

February 2022

Sheepwash Solar Energy Farm

Client: Statkraft UK

## Landscape and Visual Impact Assessment

<b>CONTENTS</b>	<b>PAGE</b>
1. INTRODUCTION	2
2. DESCRIPTION OF PROPOSALS	2
3. PLANNING POLICY	3
4. BASELINE CONDITIONS	8
5. ASSESSMENT OF LANDSCAPE EFFECTS	19
6. ASSESSMENT OF VISUAL EFFECTS	25
7. MITIGATION	37
8. CUMULATIVE EFFECTS	39
9. CONCLUSIONS	41

#### **APPENDICES**

Appendix A	Assessment Methodology for LVIA
Appendix B	Photography, Verified Views and Methodology, Views 1-11, Plates A-G, Figures 1-38

#### **LVIA DRAWINGS INCLUDED**

SSF-ZTV-001	Viewpoint Location Plan – ZTV – PV Panels DTM
SSF-ZTV-002	Viewpoint Location Plan – ZTV – PV Panels DSM
AW0143-PL-002	Proposed Mitigation, Landscape & Ecology enhancements

#### **LVIA DRAWINGS TO BE REFERRED TO**

27899/SK01 Rev 0	Proposed Solar Energy Farm, Land North of Sheephurst Lane, Marden
------------------	---

## 1. INTRODUCTION

- 1.1. This Landscape and Visual Impact Assessment (LVIA) has been prepared on behalf of Statkraft UK Ltd by awSCAPE Ltd in relation to the proposed Sheepwash Solar Energy Farm, in Marden, Kent, herein known as the Site.
- 1.2. The purpose of the LVIA is:
  - To identify and assess the magnitude and effects of change that may arise from the proposed development on the Landscape character (landscape effects), and
  - To identify and assess the magnitude and effects of change that may arise from the proposed development on people's views and visual amenity (visual effects).
- 1.3. The LVIA has been undertaken by a Chartered Member of the Landscape Institute. The LVIA follows guidance set out in the Landscape Institute (LI) and Institute of Environmental Management & Assessment (IEMA) Guidelines for Landscape and Visual Impact Assessment, Third Edition (2013)<sup>1</sup>. Detailed methodology used in this LVIA is provided in Appendix A.
- 1.4. A Site visit was undertaken on 8<sup>th</sup> July 2021. This LVIA has assessed a study area of up to 5km from the boundary of the Site.

## 2. DESCRIPTION OF PROPOSALS

- 2.1. It is proposed to construct a solar energy farm with ancillary battery energy storage (BESS) within a barn and 132kV electrical infrastructure on arable fields west of Marden in Kent. The proposed layout is illustrated on drawing 27899/SK01 Rev 0 and the development would result in a temporary change (over a period of 37 years) to the landscape.
- 2.2. The facility would be located within 7 medium sized arable fields west of Marden and north of Little Cheveney Farm with an approximate area of 74.5ha. The main access would be to the west of Little Sheephurst Farm, off Sheephurst Lane that lies to the south of the Site connecting Claygate to Marden Beech. A small subsidiary access would be located to the north of the Site off Burtons Lane.

### Mitigation planting

- 2.3. The majority of the Site would be fenced with deer fencing. Mitigation planting has been included within the development proposals (Drawing AW0143-PL-002) and includes woodland planting, hedgerows along fencelines and gapping up of existing field boundary hedgerows with the addition of hedgerow trees. This is discussed in more detail in Section 7.

---

<sup>1</sup> Landscape Institute and Institute of Environmental and Assessment, Guidelines for Landscape and Visual Impact Assessment 3<sup>rd</sup> Edition (April, 2013)

### 3. PLANNING POLICY

#### National Planning Policy, 2021

3.1. The National Planning Policy Framework (NPPF) published in 2021 sets out the Government's planning policies for England and how these are expected to be applied for sustainable development.

3.2. Paragraph 10 of the NPPF states "*At the heart of the Framework is a **presumption in favour of sustainable development***" ...

3.3. Section 11 'Making Effective use of land', paragraph 119 states:

*Planning policies and decisions should promote an effective use of land in meeting the need for...other uses, while safeguarding and improving the environment...*

*Paragraph 120 states, planning policies and decisions should:*

*a) encourage multiple benefits from both urban and rural land, including through mixed use schemes and taking opportunities to achieve net environmental gains – such as development that would enable new habitat creation or improve public access to the countryside;*

3.4. Section 12 'Achieving well designed places', paragraph 126 states:

*The creation of high quality, beautiful and sustainable buildings and places is fundamental to what the planning and development process should achieve. Good design is a key aspect of sustainable development...*

3.5. Section 12, paragraph 130 states:

*Planning policies and decisions should ensure that developments:*

*.b) Are visually attractive as a result of good architecture, layout and appropriate and effective landscaping;*

*.c) Are sympathetic to local character and history, including the surrounding built environment and landscape setting, while not preventing or discouraging appropriate innovation or change...*

3.6. Section 14 'Meeting the challenge of climate change, flooding and coastal change'

3.7. Paragraph 155 states: *To help increase the use and supply of renewable and low carbon energy and heat, plans should:*

*a) Provide a positive strategy for energy from these sources, that maximises the potential for suitable development, while ensuring that adverse impacts are addressed satisfactorily (including cumulative landscape and visual impacts)*

3.8. Paragraph 158 states:

*When determining planning applications for renewable and low carbon development, local planning authorities should:*

*.b) approve the application if its impacts are (or can be made) acceptable...*

3.9. Section 15, 'Conserving and enhancing the natural environment' Paragraph 174 states:

*Planning policies and decisions should contribute to and enhance the natural and local environment by:*

*a) protecting and enhancing valued landscapes...*

*b) recognising the intrinsic character and beauty of the countryside, and the wider benefits from natural capital and ecosystem services – including the economic and other benefits of the best and most versatile agricultural land, and of trees and woodland*

*.e) Preventing new development from contributing to, being put at unacceptable risk from, or being adversely affected by, unacceptable levels of soil, air, water or noise pollution or land instability. Development should, wherever possible, help to improve local environmental conditions such as air and water quality...*

**Maidstone Borough Local Plan 2017**

3.10. Policy Spatial Strategy 1 (SS1) states:

*...10. The green and blue network of multi-functional open spaces, rivers and water courses, the Kent Downs Area of Outstanding Natural Beauty and its setting, the setting of the High Weald Area of Outstanding Natural Beauty and landscapes of local value will be conserved and enhanced...*

Compliance within the application

The Site is not visible from the Kent Downs or the High Weald AONB or their setting and there are no landscapes of local value within the Site. There would be no landscape or visual effects on the AONBs. As part of the proposed development the landscape infrastructure will be conserved and enhanced.

3.11. Policy SP17: The Countryside states:

*The countryside is defined as all those parts of the plan area outside of the settlement boundaries...*

*.1. Development proposals in the countryside will not be permitted unless they accord with other policies in this plan and they will not result in harm to the character and appearance of the area.*

*.4. Proposals should not have a significant adverse impact on the settings of the Kent Downs Area of Outstanding Natural Beauty or the High Weald Area of Outstanding Natural Beauty.*

*.6. The distinctive landscape character of ...the Low Weald, as defined on the policies map, will be conserved and enhanced as landscapes of local value.*

*Account should be taken of the Kent Downs Area of Outstanding Natural Beauty Management Plan and the Maidstone Borough Landscape Character Guidelines Supplementary Planning Document.*

#### Compliance within the application

There will be some initial harm to the arable landscape and visual amenity of the local area with the proposed development. However, this will be mitigated and any harm will be significantly reduced with conservation and substantial enhancement of existing landscape infrastructure. There would be no impacts on the Kent Downs or the High Weald AONB. There would be no landscape or visual effects on the AONBs.

#### 3.12. Policy DM1: Principles of Good Design states:

*Proposals which would create high quality design and meet the following criteria will be permitted:*

*.i. Create designs and layouts that are accessible to all, and maintain and maximise opportunities for permeability and linkages to the surrounding area and local services;*

*ii. Respond positively to, and where possible enhance, the local, natural or historic character of the area. Particular regard will be paid to scale, height, materials, detailing, mass, bulk, articulation and Site coverage...*

*v. Respect the topography and respond to the location of the Site and sensitively incorporate natural features, such as trees, hedges and ponds worth of retention within the Site. Particular attention should be paid in rural and semi-rural areas where the retention and addition of native vegetation appropriate to local landscape character around the Site boundaries should be used as positive tool to help assimilate development in a manner which reflects and respects the local and natural character of the area;*

*vi. Provide a high quality design which responds to areas of heritage, townscape and landscape value or uplifts an area of poor environmental quality;...*

*Account should be taken of Conservation Area Appraisals and Management Plans, Character Area Assessments, the Maidstone Borough Landscape Character Guidelines SPD, the Kent Design Guide and the Kent Downs Area of Outstanding Natural Beauty Management Plan.*

#### Compliance within the application

3.13. Permissive footpaths will be introduced that provide for improved permeability through the Site connecting to existing PROW and improving permeability and linkages within the local area. The local natural infrastructure of trees, woodland and water corridors would be conserved and

enhanced with additional woodland, hedgerows and ponds created. The BESS has been incorporated into a barn similar to barns within the local landscape, and the kV compound positioned away from PROW and dwellings to reduce visual impacts. Woodland would be planted around these structures to provide additional screening. A community orchard with Kent varieties where possible would provide a strong connection for the local community with their local heritage. Policy DM3: Natural Environment

1. *To enable Maidstone borough to retain a high quality of living and to be able to respond to the effects of climate change, developers will ensure that new development protects and enhances the natural environment by incorporating measures where appropriate to:*
  - i. *Protect positive landscape character, areas of Ancient Woodland, veteran trees, trees with significant amenity value important hedgerows, features of biological or geological interest, and the existing public rights of way network from inappropriate development and avoid significant adverse impacts as a result of development;*
  - v. *Enhance, extend and connect designated Sites of importance for biodiversity, priority habitats and fragmented Ancient Woodland; support opportunities for the creation of new Biodiversity Action Plan priority habitats; create, enhance, restore and connect other habitats, including links to habitats outside Maidstone Borough, where opportunities arise;*
  - vi. *Provide for the long term maintenance and management of all natural assets, including landscape character, associated with the development; ...*
  - viii. *Positively contribute to the improvement of accessibility of natural green space within walking distance of housing, employment, health and education facilities and to the creation of a wider network of new links between green and blue spaces including links to the Public Rights of Way network.*
- .2. *Where appropriate, development proposals will be expected to appraise the value of the borough's natural environment through the provision of the following: ...*
  - iii. *A landscape and visual impact assessment to take full account of the significance of, and potential effects of change on, the landscape as an environmental resource together with views and visual amenity*

#### Compliance within the application

The proposals include for the retention of all trees, hedgerows and ponds within the Site, and the redirection of the PROW to the north east of the Site, with permissive paths to the east and west of the Site linking with existing PROW, roads and communities. Enhancement of existing landscape infrastructure, creation of new woodlands, ponds, meadows, mitigation hedgerow, orchards and woodland planting would reduce the visual effects on the PROW and improve the habitats and connectivity of the Site for people and wildlife. A LEMP included within the application provides for the long term maintenance and management of the proposed landscape and habitats.

### 3.14. Policy DM24: Renewable and low carbon energy schemes

1. *Applications for larger scale renewable or low carbon energy projects will be required to demonstrate that the following have been taken into account in the design and development of the proposals:*

*.i. The cumulative impact of such proposals in the local area;*

*ii. The landscape and visual impact of development;*

*.iv. The impact of proposals on the amenities of local residents, e.g. noise generated; ...*

#### Compliance within the application

The cumulative effects within the local area have a negligible or nil effect on the local landscape character and visual amenity. This LVIA forms part of the planning application for the proposed development, and all landscape and visual impacts have been taken into consideration within the design and development of the proposals with appropriate mitigation where required.

### 3.15. Policy DM 30 Design principles in the countryside

*Outside of the settlement boundaries as defined on the policies map, proposals which would create high quality design, satisfy the requirements of other policies in this plan and meet the following criteria will be permitted:*

*i. The type, siting, materials and design, mass and scale of development and the level of activity would maintain, or where possible, enhance local distinctiveness including landscape features;*

*ii. Impacts on the appearance and character of the landscape would be appropriately mitigated. Suitability and required mitigation will be assessed through the submission of Landscape and Visual Impact Assessments to support development proposals in appropriate circumstances;*

*iii. Proposals would not result in unacceptable traffic levels on nearby roads; unsympathetic change to the character of a rural lane which is of landscape, amenity, nature conservation, or historic or archaeological importance or the erosion of roadside verges;*

*iv. Where built development is proposed, there would be no existing building or structure suitable for conversion or re-use to provide the required facilities. Any new buildings should, where practicable, be located adjacent to existing buildings or be unobtrusively located and well screened by existing or proposed vegetation which reflect the landscape character of the area; ...*



*Account should be taken of the Kent Downs AONB Management Plan and the Maidstone Borough Landscape Character Guidelines SPD*

Compliance within the application

The proposed solar energy farm would enhance the existing landscape infrastructure within the Site and provide additional mitigation and biodiversity enhancing woodland and hedgerows within and also outside of the Site boundary east of Little Cheveney Farm. These would mitigate all views and enhance the landscape character infrastructure of the local area. The proposals would have localised impacts on Sheephurst Lane although temporary but would not change the character of the rural lane.

#### **4. BASELINE CONDITIONS**

##### **Landscape Baseline**

- 4.1. The landscape desk study determines the current nature of the Site and surrounding area that may be affected by the development proposals. It identifies landscape designations, national, regional and local landscape character, topography, geology and condition of the landscape and where defined, the value of the landscape.

##### *Landscape Designations*

- 4.2. There are no statutory or non-statutory landscape designations associated with the Site or within 1km of the Site.
- 4.3. There are numerous listed buildings within 1km of the Site, the ones within closest proximity of the Site are detailed below:
- Turkey Farm House, Grade II, <500m East of the Site
  - Little Long End, Grade II, adjacent North of the Site
  - Oast House about 60m North East of Little Cheveney Farm House, Grade II, <500m South of the Site
  - Little Cheveney Farm, Grade II, <500m South of the Site
  - Oast House about 15m South East of Little Cheveney Farm House, Grade II <500m South of the Site
  - Barn about 15m South West of Little Cheveney Farm House, Grade II <500m South of the Site
  - Oast House about 10m North of Great Sheephurst Farm House, Grade II <500m South of the Site
  - Great Sheephurst Farmhouse, Grade II, <500m South of the Site
  - Longends Farmhouse, Grade II <500m North of the Site

- Barn, about 15m south east of Martins Farmhouse, Grade II, <1km North West of the Site
- Barn, about 20m south of Martins Farmhouse, Grade II, <1km North West of the Site
- Martins Farmhouse, Grade II <1km North West of the Site
- Chequer Tree Farmhouse, Grade II, <1km North West of the Site
- The Duke of Wellington Inn, Grade II, <1km North West of the Site
- Barn about 10m South of Bartons Farm Cottages, <1km North West of the Site
- Barn about 80m South of Brook House Farmhouse, <1km North of the Site
- White Barn at Brook Farm, Grade II, <1km North of the Site
- Former Oast House about 30m North West of Brook Farmhouse, <1km North of the Site

A number of listed buildings are located approximately 1km or more from the Site boundary particularly in the village of Marden and the hamlet of Marden Beech.

- 4.4. There is an area of Ancient Woodland to the immediate west of the Site boundary. This remains unaffected by the development proposed with a substantial biodiversity buffer to its boundary.

### **National Level Landscape Character**

#### National Character Area Profiles, September 2014

- 4.5. The Site lies within the National Character Area 121: Low Weald. The key characteristics are:

- *Broad, low-lying, gently undulating clay vales with outcrops of limestone or sandstone providing local variation*
- *The underlying geology has provided materials for industries including iron working, brick and glass making, leaving pits, lime kilns and quarries. Many of the resulting exposures are critical to our understanding of the Wealden environment.*
- *A generally pastoral landscape with arable farming associated with lighter soils on higher ground and areas of fruit cultivation in Kent. Land use is predominantly agricultural but with urban influences, particularly around Gatwick, Horley and Crawley.*
- *Field boundaries of hedgerows and shaws (remnant strips of cleared woodland) enclosing small, irregular fields and linking into small and scattered linear settlements along roadsides or centred on greens or commons. Rural lanes and tracks with wide grass verges and ditches.*
- *Small towns and villages are scattered among areas of woodland, permanent grassland and hedgerows on the heavy clay soils where larger 20<sup>th</sup>-century villages have grown around major transport routes.*
- *Frequent north-south routeways and lanes, many originating as drove roads, along which livestock were moved to downland grazing or to forests to feed on acorns.*
- *Small areas of heathland particularly associated with commons such as Ditchling and Chailey. Also significant historic houses often in parkland or other designed landscapes.*

- *The Low Weald boasts an intricate mix of woodlands, much of it ancient, including extensive broadleaved oak over hazel and hornbeam coppice, shaws, small field copses and tree groups, and lines of riparian trees along watercourses. Veteran trees are a feature of hedgerows and in fields.*
- *Many small rivers, streams and watercourses with associated water meadows and wet woodland.*
- *Traditional vernacular of local brick, weatherboard and tile-hung buildings plus local use of distinctive Horsham slabs as a roofing material. Weatherboard barns are a feature. Oast houses occur in the east and use of flint is notable in the south towards the South Downs.*

4.6. The NCA provides Statements of Environmental Opportunity for this area that includes:

*SEO 1: Protect, manage and significantly enhance the area's intricate and characteristic mix of semi-natural ancient woodlands, gill woodland, shaws, small field copses, hedgerows and individual trees to reduce habitat fragmentation and benefit biodiversity, while seeking to improve and encourage access for health and wellbeing and reinforce sense of local identity. (Ref. 4. Page 15).*

#### **Regional Level Landscape Character**

##### The Landscape Assessment of Kent, 2004

4.7. The Site lies within two landscape character areas, Low Weald Fruit Belt and Teise Valley.

##### *Low Weald Fruit Belt*

4.8. The key characteristics of this landscape character are:

- *A flat or gently undulating landscape of predominantly dwarf fruit trees, extensive open arable fields, with hops and pasture.*
- *Roadsides are characterised by tall well-managed poplar windbreaks*
- *Ponds are locally frequent, with tributaries of the Medway infrequently flooding*
- *...in the 20<sup>th</sup> century there was a conversion of orchards and hop gardens to horticultural and arable crops.*
- *Where shelterbelts or hedgerow networks are intact it produces a small-scale landscape with a strong visual unity and pleasant sense of enclosure...*
- *Small woodlands copses of oak standards with coppice, increase the intimacy of the scale.*
- *Frequent and often large groups of oasts, form strong features in the landscape...Scattered hamlets are also characteristic here.*
- *The unkempt edges of Marden and the railway encroach into the farmland scene.*
- *The sensitivity of this landscape has been identified within the landscape assessment as moderate, with a strong sense of place, with historic character with oasts and farmsteads, as well as mature oaks within hedgerows and small copses, resulting in an area of low visibility.*

- 4.9. Landscape actions include managing and replanting mature tree stock within hedges, managing watercourses for wildlife interest, and reinforcement of the enclosure pattern around Marden with hedgerow and mature tree planting, linking with floodplain copses.

*Teise Valley*

- 4.10. The key characteristics of this landscape character are:

- *A landscape of open arable fields and horticultural crops has evolved with tall poplar and alder shelterbelts at the margins...*
- *River edge vegetation has often been removed to increase field size right up to the river channel. Where hedges have been retained, they give unity and variety within the floodplain, but where they are missing or gappy the result is a fragmented landscape.*
- *The character is wholly rural with little settlement or other intrusions. It is crossed over frequently by small, old bridges.*
- *Near Marden views extend from the river to the pleasant farmlands of the Fruit Belt.*
- *The watercourse is often unnoticeable within a predominantly open, flat arable landscape. The character area remains tranquil and largely inaccessible. The stream and ditch network form a narrow ecological corridor. The condition of the landscape is poor.*
- *The flat, open landscape is indistinguishable from the surrounding Low Weald. Historic vegetation are indistinct. Visibility within the area is low due to insignificant landform and intermittent tree cover. The sensitivity of the landscape is classified within this character assessment as very low.*

- 4.11. Opportunities include reintroduction of black poplar and use willow along streamlines to create more enclosures.

**Local Level Landscape Character**

Maidstone Landscape Character Assessment, 2012 and Maidstone Landscape Capacity Study: Sensitivity Assessment, 2015

- 4.12. The Maidstone Landscape Capacity Study, 2015 provides more detail and sensitivity of the Landscape Character Types as identified within the Maidstone Landscape Character Assessment, 2012.

- 4.13. The Site lies with two Landscape Character Areas (LCA), Low Weald and Valleys. These have distinct characteristics and are subdivided into Landscape Character Types (LCT), Laddingford Low Weald located within the Low Weald LCA and Teise Valley located within the Valleys LCA.

*Low Weald LCA and Laddingford LCT*

- 4.14. The Low Weald LCA is a *'well wooded landscape where small, enclosed fields have been created through woodland clearance...A medieval field pattern has been maintained across much of the landscape, and the species rich hedgerows are often tall with numerous hedgerow trees and a significant amount of oak. The landscape is low lying and therefore rich in small ponds and*

*streams, often defined by riparian willows and alders. Many of the ponds are marl pits...common throughout the Low and High Weald landscape...The Low Weald is essentially rural in character, and settlements are mostly small villages and hamlets.*

4.15. The Guidelines of Low Weald, include the following:

- *Conserve the intimate small scale Medieval field pattern and the species rich hedgerow boundaries*
- *Conserve and promote pastoral land use and avoid agricultural intensification*
- *Promote the conversion of intensively managed grassland and arable land to species rich neutral grassland where there is potential*
- *Conserve, enhance and extend the frequent pattern of small ponds,...*
- *Conserve, enhance and extend the Riparian habitat...*
- *Conserve the abundance of English oak and wild service trees within the landscape. Ensure continuity of this key feature by planting new oak trees to replace ageing specimens*
- *Conserve the largely undeveloped landscape with its scattered development pattern and isolated farmsteads*
- *Conserve and promote use of local materials including chequered red and grey brickwork, weatherboarding, timber framed buildings and ragstone*
- *Consider views towards any proposals across the Low Weald from the elevated Greensand Ridge, and the High Weald which rises to the south west.*

4.16. Laddingford LCT is a low lying landform, with an intricate network of ditches, ponds and reservoirs surrounded by willow. It has small woodland blocks that are mostly broadleaf species, with orchards, hops and pasture land surrounding settlements. Arable land is more expansive and exposed within the surrounding landscape towards the adjoining river valleys. Settlements are often linear with clusters of development at road junctions. Development tends to comprise farmhouses and cottages, many of which are listed, with frequent use of chequered red and grey brickwork, weatherboarding and thatch. Settlements have little sense of arrival with much linear development along the roads. Views are contained by the small scale field pattern with hedgerows and tall shelterbelts often enclosing orchards. However, views from the wider landscape are more extensive across large scale arable fields. Vegetation belts across the flat landscape largely restrict longer views, although there are some long distance views of the Greensand Ridge.

4.17. This is a coherent landscape where continuity is provided through linear development and regularity of field pattern. Visual detractors comprise large agricultural barns and silos, polytunnels, pylons and fencing. There appears a good ecological network but this has been weakened by extensive arable fields and hedgerow boundary removal.

4.18. Cultural heritage is variable. Built development has a moderate impact on the landscape with a strong contrast between traditional properties and more recent development.

- 4.19. In terms of sensitivity orchards and hops provide continuity throughout the landscape as well as strength of character. Water bodies provide a consistency and a strong sense of place within this LCA. Individuality of settlements has been lost and the sense of place slightly weakened. There are striking examples of local vernacular , but recent development often degrades the setting of traditional buildings.
- 4.20. The assessment assessed the sensitivity as Moderate with Conserve and Improve recommendations that include, conserve frequency of Willow, Conserve the network of ponds and improve habitat connectivity, reinstate traditional boundaries and gap up hedges, Conserve and extend woodland blocks, improve the sense of arrival of separate settlements by avoiding infill development, soften visual impact of large agricultural barns and silos with native planting.

*Valleys LCA and Teise Valley LCT*

- 4.21. River Teise is a subtle valley as it is not situated within steep valley sides and the surrounding landscape is wet and low lying with much willow. The valley landscape is evidenced by limited development and few roads, the expansive size of fields and the remote and tranquil character. There are pockets of fruit orchards and grazing land, much of the landscape is under intensive arable cultivation, and consequently ditches are often filled with algae.
- 4.22. The Guidelines for Valleys, include the following:
- *Encourage good water quality*
  - *Enhance rivers, tributaries, ditch and pond networks by promoting a 30m natural corridor along the length of a watercourse, with 20m along smaller streams, ditches and ponds*
  - *Conserve the unfenced interface between the land and river*
  - *Increase habitat connectivity by promoting vegetation links between key wildlife Sites, including alongside sections of railway line*
  - *Conserve, enhance existing pockets of lowland dry acid grassland, with the extension of grassland areas*
  - *Promote use of extensive grazing as a conservation tool to restore grassland alongside rivers*
  - *Encourage a reduction in the use of herbicides, pesticides and fertilisers*
  - *Conserve and manage the dominance of willow as a key species along the river and avoid planting new species of willow not locally appropriate*
  - *Conserve the rural skyline in views out of valleys*

4.23. Teise Valley LCT comprise the River Teise and the Lesser Teise leading to the Rivers Beult and Medway. The rivers are defined by the extent of alluvium drifts that define the extent of this landscape. The rivers are narrow and their routes are not widely visible, although defined by native vegetation. The LCT is a low lying landform with numerous narrow ditches lined with wild flowers and native woody vegetation.

4.24. There is very little woodland, with small blocks of broadleaf woodland, with sparsely scattered orchards and soft fruit production, enclosed by poplar shelterbelts although not significant

within the landscape. Tall native tree belts, comprising much willow and a mix of oak, blackthorn, hawthorn, hazel, ash and elder, define the routes of ditches and enclose large fields of cereals, grassland and pasture. Field pattern is irregular and generally unenclosed, with an open character as a result of land drainage and agricultural intensification. Pasture is often grazed by herds of horses and grazing land remains open and not segregated. Large oak trees sometimes stand isolated across the arable land and within the pasture, providing landmark features within the open landscape.

- 4.25. There is very little development and few roads, which promotes a remote and tranquil character. A few isolated farmsteads are scattered across the landscape, and some are located along peripheral lanes. Most of the buildings comprise converted oasts and timber barns, creating a striking and simple built environment. A few minor lanes cover this landscape and cross the river, and crossing points are often lined by indistinct brick walls. A railway line crosses the landscape and the rivers although its vegetated course is not widely visible from the surrounding landscape.
- 4.26. There are long distance views of the elevated Greensand Ridge to the north covered in orchards and polytunnels. Within the immediate landscape views extend across large open fields of pasture and arable enclosed by tall tree belts. The white cowls of Oast houses rise above the vegetation, drawing the eye in many views.
- 4.27. A unified pattern of elements within a simplistic landscape, with very few visual distractors that include fencing, weirs, pylons, and some polytunnels. The habitat network is coherent, but intensively farmed arable land leaves ditches filled with algae.
- 4.28. The cultural elements are variable with some new orchards, and built elements respecting local vernacular and create distinct sense of place, although no evidence of traditional field pattern. The open character of the landscape is distinctive which is largely undeveloped with few lanes with a distinctive style of development. Visibility is high due to the large, open field patterns extending across the flat landscape.
- 4.29. The assessment assessed the sensitivity of the landscape as high with Conserve recommendations. These include, conserve and encourage grassland and pasture to improve water quality and biodiversity; conserve native tree belts and gaps replanted; encourage restoration of lost hedgerows boundaries in arable land; conserve isolated oaks and plant new specimens to replace ageing examples; create stronger features at crossing points along the rivers, utilising local ragstone for bridges; conserve remoteness by avoiding development of new buildings and roads.

#### *Site's Landscape Character*

- 4.30. The Site's characteristics are typical of Laddingford LCT and Teise Valley LCT although there is no evidence of pasture or orchards within the Site boundary. The land is laid to arable with mature hedgerows and hedgerow trees lining each individual field. Some of these hedges are



- gappy and the trees very mature in nature. Oak predominates although willow is very much present along the watercourses.
- 4.31. Part of the Lesser Teise River forms the eastern boundary of the Site with mature vegetation along its length. Some of this is gappy in nature with much willow and some mature trees. The river is not clearly visible from within the Site except for a bridge that connects the public right of way (PROW) over the river.
  - 4.32. The majority of the northern boundary of the Site is formed by the South Eastern Railway line. Part of this is vegetated along the boundary of the Site with scrubby trees. However, vegetation reduces the further west along the railway line, with more open views of the railway line. Power lines are visible beyond the railway line which traverse into the Site further west. A PROW follows the majority of this northern boundary, with a well-maintained path prepared by the landowner. The PROW joins a minor road, Burtons Lane, which forms the remainder of the northern boundary, lined with a mature hedgerow with hedgerow trees.
  - 4.33. The western boundary is formed from an existing managed hedgerow with a small woodland block. A number of transmission towers and power lines are highly visible within this section of the landscape travelling north to south through the Site and to the western boundary of the Site.
  - 4.34. Part of the southern boundary of the Site is located off Sheephurst Lane with a managed hedgerow, following the line of the road. The red line boundary follows the line of the woodland block returning east at the north eastern corner of Little Cheveney Farm. This is an open fenced boundary with no vegetation that continues a short distance returning south along a well vegetated ditch boundary, finally connecting to the Lesser Teise River via a made-up track/PROW with limited vegetation.
  - 4.35. Within the Site are numerous ponds and ditches. The Lesser River Teise which splits into two north of the Site boundary, forms a straightened tributary to the eastern boundary of the Site, and a meandering tributary north to south within the Site boundary.
  - 4.36. Field boundaries appear to have been altered in the mid 20<sup>th</sup> Century moving to a more arable landscape, with the loss of orchards which were prevalent to the east of the Site.
  - 4.37. A PROW links Great Sheephurst on Sheephurst Lane through the Site to Marden, with long distance views from this PROW towards high ground of polytunnels and woodland at Coxheath. A PROW lies along a short stretch of the southern boundary of the Site. In addition one follows the majority of the northern boundary. Views from the northern PROW are localised and interrupted by vegetation.
  - 4.38. The wider landscape varies between arable and pastoral with the extended village of Marden lying to the east of the Site and a number of listed buildings located within proximity of the Site.
  - 4.39. Topography of the Site ranges from approximately 18mAOD at the north of the Site to 19.75mAOD at its highest point to the south east, with varying topography within the Site.



## Visual Baseline

- 4.40. Two ZTVs were prepared to identify the range of views possible from the proposed development (SSF-ZTV-001 & 002). Methodology for the preparation of the ZTVs, photography and photomontages are included in Appendix A. From the ZTVs a series of viewpoints were identified where it was anticipated views would be perceived from representative locations such as roads, public rights of way, residential dwellings, Open Access Land, and public amenity spaces (such as public open spaces, cemetery etc).
- 4.41. It was decided that beyond 1km the effect of the proposals on a particular receptor would be imperceptible and efforts were concentrated within 1km of the Site. These are identified on the Viewpoint Location Plans (SSF-ZTV-001 & 002).
- 4.42. Dwellings that would be potentially affected by the proposals would be those in close proximity to the Site along Sheephurst Lane (visible in Viewpoint 7, Figure 23), Burtons Lane, and dwellings to the west of Marden (visible in Place D, Figure 35). Viewpoints were selected from publicly accessible locations near to dwellings to provide a representative view. Views from villages were assessed on Site to determine the extent of visibility.
- 4.43. A Site survey was undertaken on 8<sup>th</sup> July 2021. Conditions were high sun, clear, bright and dry.

## Visual Receptors

### Public Rights of Way/Open Access Land

- 4.44. There are no areas of Open Access Land within the vicinity of the Site. There is a network of PROW to the north, east and south east of the Site as evident on the Viewpoint Location Plan.
- 4.45. Views from PROW are limited to within 1km of the Site boundary. PROW identified within the ZTV that have a view of the Site beyond were assessed during the Site visit but due to intervening vegetation, and the low-lying topography, the visual envelope was significantly reduced. Only viewpoints which had clear views of the Site were selected for assessment.

### Roads

- 4.46. Sheephurst Lane follows part of the southern boundary to the Site, connecting the B2162 (Maidstone Road) southeast to Marden Beech and the B2079 (West End Goudhurst Road). Although a minor road, this road is a fast 50mph cut through road. Viewpoint 9 was taken from Sheephurst Lane where the solar arrays are closest to the road. A large managed hedgerow lines the Site, and the road is set down from the Site boundary, restricting views into the Site. A field gate, which would form the main access would allow glimpsed views into the Site (Viewpoint 9, Figure 29).
- 4.47. Burtons Lane forms part of the northwest boundary to the Site. This is a small dead end track off the B2162 that leads to a small number of houses including Little Long Edge and provides

farm access to the Site, although this is not currently well used. A PROW connects with this track (Viewpoint 8, Figure 24).

- 4.48. The B2162 lies further west of the Site boundary with no views of the Site due to intervening dwellings and vegetation.
- 4.49. North of the railway line lies Longend Lane. Located within close proximity of the Site, but with the raised railway and triangular fields between, visibility of the Site is limited due to intervening roadside, field boundary and railway line vegetation screening views.
- 4.50. Further east of the Site lies Marden with Reaper Drive forming the western boundary of a more recent housing development. Due to intervening vegetation, there are limited views from this road.
- 4.51. There are no other roads with views of the Site.

#### Dwellings

- 4.52. There are a small number of dwellings with views of the Site. These are located along Sheephurst Lane towards the south of the Site, and also to the east of the Site, including the western edge of Marden. The views would be mostly from upstairs windows only.
- 4.53. A cluster of dwellings are located within Little Cheveney Farm off Sheephurst Lane. Dwellings within this location nearer to Sheephurst Lane would have no views of the Site. However, to the east of this cluster, dwellings would have potential views of the Site although mainly from upstairs windows with occasional views from principal windows downstairs. Plate C (Figure 34) identifies one of these dwellings from within the Site and Viewpoint 1 identifies an Oast House and roofline of a bungalow nearest to the Site.
- 4.54. Dwellings at Great Sheephurst Farm would have potential views from upstairs windows only due to intervening vegetation screening views to the ground floor (partially visible in Plate C, Figure 34).
- 4.55. Due to gaps in vegetation, a cluster of dwellings around Little Sheephurst Farm along Sheephurst Lane are visible from within the Site, with the majority of views from upstairs windows and occasional views from ground floor windows.
- 4.56. One dwelling along Burtons Lane may have partially screened views of the solar energy farm from upstairs windows.



Image aa: Dwelling on Burton's Lane visible from within the Site

- 4.57. Further east, Turkey Farmhouse has views towards the Site. These are mainly from upstairs windows although there may be occasional views from ground floor windows where there are gaps in garden and boundary vegetation. Plate B (Figure 33) shows the visible extent of Turkey Farmhouse from within the eastern boundary of the Site.
- 4.58. Further east, in Marden, dwellings along Meades Close and Bramley Court would have partial views of the Site from 1<sup>st</sup> floor windows (visible from Plate D). Also new dwellings along Reader Drive may have partial glimpses of the Site from upstairs windows, as the dwellings are visible from within the Site. However, there are no ground floor views due to intervening vegetation.
- 4.59. Gravel Pit Farm is located east of the Site. However views from the dwelling are screened by intervening vegetation and barns.



Image bb: Gravel Pit Farm with outbuildings and vegetation

- 4.60. There are a number of glamping pods visible from within the Site (Plate D, Figure 35). Although not dwellings these would have partial views of the solar energy farm between gaps in vegetation.

#### Public amenity

- 4.61. There are no formal recreation grounds within proximity of the Site that would have views of the Site.

## **5. ASSESSMENT OF LANDSCAPE EFFECTS**

- 5.1. The effects on the landscape by the proposed development are determined by the sensitivity of the landscape receptor and the magnitude of effect.
- 5.2. The Landscape Character Types of Laddingford and Teise Valley have been identified in the Maidstone Landscape Capacity Study: Sensitivity Assessment, 2015 as moderate and high sensitivity, respectively. However in accordance with the GLVIA (pp 89, paras 5.41 & 5.42), the Site has been independently assessed on its sensitivity to this form of development.
- 5.3. Sensitivity is determined by defining
- Susceptibility of the landscape element to change, and
  - Value of the landscape element.

5.4. The susceptibility of the landscape to change of the Site and its immediate setting (i.e. the level of influence or harm that a proposed development could have on the landscape) is detailed in Table 1 below:

<b>Table 1: Susceptibility of the landscape to change</b>		
<b>Landscape elements</b>	<b>Description</b>	<b>Level of susceptibility</b>
Topography (Site)	The Site has relatively flat valley topography with a gentle gradient change of approximately 1.75m leading to the rivers and ditches located within and to the edge of the Site.	Medium
Topography (surroundings)	The wider character area has similar characteristics associated with Low Weald and Valleys. Although the Greensand Ridge is partially visible from within this landscape character.	Medium
		<b>Summary: Medium</b>
Trees and Hedgerows	Hedgerows and trees are prevalent throughout the Site with many mature trees, and a mix of managed and unmanaged hedgerows and smaller woodland blocks. There is much willow vegetation along the river margins, providing contrast to the field boundaries.	High
	The wider area has a mix of small woodland plantations, hedgerows, mature trees and river margin vegetation. This is very similar to the Site.	High
		<b>Summary: High</b>
Arable land	The Site is an arable landscape set within the context of further arable and pasture.	
		<b>Summary: Low-Medium</b>
<b>Overall susceptibility to change</b>		<b>Medium</b>

5.5. The value of the landscape is based on the characteristics and qualities of the Site and their level of importance within the landscape. These are identified in Table 2 below:

<b>Table 2: Value of the landscape</b>		
<b>Characteristics and qualities of the Site</b>	<b>Description &amp; level of importance</b>	<b>Value</b>
Landscape condition	The Site is formed of seven arable fields within the local landscape. The eastern and western boundaries of each field are a mix of managed and unmanaged hedgerows with mature trees, with more noticeable vegetation along the river edges. Some of these boundaries are gappy in nature. The north and southern boundaries are generally less vegetated with field boundaries having been removed to make larger arable fields. Roadside hedgerows are present although with less trees.	Medium-High
	There is limited vegetation along the railway line boundary with only a small section within the east of the Site leading towards Marden.	Low



<b>Table 2: Value of the landscape</b>		
<b>Characteristics and qualities of the Site</b>	<b>Description &amp; level of importance</b>	<b>Value</b>
	<p>There appears to have been some intensification of the landscape, with straightening of the water course, although the landscape pattern as it is now, is generally constrained by water.</p> <p>The surrounding landscape is a mix of arable and pastoral. There are smaller fields south of Sheephurst Lane, although signs of field boundary vegetation being eroded is visible. However intensification of arable landscape has created some supersized intensively farmed fields. Watercourses continue to restrict the size of fields and provide some vegetation structure visible within the wider landscape.</p>	<p>Medium</p> <p>Medium</p> <p><b>Summary: Medium</b></p>
Scenic quality	<p>The Site has a rural feel to it the further into the Site, with visibility of Marden to the east of the Site, and overhead power lines to the west. The railway line and its associated infrastructure are also detracting features. However, the general feel of the Site is vegetated with a level of tranquillity.</p> <p>The wider context varies with a mix of large agriculture, urban sprawl associated with Marden, busy road networks but also woodland plantations and orchards. These vary the scenic quality dependent on location.</p>	<p>Medium-High</p> <p>Medium</p> <p><b>Summary: Medium</b></p>
Rarity	The Site has no rare features in the local landscape.	<b>Summary: Low</b>
Representativeness	The Site is representative of the wider expansive arable landscape.	<b>Summary: Medium</b>
Conservation interests	<p>The Site has important wetland features with rivers, ditches and ponds and alongside field boundaries are of particular importance to wildlife. However, the arable landscape has very little conservation value.</p> <p>There are a number of listed buildings within the wider landscape.</p>	<p>Medium</p> <p>Medium-High</p> <p><b>Summary: Medium</b></p>
Recreation value	<p>There is a public right of way that follows the northern boundary of the Site with a footpath that also traverses part of the southern section of the Site.</p> <p>A network of PROW extend into the wider landscape. They appear to be well used.</p>	<p>Medium-High</p> <p>Medium-High</p> <p><b>Summary: Medium-High</b></p>
Perceptual aspects	<p>The Site is seen as an arable landscape and towards the centre of the Site appears more remote and tranquil. However, power lines and the railway line can detract from the perceived tranquillity.</p> <p>Wider views are generally more rural in nature particularly to the west and south of the Site, although more urban expanses of Marden are visible from within the Site, with graffiti on railway infrastructure also visible.</p>	<p>Medium</p> <p>Medium</p> <p><b>Summary: Medium</b></p>
Associations	The Site does not appear to be associated with any local historic events or persons of interest.	<b>Summary: Low</b>

Table 2: Value of the landscape		
Characteristics and qualities of the Site	Description & level of importance	Value
<b>Overall Landscape Value</b>		<b>Medium</b>

- 5.6. The sensitivity of the landscape is determined by landscape elements that affect susceptibility to change (**medium** (Table 1)) and landscape value (**medium** (Table 2)). The overall sensitivity of the landscape to this type of development is **medium** within the study area.
- 5.7. The magnitude of landscape effects at completion (Table 3a) and after 10 years (Table 3b) is highlighted below:

Table 3a: Magnitude of Landscape Effects at completion				
Landscape components	Size and scale	Geographical extent of the effect	Duration and reversibility	Magnitude of effect within Study Area
Introduction of solar arrays with associated fencing and access tracks.	The solar panels are 3m in height and set in rows (arrays) across the majority of 7 fields avoiding tree lines and belts and the far west and south east of the Site.  Solar arrays follow the contours of the landscape. Tracks are visible to the edge of development.  Fencing is deer fence style.	Visible from PROW adjacent and within 1km of the Site. Extent of effect diminishes significantly beyond 800m.	Temporary (upto 37year lifespan) and reversible	High Adverse  (This is associated with the size of the Site, but the limited extent at which this affects the wider landscape)
Introduction of electrical infrastructure	The battery storage is located to the east of the Site within a barn construction similar in style and scale to barns within the local landscape. The kV compound is set adjacent to the solar arrays to the west of the Site in proximity to existing vegetation and within containers.	Views of the barn from PROW to the south and north with partial views from the east of the Site. Partial visibility of the kV compound to the south of the Site. Otherwise not visible within the landscape.	Temporary as above	Medium Adverse
Retention of all vegetation within the Site boundary	Existing size and scale of vegetation	Localised and regional	Permanent	Medium-High beneficial
Planting of trees, woodland, gapping up hedgerows and river vegetation and introduction of	Hedgerows along all fencelines with mitigation tree and shrub planting around all structures and where	Localised within the Site.	Permanent	Negligible  (due to lack of maturity of vegetation)

<b>Table 3a: Magnitude of Landscape Effects at completion</b>				
<b>Landscape components</b>	<b>Size and scale</b>	<b>Geographical extent of the effect</b>	<b>Duration and reversibility</b>	<b>Magnitude of effect within Study Area</b>
meadow. Providing east to west connections between existing fields and providing landscape buffers to dwellings.	there is no boundary vegetation. Existing hedgerows to be gapped up and additional trees planted to provide new structure of trees over time.			
Permissive path that connects the south eastern PROW to the existing PROW north of the Site, and passes through the western biodiversity area back to Sheephurst Lane.	Informal but managed path network that extends the east, north and west of the Site	Visible locally within the Site	Permanent	Medium Beneficial
<b>Magnitude of Landscape Effects following completion</b>				<b>Low-Medium Adverse</b>

<b>Table 3b: Magnitude of Landscape Effects after 10 years</b>				
<b>Landscape components</b>	<b>Size and scale</b>	<b>Geographical extent of the effect</b>	<b>Duration and reversibility</b>	<b>Magnitude of effect within Study Area</b>
Solar arrays and associated infrastructure present within the landscape	The solar panels are 3m in height and set in rows (arrays) across the majority of 7 fields avoiding tree lines and belts and the far west and south east of the Site.  Solar arrays follow the contours of the landscape. Tracks are visible to the edge of development.  Fencing is deer fence style.	Mostly screened from PROW adjacent and within 500m of the Site. Extent of effect diminishes with intervening vegetation. Grassland matured under solar arrays and around the Site	Temporary (upto 37year lifespan) and reversible	Medium Adverse  (This is associated with the size of the Site, but the limited extent at which this affects the wider landscape, as well as the assimilation of the arrays within the landscape due to maturation of vegetation)
Introduction of electrical infrastructure	The battery storage is located to the east of the Site within a barn construction similar in style and scale to barns within the local landscape. The kV compound is set adjacent to the solar arrays to the west of the Site in proximity to existing vegetation and within containers.	Mostly screened views of the barn from PROW to the south north and east of the Site. Mostly screened kV compound to the south of the Site. Otherwise not visible within the landscape.	Temporary as above	Low Adverse  (Although the size remains, the infrastructure has assimilated within the landscape due to maturation of vegetation)
Retention of all vegetation within the Site boundary	Existing size and scale of vegetation	Localised and regional	Permanent	Medium-High beneficial



<b>Table 3b: Magnitude of Landscape Effects after 10 years</b>				
<b>Landscape components</b>	<b>Size and scale</b>	<b>Geographical extent of the effect</b>	<b>Duration and reversibility</b>	<b>Magnitude of effect within Study Area</b>
Maturing trees, woodland, gapped up hedgerows and river vegetation with established meadow. East to west hedgerow connections between existing fields and providing landscape buffers to dwellings.	Hedgerows along all fencelines with mitigation tree and shrub planting around all structures and where there is no boundary vegetation. Existing hedgerows gapped up and additional trees maturing to provide new structure of trees over time.	Visible within the Site and within 1km of the Site boundary where views are present.	Permanent	High beneficial
Permissive path that connects the south eastern PROW to the existing PROW north of the Site, and passes through the western biodiversity area back to Sheephurst Lane.	Informal but managed path network that extends to the east, north and west of the Site	Visible locally within the Site	Permanent	Medium Beneficial
<b>Magnitude of Landscape Effects after 10 years</b>				<b>Low Beneficial</b>

5.8. Significance of landscape effects is the combination of the sensitivity of the landscape and the magnitude of change. Table 4 below identifies the significance of effect upon completion and within 10 years:

<b>Table 4a: Significance of effect upon completion</b>		
<b>Sensitivity of landscape Elements</b>	<b>Magnitude of Landscape Effects</b>	<b>Significance of Effect on Landscape</b>
<b>Medium</b>	<b>Low-Medium Adverse</b>	<b>Slight-Moderate Adverse</b>

<b>Table 4b: Significance of effect after 10 years</b>		
<b>Sensitivity of Landscape Elements</b>	<b>Magnitude of Landscape Effects within 10 yrs</b>	<b>Significance of Effect on Landscape within 10 yrs</b>
<b>Medium</b>	<b>Low Beneficial</b>	<b>Slight Beneficial</b>

5.9. The significance of effect on the landscape of the development proposals for this Site would be **Slight-Moderate Adverse** upon completion improving to **Slight Beneficial** within the Study Area.

## 6. ASSESSMENT OF VISUAL EFFECTS

6.1. The visual appraisal was undertaken using ZTVs produced from bare earth and LIDAR digital surface modelling (SSF-ZTV-001 & 002). A series of viewpoints were selected that were representative of the key views within the local area. They are not intended to cover every available view. These included public rights of way, roads, residential dwellings (or within close proximity to), and public amenities from which the proposed development would be seen. There were a number of PROW and residential dwellings with views, but no public amenity spaces that afforded views. These selected viewpoints were verified on Site. These are shown in detail in Appendix B.

6.2. The visual receptors that would potentially be most affected would be from a small number of dwellings and public rights of way within 500m of the proposed development. It is considered that with increasing distance from the proposed development the effects decrease significantly. These are all identified on the Viewpoint Location Plans (SSF-ZTV-001 & 002).

### **Viewpoint 1 (Appendix B, Figures 1-5) – Public Right of Way looking north. South of and 190m to visible Site boundary (although 30m to the rear of viewpoint).**

6.3. This viewpoint is located at 19.7m AOD with views through a former hedgerow, now a barbed wire fence with sparse hedgerow vegetation. It encompasses views of part of the Site beyond the field boundary. Distant vegetation associated with field boundaries and the woodland to the central aspect of the Site are visible within the view. A bungalow and associated barns are visible within the viewpoint. The sensitivity of the receptor is high.

6.4. Photomontages have been prepared for this viewpoint (Appendix B, Figures 1-5). The solar arrays would be located approximately 190m from the viewpoint location and would be visible from this viewpoint across the majority of the view. A substantial woodland planting buffer and hedgerow would be located between the solar arrays and the receptor. Figures 2 & 4 shows the solar arrays and planting after 1 year of vegetative growth, and Figures 3 & 5 after 10 years of vegetative growth. Additionally the land within which the viewpoint is located (outside of the Site boundary) would be planted with woodland along the boundaries.

6.5. The magnitude of change during construction and upon completion would be medium-high. Combined with a high sensitivity receptor the significance of effect would be Substantial Adverse.

6.6. After 1 year of vegetative growth and within a new woodland landscape, the magnitude of change would reduce to medium with a substantial adverse significance of effect.

6.7. Over the period of 10 years as vegetation matures, the magnitude of change would reduce. From 5 years the effects would significantly reduce and at 10 years the magnitude of change would be low-medium beneficial. The significance of effect at 10 years would be Moderate Beneficial as the new woodland screens the view.

**Viewpoint 2 (Appendix B, Figures 6-10) – from PROW. Looking north, within the Site boundary.**

- 6.8. This viewpoint is located within the Site and south of the solar arrays at 19.09mAOD. The sensitivity of the receptor would be high. This viewpoint has long distance views to the north and the south. To the north a small section of the view extends beyond field boundary vegetation to high ground at Coxheath with numerous polytunnels visible within the landscape. Dense mature vegetation line the river and ditches to the east and west of the field boundaries and also to the north along the railway line creating a sense of a wooded landscape.
- 6.9. Photomontages have been prepared for this viewpoint (Appendix B, Figures 6-10). The solar arrays would be visible to the foreground across the entire view with the roof of barn housing the BESS visible beyond. A woodland planting buffer and hedgerow would be planted between the solar arrays and the receptor creating a new field boundary. Figures 7 & 9 shows the solar arrays, barn and planting after 1 year of vegetative growth, and Figures 8 & 10 after 10 years of vegetative growth.
- 6.10. The magnitude of change during construction and upon completion would be high. Combined with a high sensitivity receptor the significance of effect would be Substantial Adverse.
- 6.11. After 1 year of vegetative growth of the woodland buffer with hedgerow, the magnitude of change would reduce to medium-high with a substantial adverse significance of effect.
- 6.12. Over the period of 10 years as vegetation matures, the magnitude of change would reduce. From 5 years the effects would significantly reduce and at 10 years the magnitude of change would be low beneficial. The significance of effect at 10 years would be Moderate Beneficial as the boundary hedgerow matures and new woodland screens the view of the solar array and barn.

**Viewpoint 3 (Appendix B, Figure 11) – from PROW. Looking north west. East of and 80m to the Site.**

- 6.13. This viewpoint is located on a PROW outside of the Site boundary at 18.9mAOD. The view extends across the river into the Site. The river is mostly well vegetated as seen within the Image A below. However, occasional gaps in vegetation as identified in Viewpoint 3 (Figure 11), allow views through into the Site. The sensitivity of the receptor is high.



Image cc: Typical view of Site boundary vegetation

- 6.14. The barn housing the BESS would be visible through the gap in vegetation from this location with glimpses of the solar arrays either side. The rest of the Site would be screened from the receptor by mature vegetation (Plate A, Figure 32). The magnitude of change would be high with substantial adverse significance of effect upon completion.
- 6.15. With the gapping up of the field boundary vegetation with willow, poplar and alder (fast growing species) as well as a hedgerow that follows the fence line with further woodland planting around the barn as required within the landscape character of this location, within 10 years the barn and the solar arrays would be substantially screened. The magnitude of change would improve to Low beneficial with a Moderate Beneficial significance of effect.
- 6.16. It is important to note that as per Image A, there are few gaps within the Site boundary to allow views through into the Site.

**Viewpoint 4 (Appendix B, Figure 12) – from PROW (farm track, Gravel Pit Lane). Looking west. E and 410m to the Site boundary.**

- 6.17. This viewpoint is located on a similar elevation to the Site on a well-used, made-up track/PROW that provides pedestrian access from Marden to the Wheelbarrow Park Industrial Estate and access to Gravel Pit Farm Cottages and Turkey Farmhouse. A large arable field extends across the foreground with the vegetation of the River Teise and the Site boundary beyond. Similar to Viewpoint 3, there are small gaps in vegetation allowing glimpsed views through to the Site. The sensitivity of the receptor is high.



- 6.18. The magnitude of change during and upon completion would be low-medium, due to the distance from the Site, and the extent of vegetation along the river edge providing intermittent views towards the Site. Combined with a medium-high sensitivity receptor, the significance of effect would be substantial adverse.
- 6.19. Over the period of 10 years as the gapped up field boundary vegetation matures, along with a hedgerow that follows the fence line, views into the Site would be significantly reduced. The magnitude of change would improve to low beneficial with a Moderate Beneficial significance of effect.

**Viewpoint 5 (Appendix B, Figures 13-17) – from PROW. Looking west, 250m E of the Site.**

- 6.20. This viewpoint is located at 17.79mAOD and taken from a PROW. The viewpoint is located in proximity to the garden boundary of Turkey Farmhouse. The Site is partially visible through gaps in vegetation along the River Teise that forms the boundary to the Site. Part of the railway line is visible from this viewpoint. The sensitivity of the receptor would be high.
- 6.21. Photomontages have been prepared for this viewpoint. The solar arrays would be located at approximately 460m from the receptor beyond the existing vegetation of the river and set back from the edge of the Site boundary. A hedgerow would be planted up along the fence line of the solar arrays, the field boundary gapped up with appropriate trees and shrubs and left unmanaged due to the nature of the river embankment and A community orchard planted where the PROW enters the Site. Figures 14 & 16 shows the solar arrays and planting after 1 year of vegetative growth for the hedgerow and gapping up, and Figures 15 & 17 after 10 years of vegetative growth.
- 6.22. The magnitude of change during and upon completion would be medium and combined with a high sensitivity receptor would have a substantial adverse significance of effect.
- 6.23. Over the period of 10 years as vegetation matures, gaps along the riverbank naturally close with the visibility of the arrays reducing significantly. Magnitude of change would improve to medium beneficial with a Substantial Beneficial significance of effect.

**Viewpoint 6 (Appendix B, Figures 18-22) – from PROW. Looking south east. N and within the Site boundary.**

- 6.24. This viewpoint is located at 17.67mAOD, on a well-used mown PROW to the north of the Site following the line of the railway. Despite the field boundary vegetation, the arable field is of a large commercial size, limited in its width by the split river to the east and west of this field with mature trees visible, and the railway line to the north. In this section of the Site the railway line is well vegetated. The edge of Marden is visible within the view as is Turkey Farmhouse. The sensitivity of the receptor would be high.
- 6.25. Photomontages have been prepared for this viewpoint. The solar arrays would be located within 10-15m of the viewpoint location and would be visible from this viewpoint across the majority of the view. A meadow buffer and hedgerow would be planted in front of the fenceline.

Figure 19 & 21 shows the solar arrays and planting after 1 year of vegetative growth for the hedgerow, and Figures 20 & 22 after 10 years of vegetative growth.

- 6.26. The magnitude of change during and upon completion would be high and combined with a high sensitivity receptor would have a substantial adverse significance of effect.
- 6.27. After 1 year of vegetative growth of the hedgerow with a meadow landscape, the magnitude of change would reduce to medium-high with a substantial adverse significance of effect.
- 6.28. Over the period of 10 years as vegetation matures and the hedgerow screens the solar arrays and fence line from view, the magnitude of change would reduce to negligible with a negligible significance of effect.

**Viewpoint 7 (Appendix B, Figure 23) – from PROW. Looking south west. North and within the Site boundary.**

- 6.29. This viewpoint is located at approximately 17.6m AOD along a managed PROW to the north of the Site following the line of the railway. The view encompasses a smaller arable field with views through a gappy hedgerow to dwellings along Sheephurst Lane as well as the edge of a woodland block to the centre and outside of the Site boundary. Transmission towers are also visible within the view. The sensitivity of the receptor would be high.
- 6.30. The solar arrays would be located within 10-15m of the receptor and visible across the entire view. The magnitude of change would be high with a Substantial Adverse effect upon completion. Similar to Viewpoint 6, a hedgerow would follow the fence line with a meadow landscape to the foreground.
- 6.31. After year 1 of vegetative growth of the hedgerow, the magnitude of change would be medium-high with a Substantial Adverse significance of effect.
- 6.32. Over a period of 10 years as vegetation matures the hedgerow boundary would screen views of the solar arrays and fence line. The magnitude of change would reduce to negligible with a negligible significance of effect.
- 6.33. Further west within this small arable field, along the PROW the view changes significantly as the vegetation along the field boundary is dense with mature trees. This is visible from Plate E.

**Viewpoint 8 (Appendix B, Figures 24-28) – from PROW. Looking east. North and within the Site boundary.**

- 6.34. This viewpoint is located at approximately 16.37mAOD from a managed PROW to the north of the Site. The view encompasses field boundary vegetation to an arable field, with railway line boundary vegetation to the distance. A transmission tower, and utility poles are located within the view. Vegetation surrounding an existing pond is also visible within the view.

- 6.35. Photomontages have been prepared for this viewpoint. The solar arrays would be located within 80m of the viewpoint location and along with an access track would be visible from this viewpoint across the right of the view. A meadow buffer and hedgerow would be planted in front of the fence line with woodland planting to the front of the access track. Figures 25 & 27 shows the solar arrays and planting after 1 year of vegetative growth for the hedgerow & woodland planting, and Figures 26 & 28 after 10 years of vegetative growth.
- 6.36. The magnitude of change during and upon completion would be high and combined with a high sensitivity receptor would have a substantial adverse significance of effect.
- 6.37. After 1 year of vegetative growth of the hedgerow and woodland with a meadow landscape, the magnitude of change would reduce to medium-high with a substantial adverse significance of effect.
- 6.38. Over the period of 10 years as vegetation matures and the hedgerow and woodland screen the solar arrays and fence line from view, the magnitude of change would reduce to low beneficial with a Moderate Beneficial significance of effect.

**Viewpoint 9 (Appendix B, Figure 29) – from road (Sheephurst Lane). Looking east. 40m W of the Site.**

- 6.39. This viewpoint is located at approximately 20.2m AOD from Sheephurst Lane. It is representative of a 50mph road. Mature managed hedgerows and hedgerow trees line the road on either side with glimpses of views over the hedgerow where the land dips slightly. The viewpoint is located in close proximity to the proposed entrance to the Site. The sensitivity of the receptor is medium.
- 6.40. The access track entrance would be visible from this viewpoint similar to a farm gate access with glimpses of the tops of solar arrays beyond the hedgerow, although set back from the road and approximately 120m from the receptor. The magnitude of change would be negligible with a negligible significance of effect. This would be the same after 10 years.

**Viewpoint 10 (Appendix B, Figure 30) – from driveway to dwelling on Sheephurst Lane. Looking north. C.25-30m E of the Site.**

- 6.41. This viewpoint is located at approximately 20.4mAOD from the driveway to a semi-detached dwelling north of Sheephurst Lane and east/south east of the Site boundary. The sensitivity of the receptor is high (downstairs windows) and medium (from upstairs windows). The image is representative of a dwelling.
- 6.42. Part of the Site is located beyond a managed hedgerow to the west and north west of the garden boundary. There is much vegetation to the north of the garden. The remainder of the Site extends further north beyond the garden and field boundary. The upstairs and downstairs windows of the adjoining house are visible from the north of the Site (Viewpoint 7).

- 6.43. Although the image does not represent a clear view of the Site, views towards the solar arrays and HV compound would exist from upstairs windows. From downstairs windows the magnitude of change would be negligible-low as the solar arrays and HV compound are set back from the edge of the garden boundary, although the Site fence line would be partially visible. The magnitude of change with a high sensitivity receptor would be Slight Adverse. From the upstairs windows the magnitude of change would be medium and with a medium sensitivity receptor would be Moderate Adverse.
- 6.44. To the north and west of the garden boundary woodland planting would be introduced to provide a buffer between the dwellings and the solar arrays and HV compound of the Site. After 1 year there would be no change to the magnitude of change from the dwelling.
- 6.45. Over a period of 10 years as the woodland matures, the trees would provide an effective buffer and screen all views of the solar arrays and HV compound. The magnitude of change from ground floor would reduce to nil and reduce to negligible from the upstairs windows with a negligible significance of effect.

**Viewpoint 11 (Appendix B, Figure 31) – from Crook Road viewpoint. Looking east. C.4.3km SW of the Site.**

- 6.46. This viewpoint is located at approximately 105mAOD from a viewpoint at the top of Crook Road on the edge of Brenchley. The view is a panoramic view from the edge of High Weald AONB across the valley towards the ridge along Coxheath. The sensitivity of the receptor is classed as high as the receptor is encouraged to appreciate the view.
- 6.47. The Site would be mostly screened behind foreground mature dense vegetation with glimpsed views with a negligible magnitude of change and significance of effect.

**Dwellings**

- 6.48. A bungalow to the north of Little Cheveney Farm faces north and within 55m of the solar arrays. An existing barn located north east of the dwelling and garden vegetation partially screen the Site. However, partially screened views would be experienced from principal windows of the dwelling and would be of high sensitivity. The magnitude of change during and upon completion would be medium-high, and the significance of effect Substantial Adverse.





Image dd: View of the bungalow with existing barns between the dwelling and the Site

- 6.49. Mitigation woodland planting to the north of the bungalow, following the line of a field boundary will over a period of 10 years fully screen the Site from the dwelling. The magnitude of change would be medium beneficial with a Substantial Beneficial significance of effect.
- 6.50. Oast house converted dwellings around Little Cheveney Farm north of Sheephurst Lane and Great Sheephurst Farm south of the lane, that face towards parts of the Site will have views of the solar energy farm. Several of these are Grade II listed. The distance from the solar arrays (not Site boundary) varies ranging from 140m to 300m. Existing vegetation and other structures provide some degree of screening towards the solar energy farm. However, views are likely to be experienced from upstairs windows predominantly and the sensitivity of the receptor would be medium. The magnitude of change initially would be medium with a moderate adverse significance of effect.
- 6.51. Mitigation woodland planting is located between the field boundary at the bungalow and the solar energy farm, with additional woodland, hedgerow and pond located further south and to the east of Little Cheveney Farm. Although these are outside of the Site boundary, they will provide significant mitigation towards the solar energy farm. The magnitude of change would be medium beneficial with a Moderate Beneficial significance of effect.
- 6.52. Dwellings located around Little Sheephurst Farm (ranging from 30-125m from the Site boundary) are visible from within the Site (Viewpoint 7). The views are mostly from upstairs windows although there are some views from ground floor particularly towards the north of Sheephurst Lane. Viewpoint 10 details the effects on the dwellings to the north of the Site,

which would be replicated to all those south of the road. The magnitude of change from upstairs windows would be medium and with a medium sensitivity receptor would be Moderate adverse.

- 6.53. Introduction of mitigation woodland to the southern and western boundary of the Site would after 10 years provide an effective buffer and screen most views of the solar arrays. The magnitude of change would be negligible with a Negligible significance of effect.
- 6.54. The dwelling to the northwest of the Site on Burtons Lane (60m from Site boundary and 165m from the solar arrays), would have upstairs views of the solar energy farm. These would be oblique and would encompass only part of the northern aspects of the solar energy farm as intervening vegetation screens the rest of the view. The sensitivity of the receptor would be medium and the magnitude of change low as the solar arrays are set back off the PROW by 15m with a Slight Adverse significance of effect.
- 6.55. Mitigation planting of hedgerows and woodland between the receptor and the solar arrays would, after 10 years reduce the magnitude of change to negligible with a negligible significance of effect.
- 6.56. Turkey Farmhouse (Grade II listed) is located 300m east of the Site boundary and 350m east of the solar arrays. Partially screened views can be experienced from upstairs windows (medium sensitivity) facing west and some downstairs rooms (high sensitivity). The view is similar to Viewpoint 5, however, garden vegetation provides additional screening of the Site.
- 6.57. A hedgerow would be planted along the fence line orchard planting would be located between the field boundary and the solar arrays, and the field boundary gapped up with appropriate trees and shrubs and left unmanaged due to the nature of the river embankment.
- 6.58. The magnitude of change during and upon completion would be low-medium and combined with a medium and a high sensitivity receptor would have a Moderate and Moderate-Substantial adverse significance of effect.
- 6.59. Over the period of 10 years as vegetation matures, and gaps along the riverbank naturally close the visibility of the solar arrays would reduce significantly. Magnitude of change would improve to medium with a Substantial beneficial significance of effect from downstairs rooms and Moderate Beneficial from upstairs rooms.
- 6.60. No other individual dwellings appear to have views of the solar energy farm.

**Listed Parks and Gardens and Listed Buildings within 500m of Site boundary**

- 6.61. There are no registered parks and gardens within 500m of the Site boundary.
- 6.62. There are a number of listed buildings within 500m of the Site. Those dwellings that may have views of the solar energy farm have been discussed in detail in the above section on Dwellings.

### **Transport routes with potential views**

- 6.63. The area's roads were thoroughly assessed for impact on views that were identified within the ZTV. However, it was found that most roads were screened by intervening vegetation. The roads with potential views were assessed and included Burtons Lane and Sheephurst Lane located in close proximity to the Site. The sensitivity of the receptor would be medium.
- 6.64. Burtons Road is a cul-de-sac to the north west of the Site boundary. The majority of the road is screened by vegetation. However, a small section towards the end of the road will have potential views through the existing access to the field, currently overgrown with vegetation. The effect would be similar to Viewpoint 8 although set back from the Site. The view would be through the proposed new access gate with field boundary vegetation providing partial screening. The magnitude of change upon completion would be low-medium with a Slight-Moderate Adverse significance of effect.
- 6.65. Mitigation planting of hedgerows and woodland between the receptor and the solar arrays would, after 10 years reduce the magnitude of change to negligible with a negligible significance of effect.
- 6.66. Sheephurst Lane runs to the south of the Site, although the solar arrays are only present near to the road on the south west of the Site. Viewpoint 9 details the effects on Sheephurst Lane at this location. Where there are field gate gaps in roadside vegetation there are possibilities of glimpsed views into the Site. Plate F (Figure 37), however, shows dense vegetation between the receptor and the majority of the Site with only glimpsed views of the Site prior to mitigation and biodiversity vegetation maturing. Plate G is through a field gate to the boundary of the Site with the road. Views would extend into the Site including solar arrays and the kV plant at this location. However, the gate would be removed and the gap in the hedgerow planted with native hedgerow species at the earliest opportunity. This would only be a temporary view with a medium magnitude of change with a Moderate Adverse significance of effect. It would reduce to negligible within 10 years. The visibility of the solar arrays from the rest of Sheephurst Lane would be negligible-nil due to intervening roadside and field boundary vegetation.
- 6.67. The railway line runs along the northern aspect of the Site and is raised above the Site boundary by approximately 0.5m. The eastern extents are heavily vegetated along the length with mature trees and hedgerows fully screening the Site with no visibility of the Site. However, further west, there is minimal vegetation and views would extend across the Site. The sensitivity of the receptor would be medium, and the receptor would be transient.
- 6.68. Upon completion the Site would be visible from the receptor and the magnitude of change would be medium with a Moderate Adverse significance of effect.
- 6.69. Mitigation planting between the receptor and the solar arrays would reduce the magnitude of change to negligible-low with a Negligible-Slight Adverse significance of effect.

**Villages with potential views**

- 6.70. Marden village is the only village within proximity of the Site with the potential to have views of the Site. The vast majority of Marden does not have views of the Site. The locations with potential views include dwellings to the west of Meades Close and Bramley Court, with a small number of dwellings on Russell Road.
- 6.71. These dwellings would have partially screened views from upstairs windows. Ground floor rooms would generally be fully screened by intervening vegetation. The sensitivity of the receptors would be medium. The magnitude of change would be low-medium with a slight-moderate adverse significance of effect.
- 6.72. Over a period of 10 years as mitigation vegetation along the River Teise boundary, and also along the fence line within the Site matures, the magnitude of change would improve to medium beneficial with a Moderate Beneficial significance of effect.
- 6.73. There are no other villages with views of the Site.

Summary

- 6.74. It is evident from the Site visit that the effects of the proposed development would only affect a small number of receptors within 800m of the Site. These are mainly from public rights of way and residential dwellings in close proximity to the Site. Beyond 800m the visual effects are negligible. These are summarised below in Table 5:

<b>Table 5: Summary of Visual Effects</b>					
<b>Viewpoint</b>	<b>Sensitivity</b>	<b>Magnitude of Change on completion</b>	<b>Significance of effect on completion</b>	<b>Magnitude of change after 10 years</b>	<b>Significance of effect after 10 years</b>
1 – PROW 190m S	High	Medium-High	Substantial Adverse	Low-Medium Beneficial	Moderate Beneficial
2 – PROW within S	High	High	Substantial Adverse	Low Beneficial	Moderate Beneficial
3 – PROW 80m E	High	High	Substantial Adverse	Low Beneficial	Moderate Beneficial
4 – PROW 410m E	High	Medium	Substantial Adverse	Medium Beneficial	Substantial Beneficial
5 – PROW 250m E	High	Medium	Substantial Adverse	Medium Beneficial	Substantial Beneficial
6 – PROW within N	High	High	Substantial Adverse	Negligible	Negligible

<b>Table 5: Summary of Visual Effects</b>					
<b>Viewpoint</b>	<b>Sensitivity</b>	<b>Magnitude of Change on completion</b>	<b>Significance of effect on completion</b>	<b>Magnitude of change after 10 years</b>	<b>Significance of effect after 10 years</b>
7 – PROW within N	High	High	Substantial Adverse	Negligible	Negligible
8 – PROW within N	High	High	Substantial Adverse	Low Beneficial	Moderate Beneficial
9 – Road (Sheephurst Lane) 40m W	Medium	Negligible	Negligible	Negligible	Negligible
10 – Dwelling 30m E	High (downstairs) Medium (upstairs)	Negligible-Low (downstairs) Medium (upstairs)	Slight Adverse Moderate Adverse	Nil (downstairs) Negligible (upstairs)	Nil (downstairs) Negligible (upstairs)
11 – Viewpoint 4.3Km SW	High	Negligible	Negligible	Negligible	Negligible
Bungalow Little Cheveney Farm (downstairs) 55m S	High	Medium-High	Substantial Adverse	Medium Beneficial	Substantial Beneficial
Oast House dwellings @ Little Cheveney Farm and Great Sheephurst Farm (upstairs) from 140-300m S	Medium	Medium	Moderate Adverse	Medium	Moderate Beneficial
Dwellings @ Little Sheephurst Farm (upstairs) from 30-125m SE	Medium	Medium	Moderate- Adverse	Negligible	Negligible
Dwelling on Burtons Lane (upstairs) 60m NW	Medium	Low	Slight Adverse	Negligible	Negligible
Turkey Farmhouse 350m E	High (downstairs)	Low-Medium (both)	Moderate-Substantial Adverse	Medium beneficial	Substantial Beneficial

<b>Table 5: Summary of Visual Effects</b>					
<b>Viewpoint</b>	<b>Sensitivity</b>	<b>Magnitude of Change on completion</b>	<b>Significance of effect on completion</b>	<b>Magnitude of change after 10 years</b>	<b>Significance of effect after 10 years</b>
	Medium (upstairs)		Moderate Adverse	Medium Beneficial	Moderate Beneficial
Burtons Road	Medium	Low-Medium	Slight=Moderate Adverse	Negligible	Negligible
Sheephurst Lane (from current field gate)	Medium	Medium	Moderate Adverse	Negligible	Negligible
Railway Line	Medium	Medium	Moderate Adverse	Negligible-Low	Negligible-Slight Adverse
Marden village (western edge)	Medium (upstairs)	Low-Medium	Slight-Moderate Adverse	Medium Beneficial	Moderate Beneficial

6.75. Mitigation planting (as seen in Drawing AW0143-PL-002) along the northern, southern and eastern boundaries with gapping up of hedgerows within the Site and to the boundaries of the Site would significantly reduce the initial adverse effects. Within 5-10 years with effective mitigation the Site would have substantial planting to screen the majority of views of the solar arrays.

## **7. MITIGATION**

- 7.1. Mitigation planting has been included within the development proposals to reduce impacts on public rights of way and residential receptors identified within the visual assessment. The mitigation has also been designed to maximise biodiversity potential of the local landscape. The planting would be of native origin and has been carefully considered in terms of its value and to respond to the guidelines within the Maidstone Landscape Character Assessment for Low Weald and Valleys LCAs and Laddingford and Teise Valley LCTs, as well as its importance to reducing visual effects, including fast growing species prevalent along the ditches and river banks. This is shown in Drawing AW0143-PL-002.
- 7.2. Native hedgerows would be planted along the visible lengths of the proposed fence line to reduce the visibility of the solar energy farm from the PROW and the proposed Permissive Footpath.
- 7.3. Mitigation woodland planting would be located principally to the southern proximities of the Site. Further mitigation woodland is located outside of the Site boundary within the field to the



east of Little Cheveney Farm, as requested by the land owner. This woodland will reduce the visibility of the solar arrays and kV plan from dwellings at Little Cheveney Farm, Great Sheephurst Farm and Little Sheephurst Farm. Small blocks of woodland and community orchard to the northwest and east of the Site will mitigate views of the Solar arrays and Barn from dwellings and PROW to the east and north west of the Site.

- 7.4. Gapping up of existing mature hedgerows to the western field boundaries of zones 2, 3 and 4 located to the centre of the Site as identified on the mitigation plan (AW0143-PL-002). These will be gapped up with hedgerow vegetation and trees (in particularly oak as detailed within the guidelines for Low Weald) in order to provide height and depth to the planting, reduce the visibility of the Site from dwellings to the south of the Site around Little Sheephurst Farm, but also to help to extend and prolong the longevity of hedgerows and hedgerow trees within the local landscape.
- 7.5. Riverside vegetation such as poplars, willow and alder would be planted along the eastern Site boundary alongside the River Teise to gap up the boundary vegetation. This would be an unmanaged boundary as is currently observed, which will screen views from dwellings and PROW to the east of the Site.
- 7.6. Mitigation woodland strips and blocks are small in nature but provide important connections between existing blocks of woodland and in some instances recreate and reinforce existing field boundaries.
- 7.7. Size of planting has been considered, and semi-mature trees would preferably be located within existing hedgerows to ensure they are visible and provided with a chance to thrive. This will require careful management to encourage good growth with more frequent watering. In most woodland situations, however, younger, smaller trees outperform semi-mature trees in terms of speed of growth to achieve an effective screen within 5-10 years.
- 7.8. With the landscape mitigation and biodiversity enhancements of the Site supported by an effective management plan, the establishment of younger trees and shrubs would provide a fast and effective screen to the Site and improve wildlife connectivity within the local area.

#### Landscape Guidelines and Mitigation scheme

- 7.9. The landscape character assessments as detailed in Chapter 4 provide guidance on landscape improvements/enhancements that can be undertaken within the landscape character areas. The mitigation plan has responded to this guidance as detailed below.
- 7.10. The National Landscape Character 121 Low Weald guidance is identified in Paragraphs 4.5-4.6.
- 7.11. The mitigation plan would create small field copses, new hedgerows and introduce individual trees within existing hedgerows, improving the connectivity of the existing vegetation within the Site. A permissive path connecting with existing PROW would provide additional access for local residents to improve health and wellbeing.

- 7.12. The Borough Landscape Character guidance for Low Weald and Teise Valley are identified in Paragraphs 4.14 and 4.21 respectively.
- 7.13. The mitigation plan would ensure the field pattern remains intact and improve existing species rich hedgerows. The intensively managed arable fields would be converted to species rich neutral grassland underneath the solar arrays, thus improving water quality and riparian habitats. Replanting river embankments would improve the quality of the river edges and reduce the currently perceived fragmented landscape. Individual trees would be planted within gapped up hedgerows to ensure continuity of trees within the landscape to replace ageing specimens over time. New woodland and hedgerows provide important links between existing vegetation increasing habitat connectivity. Biodiversity woodland planted to the west of the Site would help to reconnect Ancient Woodland with its wider landscape. New ponds to the south west of the Site and outside of the Site boundary east of Little Sheephurst Farm would extend the frequent pattern of small ponds within the landscape.

## 8. CUMULATIVE EFFECTS

- 8.1. Cumulative effects come in two forms. The first relate to the impacts of the proposed development in conjunction with other developments in the area. These developments should be existing, consented or reasonably foreseeable in terms of delivery and should be located within a realistic geographical scope where environmental effects could combine to create a more significant effect on a particular sensitive receptor. These are hereafter referred to as cumulative effects.
- 8.2. The second type of cumulative effect is that of the combination of the various types of impacts from the proposed development. These are hereafter referred to as synergistic effects.
- 8.3. GLVIA guidelines and SNH, 2012 guidelines define cumulative landscape and visual effects as:
- Cumulative effects as ‘the additional changes caused by a proposed development in conjunction with other similar developments or as the combined effect of a set of developments taken together’ (SNH, 2012:4)
  - Cumulative landscape effects as effects that ‘can impact on either the physical fabric or character of the landscape, or any special values attached to it’ (SNH, 2012:10)
  - Cumulative visual effects as effects that can be caused by combined visibility, which ‘occurs where the observer is able to see two or more developments from one viewpoint’ and/or sequential effects which ‘occur when the observer has to move to another viewpoint to see different developments’ (SNH, 2012:11)
- 8.4. Cumulative effects will be considered on
- Paddock Wood Solar Farm at Pearson’s Green Road, TN12 6NP, located approximately 3km West of the Site;



- Approved Switching Station south of Sheephurst Lane, TN12 9PB, (20/500778/FUL) located approximately 240m Southwest of the Site; and
  - Widehurst Solar Farm off Thorn Road, TN12 9LN, located approximately 2km South east of the Site.
- 8.5. Paddock Wood Solar Farm and Widehurst Solar Farm are not visible from within the Site.
- 8.6. From Viewpoint 11 (Figure 31) where there is a possibility of the combined intervisibility of Paddock Wood Solar Farm (currently visible) and the Site, it is possible that small glimpses of the Site may be visible beyond foreground vegetation. The cumulative effect is a combined successional visual effect whereby the observer has to turn their head to see the developments. However, considering the nature and extent of visibility of the Site from Viewpoint 11, the magnitude of cumulative change would be negligible. Combined with a high sensitivity receptor at the viewpoint, the cumulative visual effects would be negligible.
- 8.7. The combined visibility of Widehurst Solar Farm and the Site would be nil as they are not visible within the same view either in combination or in succession.
- 8.8. The long distance between the solar farms and the Site also does not allow for synergistic effects either frequently successional or occasionally successional i.e. via PROW, road or rail, whereby the solar farms are viewed in close sequence one after each other. The railway line is located approximately 0.6km north of Paddock Wood Solar Farm, c.1.6km north of Widehurst Solar Farm and immediately north of the Site. However, the vegetation cover to the north of Paddock Wood Solar Farm would screen the majority of views towards Paddock Wood, and the distance from Widehurst is substantial with intervening vegetation and built form preventing views towards Widehurst. The synergistic cumulative effects would therefore be nil.
- 8.9. The recently approved Switching Station south of Sheephurst Lane, 240m southwest of the Site would not be visible in combination or successional combination with the Site due to intervening vegetation.
- 8.10. A PROW lies to the south of the Switching Station and joins Sheephurst Lane at the proposed entrance to the Switching Station. The nearest PROW is located at Great Sheephurst Farm, 800m SE along Sheephurst Lane, a 50mph road. There are partial views of the solar energy farm from Sheephurst Lane at Viewpoint 9 (Figure 29) although the effects are only considered to be Negligible. Visibility of the Switching Station from Sheephurst Lane is considered to be Negligible as per the LVA accompanying the application 20/500778/FUL. The sequential cumulative visual effect would be negligible as the visibility of the solar arrays would be imperceptible and have minimal effect on the sequential effect from the PROW.
- 8.11. In relation to landscape effects the solar energy farm is considered to have a Slight-Moderate Adverse significance of effect on landscape upon completion improving to Slight Beneficial after 10 years of additional planting. The structure of the landscape would be enhanced and improved, whilst the arable fields would be occupied by solar arrays, associated infrastructure

and also grassland. This is also considered to be a temporary effect on the landscape. Due to the distance between the solar farms the combined effect on landscape character would be negligible.

- 8.12. In relation to the approved Switching Station and the Site, the effect of the solar arrays will be visible from an aerial perspective for a period of 37 years. In terms of permanent changes to the character of the landscape, the Site would effectively improve the landscape infrastructure associated with the field boundaries, that would remain once the Site is returned to arable or grazed pasture. The significance of effect of the Site after 10 years would be slight beneficial and residual effect once returned to arable would be moderate to substantial beneficial. The switching station has a moderate adverse residual effect. The cumulative effect on the landscape character would be Negligible improving once the solar energy farm has been decommissioned.

## 9. CONCLUSIONS

- 9.1. The proposed solar energy farm would be located on arable farmland west of Marden in Kent. There are no statutory or non-statutory landscape designations with the Site or within 1km of the Site. There is an Ancient Woodland immediately adjacent to the western boundary of the Site which will remain unaffected by the proposals.
- 9.2. The solar energy farm would be contained within 7 individual arable fields within the Laddingford and Teise Valley local Landscape Character Types. Existing vegetation provides a good perimeter buffer to most receptors outside of the Site. Mitigation planting (Drawing AW0143-PL-002) would be provided with gapping up of existing hedgerows and vegetation to the east and within the Site. To the southern and northwest boundaries areas of mitigation woodland would be planted to provide effective screening from dwellings. Further mitigation woodland would be located around the new barn and the kV plant. New hedgerows would be planted along the fence lines where the Site would be visible from PROW and new permissive paths. The effect would be to reduce the overall visibility of the Site within 5-10 years of the solar energy farm construction.
- 9.3. The value of the landscape was identified as being Medium and the overall susceptibility to change as Medium. The sensitivity of the landscape to development was therefore identified as being medium within the study area.
- 9.4. The magnitude of change of the landscape effects varied from Low-Medium Adverse upon completion to Low Beneficial within 10 years of mitigation planting. The significance of effect on a medium sensitivity receptor would improve from Slight-Moderate Adverse upon completion to Slight Beneficial within 10 years. The summary of Landscape Effects is detailed below (Table 6).

<b>Table 6: Summary of Landscape Effects from Completion to 10 years</b>						
<b>Impact</b>	<b>Magnitude</b>	<b>Receptor Susceptibility</b>	<b>Embedded mitigation</b>	<b>Description of effects and significance upon completion</b>	<b>Additional mitigation</b>	<b>Residual effect within 10 years</b>
Impact on the arable landscape with the introduction of solar arrays with associated fencing and access tracks	High Adverse to  Medium Adverse (within 10 years)	Low-medium	Mitigation as detailed within Drawing AW0143-PL-002	Topography minimally disturbed. Solar arrays follow existing Site topography. Temporary change to the landscape that is reversible. Limited in extent.  Moderate-Substantial Adverse	None proposed	Slight-Moderate adverse
Impact on the arable landscape with the introduction of electrical infrastructure	Medium Adverse to  Low Adverse (within 10 years)	Low-medium	Mitigation as detailed within Drawing AW0143-PL-002	Topography minimally disturbed. Solar arrays follow existing Site topography. Temporary change to the landscape that is reversible. Limited in extent.  (Slight)-Moderate Adverse	None proposed	Slight-(Moderate) adverse
Impact on existing woodland, trees, hedgerows and water bodies	Negligible (existing vegetation retained) to  High Beneficial (within 10 years)	High	Gapping up of existing hedgerows, planting of new mitigation and biodiversity woodland, orchard trees, retention and creation of ponds as detailed within Drawing AW0143-PL-002	Existing vegetation retained and new planting introduced  Negligible	None proposed	Substantial Beneficial
Impact on the Conservation interests of the landscape	Negligible To  High beneficial (after 10 years)	Medium-High	Mitigation as detailed within Drawing AW0143-PL-002	Landscape infrastructure, ponds and water courses are retained. Listed buildings are located at a distance from the Site with immediate setting on undeveloped field.  Negligible	None for this location	Substantial Beneficial
Impact on the scenic quality of the landscape	Low-Medium Adverse to	Medium-High	Mitigation as detailed within Drawing	Introduction of solar arrays, electrical	None for this location	Slight-Moderate Beneficial

<b>Table 6: Summary of Landscape Effects from Completion to 10 years</b>						
<b>Impact</b>	<b>Magnitude</b>	<b>Receptor Susceptibility</b>	<b>Embedded mitigation</b>	<b>Description of effects and significance upon completion</b>	<b>Additional mitigation</b>	<b>Residual effect within 10 years</b>
	Low Beneficial (after 10 years) (Use of overall magnitude of effects as scenic quality encompasses all aspects of the Site)		AW0143-PL-002	infrastructure, barn within arable setting, with additional retention and enhancement of vegetation and introduction of woodland.  Moderate-Substantial Adverse		
Impact on the recreational value of the landscape in terms of PROW	Medium beneficial	Medium-High	Mitigation as detailed within Drawing AW0143-PL-002	Introduction of permissive paths that provide important connections to existing PROW, roads and communities.  Moderate-Substantial Beneficial	None for this location	Moderate-Substantial Beneficial
<b>Overall Significance of Effect</b>				<b>Upon completion</b>		<b>Residual within 10 years</b>
				<b>Slight-Moderate Adverse</b>		<b>Slight Beneficial</b>

- 9.5. The character of the landscape would be preserved and enhanced with supplementary planting of hedgerows and additional woodland planting. Any unacceptable adverse impacts would be mitigated with planting that would improve the character of the local landscape.
- 9.6. The Site was assessed on the impact on visual amenity, and it was determined that the greatest effects (i.e. Moderate-Substantial Adverse and greater) would mostly be within 400m of the Site boundary and beyond this the effect would reduce significantly. Beyond 1km the Site would be imperceptible within the landscape. The Site was mostly visible from PROW within the Site boundary and dwellings adjacent to the Site. The effects would reduce with mitigation planting to a maximum of Negligible-Slight Adverse (from the railway line) significance of effect.
- 9.7. The significance of effect from dwellings upon completion ranges from Slight-Moderate Adverse to Substantial Adverse. However, with mitigation planting the effects within 10 years would reduce significantly and the residual significance of effect would range from Negligible to Substantial Beneficial.
- 9.8. As detailed in paragraph 158 of the NPPF, applications for renewable energy should be approved if the application impacts are or can be made acceptable and in paragraph 155 that

adverse impacts are addressed satisfactorily. The Site's initial adverse impacts can be made acceptable with significant positive visual benefits as well as benefits that improve landscape character, local biodiversity and landscape value.

- 9.9. It is considered that the proposed development complies with the policies identified in Chapter 3.