

STATERA ENERGY LIMITED

PELHAM SOLAR: PROPOSED SOLAR PHOTOVOLTAIC INSTALLATION, ADJACENT TO THE EXISTING PELHAM SUBSTATION AND BATTERY STORAGE FACILITY, UTTLESFORD

PLANNING, DESIGN AND ACCESS STATEMENT



June 2022

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Introduction

1.1 The purpose of this Planning Statement is to provide an assessment of the proposed development in relation to development plan policy and other relevant material considerations, as well as providing a Design and Access Statement. It also considers the policy of the UK Government towards the importance of lower carbon energy, reliable energy supplies and the benefits that will arise from the construction and operation of the Proposed Development.

The Applicant

1.2 Statera Energy was founded in 2015 with the aim of delivering increased flexibility for the UK electricity system to assist in the transition to a low carbon economy in the belief that renewable energy sources, such as solar and wind, will become the dominant form of generation of the future.

1.3 It is a fully integrated developer, owner and operator of flexible infrastructure which includes both energy storage and high efficiency gas reciprocating engines.

1.4 Statera has entered a 15-year partnership with Statkraft, Europe's largest renewable operator to provide flexibility services.

1.5 All projects are developed in-house, managed through their construction and on to operation, where they are overseen by a dedicated asset management team which includes its own industry leading technical expertise.

1.6 Statera now has a growing portfolio of assets under management which are capable of providing multiple services to National Grid, Distribution Network Operators (DNOs), as well as those operating in the wholesale energy markets.

1.7 The team at Statera have developed over 300MW of solar project across the UK.

The Application

1.8 This application seeks planning permission for the construction and operation of a ground mounted solar farm with a generation capacity of up to 49.99MW together with associated infrastructure, access and landscaping.

1.9 Planning permission is sought for a temporary period of up to 40 years from the date of first exportation of electricity from the site.

1.10 In 2016 Statera Energy gained consent for a 49.99 MW battery electricity storage facility (Pelham Storage), directly north of the Pelham National Grid substation.

The Application Site

- 1.11 The application site comprises four large fields, currently arable. The fields are divided by hedges which are typically 2 – 6m high and support the occasional large tree. Tracks for farm vehicles run alongside most of the internal hedges and some of these are the routes of the PRow. There are no landscape features within the fields, such as mature trees or structures. The fields are drained via a series of ditches which take the water in a northeast direction towards Berden and the catchment of the Stort.
- 1.12 The entire layout of the PV arrays will be located within the administrative area of Uttlesford District Council.
- 1.13 The land is unallocated in the Local Plan and not subject to any designations.
- 1.14 Access to the Site will use the existing farm entrance off Ginns Road.

The Proposed Development

Construction and Layout

2.1 The Proposed Development involves construction of the following:

- Installation of approximately 100,368 photovoltaic solar panels mounted on tables which will have a front edge at around 0.9m above ground and the rear edge 2.5m (a twenty-degree slope). Rows will run west to east, following the existing contours of the ground with the panels facing south. Spacing between rows will vary between 7.9m and 9.8m, depending on topography.
- Ten inverter units distributed among the panels and accessed via a combination of existing and proposed farm tracks (formed from crushed stone). Inverter units are typically the size of standard shipping containers.
- A small substation protected with a palisade fence will be built in the southwest corner, adjacent to the battery storage facility. It will be accessed via the internal track network from the main access to the solar farm on the Pelham Road.
- Deer fencing around each field to exclude large mammals and humans from the facility. Gates to allow the passage of small mammals such as badgers and foxes will be provided at intervals along the fence (but not within the sections of fence alongside PROW to prevent dogs passing through the fence).
- Existing footpaths will be retained along their same routes, typically within corridors 10 – 15 m wide between existing hedge lines and the proposed deer fence. A hedge will be planted in front of the deer fence to reduce the visual impact of the solar farm from view, reducing the corridor by 3 m (allowing for growth of the hedge).
- It will be necessary to widen the bellmouth to the Pelham Road access by approximately 5m. The gate will be set 17m back from the edge of carriageway to allow an HGV to turn in without waiting for the gate to be opened. This 17m section will have a tarmac or concrete surface.
- New hedges and copses will be planted to provide additional screening to the Proposed Development.

Site location and design evolution

2.2 The choice of sites for solar is determined initially by the capacity of the national grid to accept connections from new generation sources – the grid has approximately 300 major substations but only perhaps some 10% of these are suitable for Solar PV development. Locations then need to be in areas of elevated levels of solar irradiance to work efficiently – commonly the

southern and southwestern parts of England – and be close to the main conurbations to minimise the losses associated with the transmission of electricity over long distances. Sites themselves need to be in locations that can accommodate development of the scale required which have a suitable south or south-west facing aspect, and which avoid principal planning constraints.

- 2.3 The main driver for location the solar farm at this location is its proximity to the existing Pelham Substation and the high solar irradiance associated with the area. In addition, the Site is already afforded a high degree of visual enclosure with the opportunity of providing additional screening that can become effective within a short timeframe, minimising its impact on the wider landscape.
- 2.4 A buffer of arable land has been left between the solar farm and the village of Berden to ensure that the setting of the village is protected. It is also proposed to plant a copse in the southeast corner to screen it from the properties in this area.
- 2.5 The scheme has been designed to maintain all PRoW along their existing alignments, within wide corridors (typically 10 m + between the perimeter deer fences). All fences will include gaps for small mammals to access the Site, such as foxes, badgers and rabbits.
- 2.6 The proposal would provide a clean, renewable and sustainable form of electricity and will also make a valuable contribution to the generation of electricity at a local level. The scheme would add to Uttlesford District Council's progress in meeting its renewable energy target and would also assist in meeting national targets for both energy supply and low carbon energy development.

The Need for Development

- 3.1 In June 2019, the Government raised the UK's commitments in tackling climate change by legislating a net-zero gas emissions target for the economy by 2050.
- 3.2 Decarbonising the power sector is integral to achieving this target and requires major investment into renewable technologies, such as solar power, which are supported by planning policy at both local and national levels.
- 3.3 The proposed development would meet the annual equivalent electricity demands of approximately 15,200 homes or 26,000 electric cars, while also offsetting 47,000 metric tonnes of CO₂ (when compared to generation of electricity by non-renewable sources).
- 3.4 It will help the nation meet its energy needs from a renewable source and save significant levels of emissions associated with fossil fuel generation. It is the underlying policy of Uttlesford District Council to reduce CO₂ emissions and to support proposals which help achieve this.
- 3.5 In order to ensure a balanced supply of renewable electrical energy it is necessary to ensure that a range of sources are available with sufficient capacity to meet the annual increase in overall demand. Solar energy is a significant part of that energy supply, recognised by Government which has readmitted solar back into the Contracts for Difference (CfD) scheme, which is the method by which it allows operators to fund and sell energy into the national grid.
- 3.6 At a local level, Uttlesford District Council voted to declare a climate emergency in August 2019 and are currently in the process of preparing a climate change action plan that will set out realistic, measurable and deliverable targets that define how the Council will achieve net-zero carbon by 2030. The action plan is currently anticipated to be adopted by April 2023.
- 3.7 The National Infrastructure Commission (NIC), official advisor to the Government on Infrastructure, has published a report (Net-Zero Opportunities for the Power Sector, March 2020) setting out the key infrastructure requirements needed to meet the UK's 2050 net-zero target, including the amount of renewable energy development that would need to be deployed.
- 3.8 The NIC recommends that in meeting these targets, the UK's energy mix needs to be made up of around 90% renewables. At page 18 of the report, it is recommended that across all scenarios, significant levels of solar, onshore wind and offshore wind will need to be deployed with between 129 – 237 GW (gigawatts) of renewable energy capacity in operation by 2050. To achieve this, the report recommends the following split:
 - 56-121 GW of solar;
 - 18-27 GW of onshore wind; and
 - 54-86 GW of offshore wind.

- 3.9 To achieve the above targets would require a significant increase in installed capacity across the UK, including over nine times the current installed capacity of solar technologies in the UK, which as of October 2020 is around 13.4GW according to the Department for Business, Energy & Industrial Strategy (BEIS).
- 3.10 When considering the above figures and applying them to the number of local authorities across the UK, this would mean that there is an additional 107.6 GW of solar capacity required across the 382 local authorities across England, Scotland, Wales and Northern Ireland required to meet the NIC's upper figure for solar.
- 3.11 It is therefore reasonable to surmise that every local planning authority, where appropriate developable land allows, should be delivering a significant amount of renewable energy capacity, considering a mixture of landscapes and terrain.

Environmental Impact Assessment Screening

4.1 The Town and Country Planning (Environmental Impact Assessment) Regulations 2011 (the EIA Regulations) set out in Schedule 1 those developments for which an Environmental Impact Assessment (EIA) is mandatory and, in Schedule 2, those where an EIA may be required.

Schedule 1

4.2 The Proposed Development does not fall within Schedule 1 of the EIA Regulations. So, the requirement for EIA is not mandatory.

Schedule 2

4.3 It is considered that the Proposed Development falls under the following development type in paragraph 3(a) of Column 1 of Schedule 2:

“Industrial installations for the production of electricity, steam and hot water (unless included in Schedule 1).”

4.4 Where development is listed under Schedule 2, the need for EIA is dependent on the likelihood of significant environmental effects arising from factors including the nature, size and location of the development. This is established through successive tests, sequentially applied, based on:

- location within a sensitive area, or
- specified thresholds and criteria on the scale of development; and
- consideration of likely significant effects.

4.5 These tests are considered below in relation to the Proposed Development.

Sensitive Area

4.6 Sensitive areas are defined in the EIA Regulations as follows:

- Sites of Special Scientific Interest;
- National Park;
- The Broads;
- A UNESCO World Heritage Site;
- Scheduled Monuments;
- An Area of Outstanding Natural Beauty;
- Land to which Nature Conservation Orders apply.

4.7 The Application Site is not located in, or partly in, a sensitive area as defined in the EIA Regulations. It is outside any of the Uttlesford Biodiversity areas.

Applicable Thresholds

4.8 The thresholds and criteria applicable to Category 3(a) are stated in Column 2 of Schedule 2 as:

“The area of the development exceeds 0.5 hectares.”

4.9 The proposed development covers approximately 71.58 hectares.

Significant Environmental Effects

4.10 In determining whether EIA is necessary for an individual project, Schedule 3 of the EIA Regulations set out the criteria to assess the significance of effects. In summary, the criteria fall under three broad headings:

- Characteristics of development – taking into account aspects such as size, raw material usage, emissions and risk of accidents;
- Location of development – the environmental sensitivity of the areas likely to be affected including existing land uses and the capacity of the existing environment to ‘absorb’ the new development;
- Characteristics of the potential impact – in particular with regard to its extent, complexity, probability, duration and frequency, in relation to the characteristics and location of the development.

4.11 This Planning Statement (Chapter 8) and the accompanying detailed environmental reports which accompany this planning application provide information on the key environmental issues associated with the Proposed Development. These assessments include:

- Agricultural Land Classification Survey,
- Agricultural Land Assessment,
- Construction Traffic Management Plan,
- Flood Risk Assessment/Drainage Plan,
- Heritage Assessment,
- Geophysical Survey,
- Landscape and Visual Impact Assessment,
- Preliminary Ecology Assessment,
- Noise Impact Assessment, and
- Glint and Glare Assessment

4.12 On the basis of this information it has been established that there would not be any significant environmental effects arising from the Proposed Development. Conclusion

4.13 Although the Proposed Development falls within a type of development listed within Schedule 2 and meets the applicable thresholds for this development type, it is not considered that the

nature, scale or location of the Proposed Development is such that it is likely to give rise to significant environment effects. This conclusion has been confirmed by the environmental reports undertaken in support of the application. On this basis, it is concluded that the Proposed Development does not constitute an 'EIA Development'.

Statement of Community Engagement

- 5.1 The National Planning Policy Framework identifies at Paragraph 188 that *‘Early engagement has significant potential to improve the efficiency and effectiveness of the planning application system for all parties. Good quality pre-application discussion enables better coordination between public and private resources and improved outcomes for the community’*.
- 5.2 A public exhibition was held in the Berden Village Hall by Statera on the 21st March 2022 between 1pm and 7.30pm. The event was well attended by residents, with over 50 residents in attendance throughout the day (see photos in Appendix A).
- 5.3 Invitations were distributed to houses with local postcodes via Royal Mail two weeks before the event, however, several residents did not receive an invitation. Local volunteers delivered leaflets to the missed houses a week before the Public Exhibition to ensure residents were aware of the event.
- 5.4 A website has been made available which contains all the same information which was shown at the public exhibition event [REDACTED]
- 5.5 Following the exhibition, and residents’ feedback, changes have been made to the scheme and we have set these out below.

New woodland planting and landscaping

- 5.6 Since the Public Exhibition 5 hectares of land has been included within the development for further landscape improvements and biodiversity net gain.
- 5.7 1ha of land in the north-east corner of the site closest to Berden will be planted up with new woodland, this can be seen in Figure 1 below (shown by the green area). The woodland will provide natural screening, as well as increasing the biodiversity in the area.
- 5.8 The area to the south of the 1ha of woodland has been included (shown by the orange hashing) to form an area for Biodiversity Net Gain. The landowner has already planted this area in a species rich flower mix, providing ideal habitat for Skylark nesting.

5.9 A second area of woodland will be created south of the wildflower meadow, see Figure 1, (area shown as upside down green triangle), this woodland will help to provide screening for the village and footpath users particularly from the east. The area of the site covered with solid infrastructure, i.e., panels, inverters, the access tracks, and substation totals 25ha the other 47ha of the site will be open, this open area includes the land between the panels, the 9m gap allows for species rich grass mix to be planted, encouraging skylark nesting. The remaining site area will be landscaped, benefiting from new hedgerows, woodland planting, and flower meadows. Figure 1 – New woodland planting



Figure 1 – New woodland planting

Establishment of new footpaths

5.10 Following the exhibition and through discussion with the landowner it is proposed to establish new permissive footpath to benefit the local community. The footpath will run along the northern edge of the site following the Ginns Road (shown as a dashed blue line on the plan below), the footpath will then lead through the new proposed woodland planting to the west of Berden linking with the existing PROW 5_22 (see plan below). The new footpath will help to link the communities of Stocking Pelham and Berden so therefore could provide real benefit to the two communities.

Figure 2 – New footpaths



Increase of site area to the south

5.11 A new area of land has been added to the site since the Public Exhibition, see Figure 3 below. 2.7ha of land directly east of the Battery Storage Facility is now included within the development to maximise the number of panels. This area of land was originally set aside for another energy project however their project is no longer being taken forward and so it is proposed to use this land for solar.

Figure 3 – Increase of site area



Design and Access

Introduction

- 6.1 This section comprises the Design and Access Statement (DAS) and has been written to meet the requirements of Section 42 of the Planning and Compulsory Purchase Act 2004 as well as the Government's National Planning Practice Guidance.
- 6.2 This section describes the physical characteristics of the scheme and the assessment process that has led to the design of the layout. This document also contains an access statement which considers the suitability of the proposed access for its users, both vehicular and pedestrian.

Planning Application Documentation

- 6.3 This DAS should be read in conjunction with the details contained within this Planning Statement and the associated submitted material to gain a full understanding of the proposed development. Together these documents provide a comprehensive assessment of the proposed development and its impact on the local environment.
- 6.4 In March 2014 the Government published online National Planning Practice Guidance (PPG) which, amongst other things, provides guidance on the content of Design and Access Statements. The PPG explains that a DAS must:
- Explain the design principles and concepts that have been applied to the proposed development; and,
 - Demonstrate the steps taken to appraise the context of the proposed development, and how the design of the development takes context into account (Paragraph: 031 Reference ID: 14-031-20140306).
- 6.5 In order to assess the design principles and concepts of the proposed development, the following criteria have been used:
- Use and Function;
 - Amount;
 - Layout;
 - Security
 - Access;
 - Landscaping; and,
 - Appearance.

Use and Function

- 6.6 In order to progress a development's design, it is important to understand its use and function i.e. the purpose of the development.
- 6.7 As discussed in detail within Section 2 of this Planning Statement the development comprises the construction, operation, maintenance and decommissioning of a ground-mounted solar farm.
- 6.8 An operational lifespan of up to 40 years is sought.
- 6.9 The proposal overall will contain:
- Installation of approximately 100,368 photovoltaic solar panels.
 - Ten inverter units distributed among the panels and accessed via a combination of existing and proposed new farm tracks.
 - A small substation protected with a palisade fence will be built in the southwest corner, adjacent to the battery storage facility. It will be accessed via the internal track network from the main access to the solar farm off Ginns Road.
 - Deer fencing around each field to exclude large mammals and humans from the facility. Gates to allow the passage of small mammals such as badgers and foxes will be provided at intervals along the fence.

Amount of Development

- 6.10 The Development covers a total site area of approximately 71.58 hectares.

Layout

- 6.11 The layout of the proposed development is shown on Masterplan - drawing ref 375_MP_03_Pelham_Block Plan 13.06.22.
- 6.12 The panels will run west to east, following the existing contours of the ground with the panels facing south.
- 6.13 The layout of the proposed facility has been led primarily by functional requirements and contractor specifications. This principle is to locate the batteries within as small a footprint as possible, subject to cooling and enabling the safe access and movement between the battery units.
- 6.14 An appropriately worded planning condition can be applied to secure the final finished detail prior to commencement.

Landscape

- 6.15 The Site benefits from good visual enclosure to the west, south and north and the only significant views from the wider countryside are for small area to the north and northeast. Several Public Rights of way pass through or immediately adjacent to the Site and the proposed solar farm will result in a Major adverse effect on the visual amenity of users until mitigation in the form of hedge planting has become effective.
- 6.16 The proposed solar farm will not result in any significant adverse effects on the visual amenity of residents since no properties are close to or will significantly overlook the proposed solar farm and any views will eventually be screened by the hedge planting.
- 6.17 The most significant views will be afforded to those travelling along the Pelham Road as it passes the Site and walkers crossing the high ground to the north. A hedge has recently been planted along the road which will substantially screen any views of the panels from the road, and this will be augmented with linear blocks of woodland. This woodland will eventually screen the proposed development from the high ground to the north, although it will take 15+ years to be fully effective.
- 6.18 The Proposed Development will be partially visible from a small area of countryside to the northeast in the vicinity of Chalk Pitt Lane and Drover Lane but will be seen as a thin sliver of grey within a wide panorama with the existing transmission lines and substation forming a skyline backdrop.

Crime

- 6.19 The facility will be enclosed by new 2.5m high fencing to offer site security and ensure that the equipment is protected from vandalism.
- 6.20 The CCTV units will include infrared capability for use at night-time. As the facility is unmanned only limited lighting is required.

Appearance

- 6.21 The most visible components of the Proposed Development would be the solar panels. These would be mounted on a metal frame and constructed from nonreflective glass.
- 6.22 It is notable that the solar panels are designed to absorb sunlight, therefore there would be no significant issues associated with glint and glare. The metal frame is treated to avoid any significant issues associated with glint and glare. The metal frame is necessary because it is durable and is sufficiently strong to hold the panels in position, a functional design requirement.
- 6.23 It is envisaged that the containers/cabins and other small buildings would be appropriately coloured or clad to minimise any visual impact and comply as far as practicable with the local vernacular. The structures would however be functional in appearance, reflecting their purposes, which is for the generation of electricity.

- 6.24 An appropriately worded planning condition can be applied to secure the final finished detail prior to commencement.

Access

Construction Phase

- 6.25 Vehicular access to the site during the construction phase is proposed via an existing agricultural and commercial access from Ginns Road. The access currently serves farmland and agricultural buildings and is already in use by large and relatively slow-moving vehicles on a regular basis. This access point will be improved to provide a temporary construction access.
- 6.26 The construction period is anticipated to last 5 months, this includes the preparation of the site, the temporary access track, erection of security fencing, assembly and erection of the PV strings, installation of the inverters and grid connection.
- 6.27 Around 800 deliveries could be made, at an average of around 7 deliveries, or 14 two-way movements per day.
- 6.28 A temporary construction compound will be set up within the development boundary during construction. Any vehicles associated with construction will therefore be contained within the site and no unnecessary parking will occur on the local highway network.
- 6.29 The temporary compound will likely include: -
- Temporary portable buildings to be used for offices, welfare and toilet facilities
 - Containerised storage areas
 - Parking for construction vehicles and workers vehicles
 - Temporary hardstanding
 - Temporary gated compound
 - Wheel washing facilities
- 6.30 During the 5-month construction period, it is proposed that construction working hours would be as follows:
- 08:00 – 20:00 Monday to Friday; and
 - 08:00 – 13:00 Saturday.
- 6.31 Should work be required to be undertaken outside of these times, this would be agreed in writing in advance with the Council. If required by the highway authority construction traffic and delivery vehicles will also be limited to outside the peak hours on Monday to Friday.
- 6.32 Please see CTMP for further details.

Operational Phase

- 6.33 During the operational phase, the activities on site would amount to the maintenance and servicing of plant and equipment, and vegetation management. The solar panels will also need to be periodically cleaned to ensure efficient running of the system.
- 6.34 The operational access will use the improved construction access. It is anticipated that under normal circumstances, no more than 4 vehicles would need to access the site per week and most visits to the site would be undertaken by an operative in a van/4x4, except in rare instances where repairs or replacements are required.
- 6.35 Parking during the operational phase of the development has been accommodated within the Application Site.
- 6.36 Provision has been made for both pedestrian and vehicular access when required.

Decommissioning Phase

- 6.37 The solar farm would export renewable energy to the grid for up to 40 years. After the 40 year generation period the development would be decommissioned and the land restored back to agricultural use.
- 6.38 When the proposed solar farm is decommissioned, the solar panels and other infrastructure will be removed. Around 90% of materials can be recycled currently and research is ongoing within the industry to increase this figure. Due to the limited quantity of foundations, hard surfacing and heavy infrastructure, combined with the fact that the majority of the site will be retained as grassland, the land will be easier to restore than more intrusive development with more significant foundations.
- 6.39 The restoration process is intended to ensure that the site is restored to the same quality as existing and it is anticipated that this can be secured by the Council through the use of a suitably worded planning condition or section 106 agreement as has been secured on other solar developments in the district.

Planning Policy Context

- 7.1 The land for the proposed solar development is not allocated for development. The parcel of land is located within the countryside outside any main settlements and villages.
- 7.2 Section 38 (6) of The Planning and Compulsory Purchase Act 2004 states that planning decisions should be made in accordance with the development plan unless material considerations indicate otherwise.
- 7.3 The following section identifies the Development Plan policies and other material considerations relevant to this Application.
- 7.4 **Uttlesford Local Plan** (adopted January 2005). namely policies:
- S7 The Countryside
 - GEN1 Access
 - GEN2 Design
 - GEN3- Flood Protection
 - GEN4 Good Neighbourliness
 - GEN7 Nature Conservation
 - ENV2 Development Affecting Listed Buildings
 - ENV4 Ancient Monuments and Sites of Archaeological Importance
 - ENV5 Protection of Agricultural Land
 - ENV8 Other Landscape Elements of Importance for Nature Conservation
 - ENV15 Renewable Energy
- 7.5 **Energy Efficiency and Renewable Energy SPD** (adopted October 2007)
- The Energy Efficiency and Renewable Energy SPD provides further guidance on the measures that applicants can include in new development to reduce energy use and demonstrates how development proposals can meet the criteria on energy use within Policies GEN2 (Design) and ENV 15 (Renewable Energy) of the Uttlesford Local Plan 2005.
- 7.6 Uttlesford Council has adopted Supplementary Planning Documents which provide some additional guidance specifically relating to solar farms, published in July 2021.
- 7.7 It is understood that a new Local Plan is being prepared for Uttlesford following withdrawal of the Uttlesford Local Plan 2019. In the absence of any up-to-date local plan, policies in the National Planning Policy Framework (NPPF), and Planning Practice Guidance (PPG) are also material considerations. The National Planning Policy Framework (2019) sets out a clear

presumption in favour of sustainable development. The following sections and paragraphs are considered to be of relevance to this proposal:

- Chapter 2: Achieving Sustainable Development
- Chapter 14: Meeting the Challenge of Climate Change, Flooding and Coastal Change
- Chapter 15: Conserving and Enhancing the Natural Environment
- Chapter 16: Conserving and Enhancing the Historic Environment

7.8 As well as the above development plan documents, there are also a number of other material consideration in regard to this application, this includes the following:

- **The National Planning Policy Framework (NPPF) (2019)**, namely:
 - Chapter 2 – Achieving Sustainable Development
 - Chapter 9 – Promoting Sustainable Transport
 - Chapter 12 – Achieving Well Designed Places
 - Chapter 14 – Meeting the Challenge of Climate Change, Flooding and Coastal Change
 - Chapter 15 – Conserving and Enhancing the Natural Environment
 - Chapter 16 – Conserving and Enhancing the Historic Environment
- **National Planning Practice Guidance (NPPG)**
- **Overarching National Policy Statement for Energy (EN-1)**
- Ministerial Statements
- RTPI Publication Renewable Energy Practice Advice (May 2018)

7.9 Having reviewed the above policies and the pre-application advice, we consider that the key issues in considering the proposed scheme are:

- Principle of development
- Landscape and Visual Impact
- Ecology and Biodiversity
- Highways
- Heritage Impact
- Drainage and Flood Risk

Determining Issues and Assessment

- 8.1 This section outlines the determining issues identified from the planning policies in the preceding section and assesses the proposed development against these issues in order to determine whether it complies with the Development Plan and other relevant policy guidance.
- 8.2 The acceptability of the principle of development is assessed as well as a detailed assessment of the main policy considerations pertinent to the proposal. These specifically cover design, landscape and visual, hazards and human health impacts, highways, water management, heritage, ecology, noise and air quality. Detailed considerations of these elements are also provided in the assessments supporting this Application.

Principle of Development

Renewable Energy

Policy Context

- 8.3 Chapter 2, paragraph 10 of the NPPF outlines that at the heart of the NPPF is the presumption in favour of sustainable development.
- 8.4 Chapter 14 of the NPPF outlines that the planning system should support the transition to a low carbon future in a changing climate; should help to shape places in ways that to reduce greenhouse gas emissions and support renewable (and low carbon) energy and associated infrastructure. Additionally, paragraph 158 outlines that when determining planning applications for renewable (and low carbon) energy, 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.
- 8.5 Part E of Policy GEN2 (design) of the Uttlesford Local Plan (2005) clarifies that development will not be permitted unless its design meets the criteria of helping to minimise water and energy consumption.
- 8.6 Policy ENV15 (Renewable Energy) of the Uttlesford Local Plan (2005) also supports the principle of renewable energy schemes stating that these proposals will be permitted if they do not adversely affect the character of sensitive landscapes, nature conservation interest or residential and recreational amenity. The basis of this policy is an assumption that in Uttlesford renewable energy developments will be small scale to meet local needs.
- 8.7 The Council also has an Energy Efficiency and Renewable Energy SPD (2007), which establishes the methods by which applicants can seek to meet the criteria of Policies GEN2 (Design) and

ENV15 of the Uttlesford Local Plan (2005). The document establishes an energy hierarchy which establishes priorities methods through which energy use can be reduced. Hierarchy 3 relates to the use of Renewable Energy and seeks to encourage developers to switch to less damaging low carbon energy sources, especially renewables including solar power.

8.8 Uttlesford Guidance on Solar Farms on the Council's website (July 2021) states that in determining planning applications for new solar farms, the Council must have regard to the National Planning Policy Framework (NPPF) and planning legislation. While the NPPF contains an expectation that all areas contribute to renewable energy generation, an argument at the other end of the scale, such as "there are just too many in the district" is unable to be considered by a planning authority as a stand-alone planning consideration, unless for instance the cumulative visual impact or loss of best and most versatile agricultural land is also a consideration

8.9 Particular factors that the local planning authority will need to consider include:

- 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 (see guidance on landscape assessment) and on neighbouring uses and aircraft safety;
- the extent to which there may be additional impacts if solar arrays follow the daily movement of the sun;
- the need for, and impact of, security measures such as lights and fencing;
- great care should be taken to ensure heritage assets are conserved in a manner appropriate to their significance, including the impact of proposals on views important to their setting. As the significance of a heritage asset derives not only from its physical presence, but also from its setting, careful consideration should be given to the impact of large-scale solar farms on such assets. Depending on their scale, design and prominence, a large-scale solar farm within the setting of a heritage asset may cause substantial harm to the significance of the asset;
- the potential to mitigate landscape and visual impacts through, for example, screening with native hedges;

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

Development within the Countryside

Policy Context

- 8.10 Policy S7 (The Countryside) of the Uttlesford Local Plan (2005) outlines that in the countryside which will be protected for its own sake planning permission will only be given for development that needs to take place there or is appropriate for a rural area. Development will only be permitted if its appearance protects and enhances the particular character of the part of the countryside within which it is set or there are special reasons why development in the form proposed needs to be there.

Assessment

- 8.11 Berden Farm is principally an arable enterprise growing winter wheat, winter barley, spring barley, spring oats, winter beans and lucerne.
- 8.12 The Site for the solar development constitutes 21.5% of the total arable area on the holding.
- 8.13 Clearly, the principle of development providing renewable energy is supported by the NPPF as well as the Local Plan policy documents.
- 8.14 Notwithstanding this, as set out within ENV 15 and GEN2 of the Local Plan (2005), renewable energy proposals and proposals that minimise energy consumption will only be permitted where they do not adversely affect the character of sensitive landscapes, nature conservation interests or residential and recreational amenity.
- 8.15 A Landscape and Visual Impact Assessment (LVIA) and a Preliminary Ecological Appraisal (PEA) have been submitted in support of the application which have been used in the development of the scheme to reduce the potential impact of the proposals on landscape views and ecological assets. These matters are discussed in further detail in the Landscape and Visual Impact and Ecology and Biodiversity sections below.
- 8.16 In terms of any impact on residential amenity, the nearest properties located in Benskins Close are only separated from the site boundaries by approximately 45 metres. However, the village of Berden is separated from the site by approximately 250metres. 1ha of new woodland planting is proposed between the village of Berden and the site this area of new woodland will help to screen the site from the village and from the properties at Benskins Close. The low-lying nature of the solar panels and inverters is considered to result in a development which by reason of distance and scale would not have a material impact on the amenities of surrounding residential properties.
- 8.17 In relation to local planning policy relating to protection of the countryside, due to the nature of the proposal, solar farms cannot be delivered within an urban area for a number of reasons,

principally scale. They can only be developed within the countryside, where a suitably scaled contiguous area can be assembled, where natural light will not be obstructed and where for the reasons set out earlier, there is both a grid network capacity to receive the energy and also a proximity of demand. Necessarily, the location of such developments is also determined by natural irradiance levels both in terms of the strength and duration of sunlight – this makes locations in the south of England the most efficient locations for solar energy generation especially taking into account the proximity to and scale of the major conurbations and towns which generate demand. Therefore, it is necessary that such schemes will require countryside locations. Moreover, in such locations previously developed land is likely to be prioritised for permanent development such as housing or industry as opposed to development such as a solar farm which is temporary and limited in duration by the nature of the planning permission sought.

- 8.18 In light of the above it is considered development of the site for a large-scale solar farm with similarities to the existing Drapers Solar Farm facility to the west is acceptable in principle. However, the wider acceptability of the proposals will be based on considerations of other matters and an assessment of the key issues is provided as follows.

Landscape and Visual Impact

Policy Context

- 8.19 Chapter 15 of the NPPF (2021) outlines that planning policies and decisions should contribute to and enhance the natural and local environment through a number of different ways. This includes recognising the intrinsic character and beauty of the countryside. The clauses of paragraph 170 relevant to this scheme state this can be achieved by:
- *“Protecting and enhancing valued landscapes, sites of biodiversity or geological value*
 - *and soils*
 - *recognising the intrinsic character and beauty of the countryside, and the wider benefits from natural capital and ecosystem services*
 - *minimising impacts on and providing net gains for biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures;*
 - *preventing new and existing development from contributing to, being put at unacceptable risk from, or being adversely affected by, unacceptable levels of soil, air, water or noise pollution or land instability. Development should, wherever possible, help to improve local environmental conditions such as air and water quality, taking into account relevant information such as river basin management plans; ...”*

- 8.20 Policy ENV5 (Protection of Agricultural Land) of the Local Plan (2005) states that where development of agricultural land is required, developers should seek to use areas of poorer quality except where other sustainability consideration suggest otherwise.
- 8.21 Policy ENV8 (Other Landscape Elements of Importance for Nature Conservation) of the Local Plan (2005) relates more directly to protection of the landscape and explains that development adversely affecting landscape elements such as hedgerows and linear tree belts will only be permitted if the following criteria apply:
- The need for the development outweighs the need to retain the elements for their importance to wild fauna and flora;
 - Mitigation measures are provided that would compensate for the harm and reinstates the nature conservation value;

Assessment

- 8.22 A landscape and visual impact assessment (LVIA) and Landscape and Ecological Management Plan (LEMP) along with montages have been submitted in support of this application. The Landscape Assessment identifies and assesses the proposals against the key characteristics of the National and County Landscape Character Areas relevant to the Proposed Development.
- 8.23 The main driver for locating the solar farm at this location is its proximity to the existing Pelham Substation.
- 8.24 Visual analysis indicates that the proposed solar farm will be well screened by existing tree and hedge cover which lies to the south and west and to the east can be quickly screened by hedge. The most significant views will be from a section of Ginns Road and higher ground further north. For this reason, it is proposed to plant woodland buffers along the northern edge to augment the existing roadside tree cover and a new hedge which has recently been planted by the landowner. As well as the woodland planting some individual fast-growing trees have been specified to ensure the views from the north are screened as rapidly as possible. The public rights of way which will pass through the solar farm will be maintained on their current alignment, set within 10 m wide corridors, within which native hedge planting will screen the solar farm from view when in leaf (see inset). Tall stature trees will be planted where space and shading issues allow, while on other boundaries smaller stature species such as hawthorn and field maple will be planted. Scots Pine is specified around the northeast corner to reinforce screening in winter to the edge of the village. The proposed planting will leave a legacy of tree and hedge cover across the Site once the solar farm has been decommissioned.
- 8.25 The slight north facing slope means that the panels will be spaced sufficiently far apart, which combined with the short solar farm grass mix, will provide good nesting opportunities for

skylark nesting. The grass sward will also allow sheep grazing within the solar farm if appropriate/practical. Species rich grassland will be specified around the margins.

- 8.26 The proposed solar farm will not result in any significant adverse effects on the visual amenity of residents since no properties are close to or will significantly overlook the proposed solar farm and any views will eventually be screened by the hedge planting.
- 8.27 The most significant views will be afforded to those travelling along Ginns Road as it passes the Site and walkers crossing the high ground to the north. A hedge has recently been planted along the Pelham Road which will substantially screen any views of the panels from the road, and this will be augmented with linear blocks of woodland. This woodland will eventually screen the proposed development from the high ground to the north, although it will take 15+ years to be fully effective.
- 8.28 The Proposed Development will be partially visible from a small area of countryside to the northeast in the vicinity of Chalk Pitt Lane and Drover Lane but will be seen as a thin sliver of grey within a wide panorama with the existing transmission lines and substation forming a skyline backdrop.
- 8.29 The LVIA and accompanying documents have informed the layout of the scheme as far as it recommends that all boundary hedgerows and tree belts are to be retained and protected throughout the life of the development. Moreover, the scheme is supported by a robust landscape framework that includes the following measures:
- Protection and enhancement of the existing hedgerows and mature trees
 - New hedgerows are proposed to improve ecological networks, improve the landscape fabric and to provide screening from public rights of way
 - New woodland and tree belts are proposed to the west of the site to further bolster green infrastructure and enhance visual screening.
 - Planting will be native, mainly deciduous with a proportion being long-lived species in keeping with the local landscape character.
 - Grassland planting beneath the solar arrays with the option to be lightly grazed by sheep.
 - Flower meadow planting to the west of the solar scheme to further enhance the biodiversity of the site, providing habit for skylark nesting.
- 8.30 These measures will seek to limit the visibility across the application site from within and outside the site boundaries.
- 8.31 It is concluded that while the Proposed Development will result in some adverse landscape and visual effects the significant effects will be confined to a relatively small area of

countryside which is already significantly influenced by electrical infrastructure. Once mitigation is effective the effect to the majority of receptors will be either Negligible or Minor with only those using the footpaths which pass through the proposed solar farm experiencing Moderate adverse effects, largely due to winter views and the loss of the open character along the routes. While the effects will last for the operational life of the solar farm, they will be temporary, with the benefit of a legacy of increased tree and hedge cover across the Site. The adverse effects should be weighed against the benefits of providing renewable energy and achieving the target to minimise climate change

- 8.32 As such, it is considered that the proposals would have an acceptable impact on the site and surrounding landscape meeting the tests of Chapter 15 of the NPPF (2021), Policies ENV5 and ENV8 of the Local Plan (2005).

Ecology and Biodiversity

Policy Context

- 8.33 Criteria (d) of Chapter 15, Paragraph 174 of the NPPF (2021) states that planning policies and decisions should contribute to the natural and local environment by minimising impacts on and providing net gains for biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures.
- 8.34 Paragraph 5.17 of the Local Plan establishes that Part 1 of the Wildlife and Countryside Act 1981 sets out the protection which is afforded to wild animals and plants. The presence of a protected species such as bats, barn owls, badgers, great crested newts, or water voles on a site will be taken into account when considering a proposal for development.
- 8.35 Policy GEN 7 (Nature Conservation) of the Local Plan (2005) clarifies that development that would have a harmful effect on wildlife or geological features will not be permitted unless the need for the development outweighs the importance of the feature to nature conservation. Measures to mitigate and/or compensate for the potential impacts of development, secured by planning obligation or condition, will be required. The enhancement of biodiversity through the creation of appropriate new habitats will be sought.
- 8.36 Policy ENV8 (Other Landscape Elements of Importance for Nature Conservation) of the Local Plan (2005) overlaps the protection of landscape elements and protection of the local plan and as aforementioned seeks that any development provides mitigation measures where it leads to loss of fauna and flora to compensate for any harm and reinstate the nature conservation value.

Assessment

- 8.37 A Preliminary Ecological Appraisal has been undertaken of the Site, which includes an extended Phase 1 habitat survey and a desk study.

- 8.38 Cherryfield Ecology were instructed to undertake the Ecological Assessment at Pelham. This survey has checked all habitats, buildings, trees (from ground level only) or structures due to be affected by the proposals on site, it includes checking for protected species, signs of protected species or habitat value e.g. crevices, badger setts, ponds etc. as well as mapping the habitats on site. The inspection was conducted on the 03/06/2019, 16/09/2020 and 01/02/2022.
- 8.39 The master plan shows that all hedging and woodlands will be fully retained in the development and a buffer zone around these features will be maintained. The masterplan also shows for new woodland planting.
- 8.40 The badger sett and trees suitable for roosting will be fully retained in the development. A buffer of no less than 30m will be required around the badger sett, in order to prevent any damage or further survey works. However, the skylark nesting habitat will be lost in the development.
- 8.41 Cherryfield Ecology have recommended that all works must occur outside of the nesting season. If this is not possible, a check for ground nesting birds will be made.
- 8.42 The development alongside the planned planting scheme (375_PP_04_Pelham_Planting Plan 22.05.22) will benefit local biodiversity. Rich wild-flower meadows will be planted around the margins and along footpaths, whilst a short solar grass mix will grow between the panels, providing excellent habitat for local wildlife. Additionally, due to the slight north facing slope, the panels will be spaced further apart than at a typical solar farm, which provides a sheltered location for Skylark nesting. If practical, sheep grazing and bee keeping will be allowed within the site
- 8.43 RPS was commissioned by Pelham Solar Limited to undertake a Biodiversity Net Gain (BNG) assessment of a proposed solar development.
- 8.44 Overall, the creation of new hedgerows, the infill of existing hedgerows, native tree planting, and wildflower planting, coupled with the management of the existing hedgerows and trees will produce;
- Area-based habitats: A net gain of 82.87%, and
 - Hedgerows: A net gain of 126.39%
- 8.45 The biodiversity net gain of the site directly supports the enhancement priorities established by Paragraph 174 of the NPPF and Policy GEN7 of the Uttlesford Local Plan (2005). A Landscape and Ecological Management Plan has also been submitted with the application.

Highways

Policy Context

8.46 The Application is accompanied by a Construction Traffic Management Plan and Access Technical Note. Paragraph 111 of the NPPF states that

“Development should only be prevented or refused on highways grounds if there would be an unacceptable impact on highway safety, or the residual cumulative impacts on the road network would be severe.”

8.47 The relevant policy contained within the local plan on highways issues is Policy GEN1 (Access) which explains that development will only be permitted if it meets all of the following criteria:

- Access to the main road network must be capable of carrying the traffic generated by the development safely.
- The traffic generated by the development must be capable of being accommodated on the surrounding transport network.
- The design of the site must not compromise road safety and must take account of the needs of cyclists, pedestrians, public transport users, horse riders and people whose mobility is impaired.
- It must be designed to meet the needs of people with disabilities if it is development to which the general public expect to have access.
- The development encourages movement by means other than driving a car

Assessment

8.48 An existing agricultural field access will be upgraded to a standard suitable to accommodate short term use by large delivery vehicles associated with the construction process, and to facilitate long term use for routine maintenance purposes.

8.49 Additional traffic flows associated with the proposed Solar Farm once operational will be very low. Traffic movements during the construction process will be temporary and can be appropriately managed through the submitted Construction Traffic Management Plan.

8.50 The CTMP explains that the construction period would be for approximately 26 weeks (6 months). The Access Technical Note concludes that, considering the observations and assessment that it records, the surrounding roads do not have an existing safety problem and that the local highway network can accommodate vehicles up to 16.5 metres in length.

8.51 Overall, it is clear that the local highway network will be capable of carrying the temporary traffic generated during the construction phase of the development safely. Thus, the proposals will not create any detrimental impact on the strategic or local highways network, nor will it impact on the safety and amenity of the relevant areas and complies with paragraph 111 of the NPPF and Policy GEN1 of the Local Plan (2005)

Heritage Impact

Policy Context

8.52 Chapter 16 of the NPPF highlights that “heritage assets are an irreplaceable resource and should be conserved in a manner appropriate to their significance...” It reflects the statutory duties set out in the Listed Buildings and Conservation Areas Act 1990.

8.53 NPPF paragraph 197 states that in determining applications, local planning authorities should take account of:

- *the desirability of sustaining and enhancing the significance of heritage assets and putting them to viable uses consistent with their conservation;*
- *the positive contribution that conservation of heritage assets can make to sustainable communities including their economic vitality; and*
- *the desirability of new development making a positive contribution to local character and distinctiveness.”*

8.54 ENV2 Development Affecting Listed Buildings states that development affecting a listed building should be in keeping with its scale, character, and surroundings.

8.55 ENV4 Ancient Monuments and Sites of Archaeological Importance clarifies that where nationally important archaeological remains, whether scheduled or not, and their settings, are affected by proposed development there will be a presumption in favour of their physical preservation in situ. The preservation in situ of locally important archaeological remains will be sought unless the need for the development outweighs the importance of the archaeology. In situations where there are grounds for believing that sites, monuments, or their settings would be affected developers will be required to arrange for an archaeological field assessment to be carried out before the planning application can be determined thus enabling an informed and reasonable planning decision to be made. In circumstances where preservation is not possible or feasible, then development will not be permitted until satisfactory provision has been made for a programme of archaeological investigation and recording prior to commencement of the development.

Assessment

8.56 An Archaeological desk-based assessment/Heritage Statement has been submitted with this application.

- 8.57 No designated heritage assets would be physically impacted by any part of the proposed development. There would be 'less than substantial' harm to the significance of one Scheduled monument, as a result of change within its setting. The harm would be fully reversible. The application should therefore be considered against the balancing process identified in paragraph 202 of the NPPF.
- 8.58 The proposed development would result in change to the character of the historic landscape, although such change would be fully reversible and the recorded HLC types are not rare in this part of the county.
- 8.59 There is also the possibility of impacts on archaeological deposits, although archaeological investigation is proposed and any such impacts would be limited due to the nature of the scheme. The application should therefore be considered against the balancing process identified in paragraph 203 of the NPPF.
- 8.60 The significance of the majority of the built heritage assets proximate to the Site will not be affected by the proposed development. There are two built heritage assets which may be affected by the proposals, The Crump and Former Barn (Now Room) adjoining to north-west (NHLE: 1112471) and the Church of St Nicholas (NHLE: 1170264). However, due to the limited contribution of the Site towards the significance of these assets and that the Site will retain its open character, combined with the additional planting proposed within the Site the development is considered to result in a neutral impact on the significance of these two assets.
- 8.61 Therefore, the development satisfies Chapter 16 of the NPPF and ENV 2 and ENV 4 of the Local Plan (2005).

Drainage and Flood Risk

Policy Context

- 8.62 Chapter 14 of the NPPF requires major developments to incorporate sustainable drainage systems unless there is clear evidence that this would be inappropriate
- 8.63 Policy GEN3 (Flood Protection) states that outside flood risk areas development must not increase the risk of flooding through surface water run-off. A flood risk assessment will be required to demonstrate this. Sustainable Drainage Systems should also be considered as an appropriate flood mitigation measure in the first instance. For all areas where development will be exposed to or may lead to an increase in the risk of flooding applications will be accompanied by a full Flood Risk Assessment (FRA) which sets out the level of risk associated with the proposed development. The FRA will show that the proposed development can be provided with the appropriate minimum standard of protection throughout its lifetime and will demonstrate the effectiveness of flood mitigation measures proposed.

Assessment

- 8.64 A site-specific FRA following the guidance of the NPPF guidance has been prepared for the for the site.
- 8.65 The EA map for planning shows that the Site is located in FZ1, where the probability of fluvial or tidal flooding is low.
- 8.66 SuDS techniques will be incorporated into the design, when and where required, and will work in conjunction with existing field drainage to manage the discharge of any excess water from the Site.
- 8.67 Where construction has resulted in soil compaction, the areas between panel rows would be tilled / scarified to an appropriate depth and then re-seeded with an appropriate vegetation cover.
- 8.68 All areas of the Site, where appropriate, will have vegetation cover at all times.
- 8.69 Any existing field or tile drainage system will be restored, where affected by construction will be maintained by the Applicant for the life of the Proposed Development.
- 8.70 Access tracks will be constructed out of permeable materials (crushed stone or reinforced grass).
- 8.71 The solar panels will be raised to a minimum height of 600 mm. The panels will be located away from the defined floodplain and will not cause any blockage of the overland flow route.
- 8.72 The FRA demonstrates:
- The Site is at low risk of flooding from fluvial and/or tidal flooding;
 - It would neither exacerbate existing flooding problems nor increase the risk of flooding on Site or elsewhere;
 - Surface water runoff will be mitigated by maintenance of a vegetation cover; and
 - With appropriate surface water and soil management measures there is negligible alteration to local drainage patterns direction within the Site.
- 8.73 The Proposed Development is at 'Low' risk of flooding and with appropriate surface water and soil management measures would cause negligible effects on the hydrological regimes.
- 8.74 Therefore the development is considered to be in keeping with Chapter 14 of the NPPF and Policy GEN3 of the Local Plan. In terms of flood risk and drainage, the scheme is considered to be appropriate to the site.

Noise

8.75 The National Planning Policy Framework (NPPF) [3] sets out the Government's planning policies for England and how these are expected to be applied. The emphasis of the Framework is to allow development to proceed where it can be demonstrated to be sustainable. In relation to noise, Paragraph 185 of the Framework states:

“Planning policies and decisions should 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. In doing so they should:

- a) *mitigate and reduce to a minimum potential adverse impacts resulting from noise from the development – and avoid noise giving rise to significant adverse impacts on health and the quality of life;*
- b) *identify and protect tranquil areas which have remained relatively undisturbed by noise and are prized for their recreational and amenity value for this reason; and*
- c) *limit the impact of light pollution from artificial light on local amenity, intrinsically dark*
- d) *landscapes and nature conservation.”*

8.76 Policy GEN4 - Good neighbourliness of the Local Plan states that *“development and uses whether they involve the installation of plant or machinery or not, will not be permitted where: a) noise or vibrations generated [...] would cause material disturbance or nuisance to occupiers of surrounding properties.”*

8.77 Policy ENV11 - Noise Generators of the Local Plan states that *“noise generating development will not be permitted if it would be liable to affect adversely the reasonable occupation of existing or proposed noise sensitive development nearby, unless the need for the development outweighs the degree of noise generated.”*

Assessment

8.78 RPS was commissioned by Statera Energy Ltd to undertake a noise impact assessment (NIA) in relation to a proposed solar farm development on land to the north of Stocking Pelham Substation, Buntingford, SG9 OJA. The site is located within the administrative boundary of the Uttlesford

8.79 District Council (UDC). The west boundary of the proposed development is part of the border between the Uttlesford and East Herts District.

- 8.80 The proposed development will include 11 standalone photovoltaic (PV) inverter units and a new substation.
- 8.81 Baseline noise conditions at the nearest noise sensitive receptors (NSRs) were established by the baseline monitoring undertaken on site over a 7-day period from Monday 31st January until Monday 7th February 2022.
- 8.82 A 3D noise model of the proposed development was built, considering plant information provided by the design team and based on the RPS source term library.
- 8.83 The BS 4142:2014+A1:2019 initial estimate of impact indicates that there is a low risk that sound from the development may result in adverse impacts depending on the context. Taking into account the context, the outcome of the BS 4142:2014+A1:2019 initial estimate of impact is still considered valid and therefore adverse impact/effects would be very unlikely, significant, or otherwise at all NSRs.
- 8.84 The BS 4142:2014+A1:2019 initial estimate of impact indicates that there is a low risk that sound from the development, when the cumulative scheme is also considered, may result in adverse impacts depending on the context. Taking into account the context, the outcome of the BS 4142:2014+A1:2019 initial estimate of impact is still considered valid and therefore adverse impact/effects would be very unlikely, significant, or otherwise at all NSRs.
- 8.85 The predicted combined noise rating levels of the plant, i.e., considering any penalties for sound characteristics such as tonality, at NSR A, NSR B and NSR C that fall within the jurisdiction of UDC, at least 5 dB below the measured background noise levels, as per the NATG requirement.
- 8.86 On the basis of the above, it is concluded that levels of sound arising from the operation of the facility will not result in any significant adverse impacts at any of the nearby NSRs. Sound arising from the operation of the facility is therefore acceptable in accordance with the relevant British Standards, national and local planning policy.

Other Matters

Agricultural Land Classification

- 8.87 Statera instructed SOYL to carry out an ALC survey in October 2021, their Report accompanies the Application. A summary of the land classifications at the site is below;
- **Grade 2 (37%)** - Land with minor limitations which affect crop yield, cultivations or harvesting. A wide range of agricultural and horticultural crops can usually be grown, but on some land in the grade there may be reduced flexibility due to difficulties with the production of the more demanding crops such as winter harvested vegetables and arable root crops. The level of yield is generally high but may be lower or more variable than Grade 1.

- **Subgrade 3a (35%)** - Land capable of consistently producing moderate to high yields of a narrow range of arable crops, especially cereals, or moderate yields of a wide range of crops including cereals, grass, oilseed rape, potatoes, sugar beet and the less demanding horticultural crops.
- **Subgrade 3b (28%)** - Land with moderate limitations affecting crop yield, cultivations and harvesting. Capable of producing moderate yields of cereals but not well suited to horticultural or root crops.

8.88 It's important to remember the poorest quality land on the site will largely determine the farming style, therefore limiting the extent to which the capacity of the higher quality land can be exploited.

Air Quality

8.89 The development will not of itself generate any emissions that would affect air quality. Construction will be a temporary process and will be subject to a Construction Environment Management Plan which shall determine best practice to control dust or other emissions from construction. Once in operation the generation of renewable energy produces no emissions and the requirement for visits to the site generating vehicle movements will be limited and periodic.

8.90 The function of renewable energy generation in promoting less reliance on fossil fuels such used in gas and oil heating systems and internal combustion vehicle engines means that a range of emissions associated with unsustainable energy sources will also be saved, contributing nationally to improved air quality

8.91 Paragraph 186 of the NPPF states that

“Opportunities to improve air quality or mitigate impacts should be identified, such as through traffic and travel management, and green infrastructure provision and enhancement.”

8.92 Policy ENV13 (Exposure to Poor Air Quality) states that development that would involve users being exposed on an extended long-term basis to poor air quality outdoors near ground level will not be permitted

8.93 Overall, beneficial impacts on air quality weight in favour of granting permission for renewable energy generation which is recognised as contributing to the reduction in emissions generally, not just confined to reducing CO₂.

Glint and Glare

8.94 The definitions of glint and glare are commonly recognised as:



Glint – Also known as a specular reflection, produced as a direct reflection of the sun in the surface of the PV solar panel. This is the potential source of the visual issues regarding viewer distraction.

Glare – A continuous source of brightness, relative to diffused lighting. This is not a direct reflection of the sun, but rather a reflection of the bright sky around the sun. Glare is significantly less intense than glint.

- 8.95 PV Panels work by absorbing light. Regardless of orientation they do not generate glint or glare as their surfaces are not reflective. This is acknowledged by their compatibility with sensitive locations particularly those associated with civilian and military flying activities – several major civil airports in the UK now have solar capacity within or adjacent to their perimeters and there are numerous examples of solar farms located alongside major highways where their presence is not considered to provide an adverse risk to drivers.
- 8.96 There are therefore no grounds to consider that adverse impacts arising from the risk or glint, or glare should be weighed against the benefits of the development in this location.

Conclusion

- 9.1 In June 2019, the Government raised the UK's commitments in tackling climate change by legislating a net-zero gas emissions target for the economy by 2050.
- 9.2 Decarbonising the power sector is integral to achieving this target and requires major investment into renewable technologies, such as solar power, which are supported by planning policy at both local and national levels.
- 9.3 The proposed development would meet the annual equivalent electricity demands of approximately 15,200 homes or 26,000 electric cars, while also offsetting 47,000 metric tonnes of CO₂ (when compared to generation of electricity by non-renewable sources).
- 9.4 It will help the nation meet its energy needs from a renewable source and save significant levels of emissions associated with fossil fuel generation. It is the underlying policy of Uttlesford District Council to reduce CO₂ emissions and to support proposals which help achieve this.
- 9.5 The choice of sites for solar is determined initially by the capacity of the national grid to accept connections from new generation sources – the grid has approximately 300 major substations however only perhaps some 10% of these are suitable for Solar PV development. Locations then need to be in areas of elevated levels of solar irradiance to work efficiently – commonly the southern and southwestern parts of England – and be close to the main conurbations to minimise the losses associated with the transmission of electricity over long distances. Sites themselves need to be in locations that can accommodate development of the scale required which have a suitable south or south-west facing aspect, and which avoid principal planning constraints.
- 9.6 Pelham Solar Farm meets these criteria and is capable of being developed and operated without reliance on any Government subsidy.
- 9.7 The development is not invasive or permanent and does not damage the land. The land will maintain its agricultural designation and can be returned to arable or grazing at the end of the development. As part of an arable farm the land has been subject to intensive farming practices. Its use for solar generation will 'rest' the soils and allow them to recover.
- 9.8 The scheme has been carefully configured to minimise landscape impacts, and potential for impacts, on local habitation both during construction and operation.
- 9.9 In particular, the topography being relatively flat limits views to those seen from short lengths of public highway and from public rights of way. Where there is potential for localised views, the scheme incorporates mitigations in the form of additional hedge and tree planting.

- 9.10 The Proposed Development accords with the Government's national planning policy including the NPPF and EN-1 with respect to providing reliable electricity generation capacity to support the shift towards a low carbon, reliable electricity supply and the relevant saved policies of the Uttlesford Local Plan. The Project will provide for the need for efficient and flexible supply to meet peak energy demands within the local power network. This should be afforded significant weight in the assessment and determination of this Application.
- 9.11 For the reasons demonstrated in Section 8 of this report and the supporting statements, there are no significant adverse impacts associated with the Proposed Development.
- 9.12 In the balance of considerations, therefore, the presumption in favour of sustainable development is confirmed, as the benefits identified significantly and demonstrably outweigh any potential adverse impacts.
- 9.13 There are no other material considerations that indicate that planning approval should not be granted. Instead, it is concluded that the proposed facility draws considerable support from these material considerations.

Appendix A - Public Exhibition Event

