Landscape Visual Appraisal

Prepared by: Arthian Ltd

For: Renewable Energy Systems Limited

Site: Bonnyknox Solar Farm

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Quality Assurance

Issue Record

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Revision Detail

Rev No.	Detailed Description of Change	Ref. Section
0.2	General editing, clarifications added.	All document
2.0	Additional descriptors added throughout document and assessment revised where required.	All document

Contents

Appendices

1. Introduction

1.1 Instruction

1.1.1 Arthian Ltd ('**Arthian**') a multi-disciplinary consultancy employing a number of experienced and Chartered Landscape Architects, were commissioned by Renewable Energy Systems Limited (RES) the '**Applicant**', to undertake a Landscape and Visual Appraisal (LVA) of proposals for the construction of a ground mounted solar development (the '**Proposed Development**'), as summarised in section 1.3, on land at 'The Fallows' of Arbirlot, Arbroath, (the '**Application Site**') to accompany an application for full planning permission.

1.2 Location

1.2.1 The Application Site is located within the administrative boundary of Angus Council and covers an area of approximately 95.45ha.

1.2.2 The Application Site's location is marked on Figure 1 with a detailed plan of the Proposed Development included in the accompanying planning application.

Plate 1 Site location

1.3 The Proposed Development (Description of Development)

1.3.1 The Proposed Development consists of the following:

- A series of PV Arrays constructed in rows following an east-west axis, orientated south, facing the sun. The arrays are mounted on lightweight piles driven into the ground and do not require concrete. Once constructed, the arrays would be at a maximum height of ~3.5m above the ground.
- In addition to the solar PV arrays, the main aspect of the Proposed Development includes installation of 13no. PV inverter substations with associated areas of hard standing, access track (gravel) and a substation within a separate compound.
- It is proposed for security reasons the Application Site would be bordered by a 2.4m high 'deer fence' with timber posts set at maximum of 3m intervals. The substation will be located with a compound with 3m high 'palisade fencing' to the perimeter.
- Access will be predominantly via an existing trackway to the south of the Site, that includes a new crossing point over the Rottenraw Burn, to the north of the dwelling of 'Shelterfield'.
- Inclusion of a series of landscape mitigation measures (new planting, grass mounding / bunding etc.).

1.3.2 Details of the solar PV array design and layout are set out within the full planning application on Drawing 05114-RES-LAY-DR-PT-003 'Figure 4: Infrastructure Layout'. A copy of this drawing is included at Appendix C. The key heights of built form of the Proposed Development are:

- Solar panels (maximum 3.5m above ground level
- Substation (height of tallest element is 4.6m above ground level, see RES drawing ref: 05114-RES-SUB-DR-PT-002).

1.4 Mitigation Measures

1.4.1 One of the objectives of the design of the Proposed Development has been to retain existing dense mature boundary vegetation together with proposed new planting within the Application Site which would reinforce the landscape features, such that they better relate to the wider character, and to reduce the potential for adverse impacts on landscape character and visual amenity.

1.4.2 Mitigation measures include the following:

- Careful site selection to enable existing landscape features and topography to help mitigate visual impacts.
- Retention and management of all existing hedgerows and trees surrounding the Application Site, with a loss of 2 small lower quality trees to enable the crossing over the Rottenraw Burn.
- The planting of a new hedgerow along the southern boundary of the Application Site and one along a historical hedgerow location, to filter views from the existing access track and more distant views from the south.
- Reinstatement and infilling of hedgerow along the western and eastern boundary of the Application Site to reinforce the existing vegetation. The hedgerow planting enhances the interconnectivity of habitats around the Application Site; thereby improving green infrastructure networks. In addition, the hedgerows would, over time, assist in filtering views of the panels

from the wider landscape, whilst also maintaining and reinforcing the existing landscape fabric, helping to integrate the proposals into the landscape.

- The addition of tree planting within the hedgerows along the boundaries of the Application Site will further reinforce the landscape fabric of the landscape and provide an additional degree of screening by further helping to filter views of the proposals.

1.4.3 The design of the Proposed Development, therefore, includes a range of landscape measures which would serve to reduce the level of potential landscape and visual effects and provide benefits in terms of grassland diversity, enhancing biodiversity and green infrastructure. Section 4 below sets out the assessment of landscape and visual effects at 'Year 1' (before any new planting matures) and the residual effects which are predicted to arise as a result of the implementation of the Proposed Development following growth of the proposed planting at Year 10.

1.5 Outline Methodology and Approach

1.5.1 Arthian have undertaken the following key tasks:

- A review of the planning documentary context for the Application Site;
- A desktop study and web search of relevant background documents and maps, including reviews of aerial photographs, Angus Council (Local Planning Authority - LPA) publications and other landscape character assessments;
- Collated information about relevant landscape designations, such as National Parks and Areas of Outstanding Natural Beauty, and those parks and gardens listed on Historic Scotland national register;
- A field assessment of local circumstances, including a photographic survey of the character and fabric of the Application Site and its surroundings, undertaken by a suitably qualified Landscape Consultant in good weather conditions during August 2024; and
- An analysis of the likely landscape and visual effects arising from the proposed scheme, including commentary on their nature (positive or negative), magnitude and the sensitivity of the receiving environment.

1.5.2 This assessment considers the acceptability of the Proposed Development in the location proposed. It is based on an abbreviated data trawl and a field visit to identify the most sensitive landscape and visual receptors and considers their ability to accommodate the change proposed.

1.5.3 This assessment is conducted with regard to the principles set out in:

- Guidelines for Landscape and Visual Impact Assessment 3rd Edition (The Landscape Institute, 2013) - referred to as the '**GLVIA**', including clarifications issued by the Landscape Institute.
- An Approach to Landscape Character (Natural England, 2014).
- Landscape Assessment Guidance for England and Scotland (Countryside Agency and Scottish Natural Heritage, April 2002).
- Landscape Character Assessment - Technical Information Note 08/2015 (The Landscape Institute, February 2016).
- Visual Representation of Development Proposals - Technical Guidance Note 06/19 (The Landscape Institute, September 2019); and
- Tranquillity - An overview - Technical Information Note 01/2017 (Revised) (The Landscape Institute,

March 2017).

1.5.4 The GLVIA document sets out a range of techniques and approaches which practitioners are advised to use when conducting Landscape and Visual Impact Assessments (LVIAs) and Landscape and Visual Appraisals (LVAs), especially when carried out as part of an Environmental Impact Assessment (EIA) (GLVIA, paragraph 1.4). The intent of the GLVIA is to present a general overview of a 'non-prescriptive' methodology for undertaking assessments of developments: "*It is always the primary responsibility of any landscape professional carrying out an assessment to ensure that the approach and methodology adopted are appropriate to the particular circumstances*" (GLVIA, paragraph 1.20).

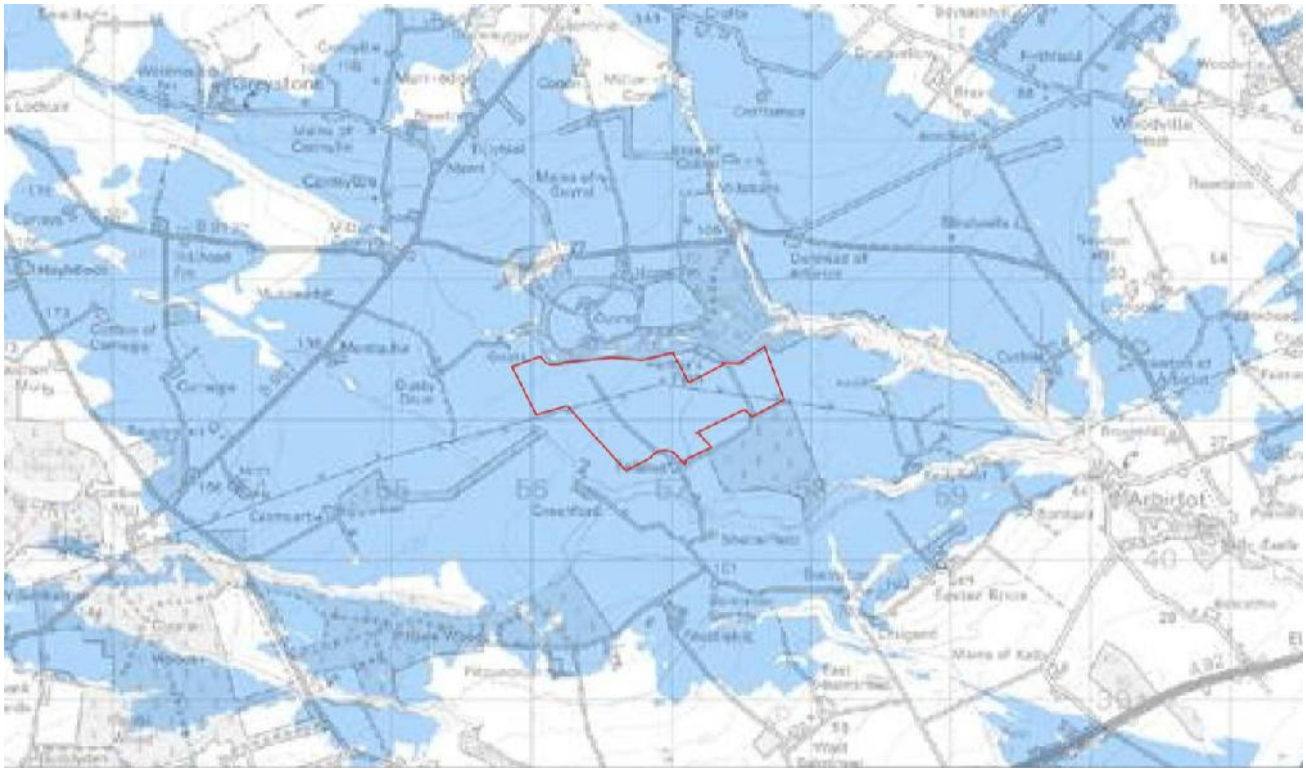
1.5.5 This assessment accords with the general principles of the GLVIA and is considered appropriately detailed to confidently assess the acceptability of both the principle and details of development in this location.

1.5.6 The assessment is undertaken in the context of the landscape being dynamic, as is made clear within the GLVIA (Para 2.13): "Landscape is not unchanging. Many different pressures have progressively altered familiar landscapes over time and will continue to do so in the future, creating new landscapes. Today many of these drivers of change arise from the requirements for development to meet the needs of a growing and changing population and economy." This does not mean that <u>any</u> change is acceptable change, but it also means that change in the landscape is likely and that this should be channelled in a managed direction.

1.5.7 The nature of landscape and visual appraisal requires both objective analysis and subjective professional judgement. Accordingly, the following assessment is in accordance with the principles of the best practice guidance listed above, information and data analysis techniques and subjective professional judgement where necessary and is based on clearly defined terms in line with best practice guidelines. A glossary is contained at the end of the report and the methodology and method used is in Appendix A.

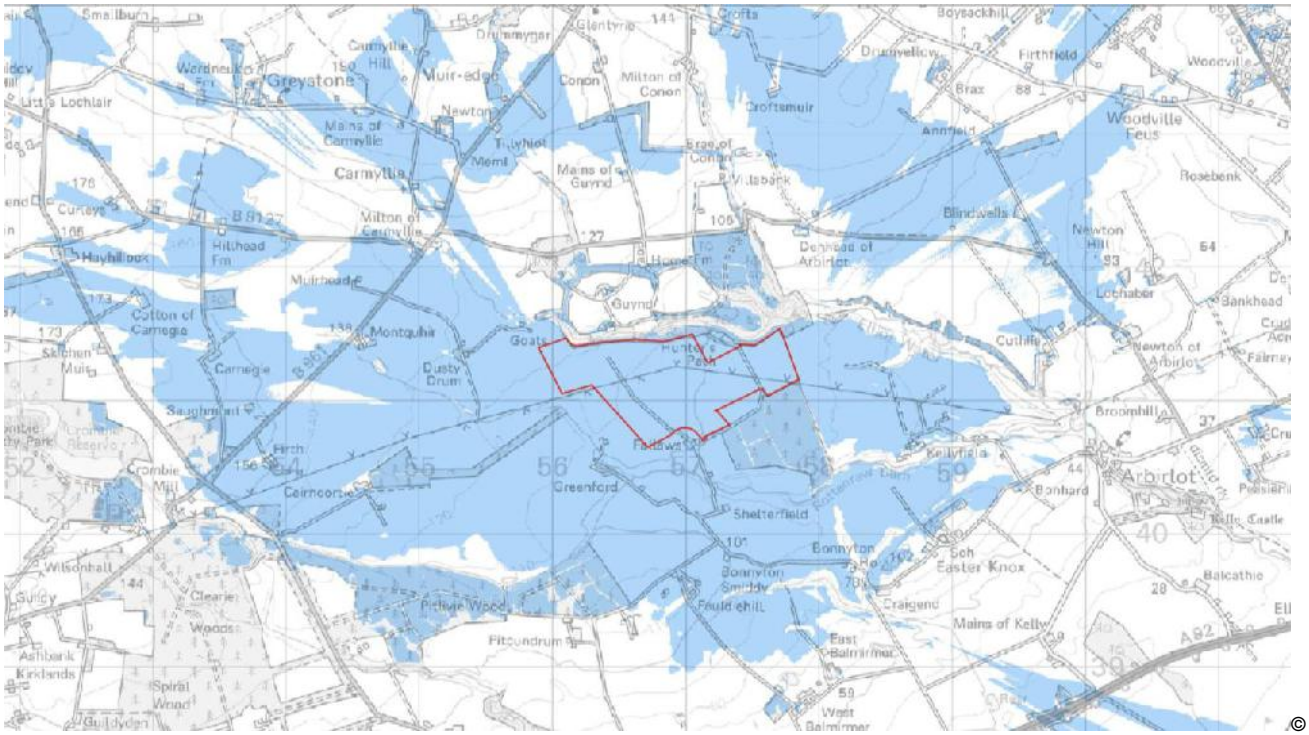
1.5.8 A broad area of search for potential viewpoint locations was carried out using specialist digital terrain modelling and analysis software which was used to calculate where the Application Site was likely to be visible from, based on a height of 3.5m above the existing ground level within the Application Site, and assumes a 'bare earth' situation (i.e. not considering any topographical features other than landform). The extent of possible views is shown on drawing 313625-ADW01-Final 'Figure 2 - Zone of Theoretical Visibility (ZTV) – Bare Earth Model' and is replicated below for ease of reference. This ZTV should be interpreted as indicative of a worse-case scenario, noting the focus of the ZTV is on the main development area and does not include the extent of the access road where proposed works are limited and for a temporary duration.

Plate 2 Site location, showing Zone of Theoretical Visibility (ZTV) – bare earth



1.5.9 A further ZTV has been produced based on the same height of 3.5m but also includes elements of built form and large areas of woodland vegetation, both modelled at 6m and 12m in height respectively. This ZTV illustrates the potential for screening provided by existing blocks of woodland within the surrounding landscape. No hedgerows are modelled, and it should be noted that these elements within the landscape would also prevent or filter views over the winter months to varying degrees, i.e. the degree of screening afforded will be dependent on season. The extent of possible views is shown on drawing 313625-ADW01-Final 'Figure 3 - Zone of Theoretical Visibility (ZTV) with Screening Effects' and is replicated below for ease of reference.

Plate 3 Site location, showing Zone of Theoretical Visibility (ZTV) with Screening Effects.



1.5.10 In this assessment, the Study Area extended to 5 km in all directions from the boundary of the Application Site; predicted to be the likely maximum distance where the Proposed Development could result in potentially discernible or important landscape and visual effects, given the nature of the Proposed Development and the topography and sensitive receptors.

1.5.11 Fieldwork was undertaken in August 2024 to further understand the potential for landscape and visual effects. Following fieldwork, it was confirmed that there was, with exception of locations to the south, very limited visibility in to and out of the Application Site due to intervening and surrounding visual barriers in combination wider topographical changes. As such, the potential for important or notable landscape effects and the likely landscape and visual influence from the development would be limited to locations at close and medium range, further reducing the study area and focus of the assessment.

1.5.12 Using professional judgement, Landscape Characteristics have been initially assessed for potential sensitivity to change and a decision made as to whether individual characteristics can be scoped-out of further assessment. Where not scoped-out, assessment of these characteristics is undertaken in further detail, on the basis of the level of effects on these characteristics potentially being a material consideration and presented as part of the assessment. Assessment of effects on Landscape Character is undertaken separately, considering all landscape characteristics, including those scoped-out of individual assessment.

2. Baseline Situation - Landscape Aspects

2.1 Landscape Policy

2.1.1 An appreciation of the 'weight' to be attributed to any visual and landscape effects arising from development starts with an understanding of the planning context within which any such development is to be tested for its acceptability.

European Landscape Convention

2.1.2 The UK is a signatory to the Council of Europe's European Landscape Convention which promotes landscape protection, management and planning. The UK Government has stated that it considers the UK to be compliant with the ELC's requirements and that the principal requirements of the ELC are already enshrined in the existing suite of national policies and guidance on the assessment of landscape and visual effects.

2.1.3 It is important to recognise that the ELC does not require the preservation of all landscapes although landscape protection is one of the core themes of the convention. Equally important though is the requirement to manage and plan future landscape change.

National Planning Policy - Landscape

2.1.4 An appreciation of the 'weight' to be attributed to any landscape effects arising from development starts with an understanding of the planning context within which any such development is to be tested for its acceptability.

2.1.5 The National Planning Framework 4 (NPF4) applies for all developments within Scotland. Part 1 'Sustainable Places' states "Scotland's future places will be net zero, nature-positive places that are designed to reduce emissions and adapt to the impacts of climate change, whilst protecting, recovering and restoring our environment."

2.1.6 Relevant policies contained within NPF4 are further addressed within the Planning Statement submitted with this application. It is noted that where policy conflict occurs between NPF4 and the Local Development Plan (Angus LDP – September 2016), NPF4 takes precedence.

Local Policy - Landscape

2.1.7 The site is located on an area of land that falls under the planning jurisdiction of Angus Council. The relevant statutory development plan is the Angus Local Development Plan (2016-2026), which was adopted on the 23 September 2016. The ALDP states that *"Enshrined in the ALDP is a presumption in favour of sustainable development. This means that The Council will take a positive approach when considering development proposals and will work proactively with applicants to find solutions which mean that proposals that will, on balance, improve the economic, social and environmental conditions in the area can be supported."*

2.1.8 The ALDP is currently undergoing a review, with an anticipated timescale for adoption in 2024 which has not happened. At the time of writing this LVA, the 2016 ALDP is still current. The Site is not covered by any specific landscape policy within the Local Plan, however it is noted that eastern and central areas of the Site fall within an area identified as 'Pipeline Consultation Zones' (Policy PV21). Where relevant, more generic saved policies within the Local Plan that relate to the Site from a landscape perspective and are considered as having some relevance to the Proposed Development and the wider landscape context in which the Site is located, are outlined below:

- Policy PV6 – Development in the Landscape.
- Policy PV7 – Woodland Trees and Hedges.
- Policy PV9 – Renewable and Low Carbon Energy Development.
- Policy PV21 – Pipeline Consultation Zones

Policy PV6 – Development in the Landscape.

Policy PV6 Development in the Landscape

Angus Council will seek to protect and enhance the quality of the landscape in Angus, its diversity (including coastal, agricultural lowlands, the foothills and mountains), its distinctive local characteristics, and its important views and landmarks.

Capacity to accept new development will be considered within the context of the Tayside Landscape Character Assessment, relevant landscape capacity studies, any formal designations and special landscape areas to be identified within Angus. Within the areas shown on the proposals map as being part of 'wild land', as identified in maps published by Scottish Natural Heritage in 2014, development proposals will be considered in the context of Scottish Planning Policy's provisions in relation to safeguarding the character of wild land.

Development which has an adverse effect on landscape will only be permitted where:

- **the site selected is capable of accommodating the proposed development;**
- **the siting and design integrate with the landscape context and minimise adverse impacts on the local landscape;**
- **potential cumulative effects with any other relevant proposal are considered to be acceptable; and**
- **mitigation measures and/or reinstatement are proposed where appropriate.**

Landscape impact of specific types of development is addressed in more detail in other policies in this plan and work involving development which is required for the maintenance of strategic transport and communications infrastructure should avoid, minimise or mitigate any adverse impact on the landscape.

Further information on development in the landscape, including identification of special landscape and conservation areas in Angus will be set out in a Planning Advice Note.

Policy PV7 – Woodland Trees and Hedges.

Policy PV7 Woodland, Trees and Hedges

Ancient semi-natural woodland is an irreplaceable resource and should be protected from removal and potential adverse impacts of development. The council will identify and seek to enhance woodlands of high nature conservation value. Individual trees, especially veteran trees or small groups of trees which contribute to landscape and townscape settings may be protected through the application of Tree Preservation Orders (TPO).

Woodland, trees and hedges that contribute to the nature conservation, heritage, amenity, townscape or landscape value of Angus will be protected and enhanced. Development and planting proposals should:

- **protect and retain woodland, trees and hedges to avoid fragmentation of existing provision;**
- **be considered within the context of the Angus Woodland and Forestry Framework where woodland planting and management is planned;**
- **ensure new planting enhances biodiversity and landscape value through integration with and contribution to improving connectivity with existing and proposed green infrastructure and use appropriate species;**
- **ensure new woodland is established in advance of major developments;**
- **undertake a Tree Survey where appropriate; and**
- **identify and agree appropriate mitigation, implementation of an approved woodland management plan and re-instatement or alternative planting.**

Angus Council will follow the Scottish Government Control of Woodland Removal Policy when considering proposals for the felling of woodland.

Policy PV9 – Renewable and Low Carbon Energy Development.

Policy PV9 Renewable and Low Carbon Energy Development

Proposals for renewable and low carbon energy development* will be supported in principle where they meet the following criteria:

- **the location, siting and appearance of apparatus, and any associated works and infrastructure have been chosen and/or designed to minimise impact on amenity, landscape and environment, while respecting operational efficiency;**
- **access for construction and maintenance traffic can be achieved without compromising road safety or causing unacceptable change to the environment and landscape;**
- **the site has been designed to make links to the national grid and/or other users of renewable energy and heat generated on site;**
- **there will be no unacceptable impact on existing or proposed aviation, defence, seismological or telecommunications facilities;**
- **there will be no unacceptable adverse impact individually or cumulatively with other exisitng or proposed development on:**
  - **landscape character, setting within the immediate and wider landscape (including cross boundary or regional features and landscapes), sensitive viewpoints and public access routes;**
  - **sites designated for natural heritage (including birds), scientific, historic, cultural or archaeological reasons;**
  - **any populations of protected species; and**
  - **the amenity of communities or individual dwellings including visual impact, noise, shadow flicker.**
- **during construction, operation and decommissioning of the energy plant there will be no unacceptable impacts on:**
  - **groundwater;**
  - **surface water resources; or**
  - **carbon rich soils, deep peat and priority peatland habitat or geodiversity.**

Where appropriate mitigation measures must be supported by commitment to a bond commensurate with site restoration requirements.

Consideration may be given to additional factors such as contribution to targets for energy generation and emissions, and/or local socio-economic economic impact.

Supplementary guidance will be prepared to set out a spatial framework to guide the location of onshore wind farm developments, consistent with the approach set out in Table 1 of Scottish Planning Policy. It will also provide further detail on the factors which should be taken into account in considering and advising on proposals for all types of renewable energy development.

Prior to the adoption of that supplementary guidance, the Council will apply the principles and considerations set out in Scottish Planning Policy in assessing the acceptability of any planning applications for onshore wind farms.

**infrastructure, activity and materials required for generation, storage or transmission of energy where it is within the remit of the council as local planning authority (or other duty). Includes new sites, extensions and/or repowering of established sites for onshore wind.*

Policy PV21 – Pipeline Consultation Zones

Policy PV21 Pipeline Consultation Zones

Decisions on whether to grant planning permission for development proposals within the pipeline consultation zones shown on the proposals map will be taken in light of the views and advice of the Health and Safety Executive.

2.1.9 The polices and principles listed above set out the policy protection afforded to landscape character and visual amenity, and the tests to be applied to any development proposals to ensure that it does not adversely affect the quality and character of an area but rather, contributes to the defined objectives for the promotion of its character and local distinctiveness.

2.1.10 Further policies are covered within the Planning Statement that accompanies the application.

Strategic Landscape Capacity Assessment for Solar Energy in Angus

2.1.11 The Angus Local Development Plan 2016 (ALDP) includes Policy PV9 on Renewable and Low Carbon Energy Development. The ALDP is supported by an Action Programme which sets out how Angus Council intends to implement the ALDP. Action 41 in the Action Programme includes the preparation of Supplementary Guidance on Renewable and Low Carbon Energy Development.

2.1.12 This study is intended to provide a background technical assessment of the landscape capacity of Angus to accommodate solar photovoltaic development and is intended to complement the Strategic Landscape Capacity Assessment for Wind Energy in Angus (2014) prepared by Ironside Farrar on behalf of Scottish Natural Heritage and Angus Council (the wind energy study). As with the wind energy study, it is intended that the Strategic Landscape Capacity Assessment for Solar Energy in Angus will:

- be recognised as a material consideration in the determination of planning applications for solar energy proposals, and;
- inform the preparation of supplementary guidance for policy PV9 of the emerging Local Development Plan

2.1.13 The Strategic Landscape Character Assessment for Solar Energy utilises the same baseline study as the Strategic Landscape Character Assessment for Wind Energy in Angus (March 2014), noting *"This assessment substantially relies upon much of the work contained within the Strategic Landscape Capacity Assessment for Wind Energy in Angus (2014) prepared by Ironside Farrar on behalf of SNH and Angus Council (the wind energy study)."*

2.1.14 The Application Site is identified as being within the Landscape Character Type (LCT) 13 (iii) Dipslope Farmland (Redford Farmland), described as "*This centrally placed sub-area is the largest scale, highest and most open within the Dipslope Farmland. This is partly reflected in the scale of farms and field sizes. There are significant areas of large open fields with scattered settlement and roads, although it borders more populated areas. There are more sensitive areas including the Guynd designed landscape, and to the south of the linear ridge referred to above, proximity to the Coast LCA and settlements. An electricity transmission line crosses the southern part, descending to Arbroath."*

2.1.15 As shown in the extract below from the strategic study, the landscape and visual sensitivity is assessed as being **Medium**, and the landscape value as **Medium / Low**.

Landscape Character Sensitivity	**Criteria/ Sensitivity Levels**
Scale	Medium, with some larger scale areas on highest ground where field boundaries are removed and trees are few. Also smaller domestic scale features. **Medium/Low**
Landform	Gently rolling or undulating, with a NW-SE dip towards the sea and lower farmland. **Medium/Low**
Pattern	Large or medium rectilinear arable fields, many where field boundaries have been removed. Occasional woodland blocks. **Medium**
Development	Scattered hamlets, farms and houses. Main roads and a network of smaller roads. Disused quarries. **Medium**
Quality	Intensively managed agricultural landscape with declining field boundaries, some areas of woodland and some former mineral extraction. Area of well maintained designed landscape. **Medium**
Elements and Features	Arable farmland with intermittent boundaries predominates. Scattered minor settlement dispersed throughout. Large house and policies at Guynd. Large farm buildings. Electricity pylons. **Medium**
Context	A large, intensively managed elevated arable farmland area set above the North Sea and surrounded by similar farmland. **Medium**
OVERALL RATING	**Medium**

Visual Sensitivity	**Criteria/ Sensitivity Levels**
Receptors	Moderate number of travelling and low number of residential receptors. **Medium/Low**
Internal Visibility	Generally open views, although tree cover around Guynd restricts views. Any larger structures are prominent at a distance. **Medium/High**
External Visibility	Varied. Few areas are prominent when seen from surroundings, but often forming a low horizon on which tall structures would be widely visible. **Medium/High**
OVERALL RATING	**Medium**

Landscape Value	**Criteria/ Sensitivity Levels**
Designations	Designed landscape at Guynd. Some SAMs and listed buildings. Little inventory ancient woodland. **Medium**
Community value	Setting to small settlements and houses. **Medium/ Low**
Cultural value	House and designed landscape at Guynd. A few SAMs and listed buildings. **Medium**
Perceptual	An area of open, intensively managed arable land with few features and limited areas of more sheltered and intimate landscape. **Medium/Low**
OVERALL RATING	**Medium/Low**

2.2 Landscape Designations

2.2.1 No part of the Application Site lies within or near to a statutorily designated landscape (e.g. National Landscape or National Park).

2.3 Registered Battlefields

2.3.1 No part of the Application Site or wider Study Area lies within or adjacent to a Registered Battlefields.

2.4 Listed Buildings, Scheduled Monuments and Conservation Areas

2.4.1 A formal assessment of the historical setting is contained within a separate heritage survey. Irrespective of this, to help ascertain whether there were potential landscape-related effects of the Proposed Development on heritage features the following was determined:

- There are no **Listed Buildings** within the Application Site.
- Within the wider Study Area, there are 3 Listed Buildings located to the north of the Application Site within the grounds of The Guynd.
- There are no **Scheduled Monuments** within the Application Site, the nearest is located to the southwest in the vicinity of Black Wood, at a distance in excess of 2.25km.
- The Application Site does not lie within or adjacent to any **Conservation Areas**, the nearest being on the northwestern edge of Arbirlot, at a distance of approx. 2km from the Application Site.

Historic Land-use and Cover

2.4.2 Historically, the land at the Application Site appears to have been under constant agricultural usage, with no form of previous development apparent.

2.5 Core Paths / Footpaths

2.5.1 There are several Core Paths present in the landscape surrounding the Site, the majority clustered in locations that are close to main residential areas of Arbroath (Plate 3) and Carnoustie (Plate 4), with more isolated Core Paths in locations to the north and west of the Site (Plate 5). None of these are identified on the ZTV or from the field visit as having views of the Site.

2.5.2 The closet Core Path is CP123 that lies to the north of the Site, beyond woodland and land at Guynd, and extends northwards from the B9127 to the B961. The ZTV identifies limited locations along this route where there is likely to be any visibility, and this was confirmed during the August 2024 site visit where this Core Path was walked, and no views of the Application Site were observed.

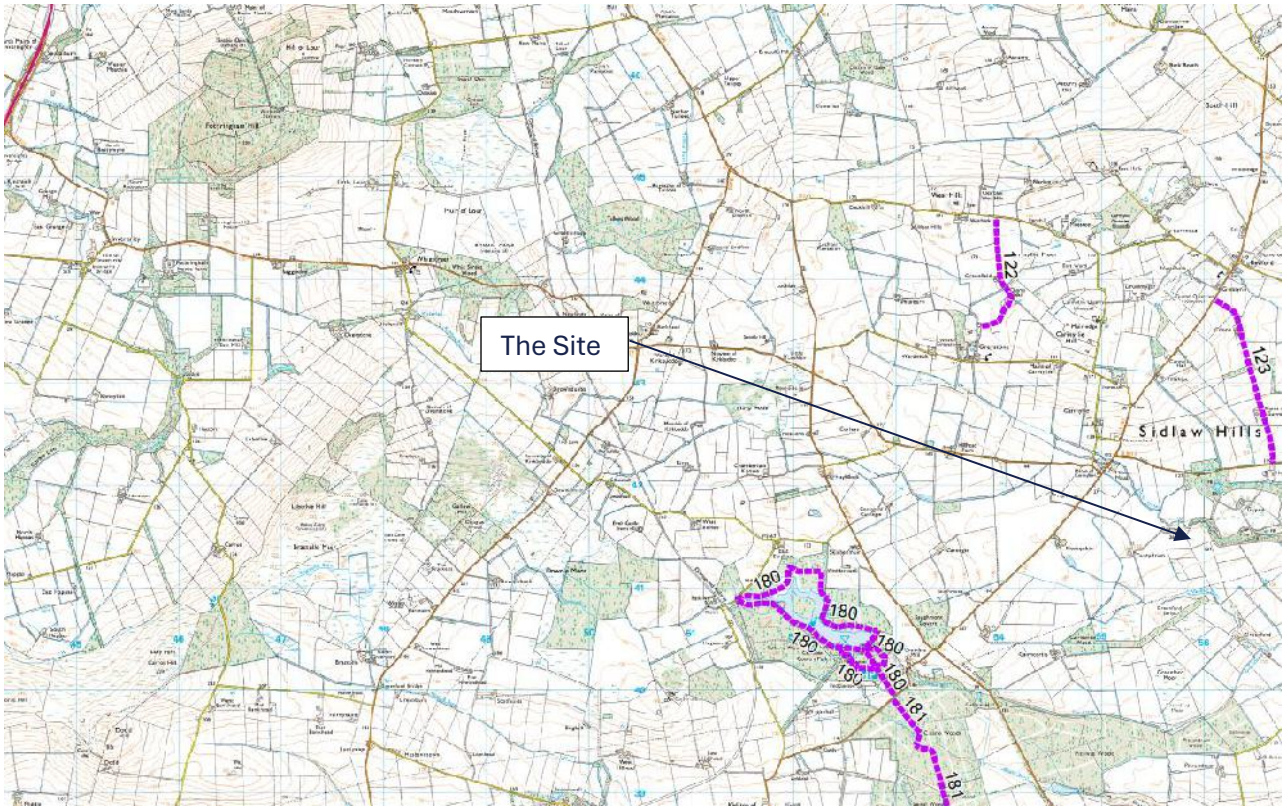
2.5.3 To the northwest lies CP122 and to the west lies CP's 180 & 181, none are identified as having views of the Site and Proposed Development within the ZTV, and this was confirmed during the August 2024 site visit.

2.5.4 To the south-east, CP160 follows the route of the A92 and in-part, the route of National Route 1 (National Cycle Network) that follows the coastline between Dundee, St Andres, Arbroath and Aberdeen. The ZTV identifies a small section of this cycle route and Core Path to the south-east could have the potential for views of the Site and Proposed Development. This location is assessed as Viewpoint 12.

Plate 4 Extract from Angus Council's Adopted Core Paths Plan (map 14 – dated 2016)

Plate 5 Extract from Angus Council's Adopted Core Paths Plan (map 17 – dated 2016)

Plate 6 Extract from Angus Council's Adopted Core Paths Plan (map 13 – dated 2016)



2.6 Tree Preservation Orders and Ancient Woodlands

2.6.1 19 ancient woodlands are located within 5 km of the Site from the ancient woodland inventory, the closest to the Site being Guynd Den located on the northern boundary of the Site and is of plantation origin. No Tree Preservation Orders are identified in relation to the Application Site. For further details refer to the Arboricultural report submitted in support of this application).

2.7 Gardens and Designed Landscapes.

2.7.1 The Application Site is not located partially or wholly within a registered Gardens and Designed Landscape but does share a common boundary along its northern edge with 'The Guynd' (ref: GDL00361). No others are location within the wider Study Area.

2.8 Local Roads/Transport Routes

2.8.1 The nearest arterial road is the A92 at a distance of approx. 2.95km to the south, connecting Dundee and Arbroath. Several secondary roads are closer to the Application Site, including the B961 at 1.1km distance from the northwest boundary and the B9127 to the north at a distance of approx. 0.75km. A number of local roads are also present, the closest being Bonnyton Road to the south, at a similar distance of approx. 0.75km, where due to its elevated position, users will have the potential views of the Proposed Development for a distance of 1km.

2.9 Water Courses and Water Bodies

2.9.1 There are no main water courses within the Application Site, but it is noted that 'Elliot Water' runs parallel with the northern boundary (flowing west to east) and lies within the adjacent woodland area. In addition, 'Crossden Burn' lies in close proximity to the western boundary and connects with 'Greenford / Rottenraw Burn' that is approx. 150m to the south of the main body of the Application Site. Several open field drains cross the Application Site and the presence of 4no. water wells are also identified.

2.10 Ecological Conservation

2.10.1 4 Statutory designated sites are located within 5 km of the Site boundary, these being; Outer Firth of Forth and St Andrews Bay Complex SPA, Easthaven SSSI, Elliot Links SSSI and Dilty Moss SSSI. The closest to Site is the Dilty Moss SSSI which is 4 km northwest from the site.

2.11 Landscape Character

Introduction

2.11.1 Landscape and visual appraisal is comprised of a study of two separate but inter-linked components:

- **Landscape character** - which is the physical make up and condition of the landscape itself. Landscape character arises from a distinct, recognisable, and consistent pattern of physical and social elements, aesthetic factors and perceptual aspects; and

- **Visual amenity** - which is the way in which the Application Site is seen and appreciated; views to and from the Application Site, their direction, character, and sensitivity to change.

2.11.2 This section summarises and reviews relevant published landscape assessments which contribute to a better understanding of the Application Site's landscape character.

National Landscape Character Assessment

2.11.3 The landscape of Scotland has been subject to mapping of its varying landscape characters, undertaken on behalf of Scottish Natural Heritage (SNH) (now NatureScot) in 2019. The landscape of Scotland was subdivided into a series of 390 Landscape Character Types (LCT's), with the Site being identified as being located within LCT 387: Dipslope Farmland. This LCT is described as "*located to the south-east of the Sidlaw and Forfar Hills, and north of the Montrose basin. It forms an extensive area of lowland farmland sloping gently towards the Angus coast.*"

2.11.4 The key characteristics of the Dipslope Farmland LCT are described as:

- Extensive area of lowland farmland running parallel to the coastline, generally sloping from Sidlaws and Forfar Hills in north-west to near sea level in the south-east.
- Dominated by productive agricultural land, it has an open, medium-scale character which is predominantly productive arable land use with simple geometric field patterns.
- Low woodland cover, except on large estates which have pine shelter belts and hedgerows, and along river corridors. Where located on the slopes it reinforces the change in gradient.

- Variety of historic sites from different eras ranging from prehistoric, Roman to Medieval, including castles, a number of historic estates and designed gardens which create a rich diverse character and strong local cultural identity.
- Dispersed settlement pattern, including some suburban development which extends out with the historic settlement confines
- Infrequent single and small clusters of a range of domestic and medium scale commercial turbines along the elevated slopes, prominent due to their elevation and the lack of significant woodland cover.
- Variety of views from within the landscape, but typically, given the broad fall of slope to the east, there is a strong visual relationship with views along the coast and wide panoramas out to open sea. Intervisibility across the Tay firth to the Fife coast is pronounced around Dundee and reduces in clarity with distance and prominence further north.

2.11.5 In addition to the above, NatureScot have produced a series of documents that work in conjunction with the LCT descriptions of the 2019 Landscape Character Assessment. The Site and Study Area are covered in the wider geographical area of the 'Landscape Character Assessment: Tayside – Landscape Evolution and Influences'. This is a broad-brush assessment, focusing mainly on physical and human influences along with cultural influences and does not provide more location specific descriptors.

Landscape Characteristics from Fieldwork

2.11.6 Arthian assessed the Application Site and the surrounding area's landscape characteristics in August 2024, in dry clear conditions.

2.11.7 The individual characteristics of the Application Site and locality were noted, as was the condition of these. Differences in the composition and the character of the Application Site's physical components were noted as well as their sensitivity to and ability to accommodate change (for definitions, see Glossary). The Application Site's and locality's key characteristics and its local context are described further below.

Landform

2.11.8 The Application Site is located at a height of +125m AOD at its northwest corner and +92m AOD on the eastern boundary, with a general fall in a southeast direction, with an elevation gain/loss of approx. 33m across its area. The landform of the wider Study Area generally consists of an undulating landscape with heights increasing to the north within the Sidlaw Hills to +198m AOD at the 'West Hills' trig-point, and falling southwards and eastwards towards the coastline. A number of small and deeply incised valleys alongside more shallow valleys are interspersed across this landscape.

Land-use and Vegetation Cover

2.11.9 The landscape within the Study Area consists of predominantly farmland under arable production, with occasional areas along watercourses used for sheep grazing. Fields vary in size and shape from small scale to large scale, with a number showing evidence of having field boundaries removed to aid modern farm practices. Fields are defined by a mix of well managed hedgerows or remnant hedgerows, with a number simply defined by post and wire fencing or a linear strip alongside drainage channels or ditch courses. Roadsides are similarly defines and on occasion are formed by low level stone walls. There

are several areas of plantation woodlands and shelter belts dispersed across the landscape, the most notable being 'The Guynd' to the north of the Application Site, 'Pitlivie Wood' and 'Greenford Strip / Cairncortie Wood' to the west and southwest, and the plantation surrounding 'Kelly Moor' to the site's southeastern corner.

2.11.10 Main urban areas are located on or near the coastline and include the towns of Carnoustie and Arbroath. Several isolated dwellings and farmsteads are located within the Study Area, the closet to the Application Site being Dustydrum and Montquhir to the west, Greenford, Fallaws, Shelterfied, Bonnyton Smiddy and Fauldiehill to the south, Kelly Moor to the southeast, and to the north, Home Farm and The Guynd.

Infrastructure

2.11.11 There is some existing infrastructure within the Application Site associated with the power distribution network, including several pylons and high-voltage overhead wires. Lower voltage overhead wires and telecommunication lies also cross the Site. Away from the Application Site, the existing solar development near 'Mains of Guynd' lies to the north at a distance of approx. 1.1km beyond the plantation woodland, and to the south at a distance of approx. 1.4km is a telecommunications tower at Balbinnie.

Settlement and Built Development

2.11.12 Main urban areas are located on or near the coastline and include the towns of Carnoustie and Arbroath. Several isolated dwellings and farmsteads are located within the Study Area, the closet to the Application Site being Dustydrum and Montquhir to the west, Greenford, Fallaws, Shelterfied, Bonnyton Smiddy and Fauldiehill to the south, Kelly Moor to the southeast, and to the north, Home Farm and The Guynd.

2.12 Landscape Value

2.12.1 A number of relevant aspects are relevant to determination of the Site's and Locality's Landscape value and are described below:

- **Landscape Protection** - No statutory landscape designations apply to the Application Site.
- **Landscape Condition** - Vegetation along boundaries is variable or absent, degraded in places. Some detracting features.
- **Scenic Quality** – The Application Site comprises ordinary agricultural fields, framed by existing and established woodland that form a backdrop to views from the higher ground to the south. Scenic quality is reduced by the presence of the 'Fallaws' dwelling and farmstead, along with overhead high voltage power lines and associated pylons.
- **Rarity** - There are no elements within the Application Site that are considered to be 'rare.'
- **Representativeness** - The agricultural landscape elements including periphery vegetation and local ditches are typical of those in the landscape character area and fairly frequently found and representative of the local landscape.
- **Conservation Interests** - There are limited ecological or heritage / archaeological areas of interest within the Application Site.
- **Wildness/tranquillity** – Limited numbers of human influences evident locally.

- **Associations** - There are no known associations with the Application Site.
- **Recreation Value** – There are no Core Paths or other PRoW that cross the Application Site.
- **Agricultural Value** – As detailed in the Land Classification Report, produced in support of the application, the Application Site is predominantly Class 3 – Division 1 with the centre and area extending to the northwest as Class 2 (based on a scale of Class 1 being best and Class 4 worse).

2.12.2 The factors contributing have been summarised at Table 1 (below)

Table 1: Landscape Value of the Application Site

Value Level	Protection	Landscape Condition	Scenic Quality	Rarity	Representativeness	Conservation Interests	Tranquillity / Wildness	Associations	Recreational Value	Agricultural Value
Very High										
High										✓
Medium			✓		✓		✓			✓
Low	✓	✓	✓	✓		✓	✓		✓	
Very Low						✓		✓	✓	

2.12.3 Overall, the characteristics and landscape character of the Application Site have been assessed as having a **Low-Medium** value.

2.12.4 It is not considered the Application Site and the surrounding landscape over which the Proposed Development may exert an influence is a 'valued landscape'.

Value of Landscape Character and Characteristics of local area adjacent to the Application Site

- **Landscape Protection -** There are no statutory landscape designations in the surrounding landscape.
- **Landscape Condition** - The Landscape Condition of the immediate area is generally in average condition.
- **Scenic Quality** - The immediate area has some aspects that are likely to be considered aesthetically pleasing, scenic quality is reduced by the presence of electrical distribution infrastructure and a number of coastal towns with fringe commercial uses.
- **Rarity** - Landscape elements within the local area adjacent to the Application Site are common in the wider area.
- **Representativeness** - Landscape characteristics and character are a good example of its kind, e.g. woodland

- **Conservation Interests** - There are limited ecological or heritage / archaeological areas of interest within the Site
- **Wildness/tranquillity** - Detracted to by transport corridor routes between Dundee and Arbroath, and coastal towns, improving with distance from these elements.
- **Associations** - There are no known associations within the wider landscape.
- **Recreation Value** - There are several Core Paths or other recreational routes predominantly to the south and southeast of the Application Site
- **Agricultural Value** - As detailed in the Land Classification Report, the local area replicates the on-site situation and is predominantly Class 2 with areas of Class 3 (based on a scale of Class 1 being best and Class 4 worse).

Table 2: Landscape Value of the local area adjacent to the Application Site

Value Level	Protection	Landscape Condition	Scenic Quality	Rarity	Representativeness	Conservation Interests	Tranquillity / Wildness	Associations	Recreational Value	Agricultural Value
Very High										
High										✓
Medium		✓	✓	✓	✓	✓	✓		✓	✓
Low	✓		✓					✓	✓	
Very Low										

2.12.5 Overall, the characteristics and landscape character of the landscape local to the Application Site have been assessed as having a **Medium** value.

3. Baseline Situation - Visual Aspects

3.1 Introduction

3.1.1 This section describes the views available to and from the Application Site, their distribution, character, and sensitivity to change. Arthian has recorded and assessed the views available to and from the Application Site from public locations through a combination of desk studies and fieldwork.

3.1.2 Strictly, in legal terms, there is no automatic right to a view. However, the enjoyment of a view could be an important part of the residential visual amenity of a location (e.g., a neighbouring property), and its loss might, therefore, have an adverse impact on the residential visual amenity of that property (i.e. an environmental effect on humans). Visual receptors at public locations are generally considered to be of higher sensitivity than visual receptors at private locations, although the effects on numerous private residences may be considered to have an effect on the wider local community, rather than individuals.

3.1.3 An initial Zone of Theoretical Visibility (ZTV) have been produced based on a 'bare-earth' scenario which represents a worse case situation (see Plate 2 and Figure L2). A further ZTV has been produced that also illustrates the potential screening effects afforded by existing woodland blocks, modelled at a height of 12m. Lower lying areas of vegetation i.e. hedgerow have not been modelled (see Plate 3, Figure L3), and it is noted that subtle variation in topography and varying degrees of visibility through field boundary vegetation and roadside plantations will also combine to restrict or vary potential visibility at various times of the year. These ZTV's were issued to Angus Council in July 2024 with proposed viewpoint locations indicated and subsequently agreed as acceptable locations for the visual appraisal. The produced ZTV's in conjunction with fieldwork undertaken in August 2024, has helped to understand the potential visibility of the proposals and selection of representative viewpoints.

3.2 Visibility

3.2.1 Based on using the ZTV with the modelled woodland blocks (Plate 2, and Figure L3), visibility covers the immediate areas surrounding the Application Site, extending predominantly to the west with smaller 'pockets' to the north and north-east on the rising grounds of the Sidlaw Hills. To the south, views are predicted for a distance of approx. 1km on rising ground, with isolated locations further south and south-east towards the coastline. The blue colour on the ZTV represents areas where the Proposed Development would be potentially visible from.

3.2.2 Predicted visibility of the proposals is normally greater in winter (when trees and hedgerows have no leaves), this assessment was undertaken in August 2024 when vegetation was in leaf. Where possible, and based on extensive past experience, all potential viewpoints were also considered in light of the potential visibility during winter months.

3.3 Viewpoints

3.3.1 The locations of a representative range of viewpoints where views could be potentially influenced by the Proposed Development are illustrated on Fig. L2 'Zone of Theoretical Visibility – Bare Earth Model' and Fig.L3 'Zone of Theoretical Visibility (ZTV) with Screening Effects'. Locations have been selected to best represent the variety of views available from public vantage points towards the proposals.

3.3.2 The main area of the ZTV focuses on land to the west and south-west of the Site that is predominantly in agricultural use and at a higher elevation. Large woodland blocks to the north and east largely limit views from the wider landscape to closer ranges, with fewer locations where the Site and Proposed Development will be visible from. From the locations where the Site is visible, the Proposed Development will be visible in the context of overhead lines/pylons where they cross the Site and several farmsteads, some that contain large agricultural buildings.

3.3.3 Following discussions with the local authority, 14no. viewpoint locations were agreed to be visited and recorded to review the potential for views of the Application Site and Proposed Development. Based on fieldwork, the available visibility and with reference to Section 3.2, 10 representative viewpoints have been selected from the initial 14 identified, which best represent the range of views available and where the likely most notable effects may be predicted to occur. These are described at Table 3.

Table 3: Representative Viewpoint (VPs)

VP No.	Location	Grid Ref.	Distance / direction from Application Site to Viewpoint	Rationale
1	Dwelling at 'Hunter's Path'	E357233 N741447	<160m SW <130m S	Representative of views from dwelling at Hunter's Path.
2	Dwelling at 'Kelly Moor'	E357533 N740936	130m NW	Taken on the access track near the entrance to the dwelling at 'Kelly Moor', noting main dwelling is a bungalow set back from the viewpoint. Distance to Site boundary approx. 165m
3	Farmstead 'Fallaws'		<170m N	Representative of workers at the farm, adjacent the existing farm buildings, noting the main dwelling is located to the south of these buildings with main outlook to the south.
4	Dwelling at 'Shelterfield'	E357217 N740189	0.5km N	Representative of views from grounds of the dwelling, noting bungalow with main elevation facing southwards (away from the Site).
6	Dwelling at 'Fauldiehill Grange'	E356940 N739739	0.95km N	Cluster of dwellings at the junction of Bonnyton Road and other local roads and on high ground with open views towards the Site. Also represents views from nearby dwelling at Bonnyton Smiddy
8	Dwellings at 'Dustydrum'	E355389 N741367	0.5km E	Farmstead with main dwelling and several smaller dwellings / cottages in close proximity, orientated in the direction of the Site.
10	B9127 Local Road	E359108 N742212	1.6km SW	Location where eastern edges of the Site are visible between two woodland blocks

11	B961 Local Road	E353769 N740778	2.25km E	Location on rising ground where users of the local road could experience views of the Site.
12	A92 nr 'Nether Kelly'	E359426 N738474	3.15km NW	Identified within the ZTV's as being the sole location from the A92 and associated NCR where there are potential views.
14	War Memorial nr A92	E355309 N742785	1.5km SE	Elevated location on the Sidlaw Hills nr the A92 and other minor roads with seating.

Note: All distances are from the location of where the photograph was taken to the Application Site boundary.

3.3.4 These viewpoints are described and assessed in Section 4.3.

4. Landscape and Visual Assessment

4.1 Assumptions and Limitations

4.1.1 It is assumed that the Application Site would otherwise continue to be used as existing, should permission not be granted, as the 'do nothing' scenario.

4.1.2 The assessment is made against a baseline situation of the following assumptions:

- The proposed landscaping works are undertaken in the first appropriate period following the construction of the development.
- It is assumed that the recommended impact avoidance/mitigation measures are able to be implemented through the detailed design process, as there is no reason known at the time of assessment for these not to be incorporated. This includes use of best practice landscaping, construction, planting, and ongoing management /maintenance techniques to promote rapid establishment and increase amenity, biodiversity and other functions of the residual landscape.
- The surrounding landscape context remains the same, including the predominant retention of main woodland blocks (both density and heights), boundary hedgerows and trees where present are retained.

4.1.3 Whilst permanent landform changes do not form part of the Proposed Development, some minor excavations are required for certain auxiliary infrastructure and trackways. Whilst the majority of installations will be 'floated' to existing ground levels within the landscape, for example with PV modules piled or rafted over the land, it is assumed that unless removed from the Site, any materials excavated, including soils, can be respread over the wider application area or stored in low temporary mounds, easily visually screened by existing and proposed hedgerow cover, such that these do not have a visual influence within the landscape and would be available for reinstatement.

4.1.4 The fieldwork was undertaken during daylight hours during August 2024. No access was available to private locations to ascertain actual views from these locations, but where possible and with approval of residential owners, access to the grounds was obtained. Professional judgement has been used to anticipate views based on publicly accessible locations.

4.1.5 The information used for the assessment of cumulative impacts was made using the information available from the Client and Agent for other developments in the locality at the time of the assessment.

4.2 Predicted Potential Impacts

Potential Construction Phase Effects

4.2.1 The following actions are predicted to arise from construction of the Proposed Development. These elements are considered to have the greatest potential in contributing to long-term physical effects on land within the Site, as well as potential landscape and visual effects within the wider landscape:

a) The displacement of existing land cover primarily comprising areas of arable agricultural land and a smaller area of pastoral grassland adjacent to the Rottenraw Burn for the water crossing; ;

b) The localised excavation, temporary removal, and regrading of topsoil or subsoil;

c) The construction of the built elements of the Proposed Development; including any activities associated with ground preparation; securement of the construction area; marking out; and any excavation works to facilitate the laying of pipes and cables, new access track and crossing point to the Rottenraw Burn; and

d) Associated construction traffic movements.

Potential Operational Phase Effects

4.2.2 Following construction, the Proposed Development would form a Very Long-term duration addition to the landscape, comprising the Solar PV array and associated ancillary infrastructure. Additionally, landscaping in the form of hedgerow planting, additional tree planting near Hunter's Path and grassland meadow establishment (and management of these and retained landscape elements thereafter) would also become evident over the life of the Proposed Development.

4.2.3 Once operational, there would be the need for on-site activities associated with equipment maintenance and servicing; although, it is unlikely that the movement and activities would be readily distinguishable from wider activity in the local area.

4.3 Summary of Potential Effects

4.3.1 Table 4 below describes the typical potential landscape and visual effects that can arise from the various phases of works associated with the Proposed Development.

4.3.2 Aspects described in the table does not necessarily mean the impacts and effects would occur, or that they would be adverse. Potential effects on the landscape and visual resource would arise principally from construction, with potential for the level of operational phase effects experienced to lessen over time as the Proposed Development integrates into the surroundings and receptors become accustomed to the change in views, particularly upon establishment of landscape mitigation.

Table 4: Potential Effects

Phase	Element	Potential Effects	Potential Sensitive Receptors
Construction/ Decommissioning	Construction plant. Temporary construction facilities including compound, assembly and storage areas, and vehicle parking area. Construction of built elements including any activities associated with site preparation; securement of the construction site; marking out; and any excavation works to facilitate the laying of cables. Construction of a new access track and bridge crossing to the Rottenraw Burn, likely to consist of a reinforced concrete culvert with top dressing of stone (note: details are subject to detail design).	Temporary physical effects on landscape fabric. Any permanent physical effects on landscape fabric (i.e., permanent removal of or changes to trees/ hedgerows/vegetation/ ground cover). This would include changes brought about by the addition of landscape planting mitigation. Temporary effects on landscape character. Temporary effects on views.	Physical landscape elements / features. Landscape character receptors. Visual receptors.

	Construction of solar PV arrays, power units, onsite substations, and fencing. Delivery vehicle movements.		
Operation	Solar PV arrays, fencing and ancillary features. Access tracks within the main site area.. Vehicle movements and any activities associated with equipment maintenance and servicing.	Long-term effects on landscape character. Long-term effects on views. Temporary effects on views.	Landscape character receptors. Visual receptors.

4.3.3 Following the end of the operational phase, the built elements of the Proposed Development would be decommissioned, with the land reinstated as close as practicable to its current condition and usage. All above ground built elements, including crossing structure / bridge to Rottenraw Burn would be removed from the Site. Cables may be buried following disconnection.

4.3.4 Decommissioning is expected to take considerably less time than construction. Evidence of the Proposed Development may remain in close-range views during the post-decommissioning restoration period; with the Site returning to an appearance nearer its original condition over time.

4.3.5 Any mitigation and enhancement planting would remain on-site following decommissioning, with the planting becoming a permanent addition, subject to long-term future agricultural management objectives.

4.4 Impact Avoidance and Mitigation Measures.

4.4.1 An iterative design and assessment process has been undertaken. Mitigation measures have been integrated prior to finalisation, such that this has been embedded into the proposals, whilst ensuring operational visibility. These measures have been devised to avoid, minimise, or 'compensate' for identified important visual and landscape effects.

4.4.2 The Proposed Development has had the following impact avoidance, reduction and mitigation measures incorporated to minimise adverse landscape and visual effects:

- Limiting the maximum height of the PV arrays to 3.5m to minimize the potential visibility.
- Retaining existing field boundary hedgerow planting and providing enhancement through the planting of new hedgerows where existing is gapped, and the planting of new hedgerows to the boundaries, including an area of planting measuring 5m in width fronting Hunter's Path and maintained at a height of between 3.5 to 4m.
- Utilising existing access points and access tracks to and within the Application Site via existing gateways, where possible.
- The setting back of any built development from existing hedgerows or vegetation to the perimeter of the Application Site. This acknowledges the contribution that existing elements provide to the existing landscape character whilst recognising their ability to provide visual screening and facilitating their continued use as a movement corridor for wildlife.
- Where possible, retaining a full field distance between the closest possible receptors of Kelly Moor and Hunter's Path and the Proposed Development.

4.4.3 The assessment of effects (landscape and visual) assumes and refers to 'adverse' effects at all times unless specifically stated that the effect is beneficial.

4.5 Assessment of Landscape Effects

Effects on Landscape Characteristics (within the Application Site)

4.5.1 The landscape features bordering the Application Site consist of hedgerows managed by nearby farms, along with large woodland blocks to the north and southeast. The vegetation bordering and within the Application Sites is typical of the surrounding landscape and are assessed as being of High Susceptibility to change. The Proposed Development includes for the retention of all existing trees and hedgerows within and alongside the Application Sites.

4.5.2 Construction works will result in localised excavations, redistribution of soils and installation of solar panels. Landcover will be converted from arable management to meadow grassland.

4.5.3 The construction works will lead to minimal topographic changes within the Site and the most highly valued characteristics comprising the hedgerows, trees and existing drainage ditches will be protected during construction and operation of the Proposed Development. A small loss of 2 lower quality trees will occur for the construction of the access track and crossing to the Rottenraw Burn.

4.5.4 The primary effects of Proposed Development on landscape characteristics relate to the existing arable ground cover which varies depending on cropping regime, alongside a very small area of land under pastoral use. Given the most highly valued characteristics have been protected, the Landscape Susceptibility of those characteristics subject to adverse change is considered to be **Medium**. Combined with the **Medium** landscape Value, the Sensitivity of landscape characteristics are **Medium**. There is scope to replace the characteristics subject to change through reinstatement of meadow grassland beneath the solar array.

4.5.5 At a Site level, the direct level of effect of the Proposed Development is considered to have a **Small to Medium Magnitude** of effect on the landscape characteristics within the Site. This is considered to be a **Minor-Moderate** level of adverse effect compared to the baseline arable characteristics of the Site.

4.5.6 The prevailing topography and characteristic landform within the Site will be largely unaffected with the solar array following the landform and being low-lying toward ground level, thus preserving the overall topographic nature of the Site.

4.5.7 Whilst the effect will last for a Very Long-term duration until decommissioning, where it is predicted there will be full reinstatement to mostly arable agriculture with a small area of pastoral grassland near the water course, the Proposed Development will also bring about beneficial effects for landscape characteristics, in particular the management, gapping up of, additional planting and new hedgerow and tree planting.

4.5.8 Compared with the existing baseline, hedgerow lengths and tree planting will considerably increase or be improved, and beneficial landscape characteristics will be brought about for the lifetime of the Proposed Development through introduction of meadow grassland. As planting matures and becomes established, the adverse effects experienced during construction, are likely to become secondary to the beneficial effects on landscape characteristics for the very long-term duration, notably the permanent planting provisions. Overall, by Year 10 and beyond, compared to the existing baseline, the Magnitude of change in relation to new landscape planting is considered to be **Small**, and at maturity, would be of **Minor level of beneficial effect**.

Effects on Landscape Character (within the Application Site)

4.5.9 The Site does not lie within any nationally or locally designated landscapes, with the character within the Site being considered ordinary and well represented in the wider area. The most highly valued landscape characteristics contributing to character will be retained, protected and enhanced. The prevalent field pattern will be retained and reinforced through planting. The landscape character of the Site, accounting for all the prevalent characteristic landscape features, is assessed as having a Medium Susceptibility to change to the type of development proposed and when combined with the Medium Landscape Value, it is considered that the resulting Landscape Sensitivity is **Medium** overall.

4.5.10 The Proposed Development would result in a change of the Site's arable character through the inclusion of the solar array and ancillary infrastructure. The low-level structures and consistency of the arrays, whilst clearly modern man-made elements, would not alter the overall landscape framework or structure. The topography of the Site will remain largely unchanged, and the relatively low heights of the Proposed Development are in keeping with gently undulating and sloping topography at the Site. The Proposed Development will partially disrupt some medium-range views out from the Site from some local dwellings, but from outside the Site there would be limited disruption to views, with the open large skies associated with this type of landscape will remain largely undisrupted – noting the presence of large amounts of vertical infrastructure already existing and influencing the local landscape.

4.5.11 The scale of the solar array would form a clear recognisable form of development, altering the prevalent character of the Site. Overall, it is considered that the Proposed Development would mask the pre-existing character for a Very Long-term duration rather than replace it, noting conversion of the underlying groundcover to meadow grassland and the full reinstatement potential of the land upon decommissioning.

4.5.12 Given the scale of the solar arrays within the Application Site, it is considered that the Proposed Development would result in a **Medium Magnitude** of effect as a result of implementation. Overall, this would produce a **Moderate level of adverse effect** on the landscape character at a site level.

4.5.13 Over the life of the Proposed Development, the level of adverse effect will continue to diminish as existing more highly valued characteristics such as hedgerows are improved and managed and supplemented with substantial additional planting around the periphery of the Site. Upon planting maturity, not only will landscape connectivity be improved but the underlying landscape fabric and structure will be enhanced through reinforcement and reintroduction of characteristic field boundaries.

4.5.14 These measures will further integrate the Proposed Development into the landscape. Throughout the life of development, the level of adverse effect is considered to reduce to a Small-Medium Magnitude of effect, noting the Site would continue to form a large-scale solar farm. This is considered to be a **Minor-Moderate** adverse level of effect over the very long term at a Site-level.

4.5.15 Upon decommissioning, planting will have become a mature and established part of the landscape character, enhancing local landscape character. Additionally, new hedgerow planting will screen eastern and western parts of the Site. At decommissioning, the Proposed Development would be

considered to be of a Small-Medium Magnitude of effect considered to be of a **Minor-Moderate benefit** at the Site level.

Effects on landscape character near the Application Site

4.5.16 The characteristics of the local LCAs over which the Proposed Development may exert an influence, are that of a gently rolling, undulating and sloping agricultural environment, with pockets of woodland and interspersed hedgerow and tree belt boundaries, dissected by several water courses. The established structure of the local context has become degraded due to intensive farming practices. The presence of electricity distribution infrastructure i.e. pylons, and a number of isolated farmsteads and individual dwellings, further influence the local landscape and its character and amenity.

4.5.17 During and following construction, large scale effects on landscape character would be limited to the main areas of the Application Site where the Site would change from an agricultural landscape to that of a solar farm development. Moving away from these areas, very small localised elements of construction works are required, restricted to small elements of road widening and a new crossing to the water course (Rottenraw Burn) with associated smaller sections of connecting trackways.

4.5.18 The levels of effect will diminish with distance from the Application Site and other proposed areas of works as described above, reducing rapidly due to the screening or filtering effects of established field boundary vegetation across the landscape, in combination with small woodland blocks and undulating topography.

4.5.19 As stated in Section 2.12.3 the following landscape character areas could have the potential to be significantly affected by the Proposed Development:

- LCT 387: Dipslope Farmland

4.5.20 Overall, the Landscape Sensitivity of the LCA as a whole is described as being of Medium sensitivity due to the medium value but very low susceptibility of the LCA to the type of development at the Application Sites. When considering the wider local Landscape Character Areas, the size of the Application Sites, the type and duration of the development and the limited area over which noticeable effects on landscape character would be exerted are considered, the magnitude of adverse effect during construction and the duration of the operational period is assessed to be **Very Small.** Resulting in a **Negligible-Minor** (at worse) level of effect.

4.6 Effects on Visual Amenity

4.6.1 The presentation of the assessment of visual effects has focused on representative viewpoints which represent sensitive locations with the potential to be affected to a level which would represent an important planning consideration.

4.6.2 Ten viewpoints have been selected to best represent the range of sensitive viewpoint locations and main effects within the ZTV and are illustrated using photographs in Figures L4 to L13. Other viewpoints were visited and omitted.

4.6.3 The representative viewpoint locations are shown on Figures L2 & L3 and listed in Table 5 together with an indication of the receptor groups represented, their distance from the Site (range) and the visual

sensitivity of these receptors. The locations of four other viewpoints are also indicated on these Figures, noting these locations were visited when undertaking the fieldwork and a photographic record was undertaken. Such additional locations have not been assessed further in detail as any effects would be minimal and indiscernible.

4.6.4 In addition to the representative viewpoints, three of the locations have been developed into a series of montages, illustrating the baseline view (without development), a photo wire image showing the extent of the Proposed Development, a photomontage at Year 0 (development and associated mitigating planting in place, and at Year 10 where the mitigation planting has established, and maintained at 3.5m for hedgerows and 4.0m near Hunter's Path. These photomontages are from Viewpoint 1 (Hunter's Path), Viewpoint 2 (Kelly Moor) and viewpoint 6 (Fauldiehill Grange).

Table 4: Summary Visual Sensitivity of Receptors at Viewpoints (VPs)

VP No.	Location Description	Receptors Represented	Range	Sensitivity
1	Dwelling at Hunter's Path to the north-east of the Site with limited boundary vegetation and open views towards the Site.	Residents	Close	High
2	Dwelling at 'Kelly Moor' adjacent the eastern boundary	Residents	Close	High
3	Located to the north of the agricultural shed and outbuildings at Fallaws. NOTE: Main dwelling is located to the south of the agricultural buildings and orientated to the south with views limited in the direction of the Site.	Workers	Close	Low
4	Dwelling at 'Shelterfield' with limited views in the direction of the Site from the main building, but from the curtilage.	Residents	Medium	Medium / High
6	Dwellings at 'Fauldiehill Grange' with elevated views in the direction of the Site, and adjacent local roads. Includes similar views from dwelling 'Bonnyton Smiddy'.	Residents	Medium	High
		Road Users		Medium
8	Dwellings at Dustydrum to the west of the Site.	Residents	Close	High
10	B9127 Local Road to the east of the Site with potential views between woodland blocks of the Site.	Road Users	Long	Medium
11	B961 Local Road to the west of the Site on rising ground.	Road Users	Long	Low / Medium
12	Local road with adjacent National Cycle Route	Road Users	Long	Medium
		Core Path Users		High
14	War Memorial adjacent A92 in elevated position.	Road Users	Long	Medium
		Visitors to War Memorial		Medium

Individual Visual Effects on Viewpoint 1

4.6.5 Viewpoint 1 is photographed close to the north-eastern corner of the Site adjacent to the dwelling ay 'Hunter's Path', see Figure L4. The fieldwork identified that the dwelling was single storey and orientated in the direction of the Site, with likely views from rooms in general use and the curtilage areas. The sensitivity of the visual receptor is considered to be High.

4.6.6 The baseline view from within the grounds of the dwelling is across the timber post and wire boundary fencing across an area of improved grassland to the southwest, towards the northeast corner of the Application Site that is defined by a similar fence, along with areas of unmanaged grassland to the perimeter. The woodland of 'Guynd Den' lies to the right of the view and the woodland near 'Kelly Moor' are visible, along with the residence of Kelly Moor and the agricultural buildings to 'The Fallaws'. Of the Site itself, the eastern most fields are visible, with fields further west screened by elements of hedgerow vegetation and the undulating topography within the Site itself. Both high voltage pylons and low voltage posts that form part of the wider electrical distribution network are visible within the Application Site, and are visual detractors. Overall, this is a view over a relatively flat rural, farmed landscape that contains pylons and other man-made elements, at relatively close range.

4.6.7 The initial change in view will include close-range views of solar arrays (~3.5m high) alongside 2.4m high 'deer fencing', alongside new hedgerow planting and a 5m wide landscape buffer. The relatively flat landscape with a gentle rise in level to the west will enable views of the adjacent woodlands, and woodlands further west on the skyline, to be retained. The nearby vertical infrastructure would still be prominent above the solar arrays.

4.6.8 The limited vertical height of the proposals within the view, with a wide horizontal effect, it is considered that the magnitude of effect at Year 1 (upon completion) would be Medium on the High sensitivity receptors. The overall level of effect would be Moderate adverse, for a Very Long-term duration.

4.6.9 New hedgerow planting along the Site boundary and the adjacent 5m wide buffer strip with progressively establish and screen the proposals, so that at Year 10 views will be likely limited to occasional filtered views, reducing effects overall, with the magnitude of effect considered to be Very Small, resulting in a Minor level of adverse effect.

Table 5: Visual Effects on Viewpoint 1

Visual Receptor	Sensitivity	Magnitude		Nature and Importance of Effect
Residents at Hunter's Path	High	Upon Completion (at Year 1)	Medium-Large	Moderate -Major adverse
		Year 10 (planting established)	Very Small	Minor-Moderate adverse (very long term)

Individual Visual Effects on Viewpoint 2

4.6.10 Viewpoint 2 is photographed from the trackway of 'Hunter's Path' adjacent to the gateway that leads to 'Kelly Moor Lodge', see Figure L5. Similar to Viewpoint 1, this dwelling is single-storey and orientated in the general direction of the Site, with likely views from rooms in general use and curtilage areas. The sensitivity of the visual receptor is considered to be High. It is noted that this view is representative of likely views from the dwelling of Kelly Moor, which is located in a position set back from the viewpoint and behind new areas of planting along the garden boundary with the trackway that would partially filter views of the Proposed Development, therefore the selected location of the viewpoint at the entrance driveway is considered the worse-case scenario in terms of potential views.

4.6.11 The baseline view from this location is across a roadside verge that measures approx. 4m in width and is mainly grassed with elements of longer grass and Gorse present, separating the trackway from the adjacent agricultural field currently used for crop production. The marginal change in elevation to the

northwest of the Application Site is visible, with views possible across the farmed landscape to the dwelling and outbuildings at Hunter's Path to the right of the view, and 'Dustydrum' to the left, and the wider landscape to the west. The woodlands of Guynd Den are visible on the skyline to the centre of the view and delineates the northern boundary of the Application Site. A line of high-voltage overhead power cables and associated pylons are evident within the view and are notable visual detractors. Overall, this is a view over a relatively flat rural, farmed landscape that contains pylons and other man-made elements, at relatively close range.

4.6.12 The initial change in view will include close-range views of solar arrays (~3.5m high) alongside 2.4m high 'deer fencing', offset from the trackway by a distance of approx. 100m and following the alignment of a previous hedgerow location. A new hedgerow will be planted along this boundary, replicating the previous hedgerow position and screening the proposals. The marginal change in elevation and low-lying nature of the arrays will enable views of the wooded skyline to be retained.

4.6.13 The limited vertical height of the proposals within the view, with a wide horizontal effect, it is considered that the magnitude of effect at Year 1 (upon completion) would be Medium-Large on the High sensitivity receptors. The overall level of effect would be Moderate-Major adverse, for a Very Long-term duration.

4.6.14 New hedgerow planting along the Site boundary will progressively establish and be managed to a height of approx. 3m to screen the proposals, so that at Year 10 views will be likely limited to occasional filtered views, reducing effects overall, with the magnitude of effect considered to be Small, resulting in a Minor-Moderate level of adverse effect.

Table 6: Visual Effects on Viewpoint 2

Visual Receptor	Sensitivity	Magnitude		Nature and Importance of Effect
Residents at 'Kelly Moor'	High	Upon Completion (at Year 1)	Medium-Large	Moderate-Major adverse
		Year 10 (planting established)	Small	Minor-Moderate adverse (very long term)

Individual Visual Effects on Viewpoint 3

4.6.15 Viewpoint 3 is photographed from the trackway to the rear of the 'Fallaws' and is representative of views afforded to workers at the farm, noting the associated dwelling lies to the south and is screened by a number of agricultural buildings from the Proposed Development, see Figure L6. The sensitivity of the visual receptors is considered to be Low.

4.6.16 The baseline view from this location is across the rear of the farmstead and generally follows the alignment of the trackway to the north-west. The view is across the arable landscape to the north, and due to the relatively flat landscape, enables views to 'Hunters' Path' to the north-east and the woodland of Guynd Den to the north. Elements of farming paraphernalia are visible within the view, along with a number of electricity pylons. Overall, this is a view over a relatively flat rural, farmed landscape that contains pylons and other man-made elements, at relatively close range.

4.6.17 The initial change in view will include close-range views of solar arrays (~3.5m high) alongside 2.4m high 'deer fencing' and the proposed substation and associated small scale buildings within the associated compound, secured by a 2.4m high palisade fence. New gravel access trackways and inverters are

potentially visible, but likely to be screened by intervening solar arrays. Views of the wider landscape including the woodlands to he north is likely to be limited as a result of the Proposed Development, with only upper elements of the woodland considered to be visible. The nearby vertical infrastructure would still be prominent above the solar arrays.

4.6.18 The open views of the Proposed Development are considered to have a magnitude of change of Large-Very Large at Year 1 (upon completion) on Low sensitivity receptors. The overall level of effect would be Major adverse at best for a Very Long-term duration. The existing area of farmed field between the track and proposed fence line will likely be left unmanaged, allowing grassland to take effect in this location that will assist in softening the view, so that by Year 10, noting the limited number of workers at the farmstead (receptors at the farm) and perceptual impacts the level of effect will be reduced to Moderate Adverse.

Table 7: Visual Effects on Viewpoint 3

Visual Receptor	Sensitivity	Magnitude		Nature and Importance of Effect
Workers at 'Fallaws'	Low	Upon Completion (at Year 1)	Large/Very Large	Major
		Year 10 (planting established)	Medium / Large	Moderate

Individual Visual Effects on Viewpoint 4

4.6.19 Viewpoint 4 is taken close to the western edge of the dwelling at 'Shelterfield' on the adjacent trackway that provides access to the dwellings and farmsteads described at Viewpoint 1 – 3, see Figure L7. Located adjacent to the garden of this property, it is noted that the main elevation of the dwelling is orientated away from the Site, with only occasional windows to the rear elevation. It is considered likely that there will be views from the curtilage of this property, and this visual receptor is considered to be Medium – High sensitivity.

4.6.20 The baseline view from the adjacent trackway to the grounds of the dwelling is across an undulating and predominantly arable landscape. The foreground consists of a mix of pastoral (left of the trackway) and arable fields (right of the trackway) across a low lying shallow valley that is the route of the Rottenraw Burn, with elements of roadside and waterside vegetation visible. Beyond, on rising ground, a single dwelling (unoccupied) is partially visible, with the farmstead of 'Fallaws' visible to the centre of the view beyond. The woodland of Guynd Den that lies adjacent the northern boundary of the Application Site is visible on the skyline. Several small woodlands and upper elements of farmsteads to the north are visible, including that at Hunter's Path. Overall, this view is across an undulating landscape that is typical to the south of the Application Site, with a mix of rural land uses and occasional detractors i.e. electricity pylons.

4.6.21 The initial change in view will include the loss of the 2no trees to the east of the existing trackway to enable the construction of the access track to the crossing over the Rottenraw Burn, noting that the falling topography will screen the majority of the new trackway to the south of the water course from view. The trackway to the north of the Burn will be visible at it crosses the rising ground, with visibility tempered by the existence of existing tracks in the crops caused by movements of farm vehicles. The main areas of development will be on the rising ground to the north and northwest, with the western

fields that will contain solar arrays visible in the distance. Undulating topography, elements of existing vegetation around the 'Fallaws' farmstead and the woodland near Kelly Moor are likely to limit views of the remainder of the Site from view. Views of woodland on the skyline are likely to remain.

4.6.22 The limited vertical height of the proposals within the view alongside with a limited horizontal extent, the Magnitude of effect at Year 1 (upon completion) would be Small – Medium on these Medium/High sensitivity receptors. The overall level of effect would be Minor-Moderate adverse for a Very Long-term duration. It is considered unlikely that any of the proposed mitigation will reduce these levels of effect.

Table 8: Visual Effects on Viewpoint 4

Visual Receptor	Sensitivity	Magnitude		Nature and Importance of Effect
Residents at 'Shelterfield'	Medium High	Upon Completion (at Year 1)	Small-Medium	Minor-Moderate adverse
		Year 10 (planting established)	Small-Medium	Minor-Moderate adverse

Individual Visual Effects on Viewpoint 6

4.6.23 Viewpoint 6 is photographed from the juncture of Bonnyton Road and a local road in the vicinity of 'Fauldiehill Grange', see Figure L8. From this location there are elevated and panoramic views from this location to the north and north-east. Adjacent dwellings, with likely views of the Site are considered to be High sensitivity receptors, and users of the local road network as Medium sensitivity receptors.

4.6.24 The baseline view is from the junction of the local roads, where from this elevated position there are open views across agricultural farmland within an undulating landscape. The Greenford and Rottenraw Burns are screened from view by the change in topography to the north, with the rising ground beyond consisting of a farmed landscape with a number of woodland blocks present. The buildings at 'Fallaws are visible with Hunters' Path visible in the distance beyond. The large woodland of 'Guynd Den' is visible in the distance alongside smaller woodland and trees groupings scattered across the landscape. Occasional elevated locations further north within the 'Sidlaw Hills' are visible on the skyline. Overall, this is a view across the rural, farmed landscape with occasional farmsteads and overhead power lines present. Of the Site itself, the majority will be visible, with eastern areas appearing as a thin slither of development partially screened by woodland, with western areas being more visible.

4.6.25 The initial change in view will include medium-range views of solar arrays (~3.5m high) alongside 2.4m high 'deer fencing', alongside new hedgerow planting along the southern boundary. The woodlands to the north will largely remain visible and views to the Sidlaw Hills be retained. The proposed substation will be mostly screened by existing building and vegetation at 'Fallaws' however some elements may still be visible. From this distance, the detail of the arrays will likely be less visible, and the development would likely be seen more as a change in the colour of the host field. The proposed structure to enable the crossing to the Rottenraw Burn will itself not be visible due to its low lying position within the undulating topography of the landscape to the south, with waterside vegetation further limiting views where the proposed access trackway runs north up onto the rising ground.

4.6.26 The limited vertical height of the proposals within the view, with a wide horizontal effect, it is considered that the magnitude of effect at Year 1 (upon completion) would be Medium on both High and Medium sensitivity receptors, noting that road users are transient and travelling oblique to the direction of the

Site. The overall level of effect would be borderline Moderate-Major adverse, for a Very Long-term duration for nearby dwellings at Fauldiehill Grange and for users of the local roads, Moderate adverse effects.

4.6.27 New hedgerow planting along the Application Site's southern boundary will progressively establish and filter views of the proposals, so that at Year 10 views will be likely limited to areas of solar arrays to central and northern areas of the site. Noting the Application Site rises to the north, proposed boundary vegetation will have limited effect in screening the proposals from this location but will soften the overall level of effect.

Table 9: Visual Effects on Viewpoint 6

Visual Receptor	Sensitivity	Magnitude		Nature and Importance of Effect
Residents at 'Fauldiehill Grange'	High	Upon Completion (at Year 1)	Medium	Moderate – Major adverse
		Year 10 (planting established)	Small-Medium	Moderate adverse
Road Users	Medium	Upon Completion (at Year 1)	Medium	Moderate adverse
		Year 10 (planting established)	Small-Medium	Minor-Moderate adverse

Individual Visual Effects on Viewpoint 8

4.6.28 Viewpoint 8 is photographed from the eastern edge of the agricultural buildings at 'Dustydrum', see Figure L9. Dustydrum is a small farmstead with several buildings converted to holiday accommodation located to the centre and southern edge of the farmstead, with possible views eastwards towards the Application Site, noting most are likely limited by the farm buildings. Residents are considered to be High sensitivity receptors.

4.6.29 The location for this viewpoint is taken closer to the Site where occasional outbuildings and agricultural sheds do not obscure any potential view. The baseline view is across an arable field and an access trackway that connects to a further smaller farmstead to the north-east (or north-west of the Site) named as 'Goats'. The level topography between the farmstead and the Application Site is in the foreground, with the view flanked by the woodland of 'Guynd Den' to the left of the view and 'Greenford Strip' to the right. A series of electrical pylons are notable detractors within the view. The falling topography to the south-east results in none of the Site being visible.

4.6.30 The initial change in view will include close-range views of upper elements of the solar arrays (~3.5m high) and possible the perimeter fence. Noting the falling landscape within the Site itself precludes the majority of the Proposed Development being visible.

4.6.31 With the limited vertical and horizontal extents of the proposals within the view, it is considered that the magnitude of effect at Year 1 (upon completion) would be Small on the High sensitivity receptors. The overall level of effect would be Minor adverse, for a Very Long-term duration.

4.6.32 New hedgerow planting along the Site's western boundary to infill areas where vegetation is missing, will establish so that by Year 10, views will be limited to only occasional upper elements of arrays closest to this boundary. The magnitude of effect at Year 10 is considered to be Very Small, resulting in a Negligible-Minor level of adverse effect.

Table 10: Visual Effects on Viewpoint 8

Visual Receptor	Sensitivity	Magnitude		Nature and Importance of Effect
Residents at 'Dustydrum'	High	Upon Completion (at Year 1)	Small	Minor adverse
		Year 10 (planting established)	Very Small	Negligible-Minor adverse

Individual Visual Effects on Viewpoint 10

4.6.33 Viewpoint 10 is photographed from the B9127, a local road to the west of the Site and represents users travelling west who will experience transient and medium to long distance views of the eastern areas of the Application Site, see Figure L10.

4.6.34 The baseline view from the local road is across a series agricultural fields that lie to the east of the Application Site. The landscape is under arable crop production, with occasional areas of rough grassland and is crossed by a small water course (Elliot Water) whose route is defined by areas of riparian vegetation along its length, as seen to the centre of the view. Woodlands of Guynd Den and Kelly Moor are visible on the skyline, with the agricultural buildings at 'Fallaws' clearly visible through the gap between woodlands. Views to the north and south of the Site are also visible. Of the Application Site itself, the majority is screened from view by topography and existing woodlands, noting that the fields within the eastern areas of the site boundary is visible through the gap between woodlands, with the field to the east of the trackway to Hunter's Path topographically orientated towards the viewpoint and receptors along the local road. Farmsteads and electricity pylons are notable detractors within the view.

4.6.35 The initial change in view will include views of solar arrays (~3.5m high) alongside 2.4m high 'deer fencing', with new hedgerow planting and infill hedgerow planting along the eastern boundary, all set against a backdrop of established woodland or existing agricultural buildings at 'Fallaws'. The relatively flat landscape with a gentle rise in level to the west enables views of the solar arrays in the eastern fields that flank the trackway of Hunter's Path and will be visible for road users.

4.6.36 The limited vertical height of the proposals within the view, with a narrow horizontal effect, it is considered that the magnitude of effect at Year 1 (upon completion) would be Small on the Medium sensitivity receptors. The overall level of effect would be Minor-Moderate adverse, for a Very Long-term duration.

4.6.37 New hedgerow planting along the Site's eastern boundary and flanking the trackway of Hunter's Path will progressively establish, creating a layered effect through the vegetation and screening the proposals, so that at Year 10 views will be likely limited to occasional filtered views, reducing effects overall, with the magnitude of effect considered to be Very Small, resulting in a Negligible-Minor level of adverse effect.

Table 11: Visual Effects on Viewpoint 10

Visual Receptor	Sensitivity	Magnitude		Nature and Importance of Effect
Road Users	Medium	Upon Completion (at Year 1)	Small	Minor
		Year 10 (planting established)	Very Small	Negligible-Minor

Individual Visual Effects on Viewpoint 11

4.6.38 Viewpoint 11 is photographed from the B961 road to the west of the Application Site, where the road crosses an area of elevated landscape and where users of this road will have elevated views across the landscape to the south and south-east, in the general direction of the Application Site, see Figure L11. Users of the local road network are considered to be Medium sensitivity receptors.

4.6.39 The baseline view from this road is off a grassed roadside verge with a low stone wall that defines the boundary with the adjacent farmed landscape, which consists of a number of large fields under arable crop production. Views are open and elevated across a farmed landscape with woodlands and small tree groupings visible in the distance. Occasional farmsteads and several small powerlines and the larger overhead lines are visible. Of the Site, very little is visible from this distance across the relatively flat landscape and is limited to the very western fields that are difficult to discern due to distance.

4.6.40 The initial change in view will be limited and the Proposed Development will not be clearly visible in any form of detail but mostly perceived as a change of colour within the host fields, due to distance and the low-lying nature of the proposals. Mitigating planting will similarly not be discernible at this range.

4.6.41 At Year 1 (upon completion) the magnitude of visual effect is considered to be Very Small on these Medium sensitivity receptors, noting views are also oblique to the direction of travel. The overall level of effect would be Negligible-Minor for a Very Long-term duration. Mitigation planting in the form of infill hedgerow planting to the western boundary will have limited effect at this distance in terms of screening of the proposals and is therefore considered that the magnitude of effect at Year 10 is considered to be Very-Small with an overall level of effect of Negligible adverse.

Table 12: Visual Effects on Viewpoint 11

Visual Receptor	Sensitivity	Magnitude		Nature and Importance of Effect
Road Users	Medium	Upon Completion (at Year 1)	Very Small	Negligible-Minor
		Year 10 (planting established)	Very-Small	Negligible

Individual Visual Effects on Viewpoint 12

4.6.42 Viewpoint 12 is photographed from the footpath that runs alongside the A92, a main road that connects Arbroath with Dundee, and also forms the route of a Core Path and National Cycle Network, see Figure L12. This location is identified on the ZTV as having the potential for views of the Site. Road users are considered to be of Medium sensitivity, and the Core Path / National Cycle Route as High sensitivity receptors.

4.6.43 From this location on flatter areas of land along the coast, there are views to the more elevated and gently undulating landscape to the north. Beyond the highway corridor, the landscape is farmed, consisting of a number of fields under both crop and pastoral use, with several woodlands and farmsteads present on more elevated locations. This undulating landscape in combination with woodlands and well established field boundary hedgerows, restrict any views of the Application Site from this location.

4.6.44 Overall, the lack of any visibility means that there are no adverse effects on the identified receptors.

Table 13: Visual Effects on Viewpoint 12

Visual Receptor	Sensitivity	Magnitude		Nature and Importance of Effect
Road Users	Medium	Upon Completion (at Year 1)	None	None
		Year 10 (planting established)	None	None
Core Path / National Cycle Route	High	Upon Completion (at Year 1)	None	None
		Year 10 (planting established)	None	None

Individual Visual Effects on Viewpoint 14

4.6.45 Viewpoint 14 is photographed from the location of a War Memorial that is located at the junction of a local road and the B961, at a distance of approx. 1.5km to the northwest of the Site, see Figure L13. Road users and visitors to the war memorial and nearby seating are considered Medium and High sensitivity receptors respectively.

4.6.46 At this location on the edge of the Sidlaw Hills, are several benches in the vicinity of the War Memorial where users can obtain elevated and panoramic views to the southwest and to a lesser degree, the south and southeast in the general direction of the Application Site and the coast. Views are of a farmed landscape, visible beyond the immediate road corridor, where falling topography to the south-west (along the route of the B961) enables extensive views. In contrast, the topography near the road junction and war memorial initially only has a marginal fall, before becoming steeper to the southeast, and this initial limited change limits views in the general direction of the Application Site, in conjunction with the height of the crop within the field. Upper elements of woodland to the north and south of the Site are just discernible.

4.6.47 The limited vertical height of the proposals and intervening topography and woodland vegetation, restricts views of the Proposed Development from this location. It is considered unlikely that during winter months, when the crops within the field are either absent or at a reduced level, the assessed visibility would alter. It is considered that at both Year 1 (upon completion) and Year 10 (planting established) that the magnitude of effect would be None-Very Small, with an overall level of effect of Negligible-Minor adverse.

4.6.48 intervisibilty will be within the view, with a wide horizontal effect, it is considered that the magnitude of effect at Year 1 (upon completion) would be Medium on the High sensitivity receptors. The overall level of effect would be Moderate adverse, for a Very Long-term duration.

4.6.49 New hedgerow planting along the Site boundary and the adjacent 5m wide buffer strip with progressively establish and screen the proposals, so that at Year 10 views will be likely limited to occasional filtered views, reducing effects overall, with the magnitude of effect considered to be Very Small, resulting in a Minor level of adverse effect.

Table 14: Visual Effects on Viewpoint 14

Visual Receptor	Sensitivity	Magnitude		Nature and Importance of Effect
Road Users	Medium	Upon Completion (at Year 1)	None / Very Small	Negligible-Minor

		Year 10 (planting established)	None / Very Small	Negligible-Minor
War Memorial	High	Upon Completion (at Year 1)	None / Very Small	Minor
		Year 10 (planting established)	None / Very Small	Minor

Summary of Visual Effects

4.6.50 Table 16 summarises the assessment of visual effects of the Proposed Development.

Table 15: Summary of Assessed Visual Impact Significance

VP No.	Receptors Represented	Sensitivity	Magnitude of Effect		Overall level of Effect	
			Upon Completion (at Year 1)	Year 10 (planting established)	Completion	Year 10
1	Residents at Hunter's Path	High	Medium	Very small	Moderate-Major adverse	Minor-Moderate adverse (very long term)
2	Residents at 'Kelly Moor'	High)	Medium-Large	Small	Moderate-Major adverse	Minor-Moderate adverse (very long term)
3	Workers at 'Fallaws'	Low	Large-Very Large	Medium-Large	Major	Moderate
4	Residents at 'Shelterfield'	Medium/ High	Small-Medium	Small-Medium	Minor-Moderate adverse (very long term)	Minor-Moderate adverse (very long term)
6	Residents at 'Fauldiehill Grange'	High	Medium	Small-Medium	Moderate-Major	Moderate adverse (very long term)
	Road Users	Medium	Medium	Small-Medium	Moderate adverse	Minor-Moderate adverse (very long term)
8	Residents at 'Dustydrum'	High	Small	Very Small	Minor adverse	Negligible/Minor adverse (very long term)
10	Road Users	Medium	Small	Very Small	Minor adverse	Negligible/Minor adverse (very long term)
11	Road Users	Medium	Very Small	Very Small	Negligible-Minor adverse	Negligible (very long term)
12	Road Users	Medium	None	None	None	None
	Core Path / National Cycle Route	High	None	None	None	None

14	War Memorial and seating	High	None / Very Small	None / Very Small	Negligible-Minor	Negligible-Minor
	Road users	Medium	None / Very Small	None / Very Small	Minor	Minor

Other Visual Receptors

Cumulative Visual Impacts and Effects

4.6.51 A single solar development is located approximately 1.15km to the north of the Application Site on land near 'Mains of Guynd' Farm. This solar development is separated from the Application Site by the expansive woodland to Guynd Den that lies immediately adjacent to the northern boundary. The Application Site has limited intervisibility with the wider landscape to the north, including the area where the Mains of Guynd solar development is located, and as a result no cumulative impacts are identified due to no locations where both solar developments will be visible from at the same time.

5. Mitigation and Enhancement Measures

5.1 MITIGATION AND ENHANCEMENT MEASURES

5.1.1 Based on our analysis and knowledge of the landscape, visual, and topographic characteristics of the Site, and our review of landscape-related planning policies, the landscape mitigation and enhancement measures have been embedded into the Proposed Development details as part of the iterative design process and have been accounted for above.

5.1.2 These are considered more than sufficient to appropriately integrate the development into the landscape. The details of these measures are outlined on the Landscape Proposals drawing (refer to drawing Fig L14 – 313625-ADW01-Final v1.0).

5.1.3 In summary the landscape rationale for the measures comprises that the Site lies within a landscape where the large scale open, intensive agricultural operations have fragmented individual hedgerow and tree cover. As a result, the Application Site would benefit from hedgerow (and hedgerow tree where suitable) planting and reinforcement along the site boundaries to assist in visually containing the Proposed Development, integrating development and bringing additional amenity and biodiversity value to the local area.

5.1.4 The inclusion of hedgerows further improves integration of the Proposed Development into the existing landscape framework; allowing the Proposed Development to settle into its surroundings and become an accustomed feature and would largely be retained post decommissioning.

5.1.5 In outline, embedded landscape mitigation and enhancement measures include:

a. new hedgerow planting along the Site boundaries, including reinstating a hedgerow along a historic field boundary along its original alignment:

b. create an appropriate landscape setting for the Proposed Development.

c. visually integrate the Proposed Development into the established local landscape framework; and

d. encourage landscape connectivity.

e. adopting enhanced hedgerow management techniques to allow hedgerows to grow up to a height of 3.5m;

f. specification of a locally appropriate mixed native plant species list to increase biodiversity value.

g. specification of a locally appropriate wildflower/meadow grassland seed mix around the solar arrays and in suitable ecological buffer zone locations, which can further benefit wildlife;

h. promotion of suitable materials where new surfaces is to be constructed; and

i. specifying or applying recessive colour treatments to ancillary features to minimise their visibility in the landscape, where possible.

5.1.6 No additional mitigation measures are considered required over and above those proposed and assessed.

6. Conclusions

6.1 Landscape and Visual Effects

6.1.1 The assessment process combines objective methodology and elements of subjective professional judgement, written in accordance with latest guidance, and has been led and reviewed by a Chartered Landscape Architect. This appraisal was prepared to ascertain the potential landscape and visual effects associated with the construction, operation, then decommissioning of a proposed solar PV development and auxiliary infrastructure on land at on land at 'The Fallows', Arbirlot, Arbroath, Scotland.

6.1.2 The area of the proposed PV arrays covers an area of approximately 95ha. The Application Site is located on rising ground, falling away to the south, within a landscape formed by a series of low hills and shallow valleys, close to the coastline. The Application Site comprises medium to large agricultural fields, with limited boundary hedgerow cover, noting that previous hedgerows have either been removed as a result of modern farming practices, or have declined due to limited management.

6.1.3 The Application Site is largely surrounded by arable farmland, with established plantation woodlands along its northern boundary, and to the southeast in the vicinity of Kelly Moor. Pastoral fields are located to the south, alongside the route of the Crossden Burn and the Greenford Burn. The surrounding landscape contains a number of hedgerows and smaller scattered woodlands or copses, alongside hedgerows, field drainage ditches and on occasion individual scattered trees. The area contains a limited number of settlements with towns located mainly along the coastline with the village of Arbirlot approximately 2km to the east of the Application Site. The line of overhead high-voltage power lines is a prominent feature in the landscape. From outside the site, the Proposed Development is not visible in entirety from one location due to hedgerow and woodland screening in conjunction with local topographical changes. Localised effects quickly reduce with distance from Site as the low-lying nature of the Proposed Development becomes increasingly indiscernible with distance or the Site becomes increasingly filtered or screened.

6.2 Summary of Effects

6.2.1 The Proposed Development is within a gently rolling landscape that falls in a north to south from the Sidlaw Hills towards the coastline, defined by medium to large scale agriculture and elements of established woodlands. The local host LCT is the Dipslope Farmland (LCT 387) which is recognised with Council documents as being an area of Medium to Low value, with a medium sensitivity to renewable energy development, particularly solar development.

6.2.2 The scale and characteristics of the 'host' landscape is considered suitable for the type of development proposed. To facilitate the construction of the Proposed Development, areas of arable land are required to be temporarily lost for a period of 40 years (the duration of the development).

6.2.3 To minimise adverse effects, the Proposed Development has been carefully sited and utilised existing boundary vegetation to incorporate the development into the landscape. The development layout has further been designed to replicate and preserve the prevalent landform and existing levels, where

possible, to minimise ground disturbance i.e. through low impact construction methods such as piled foundations where possible in lieu of raft foundations.

6.2.4 Following construction works, it is considered that the Proposed Development could be successfully integrated into its immediate landscape surroundings. At all times the characteristic landform within the Site and surrounding has been respected and preserved by the low-lying nature of the solar arrays and other associated elements of infrastructure.

6.2.5 The highest level of adverse landscape effects is primarily limited to a Site level and close range, and limited to the arable fields of the Site, noting more highly valued characteristics (hedgerows) are retained, protected and enhanced. At Year 1 the adverse effects would be **Minor-Moderate** on landscape characteristics and **Moderate** on landscape character at the Site. Effects would reduce over time as development becomes integrated into the landscape and landscaping matures. By Year 10, the site level effects are considered to be reduced to a **Minor-Moderate level of adverse landscape** effects on landscape character.

6.2.6 Upon decommissioning, and accounting for the Very Long-term and permanent nature of landscape mitigation, there will be **Minor-Moderate level of beneficial landscape effects**, at the Site and in close proximity.

6.2.7 The effects on the character of the host landscape are limited. Adverse effects at Year 1 will be limited to a Moderate level at the Site boundaries, reducing to a **Negligible** level within 1km of the Site. By Year 10, effects will have reduced to **Negligible-Minor** in close proximity to the Site, noting the Very Long-term benefits achieved through landscaping, particularly post decommissioning.

6.2.8 The highest level of adverse visual effect is experienced by farm workers at 'Fallaws' (Viewpoint 3), given their proximity to the Proposed Development, where Major levels of adverse effects will be observed at Year 1, albeit marginally reducing as the Proposed Development integrates into the landscape through the proposed mitigation planting. The dwelling at Fallaws is located to the south of the larger farm buildings and has an outlook to the south, with little effect from the Proposed Development.

6.2.9 In other close-range views from near the Application Site boundary, the dwellings and curtilage areas of Hunter's Path (Viewpoint 1) and Kelly Moor (Viewpoint 2) will initially experience Moderate-Major level of effect, reducing to Minor as mitigation planting establishes. It is noted that the dwelling at Kelly Moor is set back from the roadside and behind an element of planting already undertaken and will likely only experience the levels of effect from the associated driveway and small areas of garden frontage. From 'Shelterfield', residents will experience Minor-Moderate levels of effect at Year 1 with little reduction in level of effect at Year 10 due to the proposed mitigation along its southern edge offering little screening effect as the Proposed Development will remain visible on rising ground beyond.

6.2.10 Fauldiehill Grange (Viewpoint 6) will likely experience mid-range views of the Proposed Development due to its elevated position on a local ridgeline, with eastern areas of PV arrays screened by existing woodland. The primary effects are restricted to a **Moderate-Major** level of adverse effect at Year 1 reducing to a **Moderate** level as the development becomes assimilated into the local landscape at Year 10.

6.2.11 From the wider landscape, the levels of effect are limited by topography and intervening vegetation to field boundaries and existing woodlands to **Minor** levels of adverse effect. Local footpaths in the vicinity of the Application Site are limited and none of those identified have any visibility of the Proposed Development.

6.2.12 The Proposed Development is considered to accord with landscape aspects of local planning policy. In accordance with Policy PV6 'Development in the Landscape', the Proposed Development has responded positively to respecting the local character area context and through development, landscape, connectivity structure and quality will be secured through development and the landscape mitigation. Similarly, through no removals or effects on existing woodlands and hedgerows, the Proposed Development accords with Policy PV7 'Woodland Trees and Hedges'.

6.2.13 The findings of this assessment evidence that unacceptably adverse landscape and visual effects have been avoided, and green infrastructure is also enhanced at a Site level by ensuring historic field boundaries are both improved and restored where absent, enhancing landscape connectivity across this large open landscape area, between existing landscape features.

6.2.14 In conclusion, the landscape, and visual changes attributable to the Proposed Development are thought to be relatively limited and localised. As a result, it is our professional opinion that the Site has the capacity to accommodate the Proposed Development in landscape and visual terms, without unacceptable effects.

7. References

- Countryside Agency and Scottish Natural Heritage. (April 2002). Landscape Character Assessment, Guidance for England and Scotland.
- Landscape Institute. (2011). Photography and Photomontage in Landscape and Visual Impact Assessment (Advice Note 01/11).
- The Landscape Institute. (2013). Guidelines for Landscape and Visual Impact Assessment (Third Edition).

Abbreviations/Acronyms:

For the avoidance of confusion, abbreviations used have the meanings given below:

AGL	Above Ground Level
AGLV	Area of Great Landscape Value
AOD	Above Ordnance Datum
AONB	Area of Outstanding Natural Beauty
AVR	Accurate Visual Representation
c.	Circa
CWS	County Wildlife Site
DEM	Digital Elevation Model
DSM	Digital Surface Model
DTM	Digital Terrain Model
EA	Environment Agency
FOV	Field of View
GIS	Geographical Information System
LCA	Landscape Character Area
LCT	Landscape Character Type
LNR	Local Nature Reserve
LPA	Local Planning Authority
LVA	Landscape and Visual Appraisal
LVIA	Landscape and Visual Impact Assessment
LWS	Local Wildlife Site
MPA	Mineral Planning Authority
NCA	National Character Area
NGR	National Grid Reference
NNR	National Nature Reserve
NSA	National Scenic Area
NPPF	National Planning Policy Framework
NPPG	National Planning Policy Guidance
NRW	Natural Resources Wales
OS	Ordnance Survey
POS	Public Open Space
PDL	Previously Developed Land
RCA	Regional Character Area
RIGS	Regionally Important Geological Site
SAC	Special Conservation Area
SAM	Scheduled Ancient Monument
SEPA	Scottish Environmental Protection Agency
SPP	Scottish Planning Policy
SINC	Site of Importance for Nature Conservation
SLINC	Site of Local Importance for Nature Conservation
SSSI	Site of Special Scientific Interest
TAN	Technical Advice Note
TPO	Tree Preservation Order
VEM	Visual Envelope Map
VP	Viewpoint (Representative Viewpoint)
WPA	Waste Planning Authority
ZVI	Zone of Visual Influence
ZTV	Zone of Theoretical Visibility
ZPV	Zone of Primary Visibility
ZSV	Zone of Secondary Visibility

Glossary:

For the avoidance of confusion, the terms used in this report follow the definitions given below:

Landscape	An area, as perceived by people (in relation to past experiences, education etc.), whose character is the result of the action and interaction of natural and/or human factors. Landscape may comprise areas of rural land, urban fringe, urban land (townscape), coastal land, the sea (seascape) etc.
Townscape	The character and composition of the built environment including the buildings and the relationships between them, the different types of urban open space, including green spaces, and the relationship between buildings and open spaces.
Seascape	Landscapes with views of the coast or seas, and coasts and adjacent marine environments with cultural, historical and archaeological links with each other.
Landscape Element	A component part of the landscape (e.g., landform, roads, hedges, woods).
Landscape Feature	A prominent eye-catching element (e.g., wooded hilltop or church spire).
Landscape Characteristics	Combinations of elements and experiential characteristics (e.g., noise, smell) that make a particular contribution to a Landscape Character Type.
Landscape Receptor	Defined aspects of the landscape that have the potential to be affected by a Proposed Development.
Landscape Scene	The landscape characteristics discernible from a given viewpoint/location. The visual aspects of this can be illustrated in a static two-dimensional manner in photographs to represent a sample **view** of the landscape scene.
Landscape Character	The distinct recognisable pattern of elements that occurs consistently in a particular landscape and how people perceive this, creating a particular sense of place.
Landscape Character Types	**LCT**s refer to multiple areas of the same character.
Landscape Character Areas	**LCA**s refer to specific geographical locations of a particular character type. These can be described and categorised at different scales depending on criteria used.
Landscape Condition	The strength of expression of landscape character and intactness of constituent characteristic elements from visual, functional, ecological and cultural perspectives. This is not the same as Scenic Beauty.
Landscape Capacity	The threshold at which change to the landscape resource results in significant change to its landscape character. This is directly related to landscape sensitivity.
Landscape Susceptibility	The ability of a defined landscape receptor (e.g. landscape characteristics) to accommodate the specific Proposed Development without undue negative consequences.
Landscape Value	The desirability of landscape characteristics (including scenic beauty, tranquillity, wildness, cultural associations, conservation interests etc.) and the acceptability of their loss to different stakeholders (i.e. valued for different reasons by different people and on different scales, e.g. local, national).
Landscape Sensitivity	The level of stability, robustness and resilience of landscape receptors and their ability to be replicated based on their quality, condition and value. Landscape sensitivity is based on a combination of judgements on landscape susceptibility and landscape value.
Landscape Receptor	Landscape element, characteristic or character that would potentially receive/experience an effect.
Visual Receptor	Individuals, special interest groups, a community or population that would potentially experience an effect on their view.
Scenic Beauty / Scenic Quality	Subjective value attributed to the emotional response of an individual to a landscape scene, which, although heavily influenced by intrinsic condition, is also conditioned by an individual's perception (memories, associations, cultural influences and preference).

Visual Amenity	The subjective value attributed to the degree of pleasure gained from what is seen in a given view (quality of view).
Visual Sensitivity	The estimated level of susceptibility or likely viewer's response to a change in view from a given viewpoint in relation to its context, the existing visual amenity, the activity and expectations of the viewer and the number of viewers affected.
Tranquillity	Subjective experience from being at a location that provides individuals with the space and conditions to relax, achieve mental balance and a sense of distance from stress. **Tranquil areas** are often associated with quiet, remote (or appearing remote), natural, non-developed (non-built) and non-busy areas.
Impacts and Effects	'**Impact**' refers to an action being taken, and an '**effect**' is the change resulting from that action. The process of assessing effects arising from development is commonly referred to as 'impact assessment'. 'Impacts' and 'effects' are often used interchangeably.
Significant Effect	Directive 2011/92/EU (The assessment of the effects of certain public and private projects on the environment) requires member states to assess the likely **significant effects** of a project (e.g. development) on the environment before determining whether consent should be given. This requirement has been transposed via Environmental Impact Assessment (EIA) Regulations. This LVIA refers to significance (or level) of effects in the wider sense, to mean positive (beneficial) or negative (adverse) environmental effects that are important (material) considerations in the decision-making process, whether assessed as part of an EIA or otherwise. This is directly related to set criteria and terminology as set out within the assessment process. Significant effects may, on balance with other considerations, be acceptable or unacceptable in overall planning terms.
Site Visibility	The areas within which the subject site can be seen, the amount of site visible and the numbers able to see the subject site.
Zone of Theoretical Visibility (ZTV)	Also known as a Zone of Visual Influence (ZVI), Visual Envelope Map (VEM) and Viewshed. This represents the area over which a development can theoretically be seen, based on a DTM. The ZTV usually presents a 'bare ground' scenario - that is, a landscape without screening structures or vegetation. This information is usually presented upon a map base.
Zone of Primary Visibility (ZPV)	The Zone of Primary Visibility (ZPV) represents the geographical area from which the Proposed Development would represent a notable new element in the view and therefore where significant landscape and/or visual effects are likely to occur without further consideration (e.g., secondary mitigation).
Zone of Secondary Visibility (ZSV)	A Zone of Secondary Visibility (ZSV) can be used to represent the geographical area from which the Proposed Development may be visible without being a notable new element in the view or where views are partly restricted or are from greater distances, and therefore where significant landscape and/or visual effects are unlikely to occur after Primary Mitigation measures have been taken into account.
Digital Terrain Model (DTM)	Also known as a digital elevation model (DEM). This is a digital representation of the ground surface (landform or terrain) created by linking co-ordinate points of surveyed elevation values to create a 3D 'model' which computers can use to undertake calculations relating to slope angles, point visibility, flood risk etc.
Digital Surface Model (DSM)	As per a DTM except that it relates to the levels of surfaces above the ground where present (e.g. vegetation or roof levels).
Field of View (FOV)	Term used to describe the height and width of a view as represented by an image. These constitute the horizontal field of view and vertical field of view and are expressed as angles in degrees. Humans have an extreme horizontal field of view of about 200°, but only 6-10° will be in focus at any one time. Thus, a viewer moves their eyes and head around to see a view over a wide area.
Enhancement	A measure resulting in a beneficial effect which is not related to any adverse effect.
Mitigation	A measure to avoid, reduce or remedy adverse effects (principally significant effects) caused by the proposed development. These may be defined at Primary and Secondary Mitigation measures.
Primary (1°) Mitigation	Mitigation measures which have either been developed through the iterative design process and which have become integrated or embedded into the project design or are commitments to utilise best practice techniques to avoid or minimise adverse effects (e.g. industry best practice guidance on construction).
Secondary (2°) Mitigation	Mitigation measures that have been designed to address any adverse effects remaining after Primary Mitigation measures have been incorporated into the project design (i.e. residual adverse effects).