrystalline cells meaning fewer panels are required to be installed on the site to achieve the target capacity. The combination of high-efficiency bifacial panels and optimised configuration increases the production of electricity from the site by 4% compared to current monofacial systems.

7.126 The battery storage facility would be utilised to reinforce the power generation of the solar farm, maximising renewable energy production from the Site whilst providing security of supply.

7.127 This maximises renewable energy production from the Site whilst providing security of supply in accordance with Government Policy in reducing the reliance on fossil fuel generation as back up, thereby avoiding the adverse environmental and climate effects.

7.128 This is afforded significant weight in the planning balance.

Good Design

7.129 In addition to using best available technology, through undertaking an iterative design process and pre-application engagement, as outlined in the Design and Access Statement, the design of the Proposed Development has been a key consideration in the layout of the Site to minimise harm and provide significant benefits to the development as a whole.

7.130 This is afforded moderate weight in the planning balance.

Alternatives

7.131 The ES sets out the alternatives considered as part of the evolution of the design of the Proposed Development.

7.132 An Alternative Site Assessment has been prepared and accompanies the application. Overall, it is concluded that within the defined Study Area, there are no alternative sites which are suitable and available for the Proposed Development.

7.133 This is afforded substantial weight in the planning balance.

Temporary and Reversible Impacts

7.134 The Application is proposed for a lifetime of 35 operational years. After the 35-year period the Proposed Development would be decommissioned. All electricity generating equipment

and built structures associated with the Proposed Development would be removed from the Site and it would continue in agricultural use. It is therefore considered that the Proposed Development is considered a temporary development.

7.135 This also aligns with paragraph 13 of the PPG which states 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 [13]. In addition, Policy SADM27 supports development where there is 'a reliable prospect that the land will be restored to at least its original quality'.

7.136 Construction traffic associated with the Proposed Development will be limited to the construction period of approximately 40 weeks and will not have a material effect on the safety or operation of the local highway network.

7.137 This is afforded substantial weight in the planning balance.

Biodiversity Net Gain

7.138 The Proposed Development proposes a significant number of biodiversity benefits within the accompanying LEMP. This will primarily be achieved through:

- The creation of new habitats including parkland, grassland, orchard and scrub, managed primarily for biodiversity enhancement.
- The creation of a substantial area of low intervention grassland with scrub for skylark enhancement on the former landfill area (Fields 18, 19 and 20).
- The creation of landscape scale green corridors along Aldenham Brook in the eastern site parcel forming a key structuring element and connectivity to wider GI.
- The provision of Hilfield Brook green wedge in the western parcel creating a substantial green corridor from Hilfield Lane to Elstree aerodrome, enhancing biodiversity and maintaining views to Hilfield Castle.
- The removal of proposed development from Field 1 and its continued use for agricultural purposes.

[13] Paragraph: 013 Reference ID: 5-013-20150327, published 27 March 2015

- The improved management of ponds on the western edge of Field 13 to improve habitat for great crested newts and restoration of two filled-in ponds between Fields 12 and 13 and near to Little Kendal's Wood.

- New structure planting including the reinstatement of historic hedgerows and creation of new hedgerows within Field 5 and within Field 4. Elsewhere new structure planting will create a new tree belt GI corridor along Butterfly Lane (Fields 19 and 20) and field boundary hedgerow and woodland stand connectivity enhancements through Fields 9, 10, 11, 13 and 16 linking Little Kendals Wood to woodland at Aldenham Park.

- The proposed solar panels will be confined to the existing individual field parcels using existing access points wherever possible to ensure a well-integrated scheme is implemented that causes minimal loss of existing vegetation on-Site.

- Existing field boundaries within and along the Site's boundaries will be positively managed (through the relaxation of cutting and new planting where required) to strengthen the existing vegetation to enhance the biodiversity within the Site and provide further screening of the Proposed Development.

- Positive management of field margins and fringe areas will improve existing biodiversity and be undertaken throughout the Site.

- Infill planting will be implemented (where necessary) to strengthen existing hedgerows along the Site's boundaries where it is presently sparse, such as adjacent to Butterfly Lane (Field 16) and adjacent to Watling Street (Field 14).

- The creation of small woodland and scrub copses within the Site to provide ecological nodes throughout the Site and linking to the wider existing landscape context.

- The creation of new areas of neutral grassland (as described through the UK Habitat Classification) throughout the Proposed Development, located beneath and around the solar arrays, within the security fences. These areas previously of arable land use will be converted into a grassland pasture with light grazing, improving the biodiversity from previous arable use and allowing the soil ecosystems to rest and restore over time in the absence of intensive agriculture use and nutrient loading.

- The creation of new areas of tussocky grassland are proposed within Fields 5 outside the security fencing as part of Hilfield Brook green wedge, enhancing biodiversity.

- Provision of two 'Nature Areas' with public access, interpretation board and picnic bench providing enhanced public amenity and recreation opportunities.

- Planting of an orchard in Field 7 with a variety of traditional native fruit and nut species.

- Provision of two new permissive footpaths within the Site; one around the eastern edge of Field 12 from the existing public right of way and linking to the Hertfordshire Way to the north of the Site; the other in Field 16 providing an alternative route avoiding Belstone FC football pitches.

- Retention of all existing Public Rights of Way (PRoW) within the Site.

- Creation of new planting along the routes of the existing PRoW to both protect and enhance their recreational amenity.

7.139 The significant enhancement of the biodiversity of the Site is demonstrated by the Net Biodiversity Gain Calculator, which concludes that there will be biodiversity would be significantly improved with a 66.75 % habitat net gain and 21.06 % hedgerow net gain biodiversity gains through the implementation of the Proposed Development.

7.140 This is afforded substantial weight in the planning balance.

Soil Regeneration

7.141 Aims and objectives for safeguarding and, where possible, improving soil health are set out in the Government's 'Safeguarding our soils: A strategy for England' [14]. The Soil Strategy for England, which builds on Defra's 'Soil Action Plan for England (2004-2006), sets out an ambitious vision to protect and improve soil to meet an increased global demand for food and to help combat the adverse effects of climate change.

7.142 As demonstrated within the ALC, the greatest benefits in terms of increase in soil organic matter (SOM), and hence soil organic carbon (SOC), can be realised through land use change from intensive arable to grasslands. Likewise, SOM and SOC are increased when cultivation of

[14] Department for Environment, Food and Rural Affairs (2009). Safeguarding our soils: A strategy for England

the land for crops (tillage) is stopped and the land is uncultivated (zero tillage). Global evidence suggests that zero tillage results in more total soil carbon storage when applied for 12 years or more.

7.143 Therefore, there is evidence that conversion of land from arable to grassland which is uncultivated over the long-term (>12 years), such as that under solar farm arrays, increases SOC and SOM.

7.144 This is afforded moderate weight in the planning balance.

Green Infrastructure

7.145 Policy CS12 of the Core Strategy requires development proposals to provide opportunities for habitat creation and enhancement throughout the life of a development. The Proposed Development, as demonstrated in the LEMP and the biodiversity net gain calculation provides substantial additional green infrastructure, including the Aldenham Brook and Hilfield Brook green corridors, the Hilfield Green Wedge and pond restoration/nature areas and an overall 66.75 % habitat biodiversity net gain and 21.06 % hedgerow biodiversity net gain.

7.146 The enhanced landscape structure will greatly improve GI corridors and connectivity across and within the Site and is therefore afforded substantial weight in the planning balance.

Farm Diversification

7.147 As demonstrated above, the additional income generated by the Proposed Development will help to secure the farming business.

7.148 Renewable energy is an important form of farm diversification, recognised by the National Farmers Union (NFU) as an important step towards making British agriculture carbon neutral within two decades. As farming is responsible for around a tenth of UK greenhouse gas emissions, supporting renewable energy farm diversification projects will be a vital step to reaching net zero.

7.149 The deployment of solar farms on agricultural land, occasionally referred to as “agrivoltaics”, is the process of integrating solar photovoltaics with an ongoing agricultural operation or use. Solar farms are just one of many land-based renewable resource available to agricultural enterprises for self-supply and / or export to others; other examples include wind turbines or anaerobic digestion (AD) plants. The scale of these renewable projects can vary in scale.

7.150 In March 2015, the NFU Chief Adviser for Renewable Energy and Climate Change stated in a NFU Briefing that "The NFU believes that its members are well-placed to capture renewable natural energy flows, while maintaining our traditional role in food production as well as the delivery of other environmental and land management services. It is the NFU's aspiration that every farmer and grower should have the opportunity to become a net exporter of low-carbon energy" [15].

7.151 The proposed development delivers a multi-purpose land use; the generation of renewable energy; continuing agricultural activity through grazing; environmental stewardship through the creation of wildlife habitats for pollinating insects and other fauna; and planting of new hedgerows and trees allowing for additional carbon sequestration on site. This multi-purpose land use aligns with Section 11 of the NPPF, which seeks to ensure "*planning policies and decisions promote an effective use of land… while safeguarding and improving the environment and ensuring safe and healthy living conditions*" (paragraph 119).

7.152 This is afforded moderate weight in the planning balance.

Business Rates

7.153 The Proposed Development will lead to economic benefits; the creation of up to 120 temporary construction jobs in addition to jobs being created in the supply chain. The capital expenditure of this renewable energy development would contribute towards financing and securing Net Zero, also resulting in a business rates contribution to the Council.

7.154 These benefits attract moderate weight in the planning balance.

Transmission Vs Distribution Connection

7.155 The methodology for the proposed connection to the National Grid Network rather than the Distribution Network is provided as part of the Alternative Site Assessment.

7.156 The advantages of this process when compared against the distribution network connections is that once a connection is identified, then a search can begin to identify the most suitable solar development land. This avoids considerable delays in securing both the connection with the Distribution Network Operator (DNO), land and ultimately the delivery of renewable energy to meet the UKs net zero target.

[15] NFU Briefing. Solar photovoltaic electricity in agriculture – on your roofs and in your fields. March 2015.

7.157 This is afforded moderate weight in the planning balance.

Green Belt Conclusion

7.158 In accordance with paragraph 148 of the NPPF, in addition to the harm by reason of inappropriateness, weight must be attributed to the harm to the openness of the Green Belt and other harm presented. As recognised above the Proposed Development is inappropriate development, thereby it is acknowledged that substantial weight is to be applied to the openness of the Green Belt through the imposition of built form, however the reversibility of the Proposed Development and limited impact on the purposes of the Green Belt are a key consideration in the planning balance.

7.159 Accompanying assessments have been undertaken to assess 'other harm' regarding heritage, biodiversity, agricultural land, farm diversification, amenity, flood risk, traffic and access. Landscape and visual impacts have also been assessed in relation to landscape character and visual receptors. It is concluded from these assessments that limited weight should be applied to 'other harm' when undertaking the planning balance.

7.160 Paragraph 148 is clear that very special circumstances will not exist unless the potential harm to the Green Belt by reason of inappropriateness, and any other harm resulting from the proposal, is clearly outweighed by other considerations. It is a key planning policy requirement that very special circumstances need to exist for inappropriate development to be approved in the Green Belt.

7.161 The above section demonstrates the benefits of the scheme, taking into account the urgent need for renewable energy generation, climate emergency and other key considerations of the Proposed Development such as achieving a biodiversity net gains of 66.75 % habitat net gain and 21.06 % hedgerow net gain, all of which are key material considerations in accordance with the policy tests identified in paragraphs 148 and 151 of the NPPF.

7.162 On balance, it is considered that the benefits of the Proposed Development outweigh the temporary and reversible harm by reason of inappropriateness and any other harm identified. As such very special circumstances exist to justify the Proposed Development in the Green Belt.

8. CONCLUSION

8.1 For the reasons outlined in this Planning Statement, it is considered that the Proposed Development is in accordance with the relevant planning policies and guidance at both the national and local levels.

8.2 The Site is located within the Green Belt, and therefore in line with policy tests in paragraph 148 of the NPPF harm resulting from the Proposed Development must be clearly outweighed by other considerations.

8.3 In accordance with paragraph 137 it is acknowledged that the Government attaches great importance to Green Belts. The fundamental aim of Green Belt policy is to prevent urban sprawl by keeping land permanently open; the essential characteristics of Green Belts are their openness and their permanence. The Development Plan seeks to protect the Green Belt.

8.4 One factor which can affect the preservation of openness and conflict with Green Belt purposes, is the duration of development and the reversibility of its effects. The application is proposed for a lifetime of 35 operational years. It will not therefore permanently affect the Green Belt.

8.5 Any visual impacts on openness are limited in particular because of the limited visibility of the Site principally as a result of the strong vegetative network of established field boundaries, woodland blocks and copses and the topography. This will only be further contained through the long-term future management identified in the Landscape and Ecological Management Plan. The removal of field 1 has reduced the limited impacts on openness and harm to the Green Belt.

8.6 A comprehensive assessment of the Site in relation to the purposes prescribed under paragraph 138 of the NPPF is provided (see also Alternative Sites Assessment and Green Belt Assessment) which concludes there would be limited harm to purpose 3 ‘to assist in safeguarding the countryside from encroachment’, however the remaining strategic performance and function of the remaining Green Belt would remain effective.

8.7 The Proposed Development would not significantly affect landscape, heritage assets, biodiversity, amenity, flood risk or traffic/access and cumulative impacts are also considered acceptable. It therefore concluded that from the accompanying assessment that limited weight should be applied to other harm when undertaking the planning balance in accordance with paragraph 148 of the NPPF. The ‘less than substantial harm’ to Slades Farmhouse, the

only heritage asset harmed, is outweighed by the public benefits of the proposals (NPPF paragraph 202).

8.8 The Proposed Development represents a clear form of sustainable development, generating clean renewable energy and helping reduce carbon emissions which are required to meet the Climate Act 2050 net zero target. Paragraph 151 goes further to state that such very special circumstances may include the wider environmental benefits associated with increased production of energy from renewable sources.

8.9 The Proposed Development would supply clean renewable energy to the National Grid, providing the equivalent annual electrical needs of up to 15,600 family homes. The anticipated CO_2 displacement is up to 25,400 tonnes per annum, which represents an emission saving equivalent of a reduction in 8,100 cars on the road. This is afforded substantial weight.

8.10 The Proposed Development will also provide significant biodiversity enhancements (66.75 % habitat net gain and 21.06 % hedgerow net gain), allow for soil regeneration, greatly improve Green Infrastructure corridors and connectivity and represent an important farm diversification project, with indirect socio-economic benefits, at a time when the agricultural land is becoming more challenging to farm due to climate change factors. There are also no alternative sites which are suitable and none available for the Proposed Development outside of the Green Belt.

8.11 The Proposed Development has therefore demonstrated that very special circumstances exist through the benefits presented in Section 7 and in accordance with paragraph 148 and 151 and that the benefits considerably outweigh the identified harm to the openness and limited harm to purpose 3 ‘to assist in safeguarding the countryside from encroachment’ of the Green Belt only (no harm to other). This conclusion is reached based on a full and robust assessment of the likely environmental impacts of the Proposed Development.

8.12 It is concluded having made the assessment(s) above that the public benefits that result from the development would outweigh the identified harms.

8.13 As is set out in the accompanying ES, there are no impacts on aviation safety or adverse glint and glare impacts of aviation receptors.

8.14 Overall, there is an urgent requirement for the Proposed Development; it is entirely suitable to the Site and its surroundings; it accords with national and local planning policy and all relevant material planning considerations; and will deliver significant environmental benefits.

8.15 In summary, based on the Proposed Development and assessments undertaken, the Site is deemed suitable for a development of this nature in terms of planning policy and guidance and planning permission should be granted. It is considered that in line with paragraphs 11 and 47 of the NPPF (2021) and Section 38(6) of the Planning and Compulsory Purchase Act 2004, when undertaking the planning balance, the Proposed Development would accord with the local development plan and that there are no material considerations which indicate otherwise.

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