EAST STOUR SOLAR FARM

Supplementary Environmental Information (SEI) Volume 2a - Written Statement

PREPARED ON BEHALF OF

EDF renewables

JANUARY 2024

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PREFACE

This Supplementary Environmental Information (SEI) Written Statement forms the second part of a four volume SEI which provides additional information addressing points raised by consultees subsequent to the submission of the East Stour Solar Farm planning application (Ashford Borough Council reference 22/00668/AS). This information supplements the findings of the Environmental Impact Assessment (EIA), the ES of which accompanied the planning application. The volumes of the complete SEI document are:

Document	Title	Contents
SEI Volume 1	SEI Non-Technical Summary	Summarises the key contents of the SEI for the non-technical reader
SEI Volume 2A	SEI Written Statement	Presents the full SEI text
SEI Volume 2B	SEI Appendices	Presents the appendices referred to in the SEI Written Statement
SEI Volume 3	SEI Figures	Presents updated and additional figures referred to in the SEI Written Statement
SEI Volume 4	Visualisations	Presents additional visualisations referred to within the SEI Written Statement

A complete set of application and SEI documents can be downloaded from the project website, as detailed in the box below.

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The Developer may also be contacted at:

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SEI Volume 2A - Written Statement

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SEI CHAPTER 1 - INTRODUCTION

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EAST STOUR SOLAR FARM SEI

SEI Introduction

1.1 This SEI supports the planning application for the East Stour Solar Farm. The supplementary information addresses comments received during the consultation process together with consideration of any potential cumulative impacts associated with the three neighbouring applications yet to be built and so not in the existing baseline:

- the Pivot Power Battery Energy Storage Site (BESS) (Consented, ABC planning reference PA/2022/2544);
- the Sellindge Grid Stability Facility (GSF) (Consented, ABC planning application PA/2022/2950 - also referred to within that application as a Synchronous Condenser Plant (SCP) with ancillary infrastructure, access, landscaping and other incidental works); and
- the pre-application NSIP Stonestreet Green Solar.

1.2 The SEI LVIA chapter (SEI Chapter 11) has also considered the Otterpool Park Garden Town. Given the separation (~2.5km) and principally residential nature, this development has not been considered in other SEI Chapters.

1.3 The respective locations of the above proposals are identified on SEI **Figure 1.1, SEI Volume 3**.

1.4 The proposal for East Stour Solar Farm was submitted to Ashford Borough Council in May 2022, Application Reference 22/00668/AS. The proposal is for a fixed solar array, associated access tracks, inverter/transformer units, substation cabinets, welfare and storage cabinets/containers, boundary fencing with inward facing CCTV and ancillary infrastructure. In addition, a range of enhancement measures are proposed as part of the proposed development.

1.5 The site is located on land south of the M20, to the west of Sellindge and north-east of Aldington. The location of the site is illustrated in **Figure 1.1** within **Volume 3** of the Environmental Statement.

1.6 The proposal additionally comprises a below-ground cable route from the northern, southern and eastern area substations to a central substation cabinet west of the Sellindge Converter Station. The grid connection will connect from this cabinet under Church Lane to the adjoining National Grid substation. A substation will be shared with the Pivot Power BESS.

1.7 The total solar array would have a capacity of up to 49.9MW. The proposed operational lifetime of the project is 40 years.

1.8 The proposed development is adjacent to the operating Sellindge Solar Farm (10.6 MW).

1.9 For the purposes of the EIA, the ES and this SEI, assessments for impacts of the solar farm have been primarily based upon panel rows with a maximum height of 3.0m, at a tilt of approximately 20^{O} facing south.

1.10 The red line boundary has been amended to exclude areas not required for the purposes of the proposal.

1.11 Additional planting mitigation has been proposed as discussed with the SEI LVIA Chapter (SEI Chapter 11).

1.12 There have been no other alterations to the proposal as submitted. The proposed solar farm site layout with updated red line is shown at **SEI Figure 1.2 and Figure 1.3**, overlaid with aerial photography in **Figure 1.4** and **1.5 of SEI Volume 3** (replacing the corresponding ES figures).

SEI Reading Guide

1.13 This SEI presents information supplementary to the four volumes of the Environmental Statement (ES) which accompanied the application.

1.14 As such, the SEI should be read alongside the ES.

1.15 The SEI follows the same four-volume format and chapter numbering as the ES for ease of reference.

1.16 Where third-party reports or documents referenced within the ES have been updated or new publications issued, this SEI provides an update to the respective ES chapter.

1.17 Where no additional information has been provided to that presented in an ES chapter, the respective SEI chapter identifies this.

1.18 The only alteration to the proposal within this SEI reflects the amendments to the red line boundary and the additional planting proposed as referenced in **Paragraph 1.11**.

Energy Production

1.19 'PV Syst Photovoltaic Software' Version V6.87 was used by the Applicant to predict that the solar farm will have a potential annual yield of approximately 69 600MWh (to 3 Significant Figures (3 S.F.)), this is as presented in the ES.

1.20 Updated figures have subsequently been published regarding electricity consumption in Ashford Borough (DBEIS, 2022) and also regarding Greenhouse Gas Conversion figures (DESNZ, 2023). In terms of household electricity usage this would, using current statistics, be sufficient to offset the equivalent annual energy needs of 17 000 (to 3 S.F.) average Ashford Borough homes' (based on average domestic consumption per household of 4 080kWh (DBEIS, 2022). This is an increase to the 16 900 homes offset calculated in **ES Chapter 1** resulting from reduced domestic electricity consumption in the Borough.

Carbon Offset

1.21 As discussed in the **ES Chapter 7 - Construction, Operation and Decommissioning**, the electricity produced by the East Stour Solar Farm will offset an updated equivalent of 14 300 000 $kgCO_2$ per annum (to 3 S.F.). This is a 3% reduction against the initially reported ES figure, a consequence of falling electricity GHG conversion factors as more renewable energy comes on line year on year.

REFERENCES

Department for Business, Enterprise and Industrial Strategy (DBEIS), 2022, Sub-National Electricity Consumption Statistics, retrieved from: https://www.gov.uk/government/collections/sub-national-electricity-consumption-data [Accessed 01/11/23].

Department for Energy Security and Net Zero (DESNZ), 2023, UK Government GHG Conversion Factors for Company Reporting, HMSO, UK [Accessed 01/11/23].

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SEI CHAPTER 2 - DEVELOPMENT RATIONALE

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INTRODUCTION

2.1 The corresponding ES Chapter 2 sets out the wider international, national, regional and local context within which the East Stour Solar Farm is proposed. The merits of the various forms of renewable energy are also considered, along with the current and future energy generation mix of the UK.

2.2 The imperative need to reduce the carbon dependence of the economy is also discussed against the various alternative energy solutions.

2.3 A number of the source documents have been updated since submission, this SEI chapter provides relevant updates.

GLOBAL CLIMATE CHANGE

Working Group 2: Impacts, Adaption and Vulnerability

2.4 The ES Chapter reviews the findings of the The Intergovernmental Panel on Climate Change (IPCC) Working Group 2. Examples are given of changing weather patterns in the UK.

2.5 By way of recent examples of extreme weather events, 2022 saw significant flooding throughout the year in various parts of the UK, with several named storms hitting during February alone. During March 2021 to March 2022 the MetOffice issued a total of ten yellow flood warnings and six amber warnings.

Climate Change in the UK

2.6 An update has been published to the annual UK weather and climate report entitled '*State of the UK Climate*' is produced every July by the Met Office and published by the Royal Meteorological Society. The latest, published in July 2023 (Kendon, et al., 2023), found that:

- *'The UK's climate continues to change. Recent decades have been warmer, wetter and sunnier than the 20th century.*
- *The observations show that in the UK extremes of temperature are changing much faster than the average temperature.*
- *The UK has warmed at a broadly consistent but slightly higher rate than the observed change in global mean temperature.*
- *The UK's record warm year of 2022 and unprecedented July heatwave were both made more likely by climate change'.*

2.7 In addition:

- *'2022 was the warmest year in the UK series from 1884, 0.9°C above*

the 1991–2020 average. It was the first year to record a UK annual mean temperature above 10°C;

- *40°C was recorded in the UK for the first time during a heatwave which exceeded previous records by a large margin;*
- *Winter, spring, summer and autumn 2022 were all ranked in the top 10 warmest seasons for the UK in series from 1884 (winter from 1885);*
- *All the top-10 warmest years for the UK in the series from 1884 have occurred in the 21st century;*
- *The most recent decade (2013–2022) has been on average 0.3°C warmer than the 1991–2020 average and 1.1°C warmer than 1961–1990. This is the warmest 10-year period in both the UK series from 1884 and CET series from 1659;*
- *Half of the years, more than one in three of the constituent seasons, and almost one in four of the constituent months within the most recent decade (2013–2022) have been within the top 10 warmest in the UK series from 1884 (winter from 1885);*
- *Heating and cooling degree days (CDD) in 2022 were second-lowest and third-highest in series from 1960. Growing degree days (GDD) were the highest in the series;*
- *Five of the 10 wettest years for the UK in a series from 1836 have occurred in the 21st century;*
- *The most recent decade (2013–2022) has been on average as wet as 1991–2020 (i.e. anomaly 0%) and 8% wetter than 1961–1990 for the UK overall;*
- *In recent years, widespread and substantial snow events have occurred in 2021, 2018, 2013, 2010 and 2009, but their number and severity have generally declined since the 1960s;*
- *The most recent decade (2013–2022) has had for the UK on average 3% more hours of bright sunshine than the 1991–2020 average and 9% more than 1961–1990. 2013–2022 is the sunniest 10-year period in the UK series;*

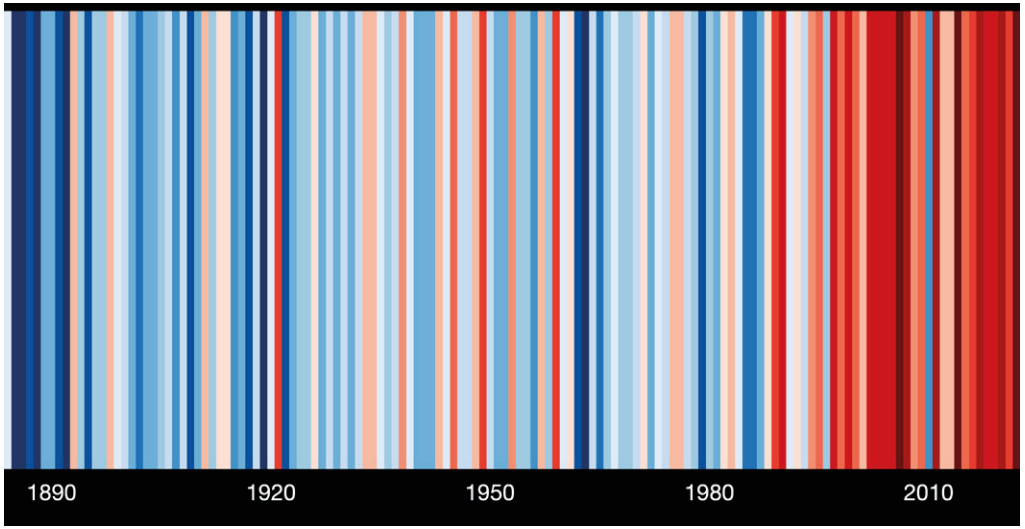


Plate 2.1 - *UK Annual Temperature (Hawkins, 2022)*

- *For the most recent decade (2013–2022) UK winters have been 3% sunnier than 1991–2020 and 14% sunnier than 1961–1990. UK springs have been 6%/16% sunnier'.*

2.8 **Plate 2.1 on page 16**, produced by the University of Reading (Hawkins, 2022) and using UK Met Office Data illustrates the average annual UK temperature since 1884. Blues represent cool average temperatures, and reds represent warm average temperatures. The increase in average annual temperature is abundantly clear.

CLIMATE CHANGE POLICY

International

COP27 Summit

2.9 COP27 met in Sharm El-Sheikh in November 2022. The goals and vision were stated to be:

'Inclusive, rules based and ambitious, substantive outcomes, commensurate with the challenge based on science and guided by principles building on agreements, decisions, pledges and commitments, from RIO 1992 to Glasgow 2021.

We seek to accelerate global climate action through emissions reduction, scaled-up adaptation efforts and enhanced flows of appropriate finance. We recognize that 'just transition' remains a priority for developing countries worldwide.'

2.10 COP28 is due to meet in Dubai, UAE in December 2028

The UK Response

2.11 On 7th April 2022 the UK Government published its latest policy paper on British Energy Security Strategy. The document sets out the steps taken and still required to 'accelerate our progress towards net zero, which is fundamental to energy security'.

2.12 Powering Up Britain (including the Energy Security Plan) was published by Government 30th March 2023 (HMSO, 2023). This latest plan seeks to ensure energy security whilst meeting net zero commitments. The document reiterates the Government's ambition to 70GW of ground and roof mounted solar by 2035, recognising this would increase the current installed solar by five times.

REFERENCES

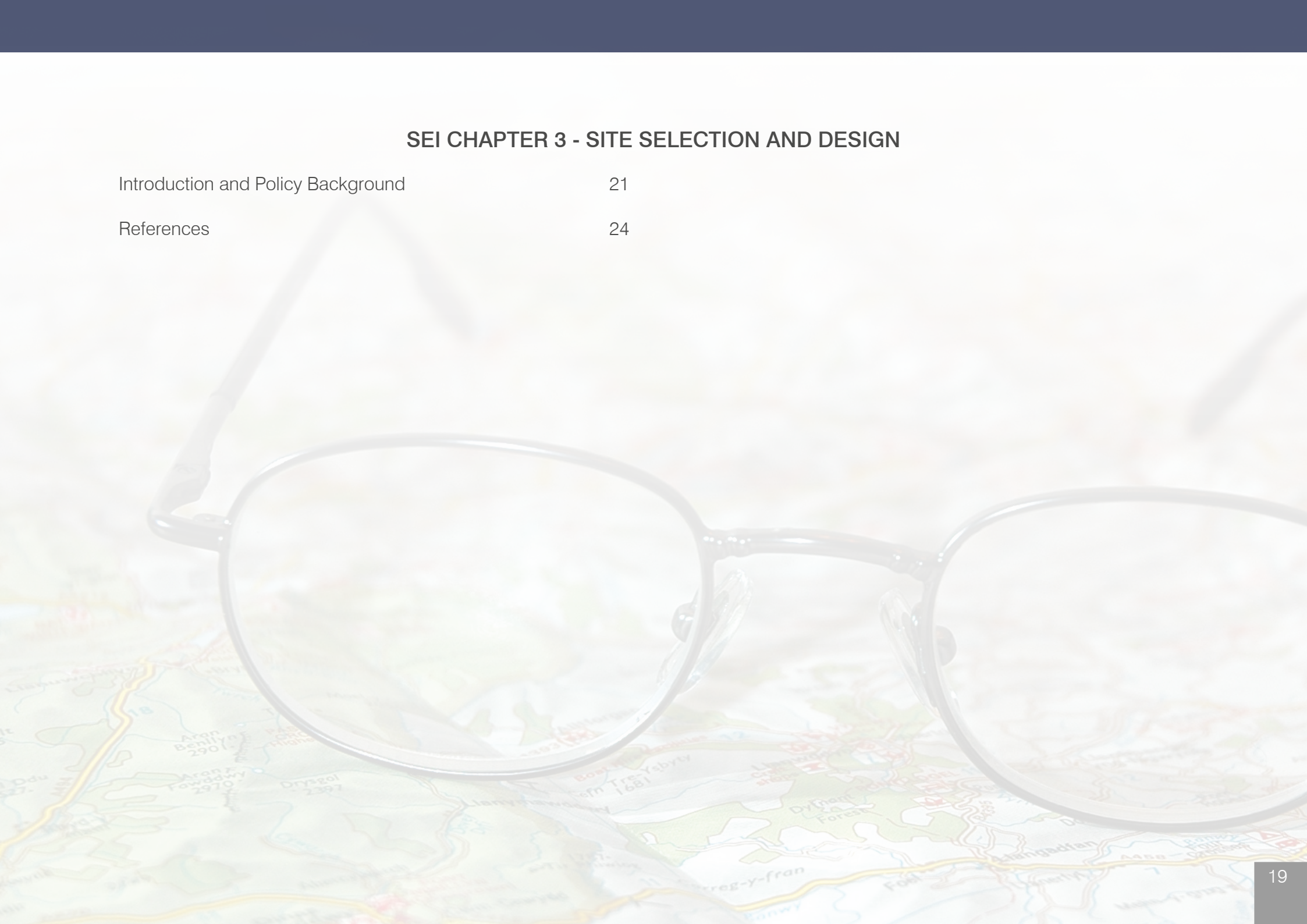
Hawkins, 2022, Show Your Stripes, University of Reading, UK retrieved from https://showyourstripes.info,

HMSO, 2023, Powering Up Britain, HMSO, UK

HM Government, 2022, British Energy Security Strategy, retrieved from https://www.gov.uk/government/publications/british-energy-security-strategy/british-energy-security-strategy [accessed 01/11/2023]

Kendon, McCarthy, Jevrejeva, Matthews, Sparks, Garforth, Met Office, 2023 State of the UK Climate 2022, Royal Meteorological Society, UK

SEI CHAPTER 3 - SITE SELECTION AND DESIGN



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INTRODUCTION AND POLICY BACKGROUND

3.1 The ES Chapter 3 discussed the site selection process undertaken to identify the East Stour Solar Farm location, and the evolution of the site layout throughout the EIA process.

3.2 The site selection process and layout evolution has been expanded upon within the SEI Chapter 11 - LVIA.

3.3 The ES Chapter 3 also set out an outline of the background policy relevant to site selection and design.

3.4 National Policy Statements for energy infrastructure were updated in November 2023 (Department for Energy Security and Net Zero (DESNZ), 2023) with updates as discussed below. The remainder of the ES Chapter 3 is extant.

National Policy Statements for Renewable Energy Infrastructure November 2023 Update

4.5 In addition to the NPPF and NPPG, the National Policy Statements are also a material consideration in determining energy infrastructure projects under the Town and Country Planning Act 1990 (as amended). These documents include the Overarching National Policy Statement for Energy (EN-1) and the National Policy Statement for Renewable Energy (EN-3). Both Statements were updated in November 2023 (Department for Energy Security and Net Zero (DESNZ), 2023).

4.6 EN-1 sets out general consideration in the determination of energy infrastructure applications. Whilst the need and role of solar is specifically referenced, there are no specific assessment criteria detailed.

4.7 EN-3 lists the following factors that it considers will influence an application in the selection of a solar site:

- Irradiance and Site Topography: '*Irradiance will be a key consideration for the applicant in identifying a potential site as the amount of electricity generated on site is directly affected by irradiance levels. Irradiance of a site will in turn be affected by surrounding topography, with an uncovered or exposed site of good elevation and favourable south-facing aspect more likely to increase year-round irradiance levels. This in turn affects the carbon emission savings and the commercial viability of the site.*';
- *Network Connection: 'Many solar farms are connected into the local distribution network. The capacity of the local grid network to accept the likely output from a proposed solar farm is critical to the technical and commercial feasibility of a development proposal'.*

- Proximity of a site to dwellings: with consideration to visual amenity and glint and glare;
- *Agriculture land classification and land type: 'While land type should not be a predominating factor in determining the suitability of the site location applicants should, where possible, utilise suitable previously developed land, brownfield land, contaminated land and industrial land. Where the proposed use of any agricultural land has been shown to be necessary, poorer quality land should be preferred to higher quality land avoiding the use of "Best and Most Versatile" agricultural land where possible. 'Best and Most Versatile agricultural land is defined as land in grades 1, 2 and 3a of the Agricultural Land Classification.*

  Whilst the development of ground mounted solar arrays is not prohibited on Best and Most Versatile agricultural land , or sites designated for their natural beauty, or recognised for ecological or archaeological importance, the impacts of such are expected to be considered'.
- Accessibility: '*Applicants will need to consider the suitability of the access routes to the proposed site for both the construction and operation of the solar farm with the former likely to raise more issues. Given that potential solar farm sites are largely in rural areas, access for the delivery of solar arrays and associated infrastructure during construction can be a significant consideration for solar farm siting.*'
- *Public Rights of Way: 'Applicants are encouraged to design the layout and appearance of the site to ensure continued recreational use of public rights of way, where possible during construction, and in particular during operation of the site. Applicants are encouraged where possible to minimise the visual impacts of the development for those using existing public rights of way, considering the impacts this may have on any other visual amenities in the surrounding landscape;*
- *Security and lighting: 'Security of the site is a key consideration for developers. Applicants may wish to consider not only the availability of natural defences such as steep gradients, hedging and rivers but also perimeter security measures such as fencing, electronic security, CCTV and lighting, with the measures proposed on a site-specific basis. Applicants should assess the visual impact of these security measures, as well as the impacts on local residents, including for example issues relating to intrusion from CCTV and light pollution in the vicinity of the site. Applicants should consider the need to minimise the impact on the landscape and the visual impact of security measures.'*
- Capacity of a site: '*for the purposes of Section 15 of the Planning Act 2008, the maximum combined capacity of the installed inverters (measured in alternating current (AC)) should be used for the purposes of determining solar site capacity. The installed generating capacity of a solar farm will decline over time in correlation with the reduction in panel array efficiency. There is a range of sources of degradation that developers need to consider when deciding on a solar panel technology to be used.*

Applicants may account for this by overplanting solar panel arrays. AC installed export capacity should not be seen as an appropriate tool to constrain the impacts of a solar farm. Applicants should use other measurements, such as panel size, total area and percentage of ground cover to set the maximum extent of development when determining the planning impacts of an application.';

- *Layout design and appearance: 'applicants will consider several factors when considering the design and layout of sites, including, proximity to available grid capacity to accommodate the scale of generation, orientation, topography, previous land – use and ability to mitigate environmental impacts and flood risk.'*
- *Project lifetimes: 'Applicants should consider the design life of solar panel efficiency over time when determining the period for which consent is required. An upper limit of 40 years is typical, although applicants may seek consent without a time-period or for differing time-periods of operation. Time limited consent, where granted, is described as temporary because there is a finite period for which it exists, after which the project would cease to have consent and therefore must seek to extend the period of consent or be decommissioned and removed.*
- *Decommissioning: 'Solar panels can be decommissioned relatively easily and cheaply. The nature and extent of decommissioning of a site can vary. Generally, it is expected that the panel arrays and mounting structures will be decommissioned, and underground cabling dug out to ensure that prior use of the site can continue. Applicants should set out what would be decommissioned and removed from the site at the end of the operational life of the generating station, considering instances where it may be less harmful for the ecology of the site to keep or retain certain types of infrastructure, for example underground cabling, and where there may be socio-economic benefits in retaining site infrastructure after the operational life, such as retaining pathways through the site or a site substation.'*
- *Flexibility in the project details; 'In many cases, not all aspects of the proposal may have been settled in precise detail at the point of application. Such aspects may include: the type, number and dimensions of the panels; layout and spacing; the type of inverter or transformer; and whether storage will be installed (with the option to install further panels as a substitute). Applicants should set out a range of options based on different panel numbers, types and layout, with and without storage.*

4.8 Through an iterative considered approach to site identification and site design that inherently mitigates potential impacts wherever possible, the Applicant has ensured the Proposal is consistent with the NPSs, EN-1 and EN-3, in their draft updates and subsequently published versions.

REFERENCES

Department for Energy Security & Net Zero (DESNZ), 2023, National Policy Statement for Renewable Energy Infrastructure (EN-3), HMSO, UK.

SEI CHAPTER 4 - EXISTING CONDITIONS

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INTRODUCTION

4.1 This chapter of the ES set out the existing physical environment of the development site boundary and its setting in the wider context, together with a summary of the solar energy developments in the area.

4.2 The baseline is considered to have remained the same except for the consenting of two energy projects close to the northern parcel of land near to the Converter Station Substation and a pre-application NSIP proposal for a larger solar scheme to the west and south-west:

- the Pivot Power Battery Energy Storage Site (BESS) (consented, ABC planning reference PA/2022/2544);
- the Sellindge Grid Stability Facility (consented ABC planning application PA/2022/2950); and
- the pre-application NSIP Stonestreet Green Solar.

4.3 The Pivot Power BESS scheme was considered in terms of potential cumulative impacts in the submitted ES, although an earlier design iteration to that consented. Whilst there have been amendments to the arrangement of the plant within the scheme, none of the modifications change the existing assessments in any way.

4.4 The existing operating Sellinge Solar Farm has been considered in the existing baseline.

4.5 The three schemes have been considered within the respective chapters of this SEI.

PAST, PRESENT AND FUTURE LAND USE

Agricultural Land Classification

Agricultural Land Survey Introduction and Policy Guidance

4.6 An Agricultural Land Classification (ALC) Assessment was prepared by Daniel Baird Soil Consultancy Ltd, as presented in Chapter 4 of the ES. It provides an assessment of the quality and versatility of agricultural land at the proposed development site.

4.7 When surveyed in August 2021 agricultural land at the site was in a mix of arable cultivation and pasture grazed by sheep. The land use continues unchanged.

4.8 In November 2023 updates were published to the National Policy Statements for Energy (EN1) and Renewable Energy (EN3). EN3 specifically includes an update with respect to ALC (from paragraph 2.10.29):

'While land type should not be a predominating factor in determining the

suitability of the site location applicants should, where possible, utilise suitable previously developed land, brownfield land, contaminated land and industrial land. Where the proposed use of any agricultural land has been shown to be necessary, poorer quality land should be preferred to higher quality land avoiding the use of "Best and Most Versatile" agricultural land where possible. 'Best and Most Versatile agricultural land is defined as land in grades 1, 2 and 3a of the Agricultural Land Classification.'

Whilst the development of ground mounted solar arrays is not prohibited on Best and Most Versatile agricultural land , or sites designated for their natural beauty, or recognised for ecological or archaeological importance, the impacts of such are expected to be considered[...].

It is recognised that at this scale, it is likely that applicants' developments will use some agricultural land. Applicants should explain their choice of site, noting the preference for development to be on suitable brownfield, industrial and low and medium grade agricultural land.

Where sited on agricultural land, consideration may be given as to whether the proposal allows for continued agricultural use and/or can be co-located with other functions (for example, onshore wind generation, storage, hydrogen electrolysers) to maximise the efficiency of land use.

The Agricultural Land Classification (ALC) is the only approved system for grading agricultural quality in England and Wales and, if necessary, field surveys should be used to establish the ALC grades in accordance with the current, or any successor to it, grading criteria and identify the soil types to inform soil management at the construction, operation, and decommissioning phases in line with the Defra Construction Code.

Applicants are encouraged to develop and implement a Soil Resources and Management Plan which could help to use and manage soils sustainably and minimise adverse impacts on soil health and potential land contamination. This should be in line with the ambition set out in the Environmental Improvement Plan to bring at least 40% of England's agricultural soils into sustainable management by 2028 and increase this up to 60% by 2030.

4.9 The detailed ALC survey of the site as reported in the ES Chapter 4 found agricultural land in ALC Grades 3a and 3b with area estimates given in **Table 4.1**.

Table 4.1 - *ALC Grade Distribution within Surveyed Area*

ALC Grade	Area (ha)	%
3a	14.9	14.6
3b	87.0	85.4
Total	101.9	100.0

4.10 As such, the area progressed for solar development is thus predominantly not BMV land. Designated sites and areas identified through geophysical scans of potentially greater archaeological activity have been avoided (ES Chapter 3 and Chapter 12). Ecological considerations are fully assessed in ES Chapter 10.

4.11 As stated in the ES Chapter 4, for the East Stour Solar Farm proposal, the developer intends to manage the grass through grazing with livestock, as per the practice at the existing adjoining solar farm. This livestock grazing will maintain the land in agricultural production while the solar PV generation is in place.

4.12 Therefore, the development proposed does not result in loss of agricultural land resource and agricultural production, though restricted, can continue through the duration of the solar PV development.

4.13 EDF-R consider management of the land a principal responsibility during their occupation of site. Soils management is an important component to these responsibilities and a Soils Management Plan will be agreed with ABC and can be controlled by planning condition.

4.14 Through an iterative considered approach to site identification and site design that inherently mitigates potential impacts wherever possible, the Applicant has ensured the Proposal is consistent with the NPSs, EN-1 and EN-3, in their draft updates and subsequently published versions.

REFERENCES

Department for Energy Security & Net Zero (DESNZ), 2023, National Policy Statement for Renewable Energy Infrastructure (EN-3), HMSO, UK.

SEI CHAPTER 5 - ENVIRONMENTAL IMPACT ASSESSMENT

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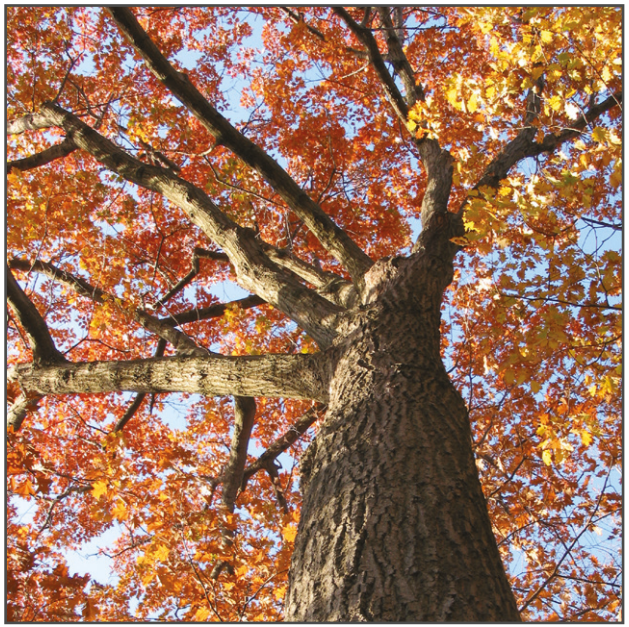

THE ENVIRONMENTAL IMPACT ASSESSMENT

SEI

5.1 As described in SEI Chapter 1 - Introduction, this SEI supports the planning application for the East Stour Solar Farm. The supplementary information addresses comments received during the consultation process (**SEI Appendix 1.1**) together with consideration of any potential cumulative impacts associated with the three neighbouring applications yet to be built and so not in the existing baseline:

- the Pivot Power Battery Energy Storage Site (BESS) (Consented, ABC planning reference PA/2022/2544);
- the Sellindge Grid Stability Facility (GSF) (Consented, ABC planning application PA/2022/2950 - also referred to within that application as the Synchronous Condenser Plant (SCP) with ancillary infrastructure, access, landscaping and other incidental works)); and
- the pre-application NSIP Stonestreet Green Solar.

5.2 The SEI LVIA chapter (SEI Chapter 11) has also considered the Otterpool Park Garden Town. Given the separation (~2.5km) and principally residential nature, this development has not been considered in other SEI Chapters.

5.3 The respective locations of the above proposals are identified on **SEI Figure 1.1, SEI Volume 3**.

5.4 The assessments as reported within the volumes of the ES stand, supplemented by the additional information provided by this SEI.

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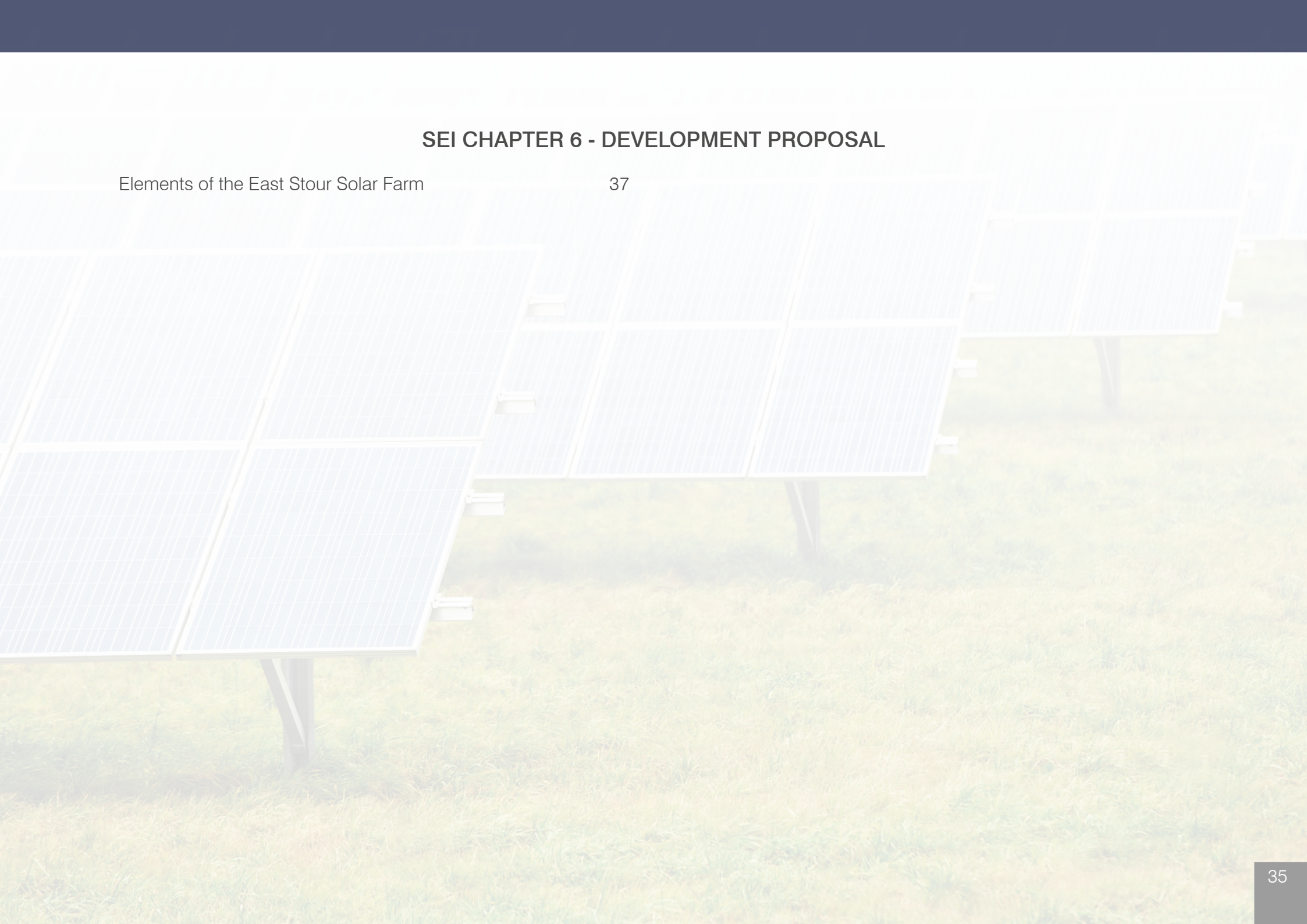
SEI CHAPTER 6 - DEVELOPMENT PROPOSAL



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ELEMENTS OF THE EAST STOUR SOLAR FARM

6.1 The elements of the East Stour Solar Farm are as described in the corresponding chapter of the ES.

6.2 No amendments have been made during the planning process save the adjustment of the application red line boundary to exclude areas not required for the purposes of the proposal (**SEI Figure 1.1, SEI Volume 3**) and the updating of the planting and mitigation plan provided as **SEI Figure 11.8a**, replacing the corresponding Figure in the ES Volume 3.

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SEI CHAPTER 7 - CONSTRUCTION, OPERATION AND DECOMMISSIONING

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INTRODUCTION

7.1 This chapter of the ES describes the construction, operation and decommissioning phases of the proposed East Stour Solar Farm.

7.2 Potential impacts associated with the respective phases of the development are addressed individually within the respective ES assessment and SEI chapters.

7.3 No amendments to the site layout or components to the solar farm have been made subsequent to submission.

7.4 Updated figures for ABC domestic electricity consumption and government GHG Conversion Factors have been published and the related calculations have been updated within this SEI chapter, as summarised in **SEI Chapter 1**.

Predicted Electricity Generation

7.5 As stated at **SEI Chapter 1 - Introduction** it is predicted that the solar farm at this site would have a potential annual yield of approximately 69 600MWh (as reported in the ES).

7.6 In terms of household electricity usage this would be sufficient to offset the equivalent annual energy needs of 17 000 (to 3 S.F.) average Ashford Borough homes, using published consumption data (DBEIS, 2022).

Emissions

7.7 It has been predicted that the proposed solar farm will generate an annual average of approximately 69 600 000kWh (net) of electricity (to 3 S.F.).

7.8 The generation of this electricity will offset electricity generated from other non-renewable sources. UK Government Greenhouse Gas Conversion Factors (DESNZ, 2023) for company reporting of annual carbon emissions include the average carbon emissions for UK electricity generation.

7.9 On this basis the electricity produced by the East Stour Solar Farm will offset approximately **14 300 000kgCO_2/ annum or 14 300 tonnes CO_2 per annum** (to 3 S.F.). This is less than report in the ES as more renewables have been installed since submission and the UK's reliance on fossil fueled electricity generation has been accordingly be reduced.

7.10 As stated in the ES, this project therefore provides a material contribution to the net zero target by 2050 at both National (through the Climate Change Act) and Local level. Whilst Ashford Borough elected not to declare a 'Climate Emergency', the Council has elected to commit to carbon neutrality by 2030.

REFERENCES

Department for Business, Enterprise and Industrial Strategy (DBEIS), 2022, Sub-National Electricity Consumption Statistics, retrieved from: https://www.gov.uk/government/collections/sub-national-electricity-consumption-data [Accessed 01/11/23].

Department for Energy Security and Net Zero (DESNZ), 2023, UK Government GHG Conversion Factors for Company Reporting, HMSO, UK [Accessed 01/11/23].

SEI CHAPTER 8 - TRAFFIC AND ACCESS

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INTRODUCTION

8.1 This chapter of the ES considers the impacts of the East Stour Solar Farm on the local roads infrastructure, particularly during the construction process.

8.2 Subsequent to the submission of the planning application, details of the Pivot Power BESS have been available as well as those associated with the adjoining consented Synchronous Condenser and the nearby the forthcoming Stonestreet Green Solar DCO application.

8.3 The assessment is considered extant except for cumulative considerations detailed below.

CUMULATIVE ASSESSMENT

8.4 It is not anticipated that the Stonestreet Green Solar proposal will use Church Lane as an access route during construction and so no cumulative impacts have been considered in relation to this project.

8.5 There is the possibility for the construction periods of the Pivot Power BESS and/or the adjoining SWECO Synchronous Condenser site to coincide with the construction of the East Stour Solar scheme. As such there is potential for cumulative impacts along the northern section of Church Lane between the A20 and the railway bridge.

8.6 ES **Chapter 8** identifies a potential maximum traffic flow of 12 additional HGV movements per day (occurring in months 3 and 5 of the 9-month construction period of the East Stour Proposal). This traffic will pass through the northern section of Church Lane between the A20 and the railway line to the south along the length of road also used to access the Conversion Station Substation and HS1 railway substation.

8.7 The Pivot Power application in their Design and Access Statement (paragraph 4.2.10) anticipate daily average construction movements of three HGV two-way movements.

8.8 The SWECO Synchronous Generator application suggests in their Framework Construction Traffic Management Plan document (March 2023), a maximum peak movements of 25 concrete deliveries in one day.

8.9 Should all three projects experience peak traffic flows during the same period, HGV construction traffic movements along the stretch of Church Lane between the A20 and railway line could total 40 HGV movements. Whilst no baseline traffic counts have been provided by any of the developers along this stretch of Church Lane, it is anticipated that the increase in HGV traffic flows are likely to be 'significant' when considered against existing flows (assuming a 30% increase threshold

of 'significance'). However, this stretch of Church Lane has been built to accommodate HGV deliveries to the Conversion Substation as well as the HS1 substation and the carriageway is sufficiently wide as to accommodate HGVs passing.

AVOIDANCE AND MITIGATION

8.10 As discussed within the corresponding ES Chapter, a key impact avoidance principal during construction and decommissioning considers deliveries to be restricted, wherever possible, to off-peak weekdays to reduce impacts on local road users. Off-peak is considered to be between 09:00 and 15:00. The same restriction has been stated within the Pivot Power BESS and Sellindge GSF applications.

8.11 To avoid construction traffic travelling through the nearby villages, all construction vehicles will be required to use the access route identified from the A20 and HGVs will be required to approach from the identified route from Junction 10a of the M20. No construction traffic be it HGV, LGV or PSV will be permitted south of the Church Lane highway crossing. The same restriction has been stated within the Pivot Power BESS and Sellindge GSF applications.

8.12 As such, all proposed avoidance and mitigation measures remain as proposed within the ES.

RESIDUAL IMPACTS

8.13 Cumulative construction traffic movements along Church Lane to the site entrances of the SWECO Synchronous Condenser and the Pivot Power BESS (between the A20 and the railway line over Church Lane), are likely, should all proceed at the same time, to be more than 30% of the average daily HGV total vehicular movements at these locations, and so assessed as potentially significant.

8.14 Measures are proposed for the construction period (and similarly for decommissioning) to mitigate potential impacts and disruption to local traffic as far as possible. These impacts are, however, likely to remain significant although limited to Church Lane. These impacts are short lived and can be managed through Construction Traffic Management Plans, controlled through Planning Condition.

SEI CHAPTER 9 - GEOLOGY, HYDROLOGY & HYDROGEOLOGY

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INTRODUCTION

9.1 Following on from the Environmental Statement chapter on Geology, Hydrology and Hydrogeology prepared for the East Stour Solar Farm Site1 (22/00668/AS), one further application has been subsequently consented in the locality of this scheme, as well as details being published for a pre-application NSIP solar scheme. These are required for inclusion within the cumulative impact assessment for the site (this is in addition to the BESS scheme assessed in the previous report). These sites are shown in **Plate 9.1**.

9.2 These include the Sellindge GSF (also referred to as a condenser) (PA/2022/2950) to the north east of the site and a further solar scheme (Stonestreet Green Solar) to the west of the site which is a pre-application NSIP scheme.

9.3 The GSF will connect to an existing substation further to the east and includes areas of new hardstanding, to accommodate the condenser, associated plant and equipment. This site has now received planning consent under the Town and Country Planning Act, along with the BESS scheme.

9.4 Stonestreet Green Solar comprises the construction of a renewable energy generating project on approximately 189 hectares of land located to the south and west of East Stour solar farm. This will involve solar arrays and onsite energy storage, alongside associated infrastructure and underground cable connection.

9.5 It is noted in terms of the hydrological environment (and thus a cause for these applications to be assessed collectively), that all of the sites, at least in part, drain to the East Stour River.

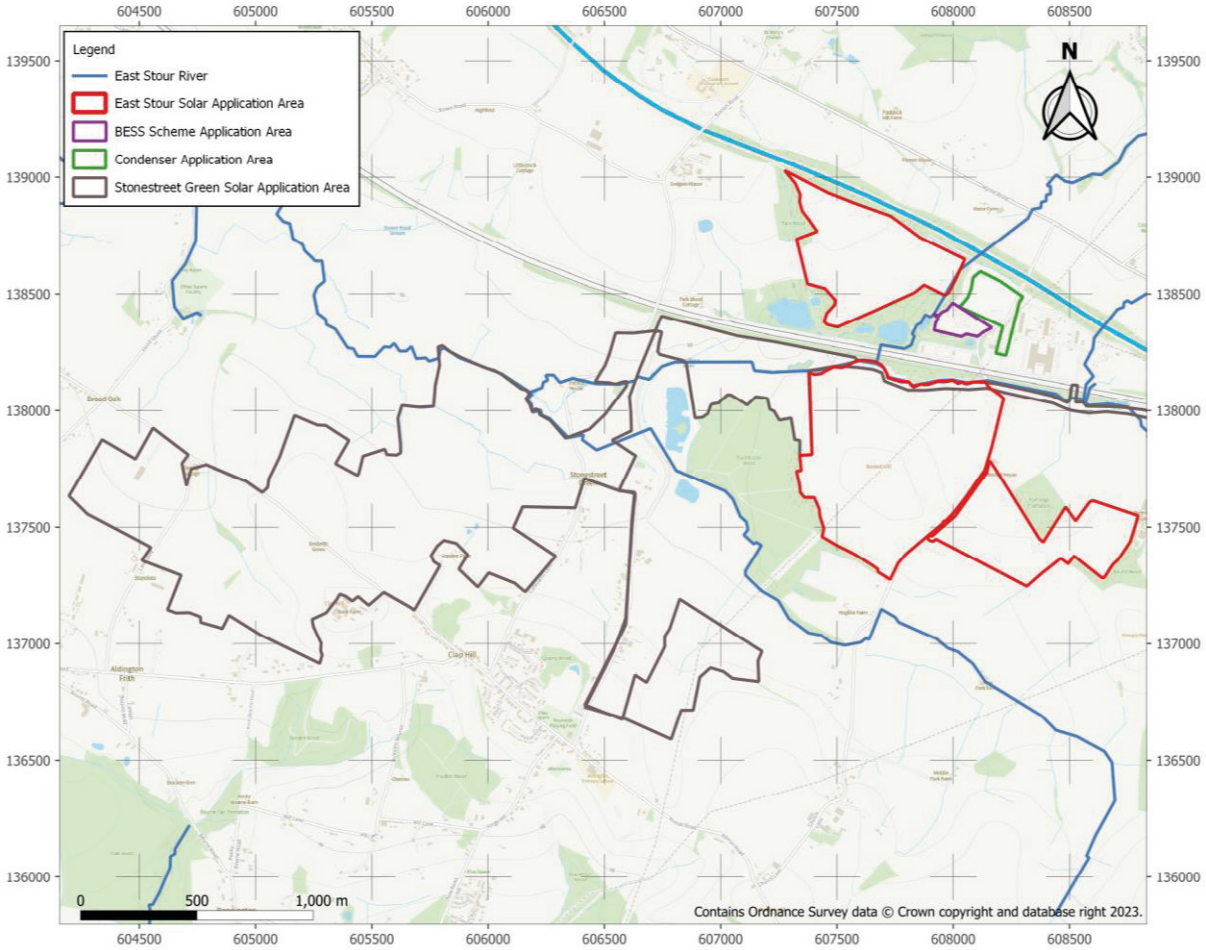


Plate 9.1 - *Cumulative impact assessment sites, including the BESS area*

CUMULATIVE IMPACT ASSESSMENT

Food risk

9.6 A surface water drainage design and FRA has been provided for the condenser application (PA/2022/2950), which shows that drainage is to be discharged from the site, to a tributary of the East Stour River to which the solar site naturally drains. In-line with Kent County Council guidance for new developments, runoff rates are to be constrained here to 2l/s, which will improve upon current greenfield run-off rates for extreme rainfall events.

9.7 A Preliminary Environmental Information Report (PEIR) was produced for the Stonestreet Green Solar site in June 2023. This includes a Chapter 9 relating to the water environment. This includes a preliminary flood risk assessment and flood risk strategy and proposals for further modelling of impacts and agreements with the Environment Agency to ensure no significant impact on flood risk as part of the

DCO application. An outline drainage strategy was not included with the PEIR, this is being developed as part of the DCO application and will include a series of swales, dry retention basins and channels to control surface water run-off rates. There is likely to be some increase to impermeable area within the site, associated mainly with the onsite energy storage, however assuming this is accounted for, and that site drainage is designed to appropriate standards (in-line with Kent CC guidance), it is not expected that the site will significantly increase runoff to the East Stour River, either during construction or operation. The PEIR concludes that there will be no significant adverse cumulative impacts due to the Stonestreet Green and East Stour solar sites.

9.8 For the East Stour solar farm application, upon the provision of unconnected swales and no significant hardstanding areas within the development, as per the conclusions of the ES, no significant increase in runoff is expected to the East Stour tributary.

9.9 In summary, it is expected that there will be adequate surface water management plans in place during construction for these application sites, to attenuate and manage surface water runoff such that there is no increase in runoff to the East Stour tributary from any of the sites. Thus, even if construction occurs simultaneously provided appropriate SuDS measures are implemented in a timely manner there will be no cumulative detrimental effects to flood risk.

9.10 Furthermore, according to the design statements and expected embedded design measures at the sites, discharge to the East Stour River should be reduced for higher order events. Thus there is not expected to be any significant cumulative effect from these sites to increase flood risk during operation either.

Water quality

9.11 During operation of the GSF site, water quality has been considered within the drainage design, to adequately treat runoff, according to the specific hazard indices of structures and processes within the development. This includes use of two attenuation basins, which are shown to provide mitigation to any pollutants which may be entrained in runoff from the site.

9.12 For the Stonestreet Green solar site, the PEIR commits to inclusion of embedded mitigation measures (such as pollution prevention and SuDS), within design, according to standard best practice. This will be carried out so that adverse affects, will be reduced, offset or avoided.

9.13 No water quality impacts are expected during operation of the East Stour solar farm site, with swales used to capture and treat any excess runoff from the panelling (which itself if expected to be low risk).

9.14 If construction of the proposed GSF facility and Stonestreet Green Solar, take place at the same time as the proposed East Stour Solar Farm site; there could be significantly increased construction activity in the area, which could mobilise sediment and increase the risk of pollution to watercourses and groundwater. Similarly, there would be an increased risk of spillage of construction materials/fuels.

9.15 The proposed GSF, will involve foundation work for hardstanding areas and the construction of an internal road network. It is expected that a surface water management plan

will be in place during construction to ensure there are no adverse significant effects to water quality.

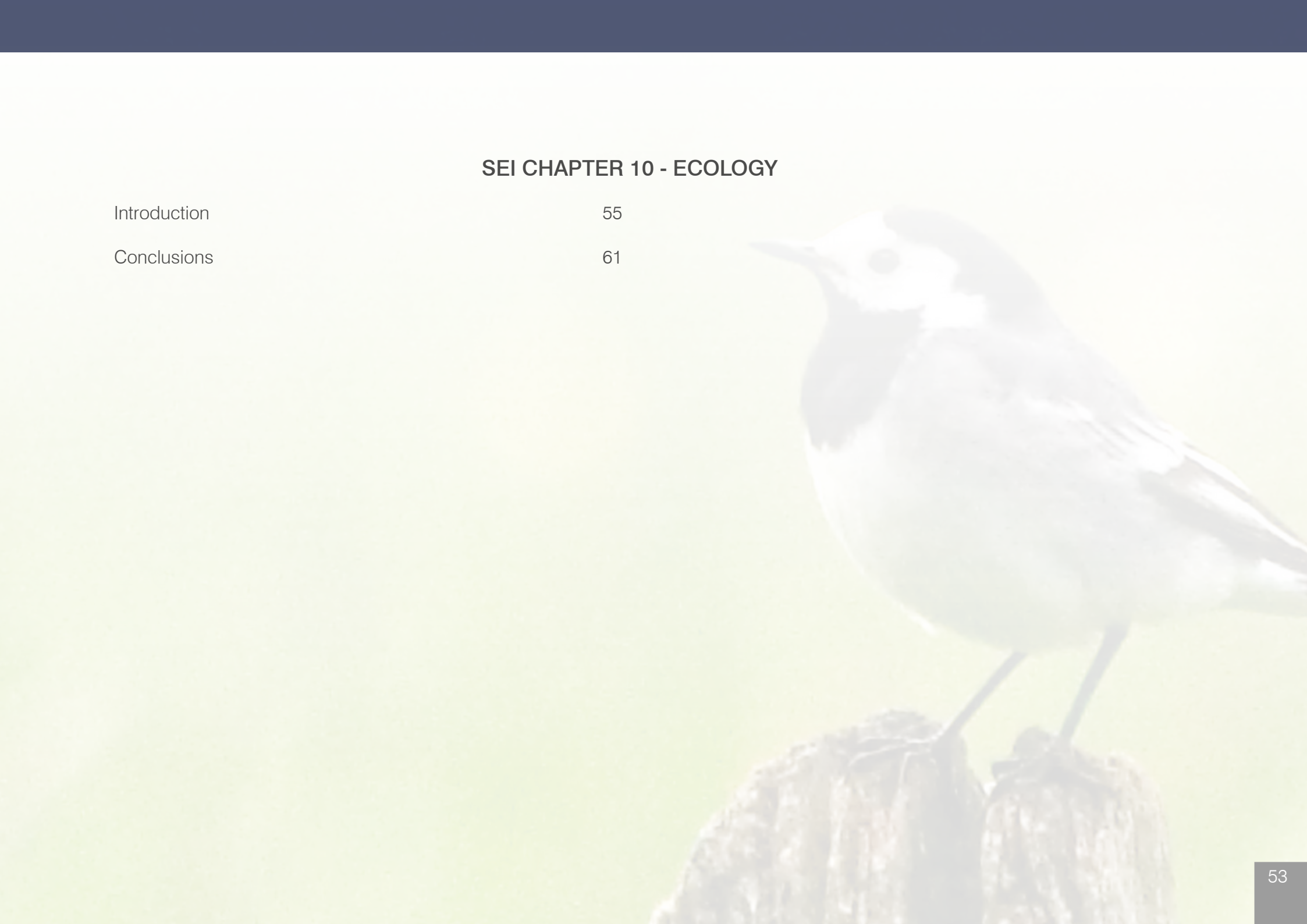
9.16 On the whole, the solar sites generally involve low level and unintrusive construction activities, with piling activities anticipated for solar frames, rather than large amounts of earthworks. The Stonestreet Solar site includes an underground cable route within the proposals, which is likely to involve a moderate amount of soil disturbance through trenching. It is assumed however that adequate mitigation is provided during construction to stabilise and store excavated earth, to prevent any erosion of material to the East Stour River.

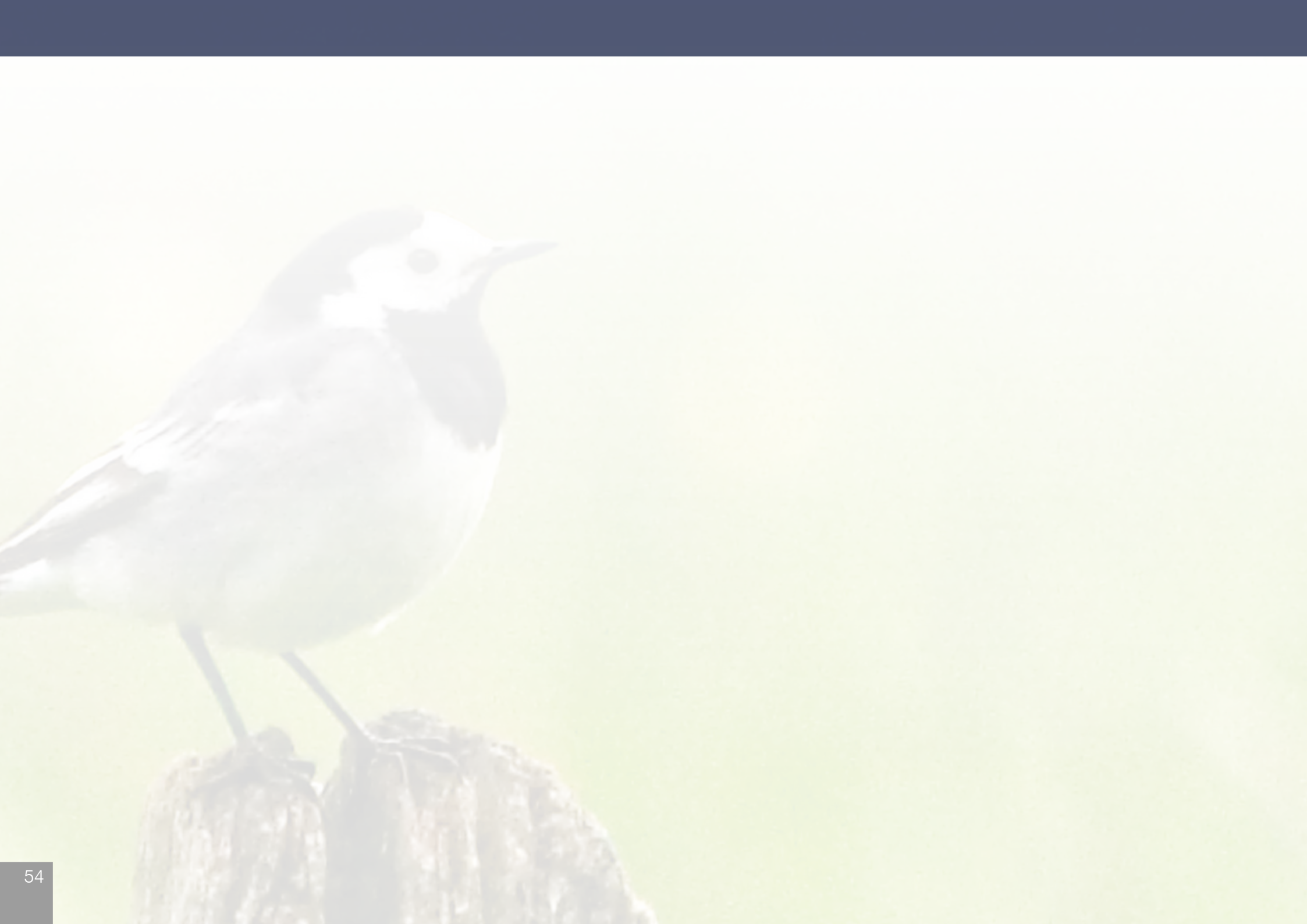
9.17 During construction and operation, it is concluded that each development would only have a negligible effect in terms of changes in water quality and as such, there is not likely to be any significant cumulative effect.

CONCLUSION

9.18 The potential impacts for each or the two additional sites have been assessed in turn, along with the previous assessment of the BESS site, according to their likely impacts upon water quality and flood risk. It is concluded that there is no significant cumulative effect posed to local hydrology or hydrogeology.

SEI CHAPTER 10 - ECOLOGY





INTRODUCTION

10.1 The EIA Regulations specify the information to be included in an Environmental Statement and require that in assessing the effects of a particular development consideration should be given to cumulative effects which can be categorised in to two types:

- Effect Interactions which occur when two or more different environmental effects from a development (e.g traffic, dust, noise) act together to produce a different level of effect on a particular receptor. These combined effects (or intra-project effects) can be additive (meaning that the total effect is equal to the sum of the individual effects) or synergistic (meaning that the total effect can be less or more than the sum of the individual impacts because they may exacerbate or neutralise one another).
- Cumulative Effects which accrue over time and space from a number of different development activities and projects in geographical proximity to one another, which individually might be non-significant, but when consider together, could create a significant cumulative effect.

10.2 For biodiversity, likely ecological impacts on sensitive ecological receptors for projects within 5 km of the East Stour Project have been considered as part of this Cumulative Impact Assessment. Four projects have been identified that could potentially contribute to cumulative impact on sensitive ecological receptors and these are shown in **Plate 10.1 on page 56**. A review of the ecological assessments for these individual projects has been completed (**Table 10.1** on page 57) to inform the cumulative assessment, the conclusions of which are based on the substantive nature of the predicted ecological impacts of these other schemes.

10.3 Information pertaining to the nature of these projects, location, size of project as well as identified or predicted ecological impacts is included in along with information relating to identified cumulative impacts.

10.4 The identified projects within 5 km are as follows (with site reference number):

- 1- GSF Scheme;
- 2 - BESS Scheme;
- 3 - Stonestreet Green Solar; and
- 4-operating Sellindge Solar Farm.

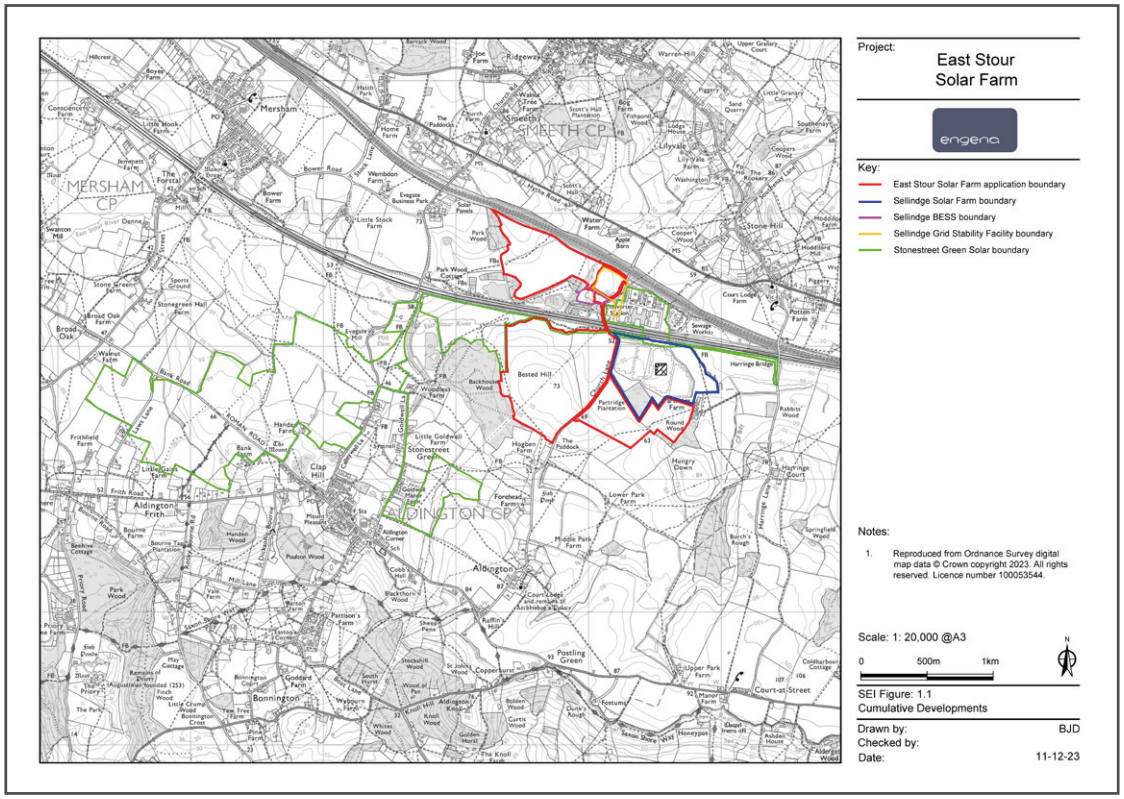


Plate 10.1 - *Location of East Stour Solar Project in relation to the additional (and operating) projects (replicated from SEI Figure 1.1)*

Table 10.1 - *Project Information used to Inform the Assessment of Cumulative (or in-combination) Impacts*

Site Reference	Site Location	Description of Development/ Planning Status/ Development Status	Site Size	Existing Land Use	In-Combination Assessment
1	Land on the north-west side of Church Lane, Sellindge, Kent, TN25 6AF (OS grid reference: TR 08167 38495)	Condenser Scheme Welsh Power Limited - installation of grid stability equipment on site to include synchronous condensers and flywheels. Consented	4.85ha	Hard-standing, buildings, arable land, a hedgerow, and ruderal habitat currently in use as a construction site compound for works on the adjacent substation.	No protected/notable species were noted, and there are no statutorily designated sites within 2km of the site. No Natura 2000 sites are located within 5 km or SSSI within 2 km of the site. One non-statutory designated site is located within 2 km of the site; Backhouse Wood LWS located approximately 950m south-west of the site. The proposed development will largely impact habitats of negligible ecological value (hard-standing, temporary buildings, arable and ruderal). The majority of the hedgerow will be retained and protected, however the removal of 12m is unavoidable to provide access to the site. This unavoidable hedgerow loss will be compensated for by hedgerow 446m planting resulting in an overall net gain in hedgerow habitat on site. Proposed grassland, native hedgerow, woodland and tree planting will provide increased structural and species diversity on site. Once established this new planting will provide greater opportunities for local wildlife including bats, dormice, birds, reptiles and amphibians. Minor positive impacts as a result of habitat creation and provision of nesting and roosting boxes. **No adverse residual impact predicted from this scheme and as such no adverse in-combination impacts expected as no residual adverse impacts predicted by the East Stour Project (e.g no impact + no impact = no cumulative impact).**

Site Reference	Site Location	Description of Development/ Planning Status/ Development Status	Site Size	Existing Land Use	In-Combination Assessment
2	Sellindge, near Ashford in Kent, centred at OS grid reference: TR 08025 38364	BESS Scheme Pivot Power BESS - construction of a battery power storage facility incorporating battery storage containers with associated infrastructure, security fencing, CCTV masts and access. Consented	2.04ha	Arable field with a hedgerow on the eastern boundary, areas of semi-improved grassland, tall ruderal vegetation, bare ground, hardstanding, and an area of broad-leaved semi-natural woodland at the south-east corner.	No Natura 2000 sites are located within 5 km or SSSI within 2 km of the site. One non-statutory designated site is located within 2 km of the site; Backhouse Wood LWS located approximately 725m south-west of the site. Habitats of ecological importance within the site include broad-leaved semi-natural woodland and a species-rich intact hedgerow, although these are being retained or if lost (hedgerow), replaced on a like for like basis. Mitigation plan will result in a neutral impact at worst, minor positive at best. **No adverse impact predicted from this scheme and as such no adverse in-combination impacts expected as no residual adverse impacts predicted by the East Stour Project (e.g no impact + no impact = no cumulative impact).**

Site Reference	Site Location	Description of Development/ Planning Status/ Development Status	Site Size	Existing Land Use	In-Combination Assessment
3	The Proposed Development is known as 'Stonestreet Green Solar' and is proposed on land located to the north and west of the village of Aldington, Kent The extent of the Site will be defined the in Application as 'Order limits' once finalised.	Proposed Stonestreet Green Solar. Construction and operation of a Solar Power Plan and associated facilities. Proposed.	104ha (of which 65.5 ha fenced)	Arable with hedgerows and scattered trees, adjacent areas of priority habitat (Broad-leaved Woodland) and the East Stour, River Corridor.	Site is within 10 km of three statutory designated sites however mitigations, where necessary, will be applied to ensure no adverse impact on these sites or their qualifying features. Significant adverse effect from the loss of habitat for Yellowhammer, Skylark and Brown Hare and disturbance of Brown Hare predicted during construction (local impact). All other construction stage effects are not considered significant or are yet to be confirmed (at the ES stage). Operational residual effects include local (significant) beneficial effects on the Backhouse Wood LWS and ancient woodland, notable river habitats, ponds and hedgerows, invertebrate species, the habitat expansion and enhancement for Great Crested Newt, Common Toad, reptiles, breeding birds (including Yellowhammer), wintering birds (including Yellowhammer), Hazel Dormouse, Badger, otter, bats, Hedgehog, Harvest Mouse and Brown Hare. Local (significant) adverse effect arising from the sustained depletion of Yellowhammer food and habitat, and a local adverse effect on the elevated predation risk on Skylarks, however all other operational effects would be not significant. The East Stour Solar scheme is not predicting residual adverse impacts on breeding birds (Skylark and Lapwing) as habitat creation is being completed to off-set the loss of up to three breeding pairs of Skylark and up to two pairs of Lapwing. Impacts on wintering birds (including Yellowhammer and Skylark) are not predicted.

Site Reference	Site Location	Description of Development/ Planning Status/ Development Status	Site Size	Existing Land Use	In-Combination Assessment
3 (continued)	Stonestreet Green Solar (continued)				Other species negatively affected by the Stonestreet Green Solar Project will not be impacted by the East Stour Project. **Cumulative impacts on sensitive receptors are not predicted as there are no adverse residual impacts from East Stour scheme and the species being affected by the Stonestreet Scheme are not being impacted by East Stour.**
4	Land at Partridge Farm	Consented Scheme. 10.59MW solar project on land at Partridge Farm.	25.22ha (24ha of solar arrays)	Arable land with associated hedgerows. Adjacent plantation (Partridge Plantation)	Ecology report is not available on the Ashford Borough Council Website for application 14/00398, however given the scheme is only affecting Grade 3 (lower quality) agricultural land and there was no impact on boundary features (e.g. hedgerows) it is considered that the scheme resulted in minimal impacts on ecological receptors and that no adverse ecological impact was predicted. Ecological mitigation and enhancement, including the seeding of grassland and wildflowers as well as extensive areas of tree planting were undertaken as a result of this scheme. **No adverse impact predicted from this scheme and as such no adverse in-combination impacts expected as no residual adverse impacts predicted by the East Stour Project (e.g no impact + no impact = no cumulative impact).**

CONCLUSIONS

10.5 Cumulative impacts have not been identified when considering the predicted ecological impacts of the East Stour and the three consented schemes (BESS, GSF and Sellindge Solar Farm schemes). None of these Projects identify adverse residual impacts on sensitive ecological receptors, including ground nesting birds (e.g. Skylark and Lapwing) and loss of sensitive terrestrial habitats is limited for all schemes. All of these Projects actually predicted or in the case of Sellindge Solar Farm is considered likely to result in) minor positive ecological impacts when considering committed to mitigation and ecological enhancement including hedgerow and woodland planting and creation of wildflower grassland areas.

10.6 For the proposed Greenstreet Solar residual impacts on Skylark and Yellowhammer are predicted however neither species will be significantly adversely affected by the East Stour Scheme. Skylark habitat is being replaced such that the two existing pairs of this species will have areas of alternative breeding and foraging habitat and as such there will be no cumulative impacts on this species. The existing hedgerow network at East Stour (where Yellowhammer were recorded) is being retained and significant additional hedgerow and woodland planting will increase available habitat for Yellowhammer which will likely result in a minor positive for this species. Additionally the grassland areas being created will provide suitable foraging habitat for this species.

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SEI CHAPTER 11 - LANDSCAPE AND VISUAL IMPACT

INTRODUCTION

11.1 This chapter encompasses additional information relating to the landscape and visual effects of the East Stour Solar Farm proposal, produced in response to various consultation responses. These responses include:

- Ashford Borough Council (ABC) and Land Management Services (LMS) Review of the LVIA contained within the East Stour Solar Farm Environmental Statement (ES) – letter dated 16th May 2023.
- Kent Downs Area of Outstanding Natural Beauty (AONB) – letter dated 30th November 2022.
- Natural England – letter dated 13th September 2022.
- Kent County Council PROW & Access Service – letter dated 16th August 2022.

11.2 This chapter is set out in a series of sections relating to landscape and visual matters as follows:

- Section 1 – Solar Farm Design Progression – a summary (in landscape and visual terms) of the progression of the solar farm design including a rationale for the removal of various areas from the final layout.
- Section 2 – Mitigation Rationale – a description of the mitigation measures included within the design of the solar farm, including recent additions to the mitigation proposals.
- Section 3 — Additional AONB Viewpoint Assessment – at the request of Kent Downs AONB an additional viewpoint (VP13) has been assessed and has been provided as a photomontage.
- Section 4 – Rebuttal to ABC and LMS review of the LVIA contained within the East Stour Solar Farm ES – setting out the main comments from ABC and LMS and summarising responses as well as further information.
- Section 5 – Cumulative Landscape and Visual Assessment – since the submission of the East Stour proposal, several development proposals have been submitted to the planning process in the area local to the East Stour site and a CLVIA has been produced in response.
- **SEI Appendix 11.1** – Method of Assessment – a more detailed assessment methodology including CLVIA methodology.

SECTION 1: SOLAR FARM DESIGN PROGRESSION

11.3 This section expands on the site design discussion in ES Chapter 3, and is provided in response to questions posed during a meeting with Officers of the Council, 16th June, 2023.

11.4 The initial available landholding area for East Stour Solar Farm was approximately 238 hectares across five separate areas:

- North of the A20 Hythe Road between Scott's Hall Plantation and Cooper's Wood,
- South of the A20 Hythe Road by Water Farm and Apple Barn,
- South of the M20 motorway by Park Wood,
- South of the East Stour river, west of Church Lane and east of Backhouse Wood,
- East of Church Lane, across Hungry Down and west of Harringe Lane.

11.5 Initially the two areas north of the M20 motorway were discounted for solar development as part of an overview constraints sieving exercise. Once constraints such as flood zones, proximity to residential properties, Public Rights of Way set backs etc had been taken into account, both areas offered only very limited solar capacity and would be visually and physically separate from the rest of the landholding. Potential impacts on landscape and visual receptors from development of these two areas would be predominantly focussed north of the M20 due to the containment offered by the motorway corridor and its associated mature vegetation. Smeeth, Brabourne Lees, Stone Hill, Moorstock and Sellindge are settlements all located within proximity of these two landholding areas where the settlements extend out as ribbon development along a number of local roads close to these landholding areas and numerous residential views of the landholding areas could potentially be available. Therefore, the potential impacts on high sensitivity visual receptors were considered to be too widespread.

11.6 The section of the landholding adjacent to and in proximity of Harringe Lane is located outside of the Ashford Borough Council area. In addition, parts of this area were considered unsuitable for solar development given their size and shape when a south facing solar panel orientation (along rows running west to east) is taken into account. The remaining area was of a very limited size, which represented disproportionate complexity for the developer when submitting a planning application across two sides of a district boundary.

11.7 The southernmost section of the landholding east of Church Lane covers land ranging from 55m AOD to 84m AOD, rising to the north and northeast from Lower Park Farm to Hungry Down, a high point which is 11m higher at its peak than Bested Hill, 1km to the west. When considering residential and cultural heritage receptors along Church Lane and within Aldington to the south, this rising landform facing south towards Aldington would potentially create a highly visible solar development located just over 500m from Aldington Conservation Area at its closest point.

11.8 Various alternatives using limited parts of these south facing slopes were considered within the layout design. However, through a series of site visits to various locations within the study area including the Area of

Outstanding Natural Beauty (AONB) to the south and parts of the Aldington settlement, it was concluded that visibility of these southern slopes was too prominent and unable to be suitably mitigated through proposed planting measures. A decision was made to reduce the proposed layout to just north of the natural ridgeline partway along Church Lane (as indicated on the Layout Progression figure, **SEI Figure 11.10**), thereby greatly reducing any potential visibility of the proposal from Aldington and maximising the potential effects of mitigation planting proposals along the southern boundary of the layout. These south facing slopes removed from the layout are indicated within the highlighted fields shown on Viewpoints 7 and 8 (layout refinement), **SEI Figures 11.11** to **11.13**.

11.9 These initial decisions left three key areas of potential land for the solar development:

- Area 1: South of the M20 motorway by Park Wood,
- Area 2: South of the East Stour river, west of Church Lane and east of Backhouse Wood,
- Area 3: East of Church Lane, by Partridge Plantation and Round Wood.

11.10 Each of these areas is associated with some existing mature woodland offering natural and immediate screening of any potential proposal. However, both Areas 1 and 2 required some refinement and reduction in development potential with regard to flood zones.

11.11 Area 1 is bound by the M20 motorway and associated mature tree planting to the north, Park Wood to the west and further mature woodland and tree belts to the southwest, south, southeast and east. In addition the high speed rail line is located just beyond the woodland to the south on a raised embankment. Each of these elements offers natural existing enclosure for a low elevation development type such as a solar proposal. Furthermore, the existing large scale converter station located approx. 400m to the east lends an existing developed character to the locality in combination with the rail line and the motorway. Initial studies found that any potential impacts of a solar development at Area 1 would be extremely contained in landscape and visual terms.

11.12 Area 2 is located to the south of the rail line embankment and the East Stour river, with a pylon line crossing through the area and substantial mature woodland wrapping around the west and southwest of the land parcel (Backhouse Wood), with further tree cover associated with the rail line and East Stour river. The landform across the land parcel rises from approx. 50m to 73m AOD at its highest point on Bested Hill, with the pylon line also crossing the high point broadly from northeast to southwest through the land parcel. Northern fringes of the landholding were removed from the potential development area to avoid the flood zone (in agreement with the Environment Agency) and careful design refinement was undertaken along some eastern and southern parts of the land parcel in consideration of residential visual amenity. When considering the residential views from Bested House and The Paddocks, several sections of solar panels that had originally been designed into the solar farm layout were removed and detailed mitigation measures were considered so as to minimise potential

effects on these residential receptors. Within Area 2, these measures include a new hedgerow along the southern boundary of Area 2 in the vicinity of The Paddock, an area of low density native woodland and seating adjacent to the public footpath so that walkers can pause, and a native hedgerow along the southern, southwestern and western boundaries of the solar development within Area 2. Given the angular route of the footpath to the east of Backhouse Wood, this would create a varied experience for walkers through this section of the solar farm, as indicated by the illustrative sections E – G (**SEI Figures 11.14 - 11.24**). However, this variety of open space and proposed vegetation would also provide screening of the proposal for walkers.

11.13 Some further residential views were also considered in relation to more distant views of Area 2 from other properties along Church Lane and within Aldington. Backhouse Wood provides a natural screen to some parts of Area 2. Wireframe mock-ups of the proposal were explored from key positions to the south to consider local community concerns and potential alterations to the layout, with further refinements being made. The field associated with previous point to point racing was also avoided.

11.14 The residents at Bested House were visited to discuss their concerns, to understand how they use their property day to day and to hear their requests regarding the layout, particularly in relation to Areas 2 and 3. One key request from these residents was that their view from the house towards the church tower at Aldington not be interrupted by the solar farm (across Area 3). As a result, the solar panels within the field immediately east of Church Lane were removed. Any ground floor views that they currently gain to the south from the property and gardens (located to the east of the property) are interrupted by an old but gappy hawthorn hedgerow along the length of their southern boundary which they have found difficult to cultivate due to its age and overall condition. As part of the proposal, and in consultation with the residents, we have proposed an additional native hedgerow along the full length of their boundary with Area 3, as well as along the boundaries of the proposal within the field to the southeast of Bested House, which would provide these residents with additional screening at ground floor level for the duration of the operational life of the development, as well as improvements to local landscape fabric. At the request of the residents within Bested House, native hedgerow trees would also be added to the southern site boundary hedgerow within Area 3.

11.15 It is worthwhile noting that the residents at Bested House do not gain visibility of the northeastern sections of the proposal within Area 3 due to the screening provided by the mature woodland at Partridge Plantation. A mature line of Aspen/ Poplar trees connect this woodland with Round Wood which also provides further enclosure and natural screening of this northeast section of Area 3.

11.16 Therefore, the final layout of East Stour Solar Farm has been refined down from 238 hectares to a fenced area of 65.5 hectares through careful consideration of the landholding and its immediate surroundings.

SECTION 2: MITIGATION RATIONALE

11.17 Consideration of potential mitigation planting has been an integral part of the design process of the East Stour Solar Farm proposal. These mitigation planting proposals are described in detail below and are illustrated on **SEI Figure 11.9 Rev A**, which is a new figure including further additional mitigation planting which has been proposed following feedback from Ashford Borough Council.

11.18 Within the section of the solar farm to the south of the M20 motorway and east of Park Wood, initially mitigation planting proposals were limited to native hedgerow planting along the northwest part of the site, to the east of Park Wood, so as to provide mitigation screening for those using the permissive footpath located here to the east of Park Wood. However, further native hedgerow planting is now proposed immediately south of public footpath AE432 and the permissive route as it travels northwest towards Park Wood from its junction with footpath AE432 so as to provide further screening of views of the proposal for those using the footpath along the northern boundary of the site. In addition, native hedgerow trees are proposed throughout the new hedgerow along the northern site boundary, as is indicated by Illustrative Section B (**SEI Figure 11.16**). As shown by Illustrative Sections A, C and D (**SEI Figures11.15, 11.17 and 11.18**), all located on the public footpath network within this section of the site, the layout allows wide varying swathes of open space surrounding these footpaths (approx. between 87m and 25m wide to the solar farm fencing, and further to the panels themselves). For context, an average two lane public road in the UK is approx. 7m wide.

11.19 The solar panel layout in this northern portion of the proposal was initially refined through the site design process to avoid flood zone areas which assisted in naturally providing a wide swathe of open space alongside footpath AE437. However, as footpath AE432 crosses through the centre of the arable field and currently gains open views across the surrounding landscape, it was always the intention within the layout design process to provide a wide swathe of open space around the footpath as it crosses through the field so that these open views remain available for walkers throughout the operational life of the development, rather than being confined by hedgerow planting. As Sections C and D indicate along this section of the footpath (**SEI Figures 11.17 and 11.18**), the distance across the footpath between the solar panels is regularly between 40m and 61m wide.

11.20 The section of the solar farm west of Church Lane and across Bested Hill has a number of mitigation planting proposals incorporated into the layout design including existing field boundary improvements (where necessary) along the west side of Church Lane in the vicinity of Bested House. These measures would strengthen the existing roadside hedgerow which is thin, gappy and has been slow to grow over recent years, and would strengthen the existing landscape fabric whilst providing improved screening along Church Lane. These proposed hedgerow improvements have now been extended further north towards the northwest dog-leg in the road so as to strengthen the existing single species thin hedgerow on the west side of the road through increasing the depth of the hedgerow, the range of species

within the hedge and also adding some hedgerow trees to complement the existing hedgerow trees along the roadside. All of these measures will be introduced at existing hedgerow locations whilst ensuring the existing road safety visibility in this area is retained as drivers cross/approach the bridge. These hedgerow improvements will extend along the length of Church Lane adjacent to the proposed grassland meadow west of the road, which creates a natural set back of the solar panels from visual receptors. In addition, the existing field boundary between the proposed grassland meadow and the proposed solar panels will also be improved and gapped up so as to provide further screening of the solar panels in views from the east.

11.21 As an additional mitigation measure, a new native hedgerow will also be located on the northern boundary of the solar panels as Church Lane passes under the HS1 rail line. This will provide additional screening of the solar panels for both walkers along footpath AE656 by the East Stour River and motorists on Church Lane.

11.22 A new native hedgerow on the southern site boundary adjacent to The Paddocks residential property is also proposed, along with a low density woodland on the southern edge of the proposal and new native hedgerow planting adjacent to the solar panels on key boundaries. Illustrative Sections E – F (**SEI Figures 11.19** and **11.20**) provide some further information on some of this mitigation in the vicinity of public footpath AE457 as it wraps around the west and southwest of Bested Hill where the swathes of open space around this footpath vary greatly depending on the irregular boundary of Backhouse Wood to the west, but are regularly 65m – 90m wide, as shown on the Illustrative Sections. In these areas a native hedgerow is proposed to the east of the footpath and adjacent to the solar farm fencing, which would be grown and maintained to 3m in height to add screening to views towards the solar panels.

11.23 Further improvements to roadside vegetation are now proposed along the west side of Church Lane in the vicinity of the site access point, including a native hedgerow along the top of the roadside verge in the vicinity of The Paddock, extending northwards along the field boundary. At some points the field west of the roadside verge is raised above the roadside level, meaning that a new hedgerow on the top of the verge would offer the maximum screening potential of the proposal for those using Church Lane.

11.24 The existing vegetation along the east side of Church Lane is mature and robust and no mitigation measures are proposed here. However, a new native hedgerow is proposed along the boundary with Bested House and its gardens (through discussion with the residents) as well as further new native hedgerows along the boundaries of the solar arrays to the south of Bested House. Scattered native hedgerow trees would also be added along the southern boundary of the solar farm. These measures would add further screening of the proposal from Church Lane but also for nearby residential receptors. Illustrative Sections H – J (**SEI Figures 11.22** - **11.24**) indicate the varying experience of users of public footpath AE459 through this section of the solar farm where the width of the open space surrounding the public footpath

between the solar farm fencing is between approx. 12m and 16m, although the distances between solar panels on either side of the footpath is much greater; generally between 28m and 35m. Sections H – J (**SEI Figures 11.22 - 11.24**) have been located in various parts of the eastern portion of the solar farm to illustrate how the existing mature vegetation surrounding the site influences the experience for walkers along footpath AE459. In particular, Section I was chosen to illustrate the section of the footpath between Partridge Plantation and Round Wood where the solar panels are stepped back entirely from the footpath with a wide open swathe of grassland for approximately a 30m length of the footpath.

11.25 Overall, the process of considering and integrating mitigation planting proposals has been iterative and has sought to take into account feedback from local residents as well as the local landscape character so as to make sure all proposals are in keeping with local land uses as well as seeking to strengthen and enhance the local character through measures such as the reinforcement of existing field boundary vegetation.

SECTION 3: ADDITIONAL AONB VIEWPOINT ASSESSMENT

11.26 This assessment has been provided at the request of Kent Downs AONB. The Viewpoints are provided in SEI Volume 4 - Visualisations.

VP 13: B2067 Knoll Hill at junction with Footpath AE496					
Distance to proposed solar farm	**NGR**	**Elevation (approx)**	**Landscape designation**	**Recreational area or route**	**Existing View**
1.75km	608403 135521	90m AOD	Kent Downs AONB boundary	Main road, Public Right of Way	Located on a local footpath at its junction with Knoll Hill looking in a northerly direction. The landform gently undulates across a series of agricultural fields and woodland blocks extending out through the foreground and middle distance of the view. Two pylon lines can be seen extending across the view, with a ridge of higher land seen in the distance formed by a section of the Kent Downs.
Solar Farms Visible					
Solar Developments	**Distance (km)**	**Direction from Vp**	**Solar farm visible**	**Maximum solar panel array angle**	**Observations**
East Stour	1.75	N	Partially (northern site parcel screened)	35° (visible portion totals approx 25o)	The existing Sellindge Solar Farm is entirely screened from this viewpoint. The northern portion of the proposed solar farm site would also be entirely screened from view by intervening mature vegetation and the HS1 railway embankment. The western and eastern sections of the proposal would be partially visible across a limited part of the middle distance view. Over time mitigation measures would establish to entirely screen the section of the proposal to the east of Church Lane (the eastern section of the proposal).

Assessment of Effects on Landscape Character					
LCA	**Value Susceptibility**	**Sensitivity**	**Magnitude**	**Individual effects**	**Assessment**
Aldington Ridgeline	Local Susceptible	High/ medium	End of construction:		A landscape of local value that could be susceptible, with a high/ medium sensitivity to the type, scale and location of development proposed. The proposed solar farm would be seen within up to approximately 25° of the view to the north, where the remainder of the solar farm to the north and northeast would be screened by intervening vegetation and the HS1 embankment. Parts of the proposed development would become a characteristic of views from this part of the landscape, would be seen in the context of some existing elements of development, would contrast with some of the existing landscape characteristics and would be a noticeable additional feature, resulting in a slight adverse magnitude of change and a moderate/ minor+ adverse effect on landscape character at this location. This indicates that these predicted effects would not be significant on landscape character at this location.
			Slight adverse	Moderate/ minor+ adverse	
			10 years post construction:		A landscape of local value that could be susceptible with a high/medium sensitivity to the type, scale and location of development proposed. Mitigation planting would reduce the potential visibility of the proposal to the western side of Church Lane, which would occupy approx. 12° of the view. The proposed development would become a characteristic of this part of the landscape, would contrast with the existing landscape context, would be seen in the context of existing elements of development and would be a discernible additional feature for the duration of the operational life, resulting in a slight/ negligible adverse magnitude of change and a moderate/ minor adverse effect on landscape character at this location. This indicates that these predicted effects would not be significant on landscape character at this location.
			Slight/ negligible adverse	Moderate/ minor adverse	

Assessment of Effects on Views					
Receptor	**Value Susceptibility**	**Sensitivity**	**Magnitude**	**Individual effects**	**Assessment**
Walkers	Community Susceptible	High/ medium	End of construction:		A local public right of way with community value, along which receptors would be moving slowly, could use the route frequently, with views in several different directions, and so would be susceptible and with a high/medium sensitivity to changes in the view. Parts of the proposed development would be seen in the middle distance, partially screened by intervening topography and vegetation, with the northern section of the proposal entirely screened from view. The visible portion of the development would occupy a maximum of 25° of the view, seen in association with some existing development elements (pylons). The visibility of the proposal from this viewpoint would result in a slight magnitude of change and a moderate/ minor+ effect on the visual amenity of walkers at this point. This indicates that these predicted effects would not be significant for walkers at this point.
			Slight	Moderate/ minor+	
			10 years post construction:		A local public right of way with community value, along which receptors would be moving slowly, could use the route frequently, with views in several different directions, and so would be susceptible and with a high/medium sensitivity to changes in the view. Parts of the proposed development would be seen in the middle distance, partially screened by intervening topography and vegetation including mitigation planting, with the northern and eastern sections of the proposal entirely screened from view. The visible portion of the development would occupy approx. 12° of the view, seen in association with some existing development elements (pylons). The visibility of the proposal from this viewpoint would result in a slight/ negligible magnitude of change and a moderate/ minor effect on the visual amenity of walkers at this point. This indicates that these predicted effects would not be significant for walkers at this point.
			Slight/negligible	Moderate/minor	

Motorists	Community Moderate susceptibility	Medium	End of construction:		A local road with community value, along which receptors would be moving steadily, could use the route frequently, with views generally open at this point, and so would be moderately susceptible and with a medium sensitivity to changes in the view. Some parts of the proposed development would be seen in the middle distance, in conjunction with other existing infrastructure/ development elements. Some parts of the proposal would be screened by intervening mature woodland and other vegetation. The visibility from this viewpoint would result in a slight magnitude of change and a moderate/ minor effect on the visual amenity of motorists and their passengers. This indicates that these predicted effects would not be significant for these receptors.
			Slight	Moderate/minor	
			10 years post construction		A local road with community value, along which receptors would be moving steadily, could use the route frequently, with views generally open at this point, and so would be moderately susceptible and with a medium sensitivity to changes in the view. Some parts of the proposed development would be seen in the middle distance, in conjunction with other existing infrastructure/ development elements. Some parts of the proposal would be screened by intervening mature woodland and other vegetation. The visibility from this viewpoint would result in a slight/ negligible magnitude of change and a minor+ effect on the visual amenity of motorists and their passengers. This indicates that these predicted effects would not be significant for these receptors.

SECTION 4: REBUTTAL TO LMS REVIEW

11.27 A review of the East Stour Solar Farm LVIA was undertaken by LMS in April 2023 and formed part of a response by Ashford Borough Council (ABC) in May 2023. Comments on the LMS review are set out below, organised under the headings used in the LMS review.

LVIA Methodology

11.28 LMS state that the LVIA Methodology for the East Stour proposal is 'inadequate and lacks any definitions or criteria used to inform judgements on landscape and visual sensitivity, value, susceptibility to change, magnitude of change and assessment of effects'.

11.29 The criteria used within the LVIA have been set out within ES Appendix 11.2 Paragraphs 1 – 13 of the Environmental Statement. For instance, the factors considered in visual receptor susceptibility are set out in Paragraph 4, value in Paragraph 5, landscape receptor susceptibility in Paragraph 8 and the criteria used in assessing the magnitude of change are set out in Paragraph 11.

11.30 Further methodological information has been provided in the LVIA and CLVIA Methodology within the **SEI Appendix 11.1**), the content of which concurs with the original LVIA methodology, but which provides a greater level of detail.

Layout and Approach

11.31 Further information has been provided within Section 1 of this chapter of the SEI on the landscape and visual aspects of the design process undertaken to inform the final layout of the East Stour proposal. This sets out the entire landholding area that was initially reviewed and the areas that were removed from consideration for reasons beyond landscape and visual matters. The process of site refinement then went through a series of iterations based on a variety of landscape and visual considerations including the nature of local topography, utilising existing natural screening where possible, key sensitive receptors, potential mitigation planting and overall potential visibility.

11.32 Further information has also been provided within Section 2 of this chapter of the SEI regarding the mitigation planting proposals associated with the application, the reasons for these planting proposals and the further additional mitigation proposals now included with the application.

11.33 Consideration of mitigation planting proposals as well as an iterative design process of the proposed solar farm have been integral in discussions across the project team from the inception of the scheme.

Landscape Character Assessment

11.34 Rather than confusing the distinction between landscape character and visual amenity within the East Stour LVIA, as suggested by LMS, assessing the effects of the proposed development on landscape character at viewpoint locations provides an additional layer of information and robustness to the assessment. The assessment of effects on landscape character can be largely subjective, relying solely on the descriptions of the assessor. The use of viewpoints and photomontages of the proposed development as an evidence base for the potential changes brought about

to landscape character as a result of the proposal provides a greater range of evidence in combination with the assessment text.

11.35 The assessment has clearly differentiated between potential effects on landscape and visual amenity, providing individual sections within the report for landscape fabric, landscape character, landscape designations and visual receptor groups.

Visual Assessment

11.36 Throughout the pre application process attempts were made to agree viewpoint locations with ABC but were unsuccessful in gaining any feedback on any elements of the scope of the LVIA including extent of the study area, viewpoint locations and visualisation type.

11.37 Through constructive consultation with Kent Downs AONB, the viewpoints they considered necessary as part of the assessment were agreed, and these were included within the LVIA as Viewpoints 9 – 12. Normally in this type of undulating terrain photomontages for viewpoints beyond approximately 4.0km from the proposal would not be produced due to the inevitable pixelation of the imagery and the limited information provided by these photomontages. However, at the further request of the Kent Downs AONB, these viewpoints have been converted into photomontages. In addition a further viewpoint illustration requested as additional information once the application was submitted has also been provided (Viewpoint 13). These viewpoints are included within this SEI as **SEI Volume 4 Visualisation Viewpoints 9 - 13** under the heading 'East Stour Only (Montaged for Views from AONB)'.

11.38 Additional viewpoints have also been provided as part of the cumulative LVIA in Section 5 of this chapter (**SEI Volume 4 Visualisation Viewpoints A - E** under the heading 'Cumulative'), all of which indicate the extremely limited potential visibility of the East Stour proposal.

11.39 The twelve viewpoints illustrated as part of the main LVIA were chosen as representative views indicating the anticipated visibility of the scheme. Ten out of twelve of these viewpoints were located on the public rights of way network, with two viewpoints also located near to some of the closest residential receptors to the proposal. However, as the term 'representative selection' suggests, not all possible views of the proposal have been illustrated. The LVIA has been very clear to state where potential significant effects on visual receptors are expected, but also where they are not expected. Therefore, for LMS to suggest that the LVIA does not provide ABC with the information on the extent of visual receptors affected or the assessment of effects on the visual amenity of these receptors is incorrect. The full information is provided within the Visual Assessment section of the LVIA and is set out within different visual receptor group sub-headings.

11.40 To aid in the further illustration of the proposal, ten illustrative cross sections have been provided as part of the SEI all located on the footpath network throughout the site and indicating mitigation planting proposals at Year 10 post construction (**SEI Figures 11.15 – 11.24**).

11.41 LMS has commented that the assessment has relied on summer views and has not considered the effects of the proposal over winter months. However, the LVIA discusses winter views of the proposal

throughout the assessment text. Due to timescale constraints and our unsuccessful attempts to agree viewpoints with ABC, the viewpoint illustration photography was limited to summer months. However, the assessment was carried out with due consideration to winter views.

11.42 It should be reiterated that some viewpoints have not been illustrated as mitigation photomontages at Year 10, such as Viewpoint 1. This is because no mitigation planting was proposed at these viewpoint locations and so a mitigation photomontage was simply not relevant. At every viewpoint where mitigation planting proposals would be discernible, a mitigation photomontage was provided and an assessment of the viewpoint at Year 10 post construction has been provided. However, it is worthwhile noting that some additional mitigation planting is now proposed in the vicinity of Viewpoint 1 and this is illustrated on Illustrative Section B as part of the SEI (**SEI Figure 11.16**)

11.43 LMS has commented that some viewpoints illustrate limited change within the photomontage between the Post Construction and Year 10 images but that the viewpoint assessment findings show that the effects would reduce as a result of mitigation planting proposals. As LMS will be aware, the overall effect at a viewpoint is a combination of the magnitude of change in the view and the sensitivity of the receptor and results in a scale of overall effects where the effect could be at the higher or lower end of one individual category. As an example, at VP7 initially post construction a moderate effect on the visual amenity of walkers is predicted, and by Year 10 this is predicted to reduce to a moderate/ minor+ effect as a result of mitigation planting proposals. Whilst LMS may not consider the change in visibility of the solar farm to be great, the visibility of the proposal initially post construction was considered by the assessor to be at the lower end of the moderate effect category, with the reduction of visibility by Year 10 considered to reduce the magnitude of change in the view and the resulting effect on visual amenity down into the higher end of the moderate/ minor+ category. The mitigation planting on the southern slope of Bested Hill and along the southern boundaries of the proposal would grow year on year to continue to provide screening to parts of the proposed development.

Cumulative Impacts

11.44 LMS refers to consideration of the existing Sellindge Solar Farm but no cumulative assessment having been undertaken with the East Stour scheme. We assume that this is an error and should in fact refer to the Stonestreet Green Solar scheme which – at the current time – has not yet been formally submitted as an application within the Nationally Significant Infrastructure Projects system. When the LVIA for East Stour Solar Farm was undertaken and finalised, the non statutory consultation for the Stonestreet Green Solar scheme had not been released, having finally been released at the end of March 2022. Therefore, it was not possible to undertake an informed or accurate cumulative assessment of this scheme as part of the East Stour LVIA at the time as no detailed information about the Stonestreet Green Solar scheme had been available.

11.45 Since the East Stour Solar Farm application was submitted in April 2022, several rounds of consultation on the Stonestreet Green Solar scheme have been undertaken, with iterations to the potential layout of the

scheme also occurring. As a result, a cumulative LVIA has now been undertaken as part of the East Stour SEI (Section 5 within this chapter) on the latest version of the Stonestreet Green Solar layout available (June 2023) as well as other projects within the East Stour study area.

SECTION 5: CUMULATIVE LANDSCAPE AND VISUAL ASSESSMENT

Introduction

11.46 This section presents an assessment undertaken in 2023 to identify the likely potential cumulative effects of the proposed East Stour Solar Farm on the landscape character and visual amenity of the locality in the context of a number of permitted and proposed developments within the locality of the East Stour proposal site. None of these schemes were formal applications at the time of submission of the East Stour Solar Farm application.

11.47 The development proposals considered within this assessment are:

- PA/2022/2544 – Sellindge Battery Energy Storage System (BESS) – permitted August 2023,
- PA/2022/2950 – Sellindge Grid Stability Facility (GSF) (also referred to as Synchronous Condenser Plant) – permitted August 2023,
- Y19/0257/FH – Otterpool Park Garden Town – outline planning permission gained April 2023,
- Stonestreet Green Solar – Nationally Significant Infrastructure Project at Pre Application Stage.

11.48 The East Stour Solar Farm application was assessed against a baseline containing the operational Sellindge Solar Farm as part of the LVIA within the ES for East Stour Solar Farm – Development Scenario 1 (DS1). This cumulative assessment considers the likely future baseline of those permitted developments set out above and then the potential additional effects of the East Stour Solar Farm as well as the potential combined effects of the East Stour Solar Farm and Stonestreet Green Solar scheme in the following two Development Scenarios:

- Development Scenario 2 (DS2): the additional effects of the East Stour proposal in the context of the likely future baseline (containing the Sellindge BESS, Sellindge GSF and Otterpool Park Garden Town),
- Development Scenario 3 (DS3): the combined effects of the East Stour and Stonestreet Green Solar developments in the context of the likely future baseline (containing the Sellindge BESS, Sellindge GSF and Otterpool Park Garden Town).

11.49 This assessment is illustrated by **SEI Figures 11.25 – 11.26** and by **SEI Figures 11.5 – 11.8 Revision A**, as well as updated Viewpoints 7 and 9 from the original East Stour Solar Farm application and five new viewpoints, Viewpoints A – E. The locations of these 7 viewpoints are shown on **SEI Figures 11.25 – 11.26** and by **SEI Figures 11.5 – 11.8 Revision A**. It is also worthwhile referring to the original LVIA report undertaken in 2021 and all associated figures, viewpoints, appendices and references with that original ES Chapter.

Method of Assessment

Assessment Approach

11.50 The methodology and assessment process is the same as that undertaken within the original East Stour Solar Farm LVIA. This can be found within Chapter 11 and Appendix 11.2 of the East Stour Solar Farm ES.

11.51 As part of further information provided in Section 4 of this chapter, in response to Ashford Borough Council (ABC), additional methodology information including detail on cumulative assessment has also been provided in **SEI Appendix 11.1**.

11.52 The assessment process has been based on the current published good practice guidelines for landscape and visual assessment (LI/IEMA, 2013) and technical guidance for the Visual Representation of Development Proposals (LI, TGN 06/19). The assessment has drawn on information provided within the local development plans that cover the study area (see list of references for **Chapter 11**) and landscape character assessments which cover the study area (see list of references in **Chapter 11** of the ES).

Visual Analysis

Theoretical Visibility Analysis

11.53 Two cumulative Zones of Theoretical Visibility (CZTVs) have been generated which combine the zones of theoretical visibility of the East Stour proposal with the zones of theoretical visibility for the other developments within this assessment (**SEI Figures 11.25** & **11.26**). The CZTVs have been generated using a computer-based intervisibility package, the Ordnance Survey Digital Terrain Model (DTM) with height data at 5m intervals and the layouts and elevations of each of the developments. However, it should be noted that these CZTVs are based on bare terrain topographical data only. They do not take into account the screening effects of minor topographic features, vegetation such as woodland and hedgerows and built structures and therefore tend to over-emphasise the extent of visibility in this type of undulating landscape, providing a worst case scenario.

11.54 Whilst each development considered within this assessment contains different elements and features, the CZTVs have been based on the height data of the following elements within each development as follows:

- East Stour Solar Farm – solar panels to a height of 3.0m above the ground.
- Sellindge BESS – battery stores to a height of 2.76m above the ground.
- Sellindge GSF – synchronous condenser building to a height of 12.0m above the ground.
- Otterpool Park Garden Town – development zones to heights of 12m, 15m and 18m above the ground.
- Stonestreet Green Solar – solar panels to a height of 3.2m above the ground.

11.55 The CZTVs have been generated on the basis of the two Development Scenarios; DS2 and DS3.

11.56 The CZTV for DS2 suggests that combined visibility of all four schemes would potentially be extremely limited across the study area. Given the extent of the Otterpool Park Garden Town development, it is not surprising to see that the potential visibility of this

development is the most prevalent/ extensive of the four schemes shown on the CZTV, with the Sellindge BESS potential visibility shown as the most limited.

11.57 The CZTV for DS3 suggests that in most parts of the study area, where one solar farm proposal (East Stour or Stonestreet) would potentially be visible, the other proposal would usually also potentially be visible (indicated by the cobalt blue/grey tone). The CZTV shows very limited locations where only one of these solar proposals would potentially be visible (indicated by the pink tone for East Stour and the light blue tone for Stonestreet).

11.58 However, as already discussed, these CZTVs do not take into account surface screening elements and as already illustrated within the original East Stour LVIA ES chapter text and viewpoints, views across the study area are much more limited than the ZTV suggests and are often dependent on the screening effects of woodland blocks, tree belts, hedgerows and mature vegetation. Therefore both these CZTVs suggest much more extensive zones of visibility than would actually be the case.

Viewpoint Analysis

Viewpoint Locations

11.59 Given the locations of the cumulative schemes within the East Stour Solar Farm study area and the variety of potential visibility indicated on the CZTVs for the various schemes, two of the viewpoints from the original East Stour Solar Farm LVIA have been considered as part of this cumulative assessment (VPs 7 and 9) as well as a further five new viewpoints (VPs A to E). Each of these viewpoints have been assessed to examine firstly the potential additional effects of the proposed East Stour development in the context of a likely future baseline which includes the Sellindge BESS, Sellindge GSF and Otterpool Park Garden Town (Development Scenario 2). A second assessment has also been undertaken to examine the potential combined effects of the East Stour and Stonestreet Green Solar schemes in the context of a likely future baseline which includes the Sellindge BESS, Sellindge GSF and Otterpool Park Garden Town (Development Scenario 3). Development Scenario 1 was the assessment of effects arising solely from the introduction of the East Stour Solar Farm proposal to the current baseline.

11.60 The original East Stour Solar Farm LVIA viewpoints were reassessed in the field, as despite the CZTVs in **SEI Figures 11.25** & **11.26** suggesting that visibility of several of the schemes would be available from several of the viewpoints, in reality clear visibility of the majority of the cumulative schemes was not found to be available from many of the East Stour LVIA viewpoints. Woodland and tree belts are a recurring element within each of the viewpoints and even in winter months these elements will serve to regularly screen several parts of the view in such a way that at least one of the permitted and proposed developments will be entirely screened from view.

11.61 Fieldwork was undertaken in July and September 2023. The photography for each new viewpoint (VPs A – E) has been taken during July and September and so does not reflect a worst case scenario winter view in terms of screening from vegetation in the local landscape.

11.62 The viewpoint analysis is presented in **Table 11.1** below which should be read in conjunction with the cumulative visualisations, which show the existing views and then indicate through toned fields and text labelling the position and extent of each cumulative scheme as part of either DS2 or DS3.

11.63 The findings in **Table 11.1** take into account the screening effects of intervening topography, existing vegetation and built form and assume excellent visibility conditions, but also discuss potential winter visibility as a worst case scenario. Those landscape and visual effects that may potentially be significant in accordance with the methodology set out within ES Appendix 11.2 of the original East Stour LVIA are highlighted in two shades of grey in **Table 11.1** below. Distances are given to the nearest part of each cumulative scheme.

Table 11.1 - *Viewpoint Locations*

Vp no	Location	Easting	Northing	Elevation (approx)	Distance to East Stour panels	Bearing to East Stour site (approx)	Landscape Character Area	Landscape Designations	Recreational and Transport Routes	Visual receptors
7	Footpath AE474 west of Aldington	607222	136331	85m AOD	1.16	N	Aldington Ridgeline	None	Public Right of Way	Walkers
9	PRoW AE299 North Downs Way by Kingsmill Down	610011	142777	178m AOD	4.58	SW	Stowting: Postling Vale	Kent Downs AONB	National Trail, local road	Walkers and motorists
A	Footpath AE437 by Church Lane and M20 motorway	608265	138550	53m AOD	0.3km	W - SE	Evegate Mixed Farmlands	None	Public Right of Way	Walkers
B	Footpath AE432 near Park Wood Cottage	606790	138520	66m AOD	0.6km	W	Evegate Mixed Farmlands	None	Public Right of Way	Walkers

Vp no	Location	Easting	Northing	Elevation (approx)	Distance to East Stour panels	Bearing to East Stour site (approx)	Landscape Character Area	Landscape Designations	Recreational and Transport Routes	Visual receptors
C	Footpath AE474 near Goldwell Lane, Aldington	606465	136745	76m AOD	1.3km	SW	Aldington Ridgeline	None	Public Right of Way	Walkers
D	Roman Road near Clap Hill	605190	137525	68m AOD	2.2km	W	Aldington Ridge	None	Local road	Motorists
E	Footpath AE381 by junction with Flood Street	604750	138845	42m AOD	2.6km	W	Upper Stour Valley	None	Public Right of Way, local road	Walkers, motorists

Table 11.2 - *Viewpoint Analysis – Development Scenario 2 – Additional Effects of East Stour Solar Farm on a likely future baseline containing Sellindge BESS, Sellindge GSF and Otterpool Park Garden Town*

Vp 7: Footpath AE474 west of Aldington					
Distance to East Stour Solar Farm	**NGR**	**Elevation (approx)**	**Landscape designation**	**Recreational area or route**	**Existing View**
1.2km	607222 136331	85mAOD	None	Public Right of Way	Located on a local footpath to the west of Aldington, looking in a northeasterly direction across surrounding agricultural fields and woodland towards a distant ridge of higher land formed by the Kent Downs AONB. Sellindge Solar Farm is entirely screened from view, although the Converter Station is visible, as is a pylon line crossing through the foreground of the view.
Cumulative Development Details					
Developments	**Distance (km)**	**Direction from Vp**	**Development visible**	**Maximum angle of view**	**Observations**
East Stour	1.2	N – NE	Partially	52°	The existing Sellindge Solar Farm is entirely screened from this viewpoint. Sellindge BESS, Sellindge GSF and Otterpool Park Garden Town will be entirely screened behind intervening mature vegetation. The East Stour proposal would be seen extending across two fields within the view; part of Bested Hill and also part of a field to the east of Church Lane. Topography and intervening tree belts would screen large parts of the solar farm from view and mature vegetation within Partridge Plantation and Round Wood would also screen further parts of the proposal. The Stonestreet Green Solar scheme would be discernible across a series of fields within the middle distance although several parts of the development would be screened by intervening vegetation, even in winter months.
Stonestreet	0.5	N – W	Partially	46°	
Sellindge SF	1.8	NE	Screened	Screened	
Sellindge BESS	2.1	N	Screened	Screened	
Sellindge GSF	2.3	N	Screened	Screened	
Otterpool Park	2.5	NE – E	Screened	Screened	

DEVELOPMENT SCENARIO 2					
Assessment of Effects on Landscape Character					
LCA	**Value Susceptibility**	**Sensitivity**	**Magnitude**	**Additional effects**	**Assessment**
Aldington Ridgeline	Local Susceptible	High/ medium Magnitude	Moderate/ slight adverse	Moderate	A landscape of local value that could be susceptible with a high/medium sensitivity to the type, scale and location of development proposed. The proposed development would become a characteristic of this part of the landscape, would contrast with the existing landscape characteristics, would be seen in the context of existing large scale development and would be a visible additional feature for the duration of the operational life, resulting in a moderate/ slight adverse magnitude of change and a moderate adverse effect on landscape character at this location. This indicates that these predicted effects could be significant on landscape character if experienced over a greater local area.
Assessment of Effects on Views					
Receptor	**Value Susceptibility**	**Sensitivity**	**Magnitude**	**Additional effects**	**Assessment**
Walkers	Community Susceptible	High/ medium	Moderate/ slight	Moderate	A local public right of way with community value, along which receptors would be moving slowly, could use the route frequently, with views in several different directions, and so would be susceptible and with a high/medium sensitivity to changes in the view. The proposal would be to the side of the direction of travel, with one section visible across part of Bested Hill and a second section visible adjacent to Partridge Plantation, occupying approximately 52o of the view, and seen in association with a string of middle distance pylons. The visibility of the proposal from this viewpoint would result in a moderate/slight magnitude of change and a moderate effect on the visual amenity of walkers at this point. This indicates that these predicted effects may be significant if experienced over a greater local area. This is discussed in more detail later within the main assessment.

DEVELOPMENT SCENARIO 3					
Assessment of Effects on Landscape Character					
LCA	**Value Susceptibility**	**Sensitivity**	**Magnitude**	**Combined effects**	**Assessment**
Aldington Ridgeline	Local Susceptible	High/ medium	Substantial/ moderate adverse	Major/ moderate adverse	A landscape of local value that could be susceptible with a high/medium sensitivity to the type, scale and location of development proposed. The combination of the two developments would become a key characteristic of this part of the landscape, would contrast with the existing landscape characteristics, would be seen in the context of existing development elements and would be a visible additional feature for the duration of the operational life, resulting in a substantial/ moderate adverse magnitude of change and a major/ moderate adverse effect on landscape character at this location. This indicates that these predicted effects would be significant on landscape character.
Assessment of Effects on Views					
Receptor	**Value Susceptibility**	**Sensitivity**	**Magnitude**	**Combined effects**	**Assessment**
Walkers	Community Susceptible	High/ medium	Substantial/ moderate	Major/moderate	A local public right of way with community value, along which receptors would be moving slowly, could use the route frequently, with views in several different directions, and so would be susceptible and with a high/medium sensitivity to changes in the view. The two proposed developments would extend through several sections of the view in the near and middle distance to the front and side of the direction of travel. The visibility of these two developments from this viewpoint would result in a substantial/ moderate magnitude of change and a major/ moderate effect on the visual amenity of walkers at this point. This indicates that these predicted effects would be significant for walkers at this point.

Vp 9: PRoW AE299 North Downs Way by Kingsmill Down					
Distance to East Stour Solar Farm	**NGR**	**Elevation (approx)**	**Landscape designation**	**Recreational area or route**	**Existing View**
4.58km	610011 142777	178mAOD	Kent Downs AONB	National Trail, Local road	Located at the junction of the North Downs Way with a local road by Brabourne Downs, looking southwest across a wide, detailed and long distance view. Sellindge Solar Farm is not visible within this view although the light coloured buildings of the Converter Station are discernible in the middle distance.
Cumulative Development Visible					
Developments	**Distance (km)**	**Direction from Vp**	**Development visible**	**Maximum angle of view**	**Observations**
East Stour	4.58	SW	Partially	22° (visible section 10°)	The existing Sellindge Solar Farm is entirely screened from this viewpoint. Sellindge BESS and Sellindge GSF will be entirely screened behind intervening mature vegetation. Otterpool Park Garden Town will be partially visible across several fields within the left of the view. The East Stour proposal would be largely screened by intervening mature vegetation. The Bested Hill section of the proposal would be discernible, although the solar panels would be viewed from the rear so that they would appear a dark tone in the view as sunlight would not be seen reflecting from the front of the panels. The Stonestreet Green Solar scheme would be discernible across some fields within the middle distance although parts of the development would be screened by intervening vegetation.
Stonestreet	5.2	SW	Partially	Intermittently visible across 24°	
Sellindge SF	5.0	SW	Screened	Screened	
Sellindge BESS	4.8	SW	Screened	Screened	
Sellindge GSF	4.6	SW	Screened	Screened	
Otterpool Park	4.9	S – SE	Partially	Intermittently visible across 38°	

DEVELOPMENT SCENARIO 2					
Assessment of Effects on Landscape Character					
LCA	**Value Susceptibility**	**Sensitivity**	**Magnitude**	**Additional effects**	**Assessment**
Stowting: Postling Vale/ Postling Scarp and Vale	National Very susceptible	High	Negligible adverse	Moderate/ minor adverse	A landscape of national value that could be very susceptible with a high sensitivity to the type, scale and location of development proposed. As part of the likely future baseline the Otterpool Park development would be located across a number of fields to the south containing several areas of development. The East Stour proposal would contrast with parts of the existing landscape context and characteristics, and it would be a barely discernible additional feature for the duration of the operational life, resulting in a negligible adverse magnitude of change and a moderate/ minor adverse effect on landscape character at this location. This indicates that these predicted effects would not be significant on landscape character.
Assessment of Effects on Views					
Receptor	**Value Susceptibility**	**Sensitivity**	**Magnitude**	**Additional effects**	**Assessment**
Motorists	Community Moderate susceptibility	Medium	Negligible	Minor	A local road with community value, along which receptors would be moving slowly to steadily, could use the route frequently, with some open views, and so would be moderately susceptible and with a medium sensitivity to changes in the view. As part of the likely future baseline, Otterpool Park Garden Town will be discernible extending across several fields within this section of the view. Some parts of the East Stour proposal would be discernible in the middle distance, occupying approx. 10° of the view, although the majority of the proposal would be screened by topography and vegetation, even in winter months. This is a wide, long distance and detailed view where the additional visibility of the proposal would result in a negligible magnitude of change and a minor effect on the visual amenity of motorists and their passengers. This indicates that these predicted effects would not be significant for these receptors.

Walkers	Community Very susceptible	High	Negligible	Moderate/minor	A National Trail with community value, along which receptors would be moving slowly, could use the route frequently, with some open views, and so would be very susceptible and with a high sensitivity to changes in the view. As part of the likely future baseline, Otterpool Park Garden Town will be discernible extending across several fields within this section of the view. Some parts of the East Stour proposal would be discernible in the middle distance, occupying approx. 10° of the view, although the majority of the proposal would be screened by topography and vegetation, even in winter months. This is a wide, long distance and detailed view where the additional visibility of the proposal would result in a negligible magnitude of change and a moderate/ minor effect on the visual amenity of walkers on this National Trail. This indicates that these predicted effects would not be significant for these receptors
DEVELOPMENT SCENARIO 3					
Assessment of Effects on Landscape Character					
LCA	**Value** **Susceptibility**	**Sensitivity**	**Magnitude**	**Combined effects**	**Assessment**
Stowting: Postling Vale/ Postling Scarp and Vale	National Very susceptible	High	Slight/ negligible adverse	Moderate/ minor+ adverse	A landscape of national value that could be very susceptible with a high sensitivity to the type, scale and location of development proposed. As part of the likely future baseline the Otterpool Park development would be located across a number of fields to the south containing several areas of development. The East Stour and Stonestreet schemes would both be partially discernible within the landscape to the south, together occupying approx. 36° of the view although entirely screened by vegetation within some areas. The East Stour and Stonestreet developments would contrast with the existing landscape characteristics, and would be discernible additional features for the duration of the operational life, resulting in a slight/ negligible adverse magnitude of change and a moderate/ minor+ adverse effect on landscape character at this location. This indicates that these predicted effects would not be significant on landscape character.

Assessment of Effects on Views					
Receptor	**Value** **Susceptibility**	**Sensitivity**	**Magnitude**	**Combined effects**	**Assessment**
Motorists	Community Moderate susceptibility	Medium	Slight/ negligible	Minor+	A local road with community value, along which receptors would be moving slowly to steadily, could use the route frequently, with some open views, and so would be moderately susceptible and with a medium sensitivity to changes in the view. As part of the likely future baseline, Otterpool Park Garden Town will be discernible extending across several fields within this section of the view. The East Stour and Stonestreet developments would be discernible in the middle distance, although several parts of each development would be screened by intervening topography and vegetation, even in winter months. This is a wide, long distance and detailed view where the visibility of these two developments would result in a slight/ negligible magnitude of change and a minor+ effect on the visual amenity of motorists and their passengers. This indicates that these predicted effects would not be significant for these receptors.
Walkers	Community Very susceptible	High	Slight/ negligible	Moderate/ minor+	A National Trail with community value, along which receptors would be moving slowly, could use the route frequently, with some open views, and so would be very susceptible and with a high sensitivity to changes in the view. As part of the likely future baseline, Otterpool Park Garden Town will be discernible extending across several fields within this section of the view. The East Stour and Stonestreet developments would be discernible in the middle distance, although several parts of each development would be screened by intervening topography and vegetation, even in winter months. This is a wide, long distance and detailed view where the visibility of these two developments would result in a slight/ negligible magnitude of change and a moderate/ minor+ effect on the visual amenity of walkers on this National Trail. This indicates that these predicted effects would not be significant for these receptors.

Vp A: Footpath AE437 by Church Lane and M20 motorway					
Distance to East Stour Solar Farm	**NGR**	**Elevation (approx)**	**Landscape designation**	**Recreational area or route**	**Existing View**
0.3km	608265 138550	53m AOD	None	Public Right of Way	Located on a local footpath close to the M20 and Church Lane. The M20 is audible to the north although largely screened by a bank of intervening mature trees. The landform is broadly flat across the foreground to the south, with Sellindge Converter Station and associated pylons clearly visible above intervening mature vegetation.
Cumulative Development Details					
Developments	**Distance (km)**	**Direction from Vp**	**Development visible**	**Maximum angle of view**	**Observations**
East Stour	0.3	W-SE	Partially	147° (only 2o visible)	The existing Sellindge Solar Farm is entirely screened from this viewpoint. Sellindge BESS will be entirely screened behind the Sellindge GSF which will occupy the foreground of the view to the south. Otterpool Park Garden Town will also be entirely screened to the east by intervening mature vegetation, Sellindge Converter Station and the HS1 railway embankments. An extremely limited portion of East Stour Solar Farm would be discernible between intervening mature woodland to the west. Stonestreet Green Solar would be entirely screened by intervening mature vegetation.
Stonestreet	0.9	SW	Screened	Screened	
Sellindge SF	0.5	SE	Screened	Screened	
Sellindge BESS	0.2	S	Screened	Screened	
Sellindge GSF	0.03	S	Visible	Up to 180°	
Otterpool Park	1.4	SE	Screened	Screened	

DEVELOPMENT SCENARIO 2					
Assessment of Effects on Landscape Character					
LCA	**Value** **Susceptibility**	**Sensitivity**	**Magnitude**	**Additional effects**	**Assessment**
Evegate Mixed Farmlands	Local Slight susceptibility	Medium/ low	Negligible adverse	Minor/ negligible+ adverse	A landscape of local value that could have slight susceptibility, with a medium/ low sensitivity to the type, scale and location of development proposed. The local landscape is partly characterised by the noise and movement from the M20 and HS1 rail link and has a less rural character due to visibility, movement and sound from these elements in combination with the visibility of the pylon lines and Sellindge Converter Station nearby. As part of the likely future baseline the Sellindge GSF would be located in the foreground of the view to the south containing several large buildings and associated infrastructure. The East Stour proposal would be seen within approximately 2° of the view to the west between two mature banks of woodland, where the remainder of the solar farm to the southeast, south and southwest would be screened from view, even in winter months. The discernible part of the East Stour proposal would be viewed in the context of several existing elements of development, may contrast with some of the existing landscape characteristics and would be a barely discernible additional feature for the duration of the operational life, resulting in a negligible adverse magnitude of change and a minor/ negligible+ adverse effect on landscape character at this location. This indicates that these predicted effects would not be significant.

Assessment of Effects on Views					
Receptor	**Value Susceptibility**	**Sensitivity**	**Magnitude**	**Additional effects**	**Assessment**
Walkers	Community Susceptible	High/ medium	Negligible	Minor+	A local public right of way with community value, along which receptors would be moving slowly, could use the route frequently, with views in several different directions, and so would be susceptible and with a high/medium sensitivity to changes in the view. The only visible section of the East Stour proposed development (even in winter months) would be seen in the middle distance between two banks of mature woodland, with the vast majority of the proposal entirely screened. The visible portion of the development would occupy approx. 2° of the view, seen in the context of a view containing several development elements (likely future baseline). The visibility of the East Stour proposal from this viewpoint would result in a negligible magnitude of change and a minor+ effect on the visual amenity of walkers at this point. This indicates that these predicted effects would not be significant for these receptors.

DEVELOPMENT SCENARIO 3					
Assessment of Effects on Landscape Character					
LCA	**Value** **Susceptibility**	**Sensitivity**	**Magnitude**	**Combined effects**	**Assessment**
Evegate Mixed Farmlands	Local Slight susceptibility	Medium/ low	Negligible adverse	Minor/ negligible+ adverse	A landscape of local value that could have slight susceptibility, with a medium/ low sensitivity to the type, scale and location of development proposed. The local landscape is partly characterised by the noise and movement from the M20 and HS1 rail link and has a less rural character due to visibility, movement and sound from these elements in combination with the visibility of the pylon lines and Sellindge Converter Station nearby. As part of the likely future baseline the Sellindge GSF would be located in the foreground of the view to the south containing several large buildings and associated infrastructure. The East Stour proposal would be seen within approximately 2° of the view to the west between two mature banks of woodland, where the remainder of the solar farm to the southeast, south and southwest would be screened from view, even in winter months. The Stonestreet Green Solar Scheme would be entirely screened from this viewpoint. The discernible part of the East Stour proposal would be viewed in the context of several existing elements of development, may contrast with some of the existing landscape characteristics and would be a barely discernible additional feature for the duration of the operational life, resulting in a negligible adverse magnitude of change and a minor/ negligible+ adverse effect on landscape character at this location. This indicates that these predicted effects would not be significant.

Assessment of Effects on Views					
Receptor	**Value Susceptibility**	**Sensitivity**	**Magnitude**	**Combined effects**	**Assessment**
Walkers	Community Susceptible	High/ medium	Negligible	Minor+	A local public right of way with community value, along which receptors would be moving slowly, could use the route frequently, with views in several different directions, and so would be susceptible and with a high/medium sensitivity to changes in the view. The Stonestreet scheme would be entirely screened from view. The only visible section of the East Stour proposed development (even in winter months) would be seen in the middle distance between two banks of mature woodland, with the vast majority of the proposal entirely screened. The visible portion of the East Stour proposal would occupy approx. 2° of the view, seen in the context of a view containing several development elements (likely future baseline). The visibility of the East Stour proposal from this viewpoint would result in a negligible magnitude of change and a minor+ effect on the visual amenity of walkers at this point. This indicates that these predicted effects would not be significant for these receptors.
Vp B: Footpath AE432 near Park Wood Cottage					
Distance to East Stour Solar Farm	**NGR**	**Elevation (approx)**	**Landscape designation**	**Recreational area or route**	**Existing View**
0.6km	606790 138520	66m AOD	None	Public Right of Way	Located on a local footpath which also forms a track leading down to Park Wood Cottage and Wide Eyes Falconry. The HS1 train line is audible nearby to the south when trains pass by. The landform drops down to the east and then gently rises and falls across the middle distance with higher land discernible in the far distance. Limited parts of Sellindge Converter Station are discernible amongst mature vegetation in the middle distance, although the associated pylons are clearly visible throughout the view.

Cumulative Development Details					
Developments	**Distance (km)**	**Direction from Vp**	**Development visible**	**Maximum angle of view**	**Observations**
East Stour	0.6	NE-SE	Partially	105° (up to 40° visible in winter)	The existing Sellindge Solar Farm is entirely screened from this viewpoint. Sellindge BESS and Sellindge GSF will be entirely screened by intervening mature woodland vegetation, even in winter months. Otterpool Park Garden Town will be almost entirely screened in summer months by intervening mature vegetation and topography. In winter months, a limited section of the development will be discernible filtered through nearby tree cover. Two separate sections of East Stour Solar Farm would be discernible with the northern portion seen occupying approx. 10 of the view. The section of the proposal south of the rail line would be more visible in winter months, occupying up to 30 of the view, but would include a greater degree of screened in summer months from intervening vegetation. Similarly, the Stonestreet scheme would be partially screened by nearby vegetation in summer months, but more visible in winter months immediately south of the rail line.
Stonestreet	0.2	SW – E	Partially	150° (approx 50° visible in winter)	
Sellindge SF	1.5	SE	Screened	Screened	
Sellindge BESS	1.2	E	Screened	Screened	
Sellindge GSF	1.3	E	Screened	Screened	
Otterpool Park	2.7	SE	Partially	30°(up to 13° visible in winter)	

DEVELOPMENT SCENARIO 2					
Assessment of Effects on Landscape Character					
LCA	**Value** **Susceptibility**	**Sensitivity**	**Magnitude**	**Additional effects**	**Assessment**
Evegate Mixed Farmlands	Local Slight susceptibility	Medium/ low	Moderate adverse	Moderate/ minor+ adverse	A landscape of local value that could have slight susceptibility, with a medium/ low sensitivity to the type, scale and location of development proposed. The local landscape is partly characterised by the noise and movement from HS1 rail link. As part of the likely future baseline the Otterpool Park Garden Town would be located in the middle distance and would be more readily discernible along the skyline in winter months than in summer months due to intervening vegetation. In winter months the East Stour proposal would be visible across two sections of the landscape to the northeast and southeast where the East Stour proposal would become a characteristic of the landscape and would contrast with parts of the existing landscape context, resulting in a moderate adverse magnitude of change and a moderate/ minor+ adverse effect on landscape character at this location. This indicates that these predicted effects would not be significant.

Assessment of Effects on Views					
Receptor	**Value Susceptibility**	**Sensitivity**	**Magnitude**	**Additional effects**	**Assessment**
Walkers	Community Susceptible	High/ medium	Moderate	Moderate+	A local public right of way with community value, along which receptors would be moving slowly, could use the route frequently, with views in several different directions, and so would be susceptible and with a high/medium sensitivity to changes in the view. The Otterpool Park development will be partially visible across parts of the skyline, with greater sections of the development discernible in winter months. The East Stour proposal would be seen in two separate sections of the view and would be visible within a greater proportion of the view in winter months than in summer. Therefore, the visibility of the East Stour proposal from this viewpoint in winter months would result in a moderate magnitude of change and a moderate+ effect on the visual amenity of walkers at this point. This indicates that these predicted effects may be significant for these receptors if experienced along a sustained section of this route.

DEVELOPMENT SCENARIO 3					
Assessment of Effects on Landscape Character					
LCA	**Value Susceptibility**	**Sensitivity**	**Magnitude**	**Combined effects**	**Assessment**
Evegate Mixed Farmlands	Local Slight susceptibility	Medium/ low	Substantial/ moderate adverse	Moderate adverse	A landscape of local value that could have slight susceptibility, with a medium/ low sensitivity to the type, scale and location of development proposed. The local landscape is partly characterised by the noise and movement from HS1 rail link. As part of the likely future baseline the Otterpool Park Garden Town would be located in the middle distance and would be more readily discernible along the skyline in winter months than in summer months due to intervening vegetation. In winter months the East Stour proposal would be visible across two sections of the landscape to the northeast and southeast and the Stonestreet scheme would be visible within the southeast of the view. These two solar schemes would become a key characteristic of the landscape and would contrast with the existing landscape context, resulting in a substantial/ moderate adverse magnitude of change and a moderate adverse effect on landscape character at this location. This indicates that these predicted effects could be significant on landscape character if experienced over a greater local area.

Assessment of Effects on Views					
Receptor	**Value Susceptibility**	**Sensitivity**	**Magnitude**	**Combined effects**	**Assessment**
Walkers	Community Susceptible	High/ medium	Substantial/ moderate	Major/ moderate	A local public right of way with community value, along which receptors would be moving slowly, could use the route frequently, with views in several different directions, and so would be susceptible and with a high/medium sensitivity to changes in the view. The East Stour proposal would be visible across two sections of this view, with the Stone Street scheme seen within the same section to the southeast. Each proposal would be more visible in winter months where their combined visibility would result in a substantial/ moderate magnitude of change and a major/moderate effect on the visual amenity of walkers at this point. This indicates that these predicted effects would be significant for these receptors. This is discussed in more detail later within the main assessment.
Vp C: Footpath AE474 near Goldwell Lane, Aldington					
Distance to East Stour Solar Farm	**NGR**	**Elevation (approx)**	**Landscape designation**	**Recreational area or route**	**Existing View**
1.3km	606465 136745	76m AOD	None	Public Right of Way	Located on a local footpath close to Goldwell Lane. The footpath travels east to west between Church Lane and Goldwell Lane across agricultural fields which are visible extending throughout the view interspersed between woodland and tree belts. Two lines of pylons are also discernible within the view.

Cumulative Development Details					
Developments	**Distance (km)**	**Direction from Vp**	**Development visible**	**Maximum angle of view**	**Observations**
East Stour	1.3	W-SE	Partially	55° (only 12o visible)	The existing Sellindge Solar Farm is entirely screened from this viewpoint.
Stonestreet	0.1	W – E	Partially	195° (approx 52° visible)	Sellindge BESS, Sellindge GSF and Otterpool Park Garden Town will be entirely screened by intervening mature woodland vegetation, even in winter months.
Sellindge SF	2.1	NE	Screened	Screened	A limited portion of East Stour Solar Farm would be visible across Bested Hill with slightly greater extents (up to 12°) visible in winter months where intervening vegetation allows.
Sellindge BESS	2.2	NE	Screened	Screened	
Sellindge GSF	2.3	NE	Screened	Screened	A limited portion of Stonestreet Green Solar would be visible across a nearby field with slightly greater extents (approx. 52°) visible in winter months where foreground vegetation allows.
Otterpool Park	2.9	NE – E	Screened	Screened	
DEVELOPMENT SCENARIO 2					
Assessment of Effects on Landscape Character					
LCA	**Value Susceptibility**	**Sensitivity**	**Magnitude**	**Additional effects**	**Assessment**
Aldington Ridgeline	Local Susceptible	High/ medium	Slight adverse	Moderate/ minor+ adverse	A landscape of local value that could be susceptible with a high/medium sensitivity to the type, scale and location of development proposed. The East Stour proposal would occupy up to approximately 12° of the view in winter months, less in summer months. The discernible part of the East Stour proposed development would become a characteristic of the views from this landscape and would contrast with the existing landscape context and would be a noticeable additional feature for the duration of the operational life, resulting in a slight adverse magnitude of change and a moderate/ minor+ adverse effect on landscape character at this location. This indicates that these predicted effects would not be significant.

Assessment of Effects on Views					
Receptor	**Value Susceptibility**	**Sensitivity**	**Magnitude**	**Additional effects**	**Assessment**
Walkers	Community Susceptible	High/ medium	Slight	Moderate/ minor+ adverse	A local public right of way with community value, along which receptors would be moving slowly, could use the route frequently, with views in several different directions, and so would be susceptible and with a high/medium sensitivity to changes in the view. The most proximate section of the East Stour proposed development would be discernible above woodland in the middle distance, although the majority of the proposal would be entirely screened. The visible portion of the development would occupy a maximum of 12° of the view in winter months, less in summer months, seen in association with some existing development elements (pylons). The visibility of the proposal from this viewpoint would result in a slight magnitude of change and a moderate/ minor+ effect on the visual amenity of walkers at this point. This indicates that these predicted effects would not be significant for these receptors. This is discussed in more detail later within the main assessment.
DEVELOPMENT SCENARIO 3					
Assessment of Effects on Landscape Character					
LCA	**Value Susceptibility**	**Sensitivity**	**Magnitude**	**Combined effects**	**Assessment**
Aldington Ridgeline	Local Susceptible	High/ medium	Moderate adverse	Moderate+ adverse	A landscape of local value that could be susceptible with a high/medium sensitivity to the type, scale and location of development proposed. The two proposed developments would be within the same section of the landscape to the northeast where they would become a characteristic of the landscape and would contrast with the existing landscape context as visible additional features for the duration of the operational life, resulting in a moderate adverse magnitude of change and a moderate+ adverse effect on landscape character at this location. This indicates that these predicted effects could be significant if experienced over a greater local area.

Assessment of Effects on Views					
Receptor	**Value Susceptibility**	**Sensitivity**	**Magnitude**	**Combined effects**	**Assessment**
Walkers	Community Susceptible	High/ medium	Moderate	Moderate+	A local public right of way with community value, along which receptors would be moving slowly, could use the route frequently, with views in several different directions, and so would be susceptible and with a high/medium sensitivity to changes in the view. The two proposed developments would be seen in the northeast section of the view, although large parts of each proposal would be screened from view, even in winter months. The visibility of the two proposals from this viewpoint would result in a moderate magnitude of change and a moderate+ effect on the visual amenity of walkers at this point. This indicates that these predicted effects could be significant for these receptors if experienced over a greater local area.
Vp D: Roman Road near Clap Hill					
Distance to East Stour Solar Farm	**NGR**	**Elevation (approx)**	**Landscape designation**	**Recreational area or route**	**Existing View**
2.2km	605190 137525	68m AOD	None	Local road	Located on a local road to the west of Clap Hill and Aldington. The road is bounded on both sides by mature hedgerows with occasional views out offered by field entrances, such as this viewpoint. The road is located on high land where the views north are long distance and panoramic.

Cumulative Development Details					
Developments	**Distance (km)**	**Direction from Vp**	**Development visible**	**Maximum angle of view**	**Observations**
East Stour	2.2	NE	Screened	Screened	The existing Sellindge Solar Farm is entirely screened from this viewpoint. Sellindge BESS, Sellindge GSF and Otterpool Park Garden Town will all be entirely screened by intervening topography and vegetation, even in winter months. The East Stour Solar Farm proposal would be entirely screened from view by intervening mature woodland and topography, even in winter months. The Stonestreet Green Solar scheme would be located within fields surrounding the viewpoint in all directions. However roadside hedgerow vegetation would screen the view south of Roman Road.
Stonestreet	0.01	Full compass	Partially	360°(approx 180° visible)	
Sellindge SF	3.0	NE	Screened	Screened	
Sellindge BESS	2.9	NE	Screened	Screened	
Sellindge GSF	3.0	NE	Screened	Screened	
Otterpool Park	4.3	E	Screened	Screened	
DEVELOPMENT SCENARIO 2					
Assessment of Effects on Landscape Character					
LCA	**Value Susceptibility**	**Sensitivity**	**Magnitude**	**Additional effects**	**Assessment**
Aldington Ridge	Local	High/ medium	None	No effects	A landscape of local value that could be susceptible with a high/medium sensitivity to the type, scale and location of development proposed. The East Stour proposal would be entirely screened from view, even in winter months, resulting in no effect on the character of the landscape at this location.

Assessment of Effects on Views					
Receptor	**Value** **Susceptibility**	**Sensitivity**	**Magnitude**	**Additional effects**	**Assessment**
Motorists	Community Moderate susceptibility	Medium	None	No effects	A local road with medium value, along which receptors would be moving slowly to steadily, could use the route frequently, with views varying between contained by surrounding vegetation and more open, and so would be moderately susceptible and with a medium sensitivity to changes in the view. The East Stour proposal would be entirely screened from view, even in winter months, resulting in no effect on the visual amenity of motorists at this location.
Vp E: Footpath AE381 by junction with Flood Street					
Distance to East Stour Solar Farm	**NGR**	**Elevation (approx)**	**Landscape designation**	**Recreational area or route**	**Existing View**
2.6km	604750 138845	42m AOD	None	Public Right of Way, Local Road	Located on a local footpath at its junction with Flood Lane, looking in an easterly direction across open agricultural fields extending out across the foreground and middle distance. Mature trees and woodland are scattered throughout the view, with occasional pylons also discernible in the distance.

Cumulative Development Details					
Developments	**Distance (km)**	**Direction from Vp**	**Development visible**	**Maximum angle of view**	**Observations**
East Stour	2.6	E	Screened	Screened	The existing Sellindge Solar Farm is entirely screened from this viewpoint. Sellindge BESS, Sellindge GSF and Otterpool Park Garden Town will all be entirely screened by intervening topography and vegetation, even in winter months. The East Stour Solar Farm proposal would be entirely screened from view by intervening mature woodland and topography, even in winter months. The Stonestreet Green Solar scheme would be located within fields in the middle distance of the view. However intervening vegetation would screen the majority of the solar farm, even in winter months.
Stonestreet	1.0	S – E	Partially	100° (approx 8° visible)	
Sellindge SF	3.6	E	Screened	Screened	
Sellindge BESS	3.3	E	Screened	Screened	
Sellindge GSF	3.4	E	Screened	Screened	
Otterpool Park	4.8	SE	Screened	Screened	
DEVELOPMENT SCENARIO 2					
Assessment of Effects on Landscape Character					
LCA	**Value** **Susceptibility**	**Sensitivity**	**Magnitude**	**Additional effects**	**Assessment**
Upper Stour Valley	Local Slight susceptibility	Medium/ low	None	No effects	A landscape of local value that could have slight susceptibility, with a medium/ low sensitivity to the type, scale and location of development proposed. The East Stour proposal would be entirely screened from view, even in winter months, resulting in no effect on the character of the landscape at this location.

Assessment of Effects on Views					
Receptor	**Value Susceptibility**	**Sensitivity**	**Magnitude**	**Additional effects**	**Assessment**
Walkers	Community Susceptible	High/ medium	None	No effects	A local public right of way with community value, along which receptors would be moving slowly, could use the route frequently, with views in several different directions, and so would be susceptible and with a high/medium sensitivity to changes in the view. The East Stour proposal would be entirely screened from view, even in winter months, resulting in no effect on the visual amenity of walkers at this location.
Motorists	Community Moderate susceptibility	Medium	None	No effects	A local road with medium value, along which receptors would be moving slowly to steadily, could use the route frequently, with views varying between contained by surrounding vegetation and more open, and so would be moderately susceptible and with a medium sensitivity to changes in the view. The East Stour proposal would be entirely screened from view, even in winter months, resulting in no effect on the visual amenity of motorists at this location.

Findings of Visual Analysis

11.64 The Visual Analysis has assessed two of the viewpoints included as part of the original East Stour Solar Farm LVIA, as well as five further additional viewpoints.

11.65 Overall the Visual Analysis has indicated clearly that the CZTVs suggest far greater potential cumulative visibility of the permitted and proposed development schemes than would be available in reality. This is not simply in relation to one development scheme in particular; the undulating nature of the landform combined with the good levels of mature woodland throughout the local area will result in much more limited visibility of each development scheme. In particular, the low elevation of the Sellindge BESS development and its location between the M20 and HS1 rail line and adjacent to Sellindge Converter Station and mature vegetation means that this permitted development will recurrently be entirely screened in the viewpoints. A similar effect would occur for the Sellindge GSF from the majority of the viewpoints. However, the Otterpool Park Garden Town site is extensive and is also located across a less enclosed landform than the Sellindge BESS and Sellindge GSF and subsequently will be more visible within the study area as a whole as part of the likely future baseline.

11.66 The East Stour and Stonestreet schemes are a smaller scale than the Otterpool Park development in terms of extent but also height of development. Nevertheless, only some sections of each of these two proposals are located in sheltered and low lying locations in a similar way to the two Sellindge permitted developments and so the less elevated parts of each of these proposals would be discernible from several of the viewpoints. However, it is important to note that only an extremely limited portion of the East Stour proposal would be visible from the viewpoints, with two viewpoints indicating that the East Stour proposal would be entirely screened from view.

11.67 Overall the cumulative viewpoints within this assessment all illustrate that despite the proximity of the permitted and proposed schemes to each other, the wealth of mature vegetation within this local landscape combines with the undulating topography to recurrently provide screening to these development proposals. It is also worthwhile noting that each development is accompanied by a comprehensive set of mitigation planting proposals which would provide further screening to each individual development over time.

Landscape Assessment

11.68 This assessment draws on the review of the predicted effects of the permitted and proposed developments, the landscape fabric of the sites, the key characteristics of the LCAs, the purposes/objectives of the landscape designations, the visibility analysis, the viewpoint analysis and fieldwork observations, and discusses the significance of the predicted effects on:

- Landscape fabric.
- Landscape character.
- Purposes of the landscape designations.

Cumulative Effects on Landscape Fabric

Construction Phase

11.69 It is unlikely that the construction phase of each development would occur at the same time.

11.70 Most solar farm sites utilise existing field entrances for access and attempt as far as is practicable to limit the loss of existing ground and field boundary vegetation. There is no indication that this would not also be the case for the Stonestreet proposal. As the fields across the two proposed sites are currently used for arable crop production and pasture, there would be a very minimal loss of ground vegetation as a result of the temporary site compounds, new tracks, infrastructure hardstandings and cable trenches at each site. Therefore, there would not be any significant cumulative (adverse or beneficial) effects on landscape fabric as a result of the construction phases of these two proposals.

Operational Phase

11.71 Once the construction phases of each proposal have been completed, the proposed mitigation measures associated with each development would be implemented. These measures typically include tree belt and hedgerow planting, hedgerow management to maintain and grow the height of site hedgerows and wildflower meadow cultivation. There would be a cumulative beneficial effect on landscape fabric as a result of these measures which would last throughout the operational phase of each of the proposed developments and would be maintained and replaced where necessary through planting management plans.

Decommissioning Phase

11.72 There would be minimal disturbance of landscape features during this phase as below ground structures (e.g. lower parts of the building foundations and cables) would typically be left in situ and there would be reinstatement of the ground over all ground disturbed by the works. All the new planting measures as part of the East Stour and Stonestreet proposals would usually remain in place beyond the lifetime of the developments. Therefore, there would be a negligible cumulative effect on landscape fabric during the decommissioning phase.

Cumulative Effects on Landscape Character

Prediction Methodology

11.73 Landscape character is composed of physical, biological and social components, combined with aesthetic and perceptual factors. This assessment of cumulative effects on landscape character considers the existing landscape character of the sites and study area by using the information collected during fieldwork and within the local landscape character assessments and sensitivity assessments. It considers the predicted effects of the developments, and assesses the area within which there is likely to be a significant cumulative change to landscape character, based on the following two definitions:

- Significant cumulative beneficial effects on landscape character - are likely to occur where the proposed developments would materially enhance the quality (condition) of the landscape, would complement the existing character and/or where particularly valued characteristics, previously lost or degraded, would be reinstated.
- Significant cumulative adverse effects on landscape character - are likely to occur where the proposed developments would become a key or one of the defining characteristics of the landscape, would contrast with the existing character, and/or where existing key characteristics would be permanently lost or changed.

11.74 The long-term addition of two solar farm development proposals into an area of landscape that is currently partly characterised by built form and has a likely future baseline of further permitted development, some of which would be large scale, will usually have an incremental effect on the character of at least a localised area within that landscape.

11.75 Whether such effects would be significant depends on the sensitivity (susceptibility and value) of the landscape resource and the scale or magnitude of landscape effects, as indicated by fieldwork and the viewpoint analysis. Further information on the methodology used is contained within ES Appendix 11.2 of the original East Stour LVIA and within the East Stour SEI. Whether such effects would be cumulative depends on the degree of visibility of each of the two proposals. Therefore, fieldwork observations are examined together with the findings of the viewpoint analysis so as to determine the degree and extent of likely significant cumulative effects of the two proposed developments on landscape character within the various landscape character units in the study area as part of DS2 and DS3. DS1 was assessed as part of the original East Stour LVIA.

11.76 Landscape units are often relatively large geographical areas and the screening effects of topography and vegetation will vary across each unit, so that the predicted extent of any significant cumulative effects on landscape character will almost always be intermittent. However, with increasing distance from the proposed sites, the proposed developments will have a decreasing effect on landscape character and there will come a point where there are few or no further significant cumulative landscape effects. This is defined as the extent of the significant cumulative effects on landscape character.

EVEGATE MIXED FARMLANDS LCA

11.77 The key characteristics of this LCA are set out within the original East Stour LVIA, and a more detailed description of this LCA is provided in the extract in ES Appendix 11.1 of the original LVIA. The area is described within the character assessment as (extract) ‘there is a comprehensive network of tree cover….the pattern of the landscape is much influenced and fragmented by major infrastructure routes. The M20 and A20 run parallel, bisecting the area and leaving a narrow strip of land which is used mostly for arable production and pasture.’ This is a small LCA covering a central section of the study area and it derives its character primarily from its key characteristics and internal features and only partly from views out of the LCA to neighbouring

landscapes. The location of this LCA in relation to the permitted and proposed developments is shown on **SEI Figure 11.3 Revision A**. Two of the permitted developments (Sellindge BESS and Sellindge GSF) are located within this LCA and parts of both of the proposed developments are also located within this LCA.

11.78 The overall evaluation of the sensitivity of this LCA within the published assessment is low, with only three levels of high, moderate and low used within the published assessment. Our assessment considers the sensitivity of the LCA to solar development using a five point scale and has determined the sensitivity as medium/low. This is a landscape with mainly local value with features of local value, that could have a slight susceptibility to the type, scale and location of development proposed.

11.79 This is a landscape that is strongly influenced by the infrastructure and development within it and bordering it. As part of DS2, the introduction of the Sellindge BESS and Sellindge GSF will add further elements of development to the LCA, diluting the rural aspects of the LCA. The introduction of the East Stour proposal would further extend the areas of development within the LCA, although the woodland surrounding the northern portion of the site would enclose the proposal and assist in limiting the influence of the proposal within the LCA as a whole, along with the motorway to the north. As a result, the section of the LCA to the north of the motorway would remain unaffected by the introduction of the East Stour proposal, although the area across the site itself would be significantly adversely affected by the East Stour proposal in landscape character terms.

11.80 As part of DS3, the combined introduction of the East Stour and Stonestreet proposals into parts of this LCA would further extend the alteration of the landscape character from rural to developed, with significant adverse cumulative effects on landscape character occurring through parts of the LCA including south of the rail line and areas in the vicinity of Park Wood, including across parts of both proposed sites. However, the embankment landform formed by the M20 motorway would form a natural enclosure to these significant adverse cumulative effects on landscape character and no effects to landscape character within parts of the LCA north of the motorway would occur.

EAST STOUR VALLEY LCA

11.81 The key characteristics of this LCA are set out within the original East Stour LVIA, and a more detailed description of this LCA is provided in the extract in ES Appendix 11.1 of the original LVIA. The area is described within the character assessment as (extract) 'a mosaic like pastoral field pattern is concentrated around the East Stour River, with field shape often dictated by the non linear route of water courses. Woodland blocks are scattered throughout the landscape. Roads comprise narrow lanes, following the undulations across the landscape. Hedgerows often line the lanes, at times containing hedgerow trees, becoming more significant tree belts in places.' This LCA covers a small area centrally within the study area and derives its character mainly from its key characteristics and internal features but also in part from its views out to other LCAs.

11.82 The overall evaluation of the sensitivity of this LCA within the published

assessment is high, based on a three point scale. This assessment has determined the sensitivity of the LCA to solar development as **high/ medium** based on a five point scale. This is a landscape with mainly local value with features and special qualities of local value, that could be susceptible to the type, scale and location of development proposed.

11.83 This LCA is largely rural in character with some development influences gained from the pylon lines crossing the LCA, the HS1 rail line on its northern boundary and the existing Sellindge Solar Farm near its northern boundary. As part of DS2, the likely future baseline will include three permitted developments, none of which are located within this LCA and which will not be visible from large parts of the LCA. However, parts of the Sellindge GSF and Otterpool Park Garden Town will be discernible features of views out of the LCA from some higher ground within the LCA, such as across Bested Hill and Hungry Down. This visibility will incrementally add further development influences to the overall character of this LCA. The introduction of the East Stour proposal to this baseline as part of DS2 would result in a significant adverse effect on landscape character across the East Stour site, with the effects on landscape character limited across the LCA as a whole by mature woodland surrounding the site and by the natural enclosure provided by sloping landforms local to the site. As a result, the limited adverse effects on landscape character described as part of DS1 would be broadly similar to the potential effects as a result of DS2.

11.84 As part of DS3, the combined introduction of the East Stour and Stonestreet proposals into parts of this LCA would further extend adverse effects on landscape character through the conversion of parts of the LCA from rural to developed character, with significant adverse effects on landscape character occurring across each of the sites within the LCA. However, these adverse effects would only be cumulative across limited parts of the LCA as Backhouse Wood, Partridge Plantation and Round Wood combine with locally undulating topography to create an effective buffer between the two proposals across several parts of the LCA so that combined visibility of the two proposals would be extremely limited. Nevertheless, across the northwest corner of the LCA at the boundary between the two proposals, some significant adverse cumulative effects on landscape character are anticipated, predominantly over the initial years of the two developments prior to mitigation planting proposals for both schemes establishing.

ALDINGTON RIDGELINE LCA

11.85 The key characteristics of this LCA are set out within the original East Stour LVIA, and a more detailed description of this LCA is provided in the extract in ES Appendix 11.1 of the original LVIA. The area is described within the character assessment as (extract) 'Mixed farmland with enclosed pasture immediately surrounding settled areas. The continuity provided by hedgerows, and the use of ragstone as a building material, provides a coherent landscape. Visual detractors comprise large agricultural barns, often partially screened by conifer belts, and pylons. Conversions are sometimes slightly urbanising in terms of the detailing used, and recent development within Aldington detracts slightly from the

wider landscape character and sense of place.' This LCA covers a small area centrally within the study area and derives its character in part from its key characteristics and internal features but also in part from its views out to other LCAs, mainly to the north.

11.86 The overall evaluation of the sensitivity of this LCA within the published assessment is high, based on a three point scale. This assessment has determined the sensitivity of the LCA to solar development as **high/ medium** based on a five point scale. This is a landscape with mainly local value with some features and special qualities of national value, that could be susceptible to the type, scale and location of development proposed.

11.87 Filtered views out of the LCA to the north are a part of the character of this LCA. Within these views as part of DS2 the permitted Sellindge BESS and Sellindge GSF are expected to be entirely screened by intervening mature vegetation and the Otterpool Park Garden Town is also expected to be largely screened from view. Therefore, the effects on landscape character as a result of the introduction of the East Stour proposal would be the same for DS2 as described in the main East Stour LVIA for DS1. For DS1 the effects were described as 'some limited potential visibility of the proposal would be available from some parts of the Aldington Ridgeline LCA where intervening vegetation allows…. The viewpoints illustrate at worst a moderate/slight adverse magnitude of change is predicted initially, which would result in a moderate adverse effect on landscape character (not significant) in this high/ medium sensitivity LCA. Over time mitigation planting would reduce this magnitude of change down to slight adverse (by Year 10) and a moderate/ minor+ adverse effect, which would not be significant.'

11.88 As part of DS3, the Stonestreet proposal would be located within some parts of this LCA and would result in a significant adverse effect on landscape character across the parts of the LCA within which the site is situated. Viewpoints 7 and C within this assessment are both located within this LCA and give an indication of the type of combined visibility of the two proposals that may be possible from this LCA. The change in character from broadly rural to the introduction of development elements will be much more defined within the west of the LCA due to the presence of the Stonestreet scheme within this part of the LCA and a significant adverse cumulative effect will occur in combination with some limited middle distance visibility beyond the LCA of the East Stour proposal. However, within the east of the LCA to the east of Church Lane, the perception of these two proposals would be much more limited with the rural character a stronger element where no significant adverse cumulative effects on landscape character are predicted.

UPPER STOUR VALLEY LCA

11.89 The key characteristics and a description of this LCA are set out within the original East Stour LVIA, and a more detailed description of this LCA is provided in the extract in ES Appendix 11.1. The area is described within the Ashford character assessment as (extract) 'an extensive open valley floor landscape of predominantly arable farming where hedgerows have been removed during the conversion to unimproved pasture and riparian vegetation lost as cultivation extends

close to the river banks.'' This is an average sized LCA within the central and western part of the study area that derives its character partly from its key characteristics and internal features and also in part from its views out to other LCAs in neighbouring landscapes.

11.90 The evaluation of the sensitivity of this LCA within the published assessment ranges between high and low. This assessment has determined the sensitivity of the LCA to solar development as **medium** based on a five point scale. This is a landscape with mainly local value with features and special qualities of local value, that could be moderately susceptible to the type, scale and location of development proposed.

11.91 None of the viewpoints from the original East Stour LVIA were located within this LCA as fieldwork found that potential visibility of the East Stour proposal would be extremely limited from this LCA. Viewpoint E within this cumulative assessment is located within this LCA and indicates that no visibility of the East Stour proposal would be possible. In addition it also illustrates that no visibility of the permitted Sellindge BESS, Sellindge GSF or Otterpool Park developments would be possible from the viewpoint. As part of DS1 the East Stour LVIA found 'the proposal may be partially visible from some limited areas of the LCA within approximately 0.3-0.4km of the proposal, immediately to its west, but beyond this distance, the low elevation of the LCA and the screening effects of Backhouse Wood and vegetation along East Stour River would screen the proposal entirely from view. The field boundary hedgerow along the northwestern side of Bested Hill would partially screen the proposal from view so that typically within 0.3-0.4km of the site a moderate adverse or lower magnitude of change and no significant adverse effect on landscape character would be expected'. These findings would be the same for DS2.

11.92 However, as part of DS3 the section of the LCA discussed above covers land within the Stonestreet development itself. As a result, the position of the two proposals adjoining each other would result in combined effects on landscape character in this area that would be adverse, significant and cumulative. Across much of the LCA the East Stour proposal would be entirely screened from view and so any adverse effects would be as a result of the Stonestreet scheme rather than cumulative effects on landscape character. However, in the section of the LCA proximate to the East Stour proposal, views out of the LCA would be possible in some locations and the combined visibility of both proposals would result in some limited significant adverse cumulative effects on the character of this part of the LCA.

Effects on Landscape Designations

11.93 There is one national landscape designation within the study area; this is the Kent Downs AONB

Kent Downs AONB

11.94 At its closest point, this designation is located approximately 1.3km south and 3.3km northeast of the closest part of the East Stour proposed development (see **SEI Figure 11.5 Revision A**). This figure indicates that the proposal would be almost entirely screened from the southern section of the AONB except for a few limited

areas of potential visibility along the AONB's northern boundary close to Aldington. Viewpoints 8 and 13 (the new AONB viewpoint) illustrate views from this part of the AONB at distances of 1.7km and 1.75km from the East Stour proposed development, respectively. Both viewpoints show extremely limited potential visibility of the proposal would be available and a negligible adverse and slight adverse magnitudes of change are expected, respectively, resulting in no significant effects on landscape character at these locations.

11.95 Further afield, a distinct scarp slope rises in the distance to the north and it is this section of the AONB where some potential visibility of the permitted and proposed developments is expected. From the lower parts of the scarp slope, within approximately 3.3km and 4.4km of the East Stour proposal the elevation of the landform is unlikely to allow any visibility of the permitted and proposed developments to the south. However, from the top of the scarp slope, limited visibility of these development would be possible at a distance where intervening vegetation allows. Viewpoint 9 within this assessment is located along this scarp slope and illustrates the potential visibility of the permitted and proposed developments as part of DS2 and DS3. In both development scenarios no significant effects on landscape character would occur. Therefore, in cumulative terms there would be no significant effect on the purpose of the AONB, that is, the ability of the designation "to conserve and enhance the natural beauty".

Visual Assessment

Prediction Methodology

11.96 Visual amenity arises from a visual receptor's experience of the visual world around them and the value they place on a particular view or views. It is possible for a development to result in a significant change in the view from a particular location without resulting in a significant effect on the visual amenity of any receptors if, for example, the location is not accessible to receptors or if the view is acknowledged as having limited value. An important differentiation to make at this stage is between visual amenity and residential amenity. Impacts on residential amenity encompass the assessment of factors such as acoustic impacts, glint and glare combined with the impacts on the visual amenity of residents. The impacts on the visual amenity of residents within settlement areas are broadly discussed below.

11.97 For the purposes of this assessment, the predicted changes in views have been examined and significant cumulative effects on visual amenity have been identified where the combined visibility of more than one proposed solar farm would result in a significant effect on the primary view(s) at a location or along a route and the view(s) is/are valued and can be appreciated by receptors who are at that location for purposes that include the appreciation of the view(s).

11.98 Significant cumulative effects on visual amenity can be perceived as beneficial, adverse or neutral and this depends largely on the perceptions and opinions of the individual receptors and, to a certain extent, on the type of development proposed. The polarisation of public opinion on renewable energy is such that it is difficult to define significant cumulative changes in a view as having a definitely

beneficial or definitely adverse effect on visual amenity for all members of the public who may experience that view.

11.99 Accordingly, the assessment identifies whether the predicted effects on visual amenity would be significant or not significant and, whilst it is expected that these significant cumulative effects would be considered to be adverse, it is important that the broad range of public opinions on such effects is also taken into account in the decision making process.

11.100 This assessment draws on the predicted cumulative effects of the developments, the viewpoint analysis and fieldwork observations, and discusses the significance of the predicted cumulative effects on the visual amenity of receptors at a range of visual receptor locations within the study area. Within this study area these include settlements, individual residential properties, long distance recreational routes, visitor attractions, the local public rights of way network, public highways and passenger rail routes.

Settlements

11.101 The visual analysis within the original East Stour LVIA suggested that as part of DS1 there could be significant changes in the view for high sensitivity receptors, such as residents within approximately 0.75km of the East Stour site as a result of the introduction of the East Stour proposal into the current baseline landscape. All the villages and hamlets within the study area are located at distances over 0.75km from the East Stour proposal and the LVIA found no significant effects on the visual amenity of residents in settlements would occur as part of DS1.

11.102 As part of DS2, the likely future baseline will include Sellindge BESS, Sellindge GSF and Otterpool Park Garden Town, with the assessment measuring the additional effect of introducing the East Stour proposal to this baseline. Viewpoints 7 and C are located in proximity to both the new and original parts of Aldington and both illustrate that none of the permitted developments (Sellindge BESS, Sellindge GSF and Otterpool Park Garden Town) will be visible due to intervening topography and mature vegetation, even in winter months. Therefore, VP7 will remain unaltered from the assessment findings for DS1, where a moderate/ slight magnitude of change would occur, indicating no significant effects on the visual amenity of residents would be expected. In a similar way, at VPC a moderate/ slight magnitude of change in the view is also predicted as a result of the East Stour proposal, indicating no significant effects on the visual amenity of residents would be expected.

11.103 As part of DS3, the likely future baseline will again include Sellindge BESS, Sellindge GSF and Otterpool Park Garden Town, with the assessment measuring the combined effects of introducing the East Stour and Stonestreet proposals to this baseline. VP7 shows that the combined visibility of the two proposals would extend across the view to the north with the result that a substantial/ moderate magnitude of change would be expected, which would result in a major/ moderate+ effect on the visual amenity of residents with a similar view of both proposals, which would be significant. Similarly, VPC illustrates visibility of both proposals, which

would be more extensive in winter months than in summer, where a moderate magnitude of change would be expected. Nearby residents with a similar view would be expected to experience a major/ moderate effect on their visual amenity, which would be significant. It should be noted that the Stonestreet Green Solar scheme is located within closer proximity to both the new and original parts of Aldington village than the East Stour proposal.

11.104 As noted within the main East Stour LVIA, the other settlements within the study area are all located at greater distances from the East Stour proposal where this proposal is predominantly screened from view. No significant effects as a result of the East Stour proposal are expected for any other residents within the East Stour study area.

Individual Residential Properties

11.105 There are a number of residents within farmsteads and individual properties who may gain near and open views of at least one of the proposed or permitted developments. In many cases, these residential properties will be surrounded or located in close proximity to other associated buildings such as farm buildings, barns, garages and outbuildings. Given the nature of the landform in the local area, several will also be located in a position where topography would only allow partial visibility of one or more of the developments within this assessment. Add the additional screening effects of mature vegetation which is very common in this landscape and the visibility of one or more of the permitted or proposed developments is expected to be more limited in the majority of cases. It is also often the case that residential properties have vegetation associated with them, along boundaries and within garden areas. All of these types of features will add foreground screening elements which may screen views of the development(s) entirely or partially, which may in turn alter the magnitude of change in the view and the resulting significance of effects.

11.106 Bested House is located adjacent to Church Lane and is a two storey property where fieldwork has indicated no visibility of the Sellindge BESS, Sellindge GSF or Otterpool Park permitted developments will be available due to the screening effects of topography combined with intervening mature woodland and vegetation. Therefore the DS2 effects on the visual amenity of residents within this property would be identical to those described within the main East Stour LVIA for DS1.

11.107 The CZTV suggests no potential visibility of the Stonestreet scheme would be available from Bested House due to the screening effects of local topography and fieldwork has confirmed this. Therefore, no significant cumulative effects on the visual amenity of these residents would occur as a result of the Stonestreet and East Stour proposals.

11.108 The Paddock is a single storey property located approximately 150m south of the western portion of the East Stour proposal by Bested Hill. The property is orientated broadly southwest/ northeast with parking located to the immediate east of the property and garden areas located to the west and south. Fieldwork has indicated no visibility of the Sellindge BESS, Sellindge GSF or Otterpool Park permitted developments will be available from this property due to

the screening effects of topography combined with intervening mature woodland and vegetation. Therefore the DS2 effects on the visual amenity of residents within this property would be identical to those described within the main East Stour LVIA for DS1.

11.109 The CZTV suggests that some potential visibility of the Stonestreet scheme may be possible from The Paddock in combination with the East Stour proposal. However, the majority of the Stonestreet scheme would be located behind mature woodland at Backhouse Wood which would provide very effective screening, even in winter months. One limited section of the Stonestreet scheme would be located between the property and Aldington, situated in the opposite direction from the property to the East Stour scheme. However, fieldwork has indicated that intervening mature tree belts and built form to the south and southwest would screen this portion of the Stonestreet scheme from this single storey property so that no significant cumulative effects on the visual amenity of these residents are anticipated.

11.110 A number of other properties are located adjacent to Church Lane, including Forehead (approximately 300m south of the East Stour proposal), Hogben Farm (330m south), Forehead Farm and an adjacent property (640m and 680m south, respectively), and each of these properties is expected to gain some limited visibility of the East Stour proposal, mainly of sections of the Bested Hill portion of the development. As part of DS1 in the main East Stour LVIA, no significant effects on the visual amenity of these residents were expected. The CZTV for DS2 indicates no potential visibility will be possible of the Sellindge BESS, Sellindge GSF or Otterpool Park permitted developments due to screening from intervening topography. Therefore the DS2 effects on the visual amenity of residents within these properties would be identical to those described within the main East Stour LVIA for DS1.

11.111 The CZTV for DS3 suggests that some potential visibility of the Stonestreet scheme may be possible from these properties in combination with the East Stour proposal. In the same way as for The Paddock, Backhouse Wood would screen large parts of the Stonestreet scheme from these properties, even in winter months. In addition, the sections of the scheme west of Calleywell Lane would be screened by a combination of topography, vegetation and built form. The most proximate section of the Stonestreet scheme to these properties would be located to the southwest, near Goldwell Lane and fieldwork has indicated that the slope of the landform intervening between this section of the scheme and these properties, combined with field boundary and tree belt vegetation, would screen the Stonestreet proposal from view. Therefore, no significant cumulative effects on the visual amenity of these residents are anticipated.

11.112 A series of four properties are located in the landscape east of Church Lane; Middle Park Farm and a property adjacent to it (approximately 890m and 830m south of the East Stour proposal, respectively) and Lower Park Farm and an adjacent property (approximately 450m and 430m south of the East Stour proposal, respectively). As part of DS1 in the main East Stour LVIA, no significant

effects on the visual amenity of these residents were expected. The CZTV for DS2 indicates no potential visibility will be possible of the Sellindge BESS or Otterpool Park permitted developments due to screening from intervening topography. Whilst some very limited potential visibility is suggested on the CZTV of the Sellindge GSF, in reality intervening mature vegetation will entirely screen this permitted development from view. Therefore the DS2 effects on the visual amenity of residents within these properties would be identical to those described within the main East Stour LVIA for DS1.

11.113 The CZTV for DS3 suggests some combined visibility of the East Stour and Stonestreet schemes may be possible from these properties and fieldwork has suggested that some limited visibility of both schemes may be possible. The majority of the Stonestreet scheme would be screened by a combination of topography and mature vegetation including Backhouse Wood, with the small portion of the proposal located near Goldwell Lane located approx. 900m to 1km from these properties. Given this distance and the good levels of vegetation intervening to the west along Church Lane, very limited potential visibility of the Stonestreet scheme is anticipated, and is expected to result in a moderate/ slight magnitude of change in combination with the limited visibility of the East Stour proposal, where a moderate+ effect and no significant cumulative effects on the visual amenity of these residents is expected.

11.114 Harringe Court and a series of nearby properties are located to the east-southeast of the East Stour proposal, at distances ranging between approximately 670m and 770m from the closest part of the proposal. As part of DS1 in the main East Stour LVIA, no significant effects on the visual amenity of these residents were predicted. As part of DS2, the CZTV suggests that all three permitted developments will potentially be visible from these properties. However, fieldwork has indicated that in reality intervening vegetation and Sellindge Converter Station will entirely screen the Sellindge BESS and Sellindge GSF from view, even in winter months. However, parts of Otterpool Park Garden Town will be located within approx. 250m of some of these properties, adding sizeable areas of development to the east of these properties on land rising to the east. With this development forming part of the likely future baseline, the limited visibility of the East Stour proposal to the west at distances of over 670m away is expected to result in a slight magnitude of change and a moderate effect on the visual amenity of these residents, which would not be significant.

11.115 The CZTV for DS3 suggests some combined visibility of the East Stour and Stonestreet schemes may be possible from these properties and fieldwork has suggested that some limited visibility of both schemes may be possible in between intervening mature vegetation, with the Stonestreet scheme located over 2.0km to the west. The combined visibility of these two proposals is expected to result in a moderate/ slight magnitude of change and a moderate+ effect on the visual amenity of these residents. These effects would not be significant cumulative effects.

11.116 Evegate Manor includes residential properties as well as retail businesses and office space. At its closest point it is located approximately 550m west of the northern section of the East Stour site, with Park Wood intervening

as a mature woodland on the western boundary of the East Stour site. The rail line and its associated planting intervenes to entirely obscure the eastern portion of the East Stour site and large parts of the western portion of the East Stour site, although the highest parts of Bested Hill may be very partially discernible in the middle distance over intervening woodland and the planting along the rail line. As part of DS1 in the main East Stour LVIA, no significant effects on the visual amenity of these residents were predicted. As part of DS2, the CZTV suggests that all three permitted developments will potentially be visible from these properties. However, in reality fieldwork has indicated that intervening mature woodland across the undulating landform is likely to entirely screen all three permitted developments from view. Therefore the DS2 effects on the visual amenity of residents within these properties would be identical to those described within the main East Stour LVIA for DS1.

11.117 The CZTV for DS3 suggests some combined visibility of the East Stour and Stonestreet schemes may be possible from these properties although fieldwork has indicated that the layering of vegetation within the intervening landscape is expected to entirely screen the Stonestreet scheme from these properties, even in winter months. As a result, no significant cumulative effects are expected.

11.118 Park Wood Cottage is located approximately 520m west of the northern parcel of the East Stour site and adjacent to the rail line. As part of DS1 in the main East Stour LVIA, no significant effects on the visual amenity of these residents were predicted. It is important to note that whilst Viewpoint B within this assessment is located close to this property, it is situated on more elevated ground over 140m from the property, which has a lower elevation and some mature vegetation is associated with the property. From this lower elevation, visibility of Otterpool Park Garden Town is expected to be entirely screened from view by intervening vegetation, even in winter months. This would also be the case for the Sellindge BESS and Sellindge GSF as part of the likely future baseline for DS2. Therefore the DS2 effects on the visual amenity of residents within these properties would be identical to those described within the main East Stour LVIA for DS1.

11.119 Viewpoint B does give an indication of the proximity of the Stonestreet scheme to the property, situated on the other side of the rail line. Whilst some screening would be provided by intervening vegetation, mainly in summer months, these most proximate parts of the Stonestreet scheme would be visible from the property, where a significant cumulative effect on the visual amenity of these residents would be expected.

Visitor Attractions

11.120 **SEI Figure 11.6 Rev A** suggests no potential visibility of the East Stour proposal from Hatch Park deer park or Port Lympne Wildlife Park.

11.121 Aldington Races is a point to point event occurring once a year on Easter Monday. The circular route of the event crosses fields immediately south of the eastern section of the East Stour proposal with the CZTV for DS2 suggesting that some potential visibility of the Sellindge BESS and Sellindge GSF may be possible. However, fieldwork has confirmed that

the intervening mature tree planting along Church Lane, in association with the HS1 rail embankment and East Stour River and Partridge Plantation will all serve to entirely screen these two permitted developments from view. Otterpool Park Garden Town will also be screened by intervening topography including Hungry Down to the east. The East Stour main LVIA found that as DS1 the East Stour proposal would initially result in a significant effect on the visual amenity of visitors to the point to point event until mitigation measures associated with the application establish. Given that the developments within the likely future baseline will all entirely be screened from this location, the DS2 effects on the visual amenity of visitors to the point to point would be identical to those described within the main East Stour LVIA for DS1.

11.122 The CZTV for DS3 suggests that the Stonestreet scheme would potentially also be visible from the point to point course in combination with the East Stour scheme. The majority of the Stonestreet scheme would be screened by a combination of topography and mature vegetation including Backhouse Wood, with the small portion of the proposal located near Goldwell Lane located over 600m to 1km from the course. Given this distance, the low elevation of several parts of the course and the good levels of vegetation intervening to the west along Church Lane, very limited potential visibility of the Stonestreet scheme is anticipated to the southwest. However, this very limited distant visibility in combination with the proximate visibility of the eastern portion of the East Stour proposal would be expected to result in a significant cumulative effect on the visual amenity of visitors to this tourist attraction which occurs once a year.

11.123 The nearest fishing lake to the East Stour site is a private members lake located immediately south of the northern portion of the East Stour proposal and west of the converter station. As part of DS1, no significant effects on the visual amenity of users of the lake were expected. In terms of DS2, the lake is surrounded by mature woodland but is accessed along a track from Church Lane meaning that visitors would drive in the vicinity of the East Stour proposal as well as the permitted Sellindge GSF to access the lake. Once at the fishing lake they would gain no visibility of the East Stour proposal or of the Sellindge GSF. In addition, the Sellindge BESS and Otterpool Park Garden Town will all be entirely screened from view. Therefore, whilst receptors would gain short-lived views of the Sellindge GSF and part of the East Stour proposal on their way to the lake, no visibility of either development would be available during fishing and so no significant effect on the visual amenity of these receptors would occur.

11.124 The CZTV for DS3 suggests that the Stonestreet scheme would potentially be visible from this fishing lake. However, in the same way as for the East Stour proposal, the woodland surrounding the lake would entirely screen the Stonestreet scheme from view, even in winter months. Therefore, as part of DS3, no significant cumulative effects are expected for these visual receptors.

Long Distance Recreational Routes

11.125 There are a few long distance recreational routes within the study area, as shown on **SEI Figure 11.6 Revision A**. As part of DS1 within the

main East Stour LVIA, only two long distance routes are expected to gain visibility of the East Stour proposal (Saxon Shore Way and North Downs Way) and no significant effects on visual amenity were predicted from either route.

11.126 The Saxon Shore Way runs through the south of the East Stour study area and the CZTV for DS2 indicates that for receptors on the majority of this route, no visibility of any of the permitted developments within the likely future baseline would be visible. However, in two locations; the B2067 by Lympne Industrial Estate and Roman Road by Viewpoint 8, the CZTV suggests that both the Sellindge GSF and Otterpool Park Garden Town developments will be visible. Nevertheless, in both cases intervening vegetation would entirely screen the Sellindge GSF from view, even in winter months, with limited parts of the Otterpool Park development expected to be visible from both these sections of the route. As part of DS2, this visibility of Otterpool Park would form the baseline of the view and in the vicinity of Lympne Industrial Estate the East Stour proposal would not be visible at a distance of 3.3km away. However, VP8 illustrates that a very limited section of the East Stour proposal would be visible from the section of the route by Roman Road and would be seen in addition to a limited part of the Otterpool Park development to the northeast. This additional visibility of the East Stour proposal is expected to result in a negligible magnitude of change in the view and a minor+ effect on visual amenity of users of the Saxon Shore Way, which would not be significant.

11.127 The CZTV for DS3 indicates that the Stonestreet scheme may potentially be visible from some sections of the route within the southwest of the study area around Priory Wood and Park Wood, but also in combination with the East Stour proposal around VP8. In reality the Saxon Shore Way travels through the Priory and Park Wood areas at a distance of over 1.2km from the Stonestreet scheme and within mature woodland where no visibility of the proposal is expected. Similarly, at VP8 intervening roadside and field boundary hedgerows are expected to entirely screen the Stonestreet scheme from view. As a result, no significant cumulative effects are expected on the visual amenity of users of the Saxon Shore Way.

11.128 The North Downs Way is a National Trail located just beyond the East Stour study area, although **SEI Figure 11.6 Revision A** indicates that some potential visibility of the East Stour proposal would be available from several sections of this route at distances of over 4.6km away. The CZTV for DS2 indicates that all three of the permitted developments as part of the likely future baseline may potentially be recurrently visible from various sections of this route at distances of over 4.6km away. Viewpoint 9 illustrates the potential visibility of DS2 from one of the closest parts of this route to the East Stour proposal and indicates that whilst the Otterpool Park development will be clearly visible, the Sellindge BESS and Sellindge GSF developments are expected to be screened by intervening vegetation, even in winter months. This is expected to be the case from the majority of the North Downs Way due to their position adjacent to the M20 motorway and its associated mature vegetation. The additional visibility of the East Stour proposal against a baseline of the

Otterpool Park development would result in a negligible magnitude of change and a moderate/ minor effect on the visual amenity of walkers on this part of the route, which would not be significant. Walkers would be likely to walk a section of the route where the visibility of the Otterpool Park development will recurrently be available, and the additional recurrent visibility of the East Stour proposal as part of DS2 is expected to be discernible, but not prominent and no significant effect on the visual amenity of walkers is expected.

11.129 The CZTV for DS3 indicates that the Stonestreet scheme is expected to also be recurrently visible from the North Downs Way, predominantly in combination with the East Stour proposal, and VP9 illustrates this, with both proposals seen within the same section of the view. With the Otterpool Park development visible as part of the baseline landscape, the combined visibility of these two proposals from VP9 is expected to result in a slight/ negligible magnitude of change in the view and a moderate/ minor+ effect on the visual amenity of walkers at this point, which would not be significant. Walkers along sections of this route would recurrently gain visibility of the Otterpool Park development and also visibility of the East Stour and Stonestreet proposals as part of DS3. These two proposals would be discernible at approx. 5km or more away, but would not be prominent elements within the view, and no significant cumulative effect on the visual amenity of walkers is expected.

Local Public Rights of Way

11.130 There is a network of public byways, footpaths and bridleways in the local landscape surrounding each of the permitted and proposed developments. The local landform plays a key role in screening sections of each of the permitted and proposed developments from view from several parts of the study area, and a number of the cumulative viewpoints illustrate this.

11.131 Viewpoints 7, A, B, C and E are all located on the local rights of way network, with the majority located within 1.3km of the East Stour proposal and all potentially gaining visibility of the East Stour proposal according to the DS2 and DS3 CZTVs. However, in reality one or more of the permitted developments as part of the likely future baseline will recurrently be screened from a number of these viewpoints as well as from various parts of the rights of way network due to the combination of the undulating landform and the good levels of mature vegetation within the landscape. In a similar way, one or more of the proposed developments (East Stour and Stonestreet) will also often be screened entirely from parts of the rights of way network by these elements.

11.132 Nevertheless, it is worthwhile noting that development is a recurrent element within views from the local rights of way network at the current time, especially within central parts of the East Stour study area where the M20 motorway, HS1 rail embankment and the Sellindge Converter Station are located. Fieldwork has found that the Sellindge BESS and Sellindge GSF will be visible to a rather limited degree from the rights of way network as additional development within the likely future baseline, where the existing development set out above will tend to enclose views of these two permitted developments except from footpaths very local to the Sellindge

development (as indicated by VPA). Otterpool Park is permitted across some comparatively higher ground and includes development of greater heights (up to 15m) and will inevitably be somewhat more recurrently visible as part of the baseline landscape (as illustrated by VPs 9 and B), although intervening topography and mature vegetation remain effective screening elements in a number of views (eg VPs 7, A, C – D).

11.133 Some sequential cumulative effects are inevitable for visual receptors utilising the rights of way network in the vicinity of the East Stour and Stonestreet schemes. For instance, for those walking footpaths AE432, AE656, AE657 and AE457 these routes all cross through or in very close proximity to both proposals where some significant cumulative effects on the visual amenity of walkers would be expected as part of DS3. However, these are the key routes passing in proximity of both proposals and rights of way users on the majority of other routes through the area would generally not travel within close proximity of either proposal. A few rights of way are located in proximity to or through the East Stour proposal, but are more distant from the Stonestreet scheme (such as AE459) where any significant effects on the visual amenity of walkers would be as a result of the East Stour proposal and not the Stonestreet scheme. Similarly there are a number of rights of way through the Stonestreet site where any significant effects would be as a result of the proximity of the surrounding proposal.

11.134 However, there are a limited number of locations where the visibility of both these schemes could result in a significant cumulative effect on the visual amenity of walkers viewing these proposals within middle distance views, such as VP7 on footpath AE474 which travels between Church Lane and Goldwell Lane. Here the sequential visibility of both proposals from the route as well as the, at times, proximate visibility of the Stonestreet scheme would result in a significant cumulative effect on the visual amenity of walkers.

11.135 Nevertheless, these effects are limited by the good levels of woodland surrounding several parts of the East Stour site and also by the mature vegetation within and to the west of Aldington village around Calleywell Lane. Despite the Stonestreet site extending across a sizeable number of fields to the west of the village and along Roman Road, both VPs D and E illustrate that the East Stour proposal would be entirely screened from view.

11.136 Therefore, whilst some significant cumulative effects on the visual amenity of users of the local rights of way network would occur as a result of the combined visibility of both the East Stour and Stonestreet schemes, these effects would generally be very contained due to the mature woodland blocks surrounding several parts of the East Stour site including Backhouse Wood, Park Wood, Partridge Plantation and Round Wood.

Public Highways

11.137 Given the locations of public highways in relation to the permitted and proposed developments within this assessment, the key potential effects on motorists and their passengers would be expected to arise for those travelling along a series of routes through the study area rather than any one specific route.

11.138 For those using Church Lane between Hythe Road and Roman Road, some partial visibility of the permitted Sellindge GSF will be possible and some extremely limited visibility of the Sellindge BESS would also be possible as part of the likely future baseline for DS2, although the Otterpool Park development is expected to be entirely screened. Beyond the railway underpass on Church Lane the East Stour proposal would then become intermittently and partially visible from the road, where this additional visibility of the East Stour proposal would result in a significant effect on the visual amenity of these road users, at least until mitigation proposals have established and grown. However, as part of DS3, the Stonestreet scheme is not expected to be clearly visible from any part of Church Lane and so no significant cumulative effects as a result of combined visibility of these two proposals is expected.

11.139 In a similar way, users of Station Road, Calleywell Lane, Goldwell Lane and Roman Road would pass in proximity to the Stonestreet scheme, but would not gain clear, consistent or recurrent views of the East Stour proposal meaning that any significant effects on their visual amenity would be as a result of the proximate Stonestreet scheme and not in combination with the East Stour scheme.

11.140 Nevertheless, some motorists may use several of these routes to complete a journey and so the sequential visibility of the two proposals as proximate features in the view from the road may result in a significant cumulative effect on the visual amenity of these motorists, depending on their route. This would only occur for motorists using routes proximate to both the East Stour and Stonestreet schemes.

Passenger Rail Routes

11.141 HS1 and local rail services run centrally through the study area. The permitted developments within this study area all located within proximity of this rail line, with other large scale existing development already located along the route of the rail line, some of which is in the vicinity of the two proposed developments, which are also proposed close to the rail line.

11.142 As part of DS2 the permitted developments will be sequentially visible in proximity to the route. The additional visibility of the East Stour proposal from the route, mainly across Bested Hill to the south is expected to result in a minor+ effect on the visual amenity of rail passengers, which would not be significant.

11.143 As part of DS3 both the East Stour and Stonestreet schemes would be visible to the south of the route between Station Road and Harringe Lane where the combined visibility would result in a moderate/ minor effect on the visual amenity of rail passengers, which would not be significant.

Conclusions

11.144 This assessment has examined the likely effects of the East Stour Solar Farm proposal on the landscape and visual amenity of the site and surrounding area, in consideration of the likely future baseline of permitted developments local to the site as well as in combination with the Stonestreet Green Solar scheme which is a pre application NSIP site.

11.145 In terms of Development Scenario 2, the significant effects of the East Stour proposal would be limited to:

- The character of the landscape within limited parts of the Evegate

Mixed Farmlands LCA and the East Stour Valley LCA.

- The visual amenity of some residents within a few individual residential properties local to the proposal.
- The visual amenity of users of a few sections of public rights of way local to the site (mainly the footpaths through and adjacent to the site itself).
- The visual amenity of users of a limited section of Church Lane immediately adjacent to the site.

11.146 Over time mitigation measures associated with the application would reduce these significant effects further.

11.147 In terms of Development Scenario 3, the significant cumulative effects of the combination of the East Stour and Stonestreet proposals would be limited to:

- The character of the landscape within limited parts of the Evegate Mixed Farmlands LCA, the East Stour Valley LCA, the Aldington Ridgeline LCA and the Upper Stour Valley LCA.
- The visual amenity of some residents within limited parts of Aldington and within a few individual residential properties.
- The visual amenity of users of a few sections of public rights of way local to both proposed sites.
- The visual amenity of users of sections of local roads travelling past both proposals as part of a single journey.

11.148 Due to the limited elevation of solar farm developments combined with the undulating topography of the area and the good levels of mature woodlands, tree belts and hedgerows found local to the two proposals, any significant cumulative effects would be constrained to a limited area surrounding the two sites. As the two sites are located in close proximity to each other, with adjoining site boundaries in places, overall the extent of significant cumulative effects on landscape character and visual amenity would be very contained.

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SEI CHAPTER 12 - ARCHAEOLOGY & CULTURAL HERITAGE

INTRODUCTION

12.1 This document seeks to provide an update regarding potential cumulative impacts on below-ground archaeological remains and built heritage assets with neighbouring schemes. It also seeks to address concerns raised by Historic England within their letter dated 5th September 2022 regarding designated archaeological assets within the wider area, which Historic England suggest have the potential to be impacted by the proposed development.

12.2 There are no strict guidelines for assessing cumulative effects on heritage assets. In terms of direct cumulative effects, due to the physical localised character of sub-surface archaeological remains, construction of 'other developments' will generally not result in cumulative direct impacts on designated or non-designated archaeological assets. The exception to this are archaeological deposits which extend beyond the development site which would be impacted by the removal of contemporary deposits by development in the immediate vicinity. The potential for archaeological deposits to extend substantially beyond the limit of the site and be impacted by 'other developments' is considered to be low, however, there is a limited potential for archaeological remains indicative of Romano-British farming practices to extend into the GSF site. Therefore, cumulative development has the potential to truncate these archaeological features, should they extend to the east.

12.3 The following provides a more detailed discussion of the three neighbouring applications, which have been identified as requiring assessment. The Pivot Power Battery Energy Storage Site (ABC planning reference PA/2022/2544); the Sellindge GSF (ABC planning application PA/2022/2950) and the forthcoming Stonestreet Green Solar application. This is followed by a presentation of the additional setting information requested by Historic England.

The Pivot Power Battery Energy Storage Site (ABC planning reference PA/2022/2544)

12.4 Chapter 12 of the Environmental Statement addressed cumulative effects which may arise from other, nearby proposed schemes. The Pivot Power Battery Energy Storage site was assessed as part of the Environmental Statement, but is included here again for completeness. The Pivot Power Battery Energy Storage site (ABC planning reference PA/2022/2544) falls partially within the site, and was subject to a separate planning application, for which consent was granted in August 2023. The development was subject

to archaeological evaluation and mitigation between 1997 and 2001 (OAU 2001), which resulted in the identification of several fragmentary, locally significant remains, including a Medieval ditch (TR03NE206), a Mesolithic to Bronze Age flint scatter (TR03NE59), four Bronze Age ditches, which may have been part of a field system (TR03NE60) and a late Iron Age/early Roman field system (TR03NE205). As this area has been fully evaluated and mitigated no impacts to archaeology are anticipated to result from the forthcoming development. As such, no cumulative impacts are anticipated.

12.5 An Historic Environment Desk based Assessment (HEDBA) was produced by SLR in 2022 to support The Pivot Power Battery Energy Storage application (ABC planning reference PA/2022/2544). The report noted one designated built heritage asset within the vicinity of the site which had the potential to be impacted by the proposals, namely the Grade II* listed Evegate Manor which is located c. 1.2km east of the site. However, the SLR HEDBA noted that

"Due to the distance between the asset and the Site, as well as the intervening vegetation, which includes substantive woodland coverage, there is no intervisibility between the asset and the Site. Likewise, there are no material non-visual (historical) associations between the two, and the Site is not considered to form part of the asset's setting overall."

12.6 The SLR HEDBA concluded that the

"proposals would result in no harm to the significance of Grade II Listed Evegate Manor. Neither would the proposals diminish the ability to appreciate the asset's significance. The key contributing heritage interests and aspects of setting to the significance of the asset would be preserved."*

12.7 The Pivot Power Battery Energy Storage site (ABC planning reference PA/2022/2544) falls partially within the northern area of the application site which was separately assessed by Orion Heritage (HEDBA, 2023) for potential impacts on built heritage assets within the vicinity. The report noted several designated heritage assets within the 1km study area with the Grade II* listed Evegate Manor (NHLE 1362798) being the most proximate to the northern area of the site. The assessment concluded however that,

"Due to topography and distance, only the top of the chimneystacks of Evegate Manor can be glimpsed from the northern area's western boundary within the study site. Due to vegetation and topography, there are no views of the study site's northern area from the house. The study site in its current state is considered to make a neutral contribution to the setting of Evegate Manor, with no material contribution to the significance of the asset" and that the proposals will not harm the significance of Evegate Manor."

12.8 Following the above evaluation of the two sites, no impacts to built heritage are anticipated. As such, no cumulative impacts are anticipated.

Sellindge Grid Stability Facility GSF) (ABC Planning Reference PA/2022/2950)

12.9 To the immediate north of the aforementioned Pivot Power Battery Energy Storage development (ABC planning reference PA/2022/2544) a GSF (also referred to within that application as a synchronous

condenser plant with ancillary infrastructure, access, landscaping and other incidental works) (ABS planning reference PA/2022/2950) is proposed. The application was approved with conditions in August 2023. Condition 20 relates to archaeology and states that

'Prior to the commencement of development, the applicant, or their agents or successors in title, will secure: i) archaeological field evaluation works in accordance with a specification and written timetable which has been submitted to and approved by the Local Planning Authority; and ii) further archaeological investigation, recording and reporting, determined by the results of the evaluation, in accordance with a specification and timetable which has been submitted to and approved by the Local Planning Authority; iii) programme of post-excavation assessment and publication'. Reason: to ensure that features of archaeological interest are properly examined, recorded, reported and disseminated.

12.10 A geophysical survey was carried out within the application site, Land south of M20, Church Lane, Aldington, Kent (ABC planning reference 22/00668/AS) in November 2021 (Magnitude Surveys). This recorded no anomalies of probable or possible archaeological origin within the surveyed area located closest to the condenser plant site. A pre-determination archaeological trial trenching evaluation was carried out at the application site February and March 2023. The trenches closest to the proposed condenser plant site (PA/2022/2950) were located c.185m west of it and contained no archaeological finds or features. Based on the results of the geophysical survey and trial trenching evaluation it is considered unlikely that contemporary archaeological deposits of significance would extend across both the application site and the condenser site. However, as mentioned above, there is a limited potential for archaeological remains which are indicative of possibly Romano-British farming practices to extend into the synchronous condenser plant site. During the archaeological evaluation of the application site, ditches, which were tentatively dated to the Romano-British period, were recorded in trenches located c.330m – 490m west of the GSF site. These were interpreted as probable field boundaries and, in the absence of datable finds, were tentatively placed in the Romano-British period, based on proximity and shared alignment with features of this date. Therefore, cumulative development has the potential to truncate these archaeological features, should they extend to the east, into the GSF site. The existing archaeological condition attached to the planning consent for the GSF site (PA/2022/2950) will ensure that any remains within the site will be adequately evaluated and mitigated.

12.11 The GSF (ABC planning reference PA/2022/2950) application was supported by a Landscape and Visual Appraisal which was produced by SWECO UK Ltd in 2022. With regards to potential impacts on built heritage assets located in the vicinity of the site it noted that

"Smeeth Conservation Area is within 1km of the site but there is limited opportunity for the proposed development to be viewed from locations with the Conservation Area due to intervening topography and vegetation. Where glimpsed views are theoretically possible the proposed development would be viewed within the context of the existing electrical

infrastructure. Due to the distance and intervening topography and vegetation between the Aldington Conservation Areas there is limited opportunity for the proposed development to be seen from locations within these Conservation Areas. Where it would be possible for the proposed development to be seen it would always be seen within the context of the existing electrical infrastructure."

12.12 Potential cumulative impacts of the GSF and the application site relate to the Grade II* listed Evegate Manor (NHLE 1362798) and potentially the Aldington Conservation Areas located at some distance to the south. In both cases however, and confirmed by a site visit in September 2023, due to the local topography and intervening natural screening, only the top of the chimneystacks of Evegate Manor can be glimpsed from the northern part of the application site and the condenser plant site though there are no return views of the application site or the GSF from Evegate Manor. There is also very limited to no visual connection at ground level to either of the Aldington Conservation Areas from the condenser plant site or northern area of the application site. There is however a visual connection to Aldington – Church Area Conservation Area from the southern part of the application site centred at Bested Hill. As such, the GSF is not considered to harm the significance of Evegate Manor or special character and appearance of the Aldington Conservation Areas. Due to the visual connection between the southern part of the application site and Aldington – Church Area Conservation Area, the assessment by Orion Heritage (HEDBA, 2023) concludes a low level of less than substantial harm will be generated by development within the application site. Following the above evaluation, no cumulative impacts to built heritage are anticipated.

Stonestreet Green Solar project

12.13 The Stonestreet Green Solar project is currently at pre-application stage. This Nationally Significant Infrastructure Project (NSIP) extends over a large area to the west and south-west of the current Land south of the M20, Church Lane, Aldington, Kent application. The preferred cable route for the Stone Street project is proposed immediately south of the railway, along the northern boundary of the Bested Hill field comprising part of the application site. Solar areas 27 and 29 of the Stonestreet Green Solar project are located west/north-west of the Bested Hill solar area comprising part of the application site, however, a series of landscape and ecological enhancement works are proposed between the application site and the Stonestreet Green site. A recent geophysical survey (Magnitude Surveys, January 2023) of the Stonestreet Green Solar project area, particularly survey areas W, R and S, which are located closest to the application site, recorded no anomalies of archaeological interest in those areas.

12.14 Additionally, the aforementioned geophysical survey (Magnitude Surveys, 2021) of the application site recorded no anomalies of archaeological interest immediately adjacent to the Stonestreet Green Solar project area. Possible archaeology was recorded within the application site in a location c.65m east of the Stonestreet Green Solar project area boundary, however, subsequent trial trenches targeting the possible archaeological features proved their absence. During the archaeological trial trenching

evaluation at the application site trenches 38, 39, 41, 42, 53 and 54 were located along the northern and western boundary of the Bested Hill field, closest to the areas proposed for solar panels under the Stonestreet Green Solar project. Trenches 38, 42, 53 and 54 were shown to be blank. Trench 39 contained a pit, which was recorded as truncating the natural deposits. Its fill was rich in charcoal and fired clay, but no datable finds were recovered. This feature was tentatively dated to the Romano-British period. Two layers of colluvium, both assigned to the Romano-British period, were recorded in trench 41. These fragmentary archaeological remains are considered to be of local significance.

12.15 Both the current and Stonestreet Green applications fall within the Stour Basin Palaeolithic Project, a Palaeolithic study funded by English Heritage and published by Kent County Council, Heritage Conservation, in 2015. The project produced a broad predictive model that identified and characterised areas of Palaeolithic potential. The eastern/south-eastern part of the application site's northern area lies in character area 36, for which a moderate palaeolithic potential was established. Part of the northern parcels of the Stonestreet Green Solar project area also fall within character area 36. The remainder of the application site lies in character area 38, for which a low palaeolithic potential was established. No significant remains of this period have been flagged by recent intrusive and non-intrusive investigations. Additionally, given the limited physical impact to the underlying quaternary deposits by the proposed solar scheme, it is considered that the evidential value of these and the aforementioned colluvial deposits will remain unchanged by the proposed development. As such, no cumulative impacts are anticipated.

12.16 On the basis of the archaeological baseline from the application site and the neighbouring Stonestreet Green Solar project area, cumulative impacts on significant, contemporary, below ground archaeological remains are not anticipated. Should further intrusive archaeological investigations within the Stonestreet Green Solar project area reveal the presence of archaeological remains, these will be adequately evaluated and mitigated as the site moves through the planning process, or alternatively, they may be preserved in situ. As such, no cumulative impacts are anticipated.

12.17 The proposed Stonestreet Green Solar project is located to the west and south-west of the application site, with the vast majority of the site positioned within the landscape to the south of the railway line and Sellindge Substation. The proposed Stonestreet Green Solar project shares very limited to no visual connection with those heritage assets to the north, namely the Grade II* listed Evegate Manor (NHLE 1362798) and Smeeth Conservation Area. This is through a combination of the local topography, intervening natural screening and physical severance created by the railway line and M20. Based on a site visit and the available documentation relating to the proposed Stonestreet Green Solar project, it is not anticipated that it and the application site will harm the significance of Evegate Manor or the special character and appearance of Smeeth Conservation Area. As such, no cumulative impacts on these assets are anticipated.

12.18 As noted by Orion Heritage (HEDBA, 2023), development in Area 5, which is centred on Bested Hill in the

application site, is likely to generate a low level of less than substantial harm to the significance of the Grade I listed Church of St Martin and the Grade II* listed Court Lodge Farmhouse, which in turn impacts on the significance of the Aldington – Church Area Conservation Area. In its current state, Area 5 of the application site is considered to positively contribute to the significance and wider setting of these designated assets through provision of an historic rural context. Based on the site visit, Solar Areas 20, 21 and 22 of the Stonestreet Green Solar project are likely to be visible in views from the Church of St Martin out to the wider landscape and potentially in some views southwards from footpath AE457 within the application site. On this basis, it is possible that a level of cumulative impact will be generated through a combination of the two development schemes. A detailed assessment of any potential cumulative impacts is currently not possible, as the final design and proposed viewpoint visualisations for the Stonestreet Green Solar project are not yet available.

Additional setting information for the scheduled monument 'barrow cemetery to the south-west of Barrowhill, NHLE 1475132', located c.1.4km east of the application site's eastern-most field.

12.19 In response to the Historic England letter dated 5th September 2022, a package of further information has been produced. This includes an extension to Viewpoint 7 from the Landscape and Visual Impact Assessment (LVIA) covering the view northeast and east towards Aldington village and the Church of St Martin (**SEI Volume 4** Viewpoint 7: Footpath AE474 west of Aldington (left and right)). In addition, a series of additional viewpoints have been produced (**SEI Volume 4** Viewpoints A – D) and further details on each are set out below.

12.20 Viewpoint A: Western edge of barrow on Barrowhill (NHLE 1475132). The wireline and photomontage illustrate that the existing operational Sellindge Solar Farm, M20 motorway, converter station, high speed rail link and numerous electricity pylons are all currently visible in this section of the view. Extremely limited sections of the proposed development would be discernible in good and clear weather conditions in association with these existing features of the view, where it is considered that the proposed development would not be prominent or dominant within the context of the existing view.

12.21 Viewpoint B: Centre of barrow on Barrowhill (NHLE 1475132). The wireline and photomontage illustrate that the proposed development would be entirely screened from view from this location due to the screening effects of intervening mature vegetation and built form, even in winter months. Fieldwork found that the proposed development would only be visible from a very limited section of the barrows on Barrowhill in the vicinity of Viewpoint A due to the combined screening afforded by local topography, intervening vegetation and built form.

12.22 Viewpoint C: Footpath 0005/AE478/1 to the east of Church of St Martin, Aldington. The wireline and photomontage illustrate that the proposed development would be

almost entirely screened from view from this location due to the screening effects of intervening mature vegetation and built form, even in winter months. Fieldwork indicated that this would be the case from the majority of the field to the east of the church. LVIA Viewpoint 6 (Footpath AE477 near Grove Cottage, Aldington) which is located within the same field, on a public footpath, illustrates the most open views north towards the proposed development from this field, although the church is not openly visible from this location due to the screening effects of localised topography within the field.

12.23 Viewpoint D: Roman Road looking east to Church of St Martin, Aldington. The wireline illustrates a typical view of the Church of St Martin from Roman Road, consistently seen in association with a number of intervening pylons. The roadside vegetation on the north side of the road regularly and recurrently entirely screens any potential views north towards the proposed development, even in winter months.

12.24 Based on available evidence, it is considered that the extremely limited sections of the proposed development which would be discernible in good and clear weather conditions in association with the existing, operational Sellindge Solar Farm, the M20 motorway, the converter station, the high speed rail link and numerous electricity pylons from Viewpoint A would not be prominent or dominant within the context of the existing view and would therefore have an impact of no harm on the setting of the asset.

12.25 Based on the available evidence in the form of heritage statements and landscape and visual appraisal reports, as well as a site visit, it is considered that no cumulative impacts on the setting of the scheduled barrow cemetery to the south-west of Barrowhill (NHLE 1475132) would arise from the proposals within the application site in conjunction with the Pivot Power Battery Energy Storage site (ABC planning reference PA/2022/2544) and the synchronous condenser plant with ancillary infrastructure, access, landscaping and other incidental works (ABC planning reference PA/2022/2950).

12.26 The application site was identified for the assessment of likely significant cumulative effects on the environment for the purpose of a Preliminary Environmental Information Report ('PEIR') for the Stonestreet Green Solar project. The PEIR concluded that no cumulative effects were identified for cultural heritage receptors, however, an updated and final assessment will be carried out for the full Environmental Statement for the Stonestreet Green Solar project. Based on currently available evidence cumulative impacts on the scheduled barrow cemetery to the south-west of Barrowhill (NHLE 1475132) are not anticipated.

CONCLUSIONS

12.27 This assessment has provided an update to the cumulative assessment forming part of the Environmental Statement.

12.28 The trenching evaluation (**SEI Appendix 12.1**) comprised 117 trenches, 43 of which contained archaeology dating from the prehistoric to the modern day. While features which can be securely dated range from the Neolithic to the modern day, the lithics assemblage shows that there was activity across the site dating back to the Mesolithic period. The activity dated to between the Neolithic

and Late Bronze Age periods seems to have been concentrated in the southern part of the site. The Late Iron Age to Early Romano-British activity seems to have been focused in the central and south-eastern part of the site. Romano-British evidence was present in the northern and central parts of the site, whilst colluvial deposits of Romano-British date were present in the south-eastern part of the site. Post-medieval remains were present in the north. Based on the available evidence, the assemblage is considered to be of local significance. The detailed scope of mitigation (non-invasive foundations or detailed investigation prior to construction or watching brief during construction) will be agreed with the LPA's archaeological advisor prior to commencement of construction, and controlled by planning condition.

12.29 No cumulative impacts to below-ground archaeological remains and built heritage have been identified for the application site and the Pivot Power Battery Energy Storage site.

12.30 Regarding the Sellindge GSF a potential for cumulative impacts on potential below-ground archaeological remains has been identified. However, the existing archaeological condition attached to the planning consent for the GSF will ensure that any remains within the site will be adequately evaluated and mitigated. No cumulative impacts to built heritage are anticipated.

12.31 With regards to the Stonestreet Green Solar project no cumulative impacts to below-ground archaeological remains are anticipated. This assessment has found that it is possible that a level of cumulative impacts to the Grade I listed Church of St Martin, the Grade II* listed Court Lodge Farmhouse, and as a result to the Aldington Church Area Conservation Area, may arise through a combination of the two development schemes. A detailed assessment of any potential cumulative impacts is currently not possible, as the final design and proposed viewpoint visualisations for the Stonestreet Green Solar project are not yet available.

12.32 An extension to one of the existing viewpoints, as well as a series of additional viewpoints have been produced to support the assessment of potential setting impacts on the scheduled monument 'barrow cemetery to the south-west of Barrowhill, NHLE 1475132'. Based on the available evidence it was concluded that the extremely limited sections of the proposed development which would be discernible from Viewpoint A would not be prominent or dominant within the context of the existing view and would therefore have an impact of no harm on the setting of the asset. No cumulative impacts on the setting of the asset would arise from the proposals within the application site in conjunction with the Pivot Power Battery Energy Storage site and the synchronous condenser plant site. Based on the current knowledge cumulative impacts from the development of the application site and the Stonestreet Green Solar site on the asset's setting are not anticipated, however, an updated and final assessment will be carried out for the full Environmental Statement for the Stonestreet Green Solar project.

SEI CHAPTER 13 - NOISE

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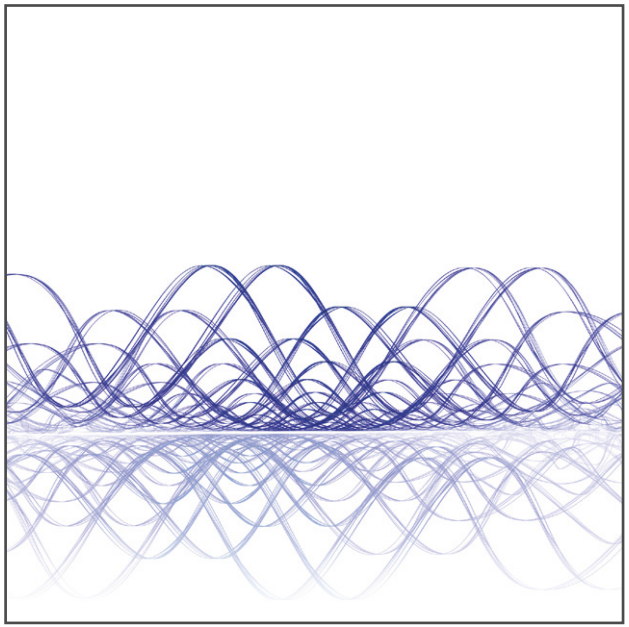

INTRODUCTION

13.1 This note sets out an assessment of potential cumulative noise levels from various energy schemes close to EDF's proposed East Stour Solar Farm development in Kent.

13.2 The following nearby schemes have been identified and reviewed:

- Sellindge Grid Stability Site, Kent (PA/2022/2950) Consented;
- Sellindge Battery Storage Facility (PA/2022/2544) Consented; and
- Stonestreet Green Solar Farm (EN010135) pre-application NSIP.

13.3 Both Sellindge sites are between the railway and motorway and generally to the north of the proposed East Stour Solar Farm.

13.4 The proposed Stonestreet Green Solar Farm is at the scoping stage. The proposed development is a Development Consent Order (DCO) scheme and is immediately to the west and south of the proposed East Stour site. Noise information has been taken from the PEIR report.

BASELINE NOISE LEVELS

13.5 A noise survey was not carried out for the East Stour assessment, as it was considered that predicted noise levels were sufficiently low to ensure no impact on amenity, irrespective of the background noise. However, noise surveys have been carried out for the two Sellindge schemes and for the Stonestreet Solar proposal and therefore the predicted cumulative noise levels can be assessed against the measured background noise. These are set out below for the relevant receptors. Note that the data is stated in terms of the assumed background noise levels at the relevant receptors in the respective assessments. These were not always directly measured at these locations.

Table 13.1 - *Background Noise Values (L_{A90}) Used in the Assessments*

Location	Sellindge Bess (SLR)		Sellindge Bess (SLR)		Sellindge Bess (SLR)	
	Daytime L_{A90} dB	Night-time L_{A90} dB	Daytime L_{A90} dB	Night-time L_{A90} dB	Daytime L_{A90}	Night-time L_{A90} dB
Partridge Farm	39.8	40.4				
Bested House	39.8	40.4	36	31		
Water Farm	53.2	41.7	52	40		
Willow Cottage					38	34
Hogben Farm	34.2	29.0			32	24 (Light)
Parkwood Cottage					39	30 (Light)

13.6 The survey for the Sellindge BESS scheme assumed Bested House would have similar noise levels to Partridge Farm and therefore the same values are given. This is considered reasonable as it is a similar distance from the motorway. For SLR's BESS survey, noise monitoring took place over several days and the lowest daytime and night-time value was used in the assessment. This appears to have resulted in a low daytime value for Partridge Farm / Bested House, which is lower than the night values.

13.7 SLR have provided the raw noise survey data for our own review. The results of the monitoring at Bested House / Partridge Farm are presented in **Plate 13.1** below.

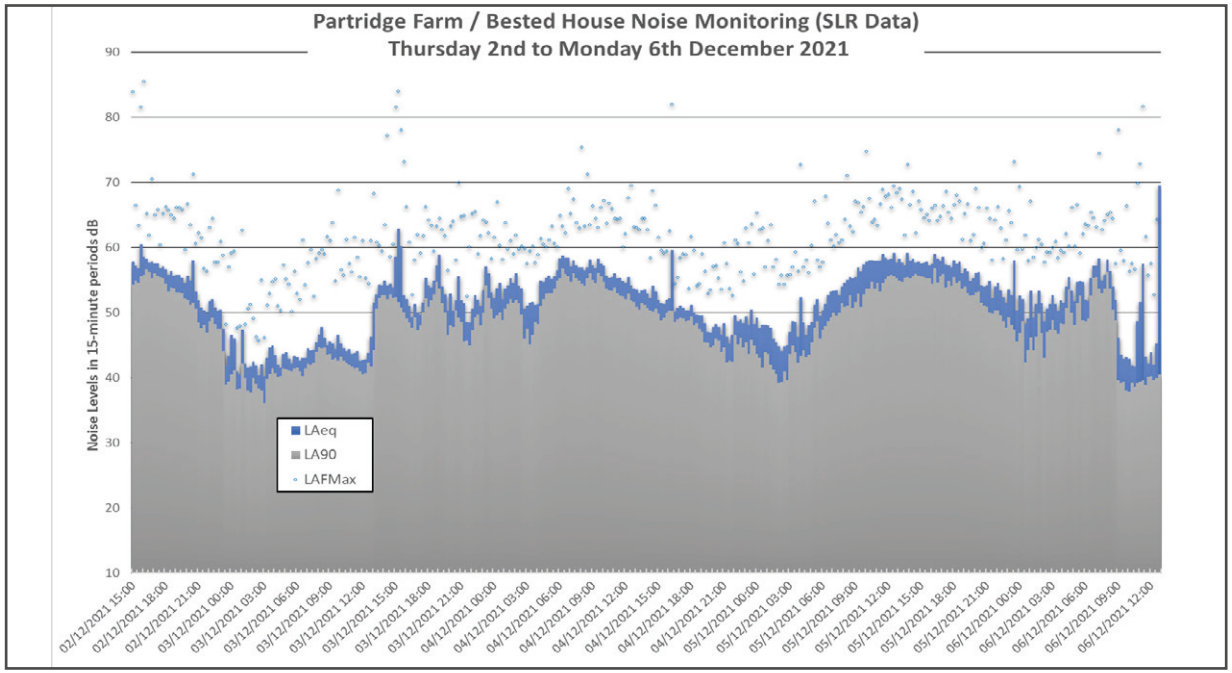

Plate 13.1 - *Noise Monitoring Data for Partridge Farm / Bested House*

13.8 It can be seen that background noise levels are only rarely as low as 40 dB L_{A90}. It is thought these periods probably occur during periods of queuing traffic or roadworks etc.

13.9 The SWECO noise survey for the Grid Stability project did not make long-term measurements at the residential locations but instead they measured on the application site and then corrected the data on the basis of short-term measurements. This seems to have resulted in lower values than those measured by SLR, particularly at night at Bested House. Having reviewed the SLR data, the Sweco data seems unrealistically low for Bested House.

13.10 Wardell Armstrong carried out 24-hour measurements at position Willow Cottage (which was used in their assessment for the receptor Woodleas). They also carried out short-term measurements at positions near Hogben Farm and Parkwood Cottage. Their result for Hogben Farm is lower than SLR, possibly because of the limited sample size and because the actual noise monitoring location (near Forehead Farm) is further from the motorway

13.11 For this assessment, notwithstanding the low daytime value at Partridge Farm and Bested House, the SLR values are preferred as they are the results of several days' monitoring and because the data has been reviewed by ourselves. The Wardell Armstrong data can be used for Parkwood Cottage and for Woodleas.

13.12 It is worth reiterating that East Stour is a proposed Solar Farm that will typically only operate during daylight hours. During the summer months this could include a period from 4am to 7am traditionally associated with the night period. However, this early morning period during late spring and early summer often features an increase in noise from the dawn chorus. In any case, motorway noise levels will be

higher at this time than the quietest time of the night under normal conditions.

13.13 To account for the variation in daylight, Wardell Armstrong split the 24-hour data into daytime light and dark hours and nighttime light and dark hours. The night-time "light" period is stated above. The Stonestreet Green Solar Farm was assessed against all four limits derived in this way in the PEIR report.

CUMULATIVE ASSESSMENT

13.14 The most straightforward cumulative assessment can be carried out by adding predicted noise levels at the receptors common to the schemes. There were four receptors assessed in the Sellindge BESS report which are common to the proposed East Stour scheme: Partridge Farm, Bested House, Water Farm, and Hogben Farm. There are three receptors in the Stonestreet Green report which are common to the East Stour scheme: Hogben Farm, Parkwood Cottage and Woodleas. The common receptors are those most likely to be relevant to any cumulative assessment.

13.15 Note however there are some differences in receptor heights used for the predictions as follows:

- East Stour - 1.5m Height
- Sellindge BESS - 1.5m and 4m Height
- Sellindge Grid Stability Site - 4.5m Height
- Stonestreet Solar - 1.5m (for daytime) 4m for night-time

13.16 For consistency, the East Stour results have been re-calculated for 4m height to allow a comparison with the receptors near the two Sellindge schemes. This has resulted in a small increase in noise compared to those reported in the ES. In addition to the differences in the height there are likely to be other differences in regard to the actual receptor positions. However, receptor co-ordinates are not identified in the other reports. For the Stonestreet Solar scheme cumulative noise levels are calculated with data at 4m height.

13.17 For mathematical correctness, the predictions are in the first instance carried out in terms of the predicted specific noise levels (dB L_{Aeq}). This is required because all three schemes included a character penalty but these were not the same. A correction of +2dB was made for East Stour and the BESS site. The Grid Stability Site used a +3dB correction.

13.18 Cumulative Noise Levels for East Stour with the two Sellindge schemes and Stonestreet Solar are set out in Table 13.2 below.

Table 13.2 - *Cumulative Assessment – Predicted L_{Aeq} Values at 4m Height*

Location	East Stour dB	Sellindge BESS* dB	Grid Stability dB	Stonestreet Solar	Cumulative dB
Partridge Farm	18.2	15.7	--	--	20.1
Bested House	32.0	31.6	29	--	35.8
Water Farm	28.0	33.9	35	--	38.0
Willow Cottage	21.4	21.9		23	26.9
Hogben Farm	14.6	--	--	31	31.1
Parkwood Cottage	19.o	--	--	29	29.4
* Results given for 4.5m height					

13.19 The cumulative assessment assumes all equipment is operating at full power and assumes downwind propagation. This is therefore a conservative assessment as the receptors cannot be downwind of all of the sources at the same time.

13.20 Only at Bested House and Water Farm is there predicted to be a potential cumulative effect as noise levels at the other receptors considered are very low. At Water Farm, combined noise levels from the two Sellindge Projects are much higher than the predicted noise levels from the East Stour scheme, and hence the East Stour scheme is not significant in respect of the cumulative noise levels.

13.21 There is however predicted to be a cumulative increase in noise at Bested House from East Stour Solar Farm and the two Sellindge schemes.

13.22 Noise levels at Parkwood Cottage and at Woodleas are dominated by the Stonestreet Solar scheme and noise from East Stour is at least 10dB below. This indicates that there is no cumulative effect, and the same conclusion is stated in the Stonestreet Green PEIR report.

13.23 To assess cumulative noise levels in accordance with BS 4142, a character correction must be added and then the result compared to the noise limits derived from a noise survey. The Sellindge Grid Stability site and the Stonestreet Solar project used a +3dB character correction so this is used below to provide a conservative assessment. The rating levels are set out below and compared with the night-time background level assuming a cumulative noise limit can be set at parity with the typical background. This will ensure a low impact according to BS 4142 (subject to context). A margin of compliance is given with a positive number indicating compliance with the limit.

Table 13.3 - *BS 4142 Assessment*

Location	Cumulative Noise Levels dB LAEQ	Rating Level Correction (+3dB)	Night-time Limit dB LAr	Margin of Compliance dB
Partridge Farm	20.1	23	40	17
Bested House	35.8	39	40	1
Water Farm	38.0	41	42	1
Willow Cottage	24.7	28	29	1
Hogben Farm	31.1	34.1	34	0
Parkwood Cottage	29	32	30*	-2
* Assessment applies to the night-time light hours background stated in the Green PEIR report				

13.24 The results indicate that cumulative noise levels can comply with the proposed daytime and night-time noise limits except for the location Parkwood Cottage which is marginal above the night-time limit.

13.25 However, any impact is entirely due to the Stonestreet Green scheme. There is no cumulative impact at this location, as noise from the East Stour scheme is predicted to be 10dB below the noise level from Stonestreet Green. Furthermore, this location would comply with the limit proposed in the Stonestreet Green PEIR report which was set at the background noise + 5dB, ie 35 dB L_{Ar} for Parkwood Cottage. In addition, cumulative noise levels at this location would also comply with the absolute limit set in the East Stour report, (32 dB L_{Ar}) which was set at 10dB below WHO sleep disturbance criteria.

CONCLUSION

13.26 A cumulative assessment has been carried out for the proposed and consented schemes neighbouring the East Stour development. There is a potential cumulative increase in noise at Bested House, but cumulative noise levels are predicted to be below the background noise measured by SLR. The SLR data has been reviewed by Ion Acoustics to confirm its validity for this assessment. Since cumulative noise levels are below the background noise, a low impact, subject to context, is predicted according to BS 4142.

13.27 In terms of the Government planning guidance, cumulative noise levels have the potential to be “present but not intrusive” and this would be within the no observed adverse effect level (NOAEL). Therefore, no mitigation is required.

SEI CHAPTER 14 - GLINT AND GLARE

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INTRODUCTION

14.1 Neo Environmental Ltd has been appointed by Engena on behalf of EDF Energy Renewables Ltd, to undertake a Glint and Glare Cumulative Assessment Addendum for a proposed solar farm development (the "Proposed Development") within a series of agricultural fields to the southeast of Ashford, west of Sellindge and northeast of Aldington, near the M20 motorway (the "Application Site").

14.2 This addendum report is in relation to the Glint and Glare Assessment submitted with a planning application (Planning Reference: 22/00668/AS) in May 2022 to Ashford Council. The purpose of this addendum is to consider the potential cumulative impacts upon some developments within the vicinity of the Proposed Development. This addendum should be read in conjunction with the previously submitted Glint and Glare Assessment (ES Chapter 14).

Scope of Report

14.3 This addendum will concentrate on the cumulative effects of glint and glare and its impact on one planning application for the Sellindge GSF (Planning Ref: PA/2022/2950) and a solar pre-application NSIP (PINS: EN010135).

14.4 This addendum will concentrate on the potential cumulative effects of glint and glare and its impact on local receptors and will be supported with **SEI Volume 3 Figure 1.1 Cumulative Developments**.

Statement of Authority

14.5 This Glint and Glare Assessment Addendum has been produced by Tom Saddington and Michael McGhee of Neo Environmental.

14.6 Having completed a civil engineering degree in 2012, Michael has produced Glint and Glare assessments for over 2GW of solar farm developments across the UK and Ireland.

14.7 Tom has an undergraduate degree in Bioengineering and graduated with an MSc in Environmental and Energy Engineering in January 2020. He has been working on various technical assessments including glint and glare reports for numerous solar farms in Ireland and the UK.

CUMULATIVE ASSESSMENT

14.8 Within the originally submitted Glint and Glare Assessment, a cumulative assessment was undertaken to take into consideration the nearby solar farm (Planning Ref: 14/00398/AS) and a Battery and Energy Storage System (BESS) (Planning Ref: PA/2022/2544). The following was detailed within the Glint and Glare Assessment:

"The Proposed Development is adjacent to an existing solar farm which adjoins the Proposed Development to the north of the East Array (see Figure 14.5: Appendix 14A). Impacts are currently Low impacts upon Residential Receptors 19 and 20 and Rail Receptors 4, 9 – 15. However, upon review of the actual visibility of the existing solar farm development, it has been concluded that this will not be visible from Residential Receptor 20 and Rail Receptors 4, 9 - 15. Regarding Residential Receptor 19, as noted in the Ashford Council Report of Development Control Managers Planning Committee , Glint and Glare impacts upon Bested House from the existing solar farm would not result in harm to residential amenity. Therefore, it is anticipated that there will not be any cumulative effects on ground-based receptors as a result of the construction of the Proposed Development.

Impacts are currently Low upon Runway 23 at Pent Farm. These impacts will remain Low when taking into account the existing solar farm development as the glint and glare impacts only occur from the North Array (See Figure 14.5: Appendix 14A), and not the arrays that are adjacent to the existing solar farm. Therefore, it is anticipated that there will not be any cumulative effects on aviation receptors as a result of the construction of the Proposed Development.

Within the Application Site boundary there will be a Battery and Energy Storage System (BESS) planning application submitted by Pivot Power (Part of EDF). This future BESS application will not add any additional Glint and Glare impacts as there will not be any additional panels as a result of this future BESS application. Therefore, it is anticipated that there will not be any cumulative effects on receptor as a result of the construction of the Proposed Development. "

14.9 Therefore, cumulative impacts regarding the aforementioned solar farm and BESS will not occur.

14.10 This SEI will now take into account any potential cumulative impacts from the GSF (Planning Ref: PA/2022/2950) and pre-application solar farm NSIP (PINS: EN010135).

14.11 With regards to the GSF, there are no solar panels proposed as part of the facility. Therefore, as there will be no additional panels located within the vicinity as a result of these developments, it is anticipated that there will not be any cumulative effects on nearby receptors as a result of the construction of the Proposed Development.

14.12 With regards to the proposed NSIP solar farm, the solar panel boundary appears to currently be proposed to come up to the western boundary of the central array within the Proposed Development (**Figure 14.1**). Impacts are currently Low impacts upon Residential Receptors 19 and 20 and Rail Receptors 4, 9 – 15. However, due to the topography of the land within the central array of the Proposed Development, views of the NSIP solar farm will not be visible from Residential Receptors 19 and 20 or Rail Receptors 9 – 15. Furthermore, there is a significant treeline/vegetation between Rail Receptor 4 and the NSIP solar farm. So, views of Rail Receptor 4 into the NSIP solar farm will be screened. Therefore, it is anticipated that there will not be any cumulative effects with the NSIP solar farm on ground-based receptors as a result of the construction of the Proposed Development.

14.13 With regards to aviation cumulative effects, Impacts are currently Low

upon Runway 23 at Pent Farm. These impacts will remain Low when taking into account the NSIP solar farm development as the glint and glare impacts only occur from the northern array within the Proposed Development and not the arrays that are adjacent to the NSIP solar farm. Therefore, it is anticipated that there will not be any cumulative effects on aviation receptors as a result of the construction of the Proposed Development.

14.14 Overall, it is anticipated that there will not be any cumulative effects on ground and aviation receptors as a result of the construction of the Proposed Development.

SUMMARY

14.15 There is little guidance or policy available in the UK at present in relation to the assessment of glint and glare from proposed solar farm developments. However, it is recognised as a potential impact which needs to be considered for a proposed development.

14.16 A cumulative assessment was undertaken as part of the original Glint and Glare Assessment submitted; however it has been requested that a further three sites be considered as part of the cumulative assessment (Planning Ref: PA/2022/2950 & PA/2022/2544, PINS: EN010135).

14.17 Due to the type of development, local topography and screening, it is anticipated that there will not be any cumulative effects on local ground and aviation receptors as a result of construction of the Proposed Development.

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SEI CHAPTER 15 - AVOIDANCE AND MITIGATION

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SUPPLEMENTARY AVOIDANCE AND MITIGATION SUMMARY TABLE

15.1 The following tables provides a summary of the additional measures to avoid or mitigate cumulative effects identified within this SEI or measures proposed to address points raised by consultees during the formal planning consultation process following submission of the application. The measures summarised are in addition to those already identified with the corresponding ES Chapter 15.

15.2 For each environmental assessment undertaken within the EIA there is a summary of any:

- additional SEI avoidance measures (**Table 15.1 on page 156**);
- additional SEI mitigation measures (**Table 15.2 on page 158**); and

15.3 There are no additional enhancement measures proposed in this SEI.

15.4 **Chapter 16** goes on to summarise any additional residual effects of the development associated with the content of this SEI.

Table 15.1 - *Proposed Avoidance Measures Additional to those Identified in the ES*

SEI Chapter	Paragraph Reference	Potential Impact	Additional Avoidance Measure	Paragraph Reference
Chapter 1 - Introduction	N/A			
Chapter 2 - Development Rationale	N/A			
Chapter 3 - Site Selection and Design	-	-	None.	-
Chapter 4 - Existing Conditions	N/A			
Chapter 5 - Environmental Impact Assessment	N/A			
Chapter 6 - Development Proposal	6.2	Overlapping of Application Boundary with the Pivot Power BESS.	The East Stour application plan red line boundary has been adjusted to avoid battery, transformer and inverter areas.	6.2
Chapter 7 - Construction, Operation and Decommissioning	-	-	None.	-
Chapter 8 - Traffic and Access	8.11	Cumulative disruption to local road users.	Each of the three projects on Church Lane have stated the only permitted construction traffic access route will be from and to the north of Church Lane off of and on to the A20.	8.11
Chapter 9 - Geology, Hydrology and Hydrogeology	-	-	None.	-

SEI Chapter	Paragraph Reference	Potential Impact	Additional Avoidance Measure	Paragraph Reference
Chapter 10 - Ecology	-	-	None.	-
Chapter 11 - LVIA	-	-	None.	-
Chapter 12 - Archaeology and Cultural Heritage	12.28	Unknown buried archaeology	Non-invasive foundations.	12.28
Chapter 13 - Noise	-	-	None	-
Chapter 14 - Glint & Glare	-	-	None	-

Table 15.2 - *Proposed Mitigation Measures Additional to those Identified in the ES*

SEI Chapter	SEI Paragraph Reference	Potential Impact	Additional Mitigation Measure	SEI Paragraph Reference
Chapter 1 - Introduction	N/A			
Chapter 2 - Development Rationale	N/A			
Chapter 3 - Site Selection and Design	-	-	None.	-
Chapter 4 - Existing Conditions	N/A			
Chapter 5 - Environmental Impact Assessment	N/A			
Chapter 6 - Development Proposal	-	-	None.	-
Chapter 7 - Construction, Operation and Decommissioning	-	-	None.	-
Chapter 8 - Traffic and Access	8.10	Cumulative disruption to local road users.	Each of the three projects on Church Lane have stated deliveries will be scheduled to avoid peak times wherever possible.	8.10

SEI Chapter	SEI Paragraph Reference	Potential Impact	Additional Mitigation Measure	SEI Paragraph Reference
Chapter 9 - Geology, Hydrology and Hydrogeology	-	-	None.	-
Chapter 10 - Ecology	-	-	None.	-
Chapter 11 - LVIA	11.17	To address comments raised by ABC	Additional planting along Church Lane, a new native hedgerow will also be located on the northern boundary of the solar panels as Church Lane passes under the HS1 rail line. A new native hedgerow on the southern site boundary adjacent to The Paddocks residential property is also proposed, along with a low density woodland on the southern edge of the proposal and new native hedgerow planting adjacent to the solar panels on key boundaries. A new native hedgerow with scattered hedgerow trees in proposed along the northern panels south of the M20. The full suite of proposals are summarised on **SEI Volume 3** Figure 11.9 Rev A.	11.18-11.24
Chapter 12 - Archaeology and Cultural Heritage	12.28	Unknown buried archaeology	Detailed investigation or watching brief.	12.28
Chapter 13 - Noise	-	-	None	-
Chapter 14 - Glint & Glare	-	-	None	-

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SEI CHAPTER 16 - RESIDUAL IMPACTS

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RESIDUAL IMPACTS

16.1 The following table (**Table 16.1 on page 164**) provides a summary of the additional or updated residual impacts of the proposed East Stour Solar farm, for each environmental assessment undertaken within this SEI. This is supplemental to the corresponding **ES Table 16.1**.

Table 16.1 - *Additional/Updated Residual Impacts*

SEI Chapter	SEI Para.	Additional/Updated Residual Impact
Chapter 7 - Construction Operation and Decommissioning	7.6	As stated at SEI **Chapter 1 - Introduction** In terms of household electricity usage the electricity generated would be sufficient to offset the equivalent annual energy needs of an updated 17 000 (to 3 S.F) average Ashford Borough homes (as noted in SEI **Chapter 1**).
	7.9	The electricity produced by the East Stour Solar Farm will offset an updated figure of approximately **14 300 000kgCO_2/annum or 14 300 tonnes CO_2 per annum** (to 3 S.F.).
Chapter 8 - Traffic and Access	8.14	There is the potential for increased disruption to local traffic should all projects on Church Lane be constructed at the same time. Each project proposes impacts be managed and minimised through respective Construction Traffic Management Plans, controlled through planning condition
Chapter 9 - Hydrology and Hydrogeology	9.18	It is concluded that there is no significant cumulative effect posed to local hydrology or hydrogeology.
Chapter 10 - Ecology	10.5	Cumulative impacts have not been identified when considering the predicted ecological impacts of the East Stour and the two consented schemes (BESS and Condenser Schemes).
	10.6	For the proposed Greenstreet Solar residual impacts on Skylark and Yellowhammer are predicted however neither species will be significantly adversely affected by the East Stour Scheme. Skylark habitat is being replaced such that the two existing pairs of this species will have areas of alternative breeding and foraging habitat and as such there will be no cumulative impacts on this species. The existing hedgerow network at East Stour (where Yellowhammer were recorded) is being retained and significant additional hedgerow and woodland planting will increase available habitat for Yellowhammer which will likely result in a minor positive for this species. Additionally the grassland areas being created will provide suitable foraging habitat for this species.

SEI Chapter	SEI Para.	Additional/Updated Residual Impact
Chapter 11 - LVIA	11.25	Overall, the process of considering and integrating mitigation planting proposals has been iterative and has sought to take into account feedback from local residents as well as the local landscape character so as to make sure all proposals are in keeping with local land uses as well as seeking to strengthen and enhance the local character through measures such as the reinforcement of existing field boundary vegetation.
	11.145	In terms of Development Scenario 2 (the additional effects of the East Stour proposal in the context of the likely future baseline (containing the Sellindge BESS, Sellindge GSF and Otterpool Park Garden Town)), the significant effects of the East Stour proposal would be limited to: • The character of the landscape within limited parts of the Evegate Mixed Farmlands LCA and the East Stour Valley LCA. • The visual amenity of some residents within a few individual residential properties local to the proposal. • The visual amenity of users of a few sections of public rights of way local to the site (mainly the footpaths through and adjacent to the site itself). • The visual amenity of users of a limited section of Church Lane immediately adjacent to the site. Over time mitigation measures associated with the application would reduce these significant effects further.
	11.147	In terms of Development Scenario 3 (the combined effects of the East Stour and Stonestreet Green Solar developments in the context of the likely future baseline (containing the Sellindge BESS, Sellindge GSF and Otterpool Park Garden Town)), the significant cumulative effects of the combination of the East Stour and Stonestreet proposals would be limited to: • The character of the landscape within limited parts of the Evegate Mixed Farmlands LCA, the East Stour Valley LCA, the Aldington Ridgeline LCA and the Upper Stour Valley LCA. • The visual amenity of some residents within limited parts of Aldington and within a few individual residential properties. • The visual amenity of users of a few sections of public rights of way local to both proposed sites. • The visual amenity of users of sections of local roads travelling past both proposals as part of a single journey.

SEI Chapter	SEI Para.	Additional/Updated Residual Impact
Chapter 11 - LVIA (continued)	11.148	Due to the limited elevation of solar farm developments combined with the undulating topography of the area and the good levels of mature woodlands, tree belts and hedgerows found local to the two proposals, any significant cumulative effects would be constrained to a limited area surrounding the two sites. As the two sites are located in close proximity to each other, with adjoining site boundaries in places, overall the extent of significant cumulative effects on landscape character and visual amenity would be very contained.
Chapter 12 - Archaeology & Cultural Heritage	12.16	No cumulative impacts are anticipated on below ground archaeological remains.
	12.17	No cumulative impacts are anticipated on Evegate Manor or the special character and appearance of Smeeth Conservation Area.
	12.18	As noted by Orion Heritage (HEDBA, 2023), development in Area 5, which is centred on Bested Hill in the application site, is likely to generate a low level of less than substantial harm to the significance of the Grade I listed Church of St Martin and the Grade II* listed Court Lodge Farmhouse, which in turn impacts on the significance of the Aldington – Church Area Conservation Area. In its current state, Area 5 of the application site is considered to positively contribute to the significance and wider setting of these designated assets through provision of an historic rural context. Based on the site visit, Solar Areas 20, 21 and 22 of the Stonestreet Green Solar project are likely to be visible in views from the Church of St Martin out to the wider landscape and potentially in some views southwards from footpath AE457 within the application site. On this basis, it is possible that a level of cumulative impact will be generated through a combination of the two development schemes. A detailed assessment of any potential cumulative impacts is currently not possible, as the final design and proposed viewpoint visualisations for the Stonestreet Green Solar project are not yet available.
	12.32	In respect of the scheduled monument 'barrow cemetery to the south-west of Barrowhill, NHLE 1475132' based on the available evidence it was concluded that the extremely limited sections of the proposed development which would be discernible from Viewpoint A would not be prominent or dominant within the context of the existing view and would therefore have an impact of no harm on the setting of the asset. No cumulative impacts on the setting of the asset would arise from the proposals within the application site in conjunction with the Pivot Power Battery Energy Storage site and the synchronous condenser plant site. Based on the current knowledge cumulative impacts from the development of the application site and the Stonestreet Green Solar site on the asset's setting are not anticipated, however, an updated and final assessment will be carried out for the full Environmental Statement for the Stonestreet Green Solar project.

SEI Chapter	SEI Para.	Additional/Updated Residual Impact
Chapter 13 - Noise	13.26	A cumulative assessment has been carried out for the proposed and consented schemes neighbouring the East Stour development. There is a potential cumulative increase in noise at Bested House, but cumulative noise levels are predicted to be below the background noise measured by SLR. The SLR data has been reviewed by Ion Acoustics to confirm its validity for this assessment. Since cumulative noise levels are below the background noise, a low impact, subject to context, is predicted according to BS 4142.
	13.27	In terms of the Government planning guidance, cumulative noise levels have the potential to be "present but not intrusive" and this would be within the no observed adverse effect level (NOAEL). Therefore, no mitigation is required.
Chapter 14 - Glint & Glare	14.17	Due to the type of development, local topography and screening, it is anticipated that there will not be any cumulative effects on local ground and aviation receptors as a result of construction of the Proposed Development.

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SEI CHAPTER 17 - GLOSSARY AND ACRONYMS

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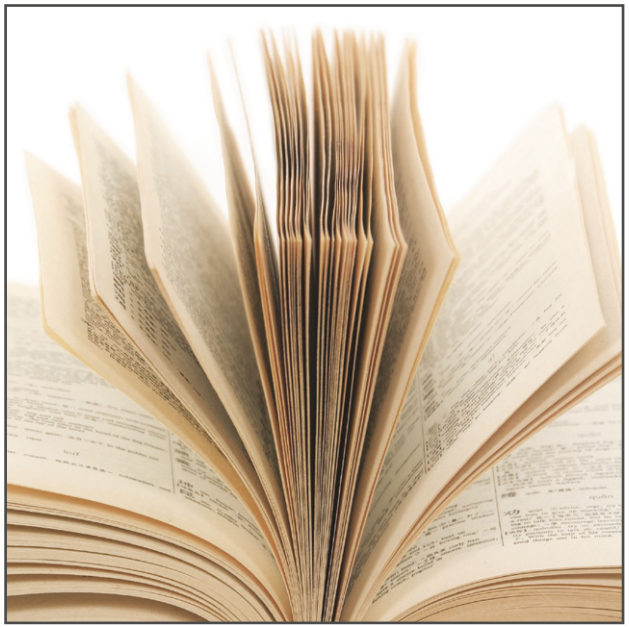

INTRODUCTION

17.1 This chapter provides a list of common abbreviations and terms used in relation to the environmental assessments undertaken for the proposed development.

ACRONYMS

AC	Alternating Current
AGLV	Areas of Great Landscape Value
ALC	Agricultural Land Classification
AOD	Above Ordnance Datum
AODN	Above Ordnance Datum Newlyn
AONB	Area of Outstanding Natural Beauty
ASMW	Ancient Semi Natural Woodland
ATC	Automatic Traffic Count
BAP	Biodiversity Action Plan
BGL	Below Ground Level
BGS	British Geological Survey
BOAT	Byway Open to All Traffic
BOCC	Birds of Conservation Concern
BRE	Building Research Establishment
BTO	British Trust for Ornithology
CBC	Common Bird Census
CCC	Climate Change Committee
CDA	Critical Drainage Area
CIEEM	Chartered Institute of Ecology and Environmental Management
CLVIA	Cumulative Landscape and Visual Impact Assessment

CoP	Conference of the Parties
CROW	Countryside and Rights of Way
CWS	County Wildlife Site
DBA	Desk Based Assessment
DBEIS	Department for Business Energy and Industrial Strategy
DBRC	Devon Biodiversity Records Centre
DC	Direct Current
DCERG	Devon Climate Emergency Response Group
DECC	Department of Energy and Climate Change
DEFRA	Department for Environment, Food and Rural Affairs
DfT	Department of Transport
DMRB	Design Manual for Roads and Bridges
DNO	Distribution Network Operator
DPD	Development Plan Document
DTM	Digital Terrain Model
EIA	Environmental Impact Assessment
EOAC	European Ornithological Atlas Committee
EPS	European Protected Species
ES	Environmental Statement
ESA	Environmental Stewardship Agreement
ETSU	Energy Technology Support Unit
FEP	Farm Environment Plan
FRA	Flood Risk Assessment
GLVIA	Guidelines for LVIA
GRP	Glass Reinforced Plastic
GSP	Grid Supply Point
HER	Historical Environmental Records
HSI	Habitat Suitability Index
HMSO	Her Majesty's Stationery Office
HLC	Historic Landscape Characteristics
IEMA	Institute of Environmental Management and Assessment
IPCC	International Panel on Climate Change
IRZ	Impact Risk Zone
JNCC	Joint Nature Conservation Committee
kW	Kilo Watt
kWp	Kilo Watt Peak
LCT	Landscape Character Types
LDF	Local Development Framework
LDN	Local Distribution Network
LLFA	Lead Local Flood Authority
LPA	Local Planning Authority
LVIA	Landscape and Visual Impact Assessment
MAGIC	Multi-Agency Geographical Information for the Countryside
MHCLG	Ministry of Housing, Communities and Local Government

MW	Mega Watt
NBN	National Biodiversity Network
NCR	National Cycle Route
NERC	Natural Environment Research Council
NHLE	National Heritage List for England
NMR	National Monuments Record
NPPF	National Planning Policy Framework
NPPG	National Planning Practice Guidance
NPS	National Policy Statement
NPSE	Noise Policy Statement for England
NTS	Non Technical Summary
ODPM	Office of the Deputy Prime Minister
PEA	Preliminary Ecological Appraisal
PRoW	Public Right of Way
PV	Photovoltaic
Ramsar	Convention signed in Iran.
RPG	Registered Parks and Garden
SAC	Special Area of Conservation
SAM	Scheduled Ancient Monument
SAPs	Species Action Plans
S.F.	Significant Figures
SIA	Simple Index Approach
SMR	Sites and Monuments Record
SNH	Scottish Natural Heritage
SPA	Special Protection Area
SPL	Sound Power Level
SSSI	Site of Special Scientific Interest
STA	Solar Trade Association
SuDS Manual	Sustainable Drainage Systems Manual
SWDS	Surface Water Drainage Strategy
SWMP	Site Waste Management Plan
UNESCO	United Nations Educational Scientific and Cultural Organization
UNFCCC	United Nations Framework Convention on Climate Change
UWS	Unconfirmed Wildlife Sites
VP	View/Vantage Point
WSI	Written Scheme of Investigation
ZTV	Zone of Theoretical Visibility

GLOSSARY

Term	Definition
Additional Cumulative Effects	Predicted incremental changes to the landscape and visual baseline as a result of a proposed development(s) in the context of operational, and/or permitted developments.
Ancient Woodlands	These are woodlands that have existed since at least the seventeenth century. They are of biodiversity importance due to their longevity, often giving rise to high species diversity.
Anthropogenic Effect	An effect that is derived from human activities.
Aquifier	An aquifer is an underground layer of water-bearing permeable rock or unconsolidated materials (gravel, sand, silt, or clay).
Aspect Area	In LANDMAP each spatial layer is divided up into discrete geographical units (polygons in GIS) referred to as aspect areas. Each aspect area is distinctly defined by its unique landscape characteristics and qualities.
Baseflow	Baseflow is the portion of streamflow that comes from groundwater and not runoff.
Baseline Conditions	The existing (pre-proposed development) environmental conditions against which any future changes can be measured or predicted.
Biodiversity	The number and variety of organisms found within a specified geographic region.
Biodiversity Action Plan	Biodiversity Action Plans (BAPs) stem from the Convention on Biological Diversity, also known as the 'Earth Summit' (1992), which called for the creation and enforcement of national strategies and action plans to conserve, protect and enhance biological diversity. The BAP system in the UK comprises both Habitat Action Plans (HAPs) and Species Action Plans (SAPs). Species and habitats are chosen according to a number of criteria, including threatened status, decline in range/area and endemism. Biodiversity action planning has been applied at both a national and local (LBAP) level. That a BAP has been prepared should simply reflect the fact that the habitat or species concerned is in a sub-optimal state (and hence that action is required).

Term	Definition
Birds of Conservation Concern	The BTO (2002) lists Birds of Conservation Concern (BoCC), which fall into three categories: •Red list (species of high concern); •Amber list (species of medium concern); and •Green list (species of lower concern). Species are placed on these lists based, among other criteria, on the percentage decline of breeding or wintering populations in the recent past.
Conservation Area	An area of special architectural or historic interest, in which a local authority must pay special attention to the desirability of preserving or enhancing its character or appearance.
Constraints Map	Map showing the location of important resources and receptors that may form constraints to development.
Combined Cumulative Effects	Predicted changes to the landscape and visual baseline as a result of two or more proposed developments, where the effects are the result of more than one of the proposed developments. Effects that arise as a result of one of the proposed developments only would not be cumulative.
Cumulative Landscape and Visual Impact Assessment (CLVIA)	An assessment of likely significant cumulative effects on landscape and visual amenity arising as a result of a development(s) in the context of existing, permitted and/or other proposed developments, undertaken in accordance with the GLVIA and other emerging guidance on CLVIA.
Cumulative Landscape Effects	There is the potential for cumulative landscape effects where two or more developments would result in: Changes to the physical fabric of the landscape; Changes to landscape character; and Changes to the character and integrity of designated landscapes.
Cumulative Visual Effects	There is the potential for cumulative visual effects where two or more developments would be visible: In the same sector of the view at a viewpoint location, i.e. with both developments within a field of view of up to 90 degrees, which would enable an observer to see both developments without moving their head (simultaneous visibility); In different sectors of the view at a viewpoint location, i.e. with the developments > 90 degrees apart, so that an observer has to move their head in order to see both developments (successive visibility); and One at a time at a series of locations along a linear route (sequential visibility).
dB(A)	A measure of the loudness of a sound, given in decibels above the threshold of hearing (i.e. 0dB(A) is the quietest sound heard by the human ear).

Term	Definition
Digital Terrain Model (DTM)	A three dimensional map of the landform of a study area, using digital height data, such as the OS Terrain 50 data (with height data at 50m centres) or OS Terrain 10 data (with height data at 10m intervals). Each height datum provides an easting, a northing and an elevation in mAOD.
Effects	Predicted changes in the environmental baseline as a result of the proposed development. Effects can be direct or indirect, secondary, cumulative, short, medium or long-term, permanent or temporary, positive (beneficial), negative (adverse) or a change that cannot be defined as beneficial or adverse.
Electrical Distribution Network	The electricity distribution system owned by the Distribution Network Operator (such as UKPN) which incorporates both overhead and underground cables. These connect individual properties and areas to the regional grid at a variety of power levels including (in England) 11kV, 33kV and 132kV. The regional grid is distinct from the National Grid, which runs at 275kV and 400kV.
Electrical Transmission Network	The Transmission Network (National Grid) is the highest voltage electricity network in the UK and transmits electricity at 275kV and 400kV (in England) to the grid supply points from where its distributed by the Distribution Network Operator (DNO). The National Grid travels across larger distances than the regional grid.
Electromagnetic Interference (EMI)	Interference with, or the disturbance of, telecommunication systems, including VHF (very high frequency), UHF (ultra high frequency) and microwave systems.
El Niño	El Niño is an oscillation of the ocean-atmosphere system in the tropical Pacific having important consequences for weather around the globe. El Niño is characterized by unusually warm ocean temperatures in the Equatorial Pacific.
La Niña	Global climate La Niña impacts tend to be opposite those of El Niño impacts. La Niña is characterized by unusually cold ocean temperatures in the Equatorial Pacific.
Environmental Impact	A change, brought about in the existing environment, which results in an effect, adverse, beneficial, or both. Within this context the environment may include the population, fauna, flora, soil, water, air, climatic factors, material assets including the architectural and archaeological heritage, and landscape.
Environmental Impact Assessment (EIA)	In this context, the process by which the likely significant environmental impacts of a development are identified and evaluated, and by which mitigation measures and residual impacts are proposed. This process is undertaken in accordance with the EIA Regulations 1999 (amended).
Environmental (landscape and visual) baseline	The existing (pre-proposed development) landscape and visual context of a study area, including landscape fabric, landscape character and existing views.
Environmental Statement (ES)	The environmental information provided in association with a planning application that describes the environmental baseline, methodology and findings of the EIA undertaken on the proposals.
Field Pattern	The pattern of hedges, walls, ditches, etc. that define fields in farmed landscapes. (LI/IEMA 2002).

Term	Definition
Gigatonne (Gt)	Thousand million tonnes.
Hydrogeology	The study of sub-surface groundwater movement.
Hydrology	The prediction of rainfall and rain water flow rates.
Indirect Impacts	Impacts on the environment, which are not a direct result of the development but are often produced away from it or as a result of a complex pathway. Sometimes referred to as secondary impacts. (LI/IEMA 2002).
Intervisibility	Inter-visibility is the visibility between two points. Two points on the ground or two features are described as 'intervisible' when they are visible from each other.
Intra-visibility	Intra-visibility is when two points can be seen/experienced from a third point (in many cases, this is more important that pure intervisibility); e.g. a listed building might be experienced in the same view as a new industrial building by a sensitive visual receptor.
Kilowatt (kW)	A unit of power, equivalent to one thousand Watts.
Kilowatt-hour (kWh)	A Measurement of active energy defined as the amount of energy a Kilowatt source produces in one hour. The kWh is a standard unit of electrical consumption, as metered and shown on electricity bills.
Landcover	The combination of land use and vegetation that cover the land surface.
LANDMAP	LANDMAP is the formally adopted methodology for landscape assessment and is advocated by Planning Policy Wales. LANDMAP is an all-Wales GIS based landscape resource where landscape characteristics, qualities and influences on the landscape are recorded and evaluated into a nationally consistent data set. LANDMAP comprises five spatially related datasets known as the Geological Landscape, Landscape Habitats, Visual & Sensory, the Historic Landscape and the Cultural landscape. LANDMAP Information is collected in a structured and rigorous way that is defined by the LANDMAP methodology.
Landscape	Landscape results from the way that different aspects of our environment (physical, social, aesthetic and perceptual) interact together and are perceived by us: •Physical elements – e.g. geology, landform, soils, flora and fauna; •Social elements – e.g. land use, enclosure patterns, and the patterns, form and scale of settlements and other built development; •Aesthetic factors – e.g. colour, form, visual texture and pattern, sounds, smells and touch; and •Perceptual factors – e.g. memories, associations, stimuli and preferences.

Term	Definition
Landscape and Visual Impact Assessment (LVIA)	An assessment of likely significant effects on landscape and visual amenity arising as a result of a development(s), undertaken in accordance with the GLVIA.
Landscape Character	Landscape character arises from a distinct, recognisable and consistent pattern of physical and social elements, aesthetic factors and perceptual aspects in the landscape.
Landscape Character Areas (LCAs)	Single unique areas that are discrete geographical areas containing one or more landscape types.
Landscape Character Types (LCTs)	Generic units of landscape that display a distinct, consistent and recognisable landscape character.
Landscape Elements	Physical components (natural and manmade) of the landscape.
Landscape Fabric	Elements and features that constitute the physical components of the landscape, including ground vegetation, hedgerows, trees, shrubs, walls, fences, and vernacular structures.
Landscape Features	A prominent eye-catching element, eg a wooded hilltop.
Landscape Quality	Is based on judgements about the physical state of the landscape and about its intactness, from visual, functional and ecological perspectives. It also reflects the state of repair of individual features and elements which make up the character in any one place.
Landscape Resource	The combination of elements that contribute to landscape context, fabric, character and value.
Landscape Units	An umbrella term for LCAs and LCTs.
Landscape Sensitivity	The extent to which a landscape can accept change of a particular type and scale without unacceptable adverse effects on its character.
Landscape Value	The relative value or importance attached to a landscape, which is often the basis for designation or recognition. A landscape may be valued for many reasons, which could include landscape quality, scenic quality, tranquillity, wilderness value, consensus about its importance whether nationally or locally and other conservation interests and cultural associations.
Listed Building	A building listed by English Heritage as being of significant historical or architectural interest.
Megawatt (MW)	A unit of power, equivalent to one million Watts.
Megawatt-hour (MWh)	A Measurement of active energy defined as the amount of energy a megawatt source produces in one hour.
Mitigation Measure	Measures, including any process, activity or design that will avoid, reduce, remedy or compensate for the predicted significant effects of a development on the environmental baseline.

Term	Definition
Natural Areas	Natural Areas have been formally defined as 'biogeographic zones which reflect the geological foundation, the natural systems and processes and the wildlife in different parts of England, and provide a framework for setting objectives for nature conservation' (Biodiversity: The UK Steering Group Report, HMSO, 1995).
Overbearing (with regard to landscape assessments)	Where one or more proposed wind turbines would be so close and of such a size as to be likely to make the observer uncomfortable and want to move further away.
Overwhelming	Where a proposed development would dominate a view, e.g. the main views from a property, to the extent that the development would be oppressive. This depends on the scale, number and relative elevation of the turbines in the view, the array width and the proportion of the overall view(s) that the turbines will occupy.
Phase 1 Habitat Survey	A Method of ecological surveying recommended by the Joint Nature Conservancy Council. This method usually produces a map showing the habitat structure of a site with habitats classified according to standard notation.
Photomontage	Computer-generated 3D image of a development(s) accurately located and overlaid onto the panoramic photograph of an existing view to illustrate the location and scale of a proposed development in the context of its setting. A photomontage does not illustrate movement and so may not, therefore, illustrate the full effects of a development on a view.
Public Access	*Land with public access includes:* Access land – areas of mountain, moor, heath, down, common land and coastal foreshore that have been designated under Section 2 of the Countryside and Rights of Way Act 2000 (CRoW Act). The right of access is for walkers only and does not extend to camping, cycling, horse riding or driving a vehicle, nor does the right of access apply to developed land, gardens or cultivated land. Under the CRoW Act, there was a process of consultation that allowed the right of appeal for those with a legal interest in the land, and for sensitive ecological and archaeological sites to be excluded. Conclusive maps showing the areas designated as open access land (Registered Common Land and Open Country) are now available from Natural England and the Countryside Council for Wales. Accessible land can also be identified from the Countryside Agency and CCW websites and the Ordnance Survey Explorer (1:25 000) maps. Some areas of access land, such as urban commons, already have higher rights of access, e.g. horse riding, under earlier enactments and, under s15 of the CRoW Act, the existing rights of access apply. Definitive rights of way – public footpaths, bridleways, cycle routes, byways open to all traffic (BOATS) and highways. Shown on Definitive Rights of Way maps held by the Local Authority. Most routes are also shown on Ordnance Survey maps. Permissive paths and bridleways – routes where there is public access with the permission of the landowner. Such routes are usually closed at least one day a year to prevent the establishment of a public right of way. Public open space – areas designated for specified public uses, usually in the ownership of the Local Authority. Includes parks and recreation grounds. Shown on Local Development Plans.

Term	Definition
Public Access (continued)	Beaches – the public have permitted access to much of the foreshore (intertidal zone - between high and low tide marks) owned by the Crown Estate (about 50% of the UK coastline), and on land above high water mark owned by the Local Authority. Some beaches above high tide mark are privately owned and some beaches and foreshore have restricted access for military purposes. Permissive access land - land where public access is currently permitted with the permission of landowners. Includes land outlined in purple on the OS Explorer (1:25,000) sheets and with: No symbol – land open to public with permission of owners. White oak leaf in purple box – National Trust, always open. Purple oak leaf in white box – National Trust limited access. Tree symbols in purple box – Forestry Commission. Single leaf in purple box – Woodland Trust. White 'AL' in purple box – other access land. De facto access land – land where there is no definitive or permissive right of way but where the public do actually have access with the knowledge and tolerance (but not legal permission) of the landowner. This includes land in the ownership of the Local Authority and private landowners and is generally not shown on Ordnance Survey maps.
Receptor	A population, fauna, flora, soil, water, air, climatic factors, material assets with the potential to be impacted by the proposal.
Red Data Book Species	The Red Data Book (RDB) system applies standard criteria to define the national conservation status of animal and plant species according to the following categories: Extinct (EX), critically endangered (CR), endangered (EN), vulnerable (VU), near-threatened (NT) and lower concern (LC).
Scoping Report	A document issued to the local authority and statutory consultees by a developer, that includes indicative information necessary for the formulation of a Scoping Opinion.
Sector of a View	The horizontal field of view that can be scanned by the human eyes without moving the head. The human eyes can comfortably scan and focus across a horizontal field of view of about 45 degrees but, taking peripheral vision into account, this can be extended to around 90 degrees. Therefore, for the purposes of this assessment, a sector of a view is taken to be 90 degrees.
Transect	A path along which one records and counts occurrences of the phenomenon of study.
Vantage Point Survey	A bird survey methodology as detailed in SNH, 2005.

Term	Definition
Viewing Distance	The distance that a viewpoint illustration should be held from the eye in order for the illustration to match the scale of the actual view when used in the field to identify the location and scale of the proposed development(s).
Visual Amenity	Arises from a visual receptor's experience of the visual world around them and the value they place on particular views. Theoretically, it is possible for a development(s) to result in a significant change in the view from a particular location without resulting in a significant effect on visual amenity, if the location is not accessible to receptors or the view is acknowledged as having limited value.
Visual Receptor(s)	An individual observer or group of observers who are capable of experiencing a change in the view, for example resident, road user, or public right of way user.
Visualisation	A computer-generated wireframe, photomontage or other technique used to illustrate the location, scale and/or appearance of a proposed development(s). (See definitions for wireframes and photomontages and also later in this appendix for more details).
Wireframe	A computer generated view of the terrain and proposed development from a specified viewpoint location. As with ZTVs (see below), wireframes are usually based on the bare-ground DTM only and do not show movement or the screening effects of surface features.
Zone of Theoretical Visibility (ZTV)	A computer generated intervisibility map showing the zones within which a proposed development may be visible. Most ZTVs for wind farms are based on bare-ground digital terrain models (DTMs) and use the wind turbine hubs or blade tips in the upright position as the targets, so do not take into account the screening effects of surface features (e.g. walls, trees, buildings, etc.) and, whilst they indicate the number of turbines (hubs or tips) that may be visible, usually do not illustrate how much of each turbine may be visible. Cumulative ZTVs for wind farms are ZTVs as above, but show the zones where one or more wind turbines (hubs or tips) from two or more wind farms under consideration may be visible.

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