

**Sun Fields Solar Farm, Gelli-bwch Farm,
Llandarcy, Neath**

LANDSCAPE & VISUAL APPRAISAL



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Prepared by:	ECH
Checked by:	TGW

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1.0 INTRODUCTION

1.1 Background

- 1.1.1 This Landscape Appraisal has been undertaken by Bea Landscape Design Ltd on behalf of Hale Energy in support of the planning application for the Solar Farm at Gelli-bwch Farm, Llandarcy ('the Site') as identified on Figure 01. Location Plan. The Site lies to the South of the village of Llandarcy and is part of Gelli-bwch Farm landholding.
- 1.1.2 Government guidance draws attention to the protection of the landscape character and quality, placing an increasing pressure on local regulatory authorities to take the issues into account in all decision making that concerns the wider landscape. To that effect this report has been commissioned to demonstrate to the local authority that it is possible to allow development within the Site without detrimental visual effect whilst both maintaining the character and quality of the surrounding area.
- 1.1.3 The Site lies within the control of Neath Port Talbot County Borough Council within the community of Coedffranc.
- 1.1.4 A statement prepared by the Landscape Institute (10th July 2013) in conjunction with the GLVIA3 panel indicated that for non-EIA assessments the term 'significance' should not be used, as this term may trigger the requirement for a formal EIA. As a result of this information, this report does not establish the significance of effects. However, the scale of effects is evaluated, and where such effects are considered to be of relevance or importance within the planning process, these are described as 'notable'.
- 1.1.4 The survey and fieldwork were carried out in February 2023 when the surrounding trees and hedgerows are without their leaves showing the potentially worst - case views.

1.2 Description of the Development

- 1.2.1 The proposal is for the installation of a renewable energy generating station comprising ground-mounted photovoltaic solar arrays together with a substation and other ancillary infrastructure, security measures, access and landscaping as illustrated within Figure 10 Site Layout.
- 1.2.2 The solar farm involves the installation of PV panels arranged in rows with a total site area of 4.9 hectares (12.1 acres) capable of generating approximately 1.272 Megawatts peak (MWp) of electricity. Panels will be mounted on a steel framework supporting structure which will be secured to ground screws with no need for any concrete foundations.
- 1.2.3 The structure will follow the terrain and as such the panels will not rise above 2.5m above the relative ground level. The solar panels will be inclined to 30 degrees from the horizontal and orientated due south.
- 1.2.4 Each solar PV panel is of a glass construction set in an outer metal frame. The PV panels are connected by cables, running through conduits along the rows of panels and junction boxes.
- 1.2.5 In order to avoid shading from the panels on one another, the distance between rows of panels will be 11.3m which will create wide avenues left open between the panels.

1.2.6 In addition to the PV panels a solar farm comprises of the following:

- Inverters - to convert the direct current (DC) electricity generated by the PV panels, into alternating current (AC) for the grid. Inverter cabinets are typically in the order of 7.5m long, 3m wide and 3m high. The proposed Project will require 1 inverter.
- Transformers are required to connect the solar farm to the high voltage grid, which would sit alongside or inside the inverter cabinets.
- A security system is required to prevent unauthorised access into the solar farm, which is an energy generation system, and to protect the solar farm. This will consist of an approximately 2 metre high weldmesh fence installed within the sites demise and pole mounted security cameras installed around the fence perimeter.
- The Distribution Network Operator will also install a switchgear cabinet, which connects the underground grid connection cable of the solar farm to the distribution network. The size of this cabin will be determined by the DNO requirements, but it is likely to be a GRP enclosure no more than 4m long, 3m wide and 2.5m high.

1.2.7 Once constructed, access to the solar farm will typically generate one visit per year by technicians for maintenance works in 4x4's or transit vans. Maintenance will include washing the panels with water approximately twice a year and mowing the grass 4-6 times per year (if sheep are not used). There will be no onsite office or permanent staffing of the site.

2.0 LANDSCAPE POLICY

2.1 Planning Policy Wales

2.1.1 The Planning Policy Wales 2021 (PPW) sets out the land use planning policies of the Welsh Government and together with Technical Advice Notes provide the national planning policy framework for Wales and informs how the planning system at national, regional and local level can deliver the requirements of the PPW through both Strategic Development Plans and Local Development Plans.

2.2 Local Planning Policy: Neath Port Talbot County Borough Council Local Development Plan 2011-2026

2.2.1 The 'Neath Port Talbot County Borough Council Local Development Plan' was formally adopted in January 2016. Within the Proposals Map 34 the site is covered by policies EN3 Green Wedges and EN4 Replacement Dwellings in the Countryside.

2.2.2 There are also number of strategic policies that are relevant to this appraisal including SP 14 'The Countryside and the Undeveloped Coast'; EN 6 'Important Biodiversity and Geodiversity Sites'; EN 7 'Important Natural Features'; SP 18 'Renewable and Low Carbon Energy'; RE 2 'Renewable and Low Carbon Energy in New Development', SP 21 'Built Environment and Historic Heritage'; BE 1 'Design'.

2.2.3 In order to provide more detailed guidance for the strategic policies the council have prepared a number of Supplementary Planning Guidance reports (SPG) including 'Renewable and Low Carbon Energy' SPG (July 2017) which requests an assessment of landscape and visual impacts for renewable / low carbon energy developments.

3.0 ASSESSMENT METHODOLOGY

3.1 Introduction

3.1.1 This report aims to assess the effects of the proposal on the landscape and visual resource of the area. The assessment has involved the following key stages:

- Desk based research to determine the scope of the study;
- Preparation of the zone of theoretical visibility (ZTV);
- Desk-based research to establish the landscape and visual baseline and identify potential receptors;
- Field work to verify the ZTV and baseline studies and ascertain how the landscape and visual resource will change; and
- Assessment and reporting of potential effects.

3.1.2 The process is supported by the use of viewpoints to illustrate and evaluate effects at key or representative locations relevant to the proposal, but the assessment of effects is not confined just to these key viewpoints.

3.1.3 The report also includes a review of planning and other policy relevant to landscape and visual considerations in the area, which has helped inform the scope of the study and the assessments.

3.1.4 The report and the appraisal has been carried out in accordance with 'Guidance for Landscape and Visual Impact Assessment', 3rd Edition 2013, a joint publication by the Landscape Institute and Institute of Environmental Management and Assessment and the Landscape Character Assessment Guidance for England and Scotland, published by the Countryside Agency; 2002.

3.1.5 GLVIA3 recognises that professional judgement is an important concept within LVIA. Whilst there is scope for quantitative measurements of some factors, in many situations the assessment must rely on qualitative judgements that are based on reasoned and informed justifications.

3.1.6 This report is a standalone document and in consultation with the Local Planning Authority (LPA) is not required to form part of an Environmental Impact Assessment (EIA). In accordance with the above guidance this reduces the overall scope of the document and does not necessarily require the determination of the 'significance of effects' that might be identified within the assessment.

3.1.7 In order to determine the scale of effects, two key aspects should be established. These are the nature of the landscape or visual receptor likely to be affected, often referred to as its sensitivity and the nature of the effect likely to occur, which is often referred to as the magnitude of the likely change. The combination of these two results in a judgement of the scale of the effect. Consideration of the scale of the effect then enables a judgement to be made as to whether the effect is significant (if required for a formal EIA) or notable (for non EIA developments).

3.2 Landscape effects

'An assessment of landscape effects deals with the effects of change and development on landscape as a resource'.

Landscape Baseline

- 3.2.1 The establishment of the landscape baseline commences with a desktop study to collate and review the existing information and published material about the Site and its surroundings including; statutory and non-statutory landscape designations, landscape character, landscape fabric such as soils, land use, cultural heritage and protected landscape features including trees, hedgerows or buildings and other professional evaluations or studies on the landscape. This information is used to determine the scope of the assessment and the extent of the study area and field survey work.
- 3.2.2 The field survey is carried out using a standard landscape character assessment pro-forma tailored from the findings of the desk top study and initial Site visits to identify and record the landscape elements, key characteristics, aesthetic qualities and perceptions that contribute to the landscape resource.
- 3.2.3 The condition and value of the landscape is identified using the criteria as set out in Table 1. The categories are not exhaustive and the final classification takes into account the location and relative condition of adjacent areas. The applicability of the criteria has been based on professional judgement.

Table 1: Landscape Value	
Quality Category	Assessment Criteria
High - exceptional	Strong landscape structure, characteristics, patterns, balances combination of landform and land cover. Appropriate management. Distinct features worthy of conservation. No detracting features. I.e. World Heritage Site, National Park, Area of Outstanding Natural Beauty (AONB).
High	Strong landscape structure, characteristic patterns, balances combination of landform and land cover. Appropriate management with scope to improve. Distinct features worthy of conservation. Occasional detracting features. I.e. parts of National Park or AONB and majority of Areas of Great Landscape Value (AGLV).
Good	Recognisable landscape structure, characteristic patterns, and combinations of landform and land cover still evident. Scope to improve management. Some features worthy of conservation, some detracting features. I.e. localised areas within National Park of AONB, AGLV. Locally recognised area of local landscape importance.
Ordinary	Distinguishable landscape structure, characteristic patterns of landform and land cover often masked by land use. Scope to improve management of vegetation, some features worthy of conservation, some detracting features.
Poor	Weak landscape structure, characteristic patterns of landform and land cover often masked by land use, mixed land use evident, lack of management and intervention has resulted in degradation, frequent detracting features.
Very Poor	Degraded landscape structure, characteristic patterns of landform and land cover are masked by land use, mixed land use dominates, and lack of management / intervention has resulted in degradation, extensive detracting features.
Damaged Landscape	Damaged landscape structure, single land use dominates, disturbed or derelict land requires treatment, and detracting features dominate.

Prediction of Landscape Effects

- 3.2.4 The next stage is to determine the sensitivity of the landscape receptors to the type and scale of development proposed. In order to do this, the susceptibility and value of the receptor are considered, although within the assessment these may not always be explicitly noted. In many cases, it is considered sufficient to describe only the sensitivity, which is informed by an overall professional judgement.
- 3.2.5 **Susceptibility** is the "ability of the landscape receptor to accommodate the proposed development without undue consequences for the maintenance of the baseline and/or the achievement of planning policies and strategies". (GLVIA3). Where noted, susceptibility is described as follows:
- *High:* where undue negative consequences are expected to arise from the proposal.
 - *Medium:* where undue negative consequences may arise from the proposal.
 - *Low:* where undue negative consequences are unlikely to arise from the proposal.
- 3.2.6 Susceptibility may be informed by existing Landscape Character Assessments, which often note sensitivity. However, this is frequently 'intrinsic' or 'inherent' sensitivity, which may not directly relate to the type of development proposed. In such cases, a judgement must be made as to how this sensitivity might relate to the development in question.
- 3.2.7 **Sensitivity** combines the judgements made for susceptibility and landscape value, as described above. Three levels of sensitivity are recorded:
- *High sensitivity :* A landscape receptor of high value with a particularly distinctive characteristic that is susceptible to relatively small changes of the type proposed;
 - *Medium sensitivity:* A landscape receptor of valued characteristics reasonably tolerant of change of the type proposed.
 - *Low sensitivity:* A landscape receptor of relatively low value or importance which is potentially tolerant of substantial change of the type proposed.
- 3.2.8 Within the assessment, an overall judgment of sensitivity is only provided where this is considered sufficient to allow an informed assessment on the receptor.

Magnitude of landscape change

- 3.2.9 Effects on landscape receptors are assessed in terms of their magnitude of change. This is a combination of the size or scale, geographic extent of the area influenced and the duration and reversibility of the impact. Within the assessment, size and scale or extent may not always be noted. In many cases, it is considered sufficient to describe only the magnitude of change, which is informed by an overall professional judgement.

3.2.10 Size and scale concerns the amount of existing landscape elements that will be lost, the extent to which these represent or contribute to the character of the landscape. It also relates to the degree to which aesthetic or perceptual aspects of the landscape are altered through removal or addition of new features, such as hedge loss or introduction of tall features on skylines. Size and scale, where noted, may be rated as follows:

- *Large:* Major change to the existing landscape including key elements, characteristics and qualities.
- *Medium:* Partial or noticeable change to key elements, characteristics and qualities
- *Small:* Some discernible but largely minor change to key elements, characteristics and qualities
- *Negligible:* Very minor or virtually imperceptible change to key elements, characteristics and qualities.

3.2.11 The geographical extent over which landscape effects are felt is distinct from the size or scale. For example, large scale effects may be limited to the immediate Site area. Again, extent is subject to a degree of professional judgement, but where noted these may be rated as follows:

- *Wide:* influencing several landscape types or areas, beyond around 5km
- *Medium:* generally within the local character area or up between 1-5km
- *Local:* the Site and immediate surrounds, up to around 0.75 to 1km
- *Site:* within around 0.75km of the Site.

3.2.12 The duration of the effect relates to the time period during which the changes to the landscape will occur. This is rated as follows:

- *Long term:* beyond 10 years
- *Medium term:* 2 to 10 years
- *Short term:* up to 10 years

3.2.13 The magnitude of change is a product of the size/scale, extent and duration of the impacts. This is judged as a four-point scale (See table 2):

Table 2: Magnitude of Landscape Change	
Magnitude of change	Assessment Criteria
High	Notable and long term change in landscape characteristics over an extensive area ranging to a very intensive, long term change over a more limited area
Medium	Moderate, short term change over a large area or moderate long term change in localised area;
Low	Slight long term or moderate short term change in landscape components; and
No Change	No discernible/virtually imperceptible change to the landscape's resources.

- 3.2.14 Within the assessment, size and scale or extent may not always be noted. In many cases, it is considered sufficient to describe only the magnitude of change, which is informed by an overall professional judgement.

Quantifying landscape effects

- 3.2.15 The second step is to determine the scale of effects (see table 3). This is evaluated by combining the sensitivity (or nature) of the landscape receptor and the magnitude (or nature) of change. The following matrix provides an objective rationale for determining the scale of effects, in order to provide consistency and transparency to the process; however a degree of professional judgement is a key element of the evaluation.

Table 3: Scale of Proposed Effect				
		Sensitivity to change / nature of receptors		
		Low	Medium	High
Magnitude of Change resulting from identified impacts. (Table 2)	No Change/Negligible	Negligible	Negligible	Negligible - Slight
	Low	Slight	Slight - Moderate	Moderate
	Medium	Slight - Moderate	Moderate	Moderate - Substantial
	High	Moderate	Moderate - Substantial	Substantial

- 3.2.16 The scale indicates the importance of the effect, taking into account the sensitivity (or nature) of the receptor and the magnitude (or nature) of the effect. It is usually rated on the following scale of effects:

- *Substantial:* indicates an effect that is very important in the planning decision making process.
- *Moderate / Substantial:* indicates an effect that is, in itself, material in the planning decision making process.
- *Moderate:* indicates a noticeable effect that is not, in itself, material in the planning decision making process.

- *Slight:* indicates an effect that is trivial in the planning decision making process.
- *Negligible / No Change* indicates an effect that is akin to no change and is thus not relevant to the planning decision making process.

3.2.17 The scale of effects detailed above can be classed as beneficial, neutral or adverse.

Classification of landscape effects

3.2.18 Beneficial landscape effects can occur when features or key landscape characteristics such as established hedgerows, mature trees or old buildings or structures which - when considered singularly or collectively - help to define the character of an area are retained and enhanced and or where new structures in keeping with the scale or character of the surroundings are introduced.

3.2.19 Adverse landscape effects occur when features or key landscape characteristics such as established hedgerows, mature trees or old buildings or structures which - when considered singularly or collectively - help to define the character of an area are lost, or where new structures are out of scale or character with the surroundings are introduced.

- *Substantial adverse:* landscape effects occur where the proposals are at considerable variance with the landform, scale and pattern of the landscape and would be a dominant feature, resulting in considerable reduction in scenic quality and large scale change to the intrinsic landscape character of the area.
- *Moderate adverse:* landscape effects occur where proposals are out of scale with the landscape, or inconsistent with the local pattern and landform and may be locally dominant and/or result in a noticeable reduction in scenic quality and a degree of change to the intrinsic landscape character of the area;
- *Slight adverse:* landscape effects occur where the proposals do not quite fit with the scale, landform or local pattern of the landscape and may be locally intrusive but would result in a minor reduction in scenic quality or change to the intrinsic landscape character of the area.
- *Neutral* landscape effects arise when the change proposed results in no discernible improvement or deterioration to the landscape resource. The proposals sit well within the scale, landform and pattern of the landscape and / or would not result in any discernible reduction in scenic quality or change to the intrinsic landscape character of the area.
- *Slight beneficial:* landscape effects occur where derelict buildings, land or poorly maintained landscape features are repaired, replaced and maintained or where new features are introduced such as new tree planting which helps to define landscape structure where none currently exists. Beneficial landscape effects can be slight, moderate or substantial.

Judging the overall importance of the effects

- 3.2.20 Effects may be described as significant in projects that are subject to EIA. However, as noted in Section 2.1.3, for non-EIA projects this term is replaced here with notable. Notable effects are defined as those that are moderate-substantial or substantial. However whilst an effect may be notable, it does not necessarily mean that such an effect would be unacceptable.
- 3.2.21 Account is taken of the effect that any mitigation measures for example planting or landform may have in terms of minimising potentially detrimental effects or improving the landscape composition of the area.

Glossary

The assessment is necessarily technical in nature and therefore, a short overview of terminology used, is provided as follow based on the guidelines:

- *Landscape Resource:* The combination of elements that contribute to the landscape character.
- *Landscape Receptors:* The defined aspects of the landscape resource that have the potential to be affected by a proposal.
- *Landscape effects:* The effects on the landscape as a resource in its own right.

3.3 Visual effects

'An assessment of visual effects deals with the effects of change and development on the view available to people and their visual amenity.'

Zone of Theoretical Visibility (ZTV)

- 3.3.1 The purpose of identifying the ZTV is to define the extent or zone within which the proposed development may be visible. The ZTV is the preferred term as it indicates those locations from which the proposed development may appear as a component of the view.
- 3.3.2 It provides a means of identifying potential receptors (areas of land used by the public and individual/groups of buildings) so that an assessment of effects on identified receptor locations can be undertaken. It also assists in the assessment of effects on different landscape character types and designated Sites as it indicates whether a view may be obtained in these areas.
- 3.3.3 The ZTV does not guarantee that a development will definitely be, or not be, visible from any given location, nor is it representative of the sensitivity to change, the magnitude of change or the significance of impact at any receptor location.
- 3.3.4 Computer-generated ZTVs are a widely used tool in visual impact assessments. It is common practice for ZTVs to be prepared using Digital Terrain Models (DTMs) which are a 'bare earth' representation of the topography of an area. DTMs do not account for the screening effect of buildings, vegetation and other such structures.
- 3.3.5 The Terrain model was based on 5m grid spot heights using 'OS Terrain 5' DTM height data derived from Ordnance Survey and was prepared using Key Terra Firma software, placing 3D elements 2.5m high over the Site area of the proposed development as per the proposed Solar Farm layout. The ZTV was generated for receptors of a height of 1.65m, as recommended by the GLVIA3 guidance (see Figure 12).
- 3.3.6 This ZTV does not take into account any screening by any local or wider features other than those that are represented by the contours of the land and thus that is why further field studies are undertaken to examine what the effect of existing buildings, trees, hedgerows, woods and other existing features both natural and man-made will have of the possible view of the Site. This second stage ZTV true view based on a site assessment is represented as the 'visual envelope' (See Figure 13.Viewpoint & Visual Envelope).
- 3.3.7 It should be noted that this process relies on the resolution of the data used to generate it, and is therefore never 100% accurate; however, it does give a very useful illustration of potential visibility.

Visual Baseline

- 3.3.8 In order to establish the visual baseline a desk top survey is undertaken accompanied by initial Site visits to determine the scope of the assessment, Site context including the 'Zone of Theoretical Visibility', the identification of the receptors that may be affected by the development proposals and identifying the views and viewpoints. Views identified nearest to the Site are assessed first to allow for a systematic review of the viability of the more distant viewpoints targeted during the desktop study. Due to the scale of the proposed development viewpoints representative of short (up to 0.2km), medium (0.2km – 1km) and long (over 1km) distances from the Site are selected for more detailed analysis, with specifically identified long distance views analysed where appropriate.

3.3.9 A viewpoint is a location from where a view of the proposal is gained; a number of viewpoints have been chosen in order to support the assessment of landscape and visual effects and illustrate effects at key locations: The viewpoints are carefully selected to be either:

- *Representative viewpoints:* those selected to represent the experience of different types of visual receptors, where large number of viewpoints cannot all be included individually and where significant effects are unlikely to differ. For example, viewpoints may be chosen to represent views of users of a number of footpaths or bridleways. Viewpoints may also be selected to reflect visual elements that inform the landscape resource.
- *Specific viewpoints:* important key viewpoints within the landscape. Examples of these may include local visitor attractions, settlements, routes valued for their scenic amenity, or places with cultural landscape associations.
- *Illustrative viewpoints:* those chosen specifically to demonstrate a particular effect or specific issues, e.g. restricted visibility at certain locations.

3.3.10 A range of views and viewers are represented through the choice of viewpoints. Factors which were considered in selecting the final viewpoints to be used for the assessment include:

- Landscape character type (separate and combinations of type)
- The presence of nationally designated landscapes and/or Areas of High Landscape Value within local planning policy, recreational routes, local amenity spaces
- Visual composition, for example focused or panoramic views, simple or complex landscape pattern, vistas or glimpses
- Distance from the proposed development (short, medium and long range views)
- Aspect and elevation
- Viewer or receptor type
- Activities of the receptors, for example those at home, work, travelling in various modes or carrying out recreation
- Modes of movement, for example those moving through the landscape or stationary
- Potential for cumulative views of the proposed development in conjunction with other developments

3.3.11 For this study a series of viewpoints have been identified to aid the assessment of effects. These have been developed into panoramic images to give a more realistic illustration of the visibility of the proposals and they have been illustrated to show the extent of the Site that is visible from that particular location.

3.3.12 For all the viewpoints, photographs were taken with a digital SLR camera with a full-frame sensor and fixed 50mm lens. A series of images suitable to stitch together to form a panoramic image were taken in accordance with the SNH guidance

3.3.13 The following information is described in the assessment

- Description of location (receptor)
- Description of nature of existing view and likely change during operation
- Description of potential mitigation measures
- Description of magnitude of impact and sensitivity of visual receptors

Predication of Visual Effects

3.3.14 Visual receptors are people that experience the view. Development can change people's direct experience and perception of the view depending on existing context, the scale, form, colour and texture of the proposals, the nature of the activity associated with the development, and the distance and angle of view. Visual effects can be experienced through development intruding into existing views experienced by residents and day to day users of the area, and the views of tourists and visitors passing through or visiting the area.

3.3.15 The likely effects of the proposed development on the potential visual receptors are assessed from the selected representative views or viewpoints based on the field survey data with consideration of each identified effect, an assessment of the nature of the visual receptor and the nature of the effect on the views and visual amenity.

3.3.16 The next stage is to determine the sensitivity of the visual receptors to the type and scale of development proposed. In order to do this, the susceptibility and value of the receptor are considered, although within the assessment these may not always be explicitly noted. In many cases, it is considered sufficient to describe only the sensitivity, which is informed by an overall professional judgement.

3.3.17 Visual receptor susceptibility is a function of receptor type, location and activity. In assessing visual receptor susceptibility, factors such as the following have been accounted for with a degree of professional judgement (see table 4):

Table 4: Visual Receptor Sensitivity		
Sensitivity	Receptor	Criteria
High	Residential	Views from residential properties, generally stationary receptors experienced throughout the year and at most times of the day.
High	National Routes or recognised viewpoints.	Visitors to promoted or valued viewpoints especially those with vantage point/ panoramic views; viewpoints noted within planning guidance or policy; although transient, noted as nationally important recreational routes or National Routes with views in highly valued landscapes.
Medium	Public Rights of Way (PRoW)	Transient receptors but which are often repeat users; however views are experienced for only relatively short periods of time.
Medium	Community Facilities	Public Static receptors with multiple occupants but which are mobile or temporary.
Low	Commercial & Industrial	Static receptors with multiple occupants but which are mobile or temporary and are restricted to working hours.
Low	Local Parks & Sports Grounds	Mobile receptors where views are comparatively short in duration.
Low	Motorists/ Pavement	Very mobile receptors where views are comparatively short in duration and fleeting.

Visual receptor magnitude of change.

- 3.3.18 The assessment of the magnitude of change on visual receptors follows similar principles to landscape assessment in terms of size or scale, the geographic extent of the area influenced and its duration and reversibility. Within the assessment, size and scale or extent may not always be noted. In many cases, it is considered sufficient to describe only the magnitude of change, which is informed by an overall professional judgement.
- 3.3.19 Size and scale concerns the relative change in the elements, features, qualities and characteristics that make up the view. Size and scale, where noted, are rated as follows:
- *Large:* major change to the existing view including key elements, characteristics and qualities
 - *Medium:* partial or noticeable change to elements, characteristics and qualities within the view
 - *Small:* some discernible but largely minor change to key elements, characteristics and qualities within the view
 - *Negligible:* very minor or virtually imperceptible change to key elements, characteristics and qualities such that the view essentially remains unchanged.
- 3.3.20 Where specifically noted, the geographical extent over which visual effects is described as follows:
- *Wide:* influencing most of a view or receptor (over half)
 - *Medium:* generally between one quarter or one half of a view or receptor
 - *Small:* generally less than one quarter of a view or receptor
 - *Limited:* generally affecting only a small part of the receptor
- 3.3.21 The duration of the effect relates to the time period during which the changes to the landscape will occur. This is rated as follows:
- *Long term:* beyond 10 years
 - *Medium term:* 2 to 10 years
 - *Short term:* up to 2 years

Magnitude of change

- 3.3.23 The magnitude of change is a product of the size/scale, extent and duration of the impacts. These are judged as a four-point scale (see table 5):

Table 5: Magnitude of Visual Change	
Magnitude of change	Assessment Criteria
High	where the development causes a very notable (or significant) change in the existing view for a sensitive receptor
Medium	where the development would cause a very noticeable change in the existing view
Low	where the development would cause a noticeable change in the existing view
No Change/ Negligible	where the development would cause a barely perceptible change in the existing view

Quantifying visual effects

3.3.24 The second step is to determine the scale of effects (see table 6). This is evaluated by combining the sensitivity (or nature) of the visual receptor and the magnitude (or nature) of change. The following matrix provides an objective rationale for determining the scale of effects, in order to provide consistency and transparency to the process; however a degree of professional judgement is a key element of the evaluation.

Table 6: Scale of Proposed Effect				
		Sensitivity to change / nature of receptors (Table 4)		
		Low	Medium	High
Magnitude of Change resulting from identified impacts. (Table 5)	No Change/Negligible	Negligible	Negligible	Negligible - Slight
	Low	Slight	Slight - Moderate	Moderate
	Medium	Slight - Moderate	Moderate	Moderate - Substantial
	High	Moderate	Moderate - Substantial	Substantial

3.3.25 The scale of effects detailed above can be classed as beneficial, neutral or adverse.

Classification of Visual Effects

3.3.26 Adverse visual effects occur when the proposed development will introduce new, non-characteristic, discordant or intrusive element/s into views.

- Substantial adverse:** visual effects occur where the proposed development would cause a considerable deterioration in the existing view or visual amenity.
- Moderate adverse:** visual effects occur where the proposed development would cause a noticeable deterioration in the existing view or visual amenity
- Slight adverse:** visual effects occur where the proposed development would cause a barely perceptible deterioration in the existing view or visual amenity.

- *Neutral* visual effects occur where the change proposed results in no discernible improvement or deterioration to views or visual amenity.
- *Slight beneficial:* visual effects occur when the proposed development would enhance the quality of the receptor's view e.g. by creating a new focal point in a degraded landscape that includes a range of existing detractors. Beneficial visual effects can be slight, moderate or substantial.

3.3.27 Although public perception of solar farms is diverse, the worst case evaluation is used in this assessment. As such, effects are assumed to be adverse except where stated.

3.3.28 The scale indicates the importance of the effect, taking into account the sensitivity (or nature) of the receptor and the magnitude (or nature) of the effect. It is usually rated on the following scale of effects:

- *Substantial:* indicates an effect that is very important in the planning decision making process.
- *Moderate / Substantial:* indicates an effect that is, in itself, material in the planning decision making process.
- *Moderate:* indicates a noticeable effect that is not, in itself, material in the planning decision making process.
- *Slight:* indicates an effect that is trivial in the planning decision making process.
- *Negligible / No Change* indicates an effect that is akin to no change and is thus not relevant to the planning decision making process.

Judging the overall importance of the effects

3.3.29 Effects may be described as significant in projects that are subject to EIA. However, as noted in Section 2.1.3, for non-EIA projects this term is replaced here with notable. Notable effects are defined as those that are moderate-substantial or substantial. However whilst an effect may be notable, it does not necessarily mean that such an effect would be unacceptable.

3.3.30 Account is taken of the effect that any mitigation measures for example planting or landform may have in terms of minimising potentially detrimental effects or improving the landscape composition of the area.

Visual glossary

The assessment is necessarily technical in nature and therefore, a short overview of terminology used, is provided as follow based on the guidelines:

- *Visual Amenity:* The overall pleasantness of the views people enjoy of their surroundings, which provides an attractive visual setting or backdrop for the enjoyment of activities of the people living, working, recreating, visiting or travelling through an area.
- *Visual Receptors:* Individuals and / or defined groups of people who have the potential to be affected by a proposal.

- *Zone of Theoretical Visibility:* A computer generated zone within which a development is theoretically visible based on landform only (excluding existing buildings, woodlands, other obstacles).
- *Visual Envelope:* The visual envelope from which the development is theoretically visible taking into account trees, woodland, hedges and built structures.
- *Visual Effects:* The effects on specific views and on the general visual amenity experienced by people.

LANDSCAPE ASSESSMENT

4.0 ASSESSMENT OF LANDSCAPE EFFECTS

- 4.0.1 The following section provides a summary of the baseline or current condition of the Site and surrounding area within a 3 km study area informed by the desktop and field surveys against which the landscape effects of the development proposals is to be assessed.

4.1 Baseline Conditions

Land Use

- 4.1.1 The land use of the Site is related to its geology, topography, and settlement history. Located to the South of the Llandarcy Conservation Area the Site lies on the Northern aspect of a local high point (106m AOD) that forms part of Gelli-bwch Farm (refer to Figure 1 Location Plan). The site is currently a mixture of open grassland and gorse scrub, bordered to the North by an Oak woodland to the Llandarcy Road, to the East by an overgrown existing track, with hedgerow banks to the Northwest and Northeast and the remains of dry stone walls to Southwest and Southern boundaries with grassland extending to the East, South and West beyond (refer to Figure 2. Aerial Photograph).
- 4.1.2 The Agricultural Land Classification (ALC) for the Site, appears from the ALC Maps for the Wales as a mixture of Grade 3a and 3b which is cited as being 'Good to Moderate' to 'Moderate' quality agricultural land identified within the ecology survey as improved grassland and species poor semi- improved acid grassland. No public rights of way, bridle ways or roads cross the Site with existing gated vehicular access to the Northeast and Northwest.
- 4.1.3 The existing land use of the site is considered to be of medium susceptibility and sensitivity to the type of development proposed.

Topography

- 4.1.4 The topography of the Site is undulating with the landform sloping from the highpoint to the Southwest at circa 100m AOD down to the Llandarcy Road at circa 82m AOD to the North and down to the South at 87m AOD.
- 4.1.5 The local topography is defined by sloping farmland to the Northeast with steeply sided wooded escarpments to the Southeast, South and West that fall towards the River Neath to the East (4m AOD) and Swansea Bay to the South and Crmlyn Bog to the West (7m AOD). In the wider landscape the landform rises to Kilvey Hill to the West, Mynydd Drumau to the North and Craig-y-darren to the East.
- 4.1.6 The topography of the site is considered to be of low susceptibility and medium sensitivity to the type of development proposed.

4.2 Landscape Character

- 4.2.1 A description of the landscape character of the Site and surrounding area can be found at a national and regional level within the National Resources Wales National Landscape Character Areas (NLCA), the Natural Resources Wales LANDMAP Aspect Areas and the County Councils NPT LANDMAP Landscape Assessment.

National landscape Character Area

4.2.2 The Site falls within the NLCA38 'Swansea Bay' which is summarised as:

'A narrow coastal plain links the lowlands of Glamorgan to those of Gwendraeth. In the middle section around Port Talbot its width is constricted by the adjacent sea and steeply uplands. Extensive sandy coast is backed by dunes, with lagoons and important coastal heath. Major river estuaries issue within the area, including those of rivers Loughor, Neath and Tawe. Large parts of the area have been built on, with major docks by the Neath and Tawe estuaries. The focus of development is the city of Swansea, Wales' second largest, but also Llanelli, Neath Port Talbot and Pyle. Character is urban and suburban with large housing and industrial estates. Heavy industries and settlement have made use of these strategically important locations, between coalfield and sea, and major ports around Swansea and the Steel Works at Port Talbot are landmark features. In that section, strange geometric apparatus and steam belching chimneys dominate the skyline as seen from busy arterial roads and railways. It is a busy, noisy, ambitious urban landscape with good road and rail links to capitals Cardiff and London.'

Natural Resources Wales LANDMAP Aspect Areas

4.2.3 LANDMAP is a GIS based landscape resource where landscape characteristics, qualities and influences on the landscape are recorded and evaluated into a nationally consistent data set. The database provides a mapped, contextual baseline of landscape information about landscape character, qualities and values in which the greater detail of the Landscape & Visual Appraisal can be set.

4.2.4 LANDMAP comprises five spatially related datasets including:

- Geological Landscape
- Landscape Habitats
- Historic Landscape
- Cultural Landscape Services
- Visual & Sensory

4.2.5 A visual envelope for the proposed developed based on the ZTV (refer to Figure 12. Zone of Theoretical Visibility) and visual assessment field survey has determined the predicted extent of area from which the development is visible (refer to Figure 13 Viewpoint Locations & Visual Envelope) determining the aspect areas that are to be considered for evaluation as part of this assessment. The aspect areas that fully or partially overlap the Site and those Visual & Sensory aspect areas effected by the Visual Envelope are evaluated as identified within the table below and as illustrated within Figures 04 to 08:

Table 7. LANDMAP Evaluated Aspects			
UID: Area Name	Description / Overall Evaluation	Value / Rarity / Sensitivity:	Overall Evaluation
Geological:			
Jersey Marine (NPTGL002)	Lowland hills and valleys / Dissected lowland plateau / Lowland plateau	Rarity: Moderate	Moderate
	Widespread Pennant succession with industry, etc. but some potential useful sites present.		

Habitats:			
NPTLH051	Dry (Relatively) Terrestrial Habitats / Grassland & Marsh / Mosaic Remnant habitats support extensive areas of Priority Habitats and support numerous rare and scarce species including many BAP Priorities	Connectivity: Moderate	High
Historic:			
Pant y Sais (NPTHL037)	Rural environment / Agricultural/ Irregular Fieldsapes This area has been assessed as being of high value, comprising a multi-period landscape with evidence of prehistoric funerary/ritual activity, and medieval and post-medieval settlement. The irregular fieldscape in this area is probably of medieval origin and has survived largely intact, with little evidence of industrial development (in contrast to neighbouring aspect areas).		High
Cultural:			
Gelli-bwch hills (NPTCLS017)	Lowland/ Rolling Lowland / Mosaic Rolling Lowland The settled intimacy of enclosed views provided by deciduous cover and intricacy and rarity of grazed woodland contrast with the exposed nature of the tops. These all contribute to the scenic quality of this distinct and prominent hill which has a distinct sense of place.		High
Visual & Sensory:			

Gelli-bwch hills (NPTVS229)	Lowland/ Rolling Lowland / Mosaic Rolling Lowland	Scenic Quality: High Character: High	High
	The settled intimacy of enclosed views provided by deciduous cover and intricacy and rarity of grazed woodland contrast with the exposed nature of the tops. These all contribute to the scenic quality of this distinct and prominent hill which has a distinct sense of place.		
Gelli-bwch works (NPTVS592)	Development / Built Land / Dispersed Settlement	Scenic: Moderate Character: Moderate	Moderate
	The platforms from recent industry gradually taken over by regeneration provides a sense of wilderness and contrasting scenic qualities, which promote the areas character. Retained/developed units detract from the character and quality of the area. Large areas of new housing, completed and in progress, are changing the character of this aspect area to urban (2014)		
Neath (NPTVS720)	Development / Built Land / Urban	Scenic: Low Character: Moderate	Low
	The location of the town with in the Neath valley, with associated river and canal provides the context for strong character in the area. The distinct character of the centre is diminished by the overall impact of sprawling surrounding development which has detractors and fails to enhance the valley sides.		
Tal-y-fedw (NPTVS902)	Lowland / Rolling Lowland / Mosaic Rolling Lowland	Scenic: Moderate Character: Low	Moderate
	The field pattern of overgrown and treed hedges enclose the landscape and provide a sense of enclosure and scenic intimacy. Yet the railway lines through and motorway bounding the area significantly disrupt the quality. The		

	area has little impact on rest of county.		
Crymlyn Bog (NPTVS944)	Lowland / Flat Lowland/Levels / Lowland Wetland This type of landscape is exceptionally rare within the county - this being only significant area. Its scenic quality is engendered in its simple landform and cover which contrasts with the surrounding area. It is consistent throughout its area. Encroachment of scrub reduces the simple qualities of the area	Scenic: Moderate Character: High	High
SWNSVS429	Upland/ Hills, Lower Plateau & Scarp Slopes / Hillside & Scarp Slopes Mosaic / Wooded Mosaic Hills	Scenic: Low Character: Low	Low
Crymlyn (SWNSVS955)	Lowland / Flat Lowland/Levels / Lowland Wetland	Scenic: High Character: High	High

Regional Landscape Character Areas

Neath Port Talbot LANDMAP Landscape Assessment

- 4.2.6 As part of The Neath Port Talbot County Council Local Development Plan (2011-2026) the council published a Supplementary Planning Guidance 'Landscape and Seascapes' (May 2018) which provides information and guidance setting out the expectations on all development proposals to protect and enhance all landscapes and seascapes. This SPG is underpinned by the NPT LANDMAP Landscape Assessment which provides a detailed landscape character assessment for all parts of the county.
- 4.2.7 The NPT LANDMAP Landscape Assessment (2004) was commissioned by Neath Port Talbot County Borough Council to prepare a landscape assessment for the county borough based on the LANDMAP process. The landscape assessment brought together the evaluated aspect information and derived landscape character areas which are then described, mapped and evaluated.
- 4.2.8 The proposed development site falls within the Landscape Character Area (LCA) 43 'Jersey Marine' and is bordered by LCA 42 'Former Llandarcy Refinery' to the Northwest, LCA 41 'Neath Estuary' to the East and LCA 45 'Crymlyn Bog' to the South with the LCA 40 'Neath' to the Northeast as illustrated within Figure 09 Landscape Character Plan.

Landscape Character Area – ‘Jersey Marine’

- 4.2.9 Within the NPT LANDMAP Landscape Assessment the ‘Jersey Marine’ landscape character area is described as follows;

Location, Context and Physical Characteristics:

‘This steep sided lowland hill, lying in the south west of the County Borough, rises from approx 10m AOD to 106m AOD. It is bounded to the west by Crymlyn Bog and to the north by the Llandarcy Works. It overlies a geology of South Wales pennant formation (lower-upper pennant Measures) sandstones and coals.’

Visual and Sensory Characteristics:

‘This landform creates a significant feature adjacent to the lower Neath valley alongside Pant y Sais. The land is predominantly grazed, with areas of grazed oak woodland. The area contains significant deciduous woodland cover throughout, providing a settled lowland feel. Coniferous plantation lie on its southern flank and areas of exposed rock lie on the skyline these promote an upland character.’

Field boundaries are predominantly managed hedges with some defunct hedges containing fences. Areas of the higher grazed land has been encroached by gorse, enhancing an exposed, wild, upland feel to the hill tops. There are a number of scattered dwellings and the small settlement of Jersey Marine, the only settlement in the area, sitting in the south of the area on lower ground, connected to the A483 by a minor road. A single track road runs across the area as the only access. To the east adjacent to Crymlyn Bog an area has been provisionally designated open access land.

From within, the change from wooded lowland cover to apparent upland exposure provides a significant sense of place and removal from the settled surrounding landscape. The landform provides an important backdrop to Crymlyn Bog and is a significant element when viewed from Swansea.’

Vegetation and Habitat Characteristics

‘Many remnant semi-natural habitats persist throughout the area including woodlands, grasslands, heathlands and mires, providing favourable environments for a wide range of flora and fauna including reptiles; linnet, lapwing, skylark, bullfinch, song thrush, tree sparrow, spotted flycatcher, snipe, lapwing; high brown fritillary, great crested newt and bats.’

Historic Characteristics and Cultural Associations

‘During the Bronze Age people chose this elevated area to site their funerary monuments; several well preserved and scheduled cairns can be found to the south of Gelli-bwch Farm with commanding views of the Neath estuary to the east. Roman activity is indicated by a coin hoard, found to the north of Gelli-bwch Farm, relating to the proximity of the area to the fort at Neath.

In 1289 the abbey at Neath came to an agreement with Gilbert de Clare, Earl of Gloucester, for an extensive area of ‘Coitfranc’ (Coedffranc) which reflects much of this area but also includes parts of Pant y Sais (HL036) and Jersey Marine Industrial.

A survey of 1602 identified two medieval granges, Cwrt Llan Margaret, most likely the site of the farm now called Penis'r-coed and a second located in the vicinity of the 19th century Cwrt y Bettws Farm. Little now remains of St Margaret's Chapel, first mentioned in 1247 except the lower foundations and small rectangular enclosure situated on a small hill over looking Swansea Bay.

Cultural

The area is considered to be part of the setting for the Crymlyn Bog, potentially providing a buffer zone around the proposed Llandarcy Urban Village. Its classification reflects the late 20th century emphasis on protection of environmentally and culturally important landscapes and structures.

Key Characteristics:

- Dominant landform rising to 106m AOD above the lower Neath Valley
- Significant deciduous woodland cover on lower slopes
- Boundaries dominated by managed hedges.
- Exposed rock on upper slopes.
- Exposed upland feel and panoramic views from high ground.
- Well preserved and scheduled cairns.

- 4.2.10 The landscape character of the Site and surroundings is therefore considered to be of low susceptibility and medium sensitivity to the type of development proposed.

4.3 Cultural Heritage

- 4.3.1 The proposed development lies within an historic field system dating from at least the mid 19th century or earlier with the scheduled monument Gelli-bwch Round Carin located some 440m to the Southeast and the Llandarcy Conservation Area approximately 148m to the Northeast (refer to Figure 3. Landscape Designations).

- 4.3.2 The Cultural Heritage of the site and surroundings is therefore considered to be of low susceptibility and medium sensitivity to the type of development proposed.

4.4 Landscape Features

- 4.4.1 The majority of the Site area sits within two fields of the historic field pattern to the Western edge of Gelli-bwch Farm historically bordered by dry stone walls and hedges with areas of encroaching gorse recently been removed. To the North, the site is defined by the Llandarcy Road which sits approximately 1 metre below the Site boundary with a mature Oak woodland on a slope between the road and the Northern edge of the field identified by the scattered remains of a dry stone wall.

- 4.4.2 To the Northeast corner of the site an existing field entrance leads to an overgrown farm track that forms the Northeastern boundary of the Site. Set at a lower level to the adjacent fields the track is lined with occasional Oak trees with Hawthorn scrub and gorse. To the Southeast the landform falls away with no defined field boundary.

- 4.4.3 The Southern Site boundary is defined by a localised crest / ridge within the landform and remnant, partially collapsed sections of dry stone walling. To the Southeast sections of the dry stone walling remain to the edge of the historic field boundary which disappears to the crest of the hill within an area of gorse scrub and is replaced by a hedge bank or low mound to the Northwest, with the Site boundary cutting across the adjacent field to a secondary site access from the Llandarcy Road.
- 4.4.4 The landscape features as described above are considered to be of medium susceptibility and sensitivity to the type of development proposed.

Landscape Value

- 4.4.5 In accordance with Table 1 of the assessment methodology the landscape condition or quality can be categorised as being 'ordinary' quality with *'distinguishable landscape structure, characteristic patterns of landform and land cover often masked by land use. Scope to improve management of vegetation, some features worthy of conversation, some detracting features.'*
- 4.4.6 The Site does not lie within or form part of a World Heritage Site, National Park, Area of Outstanding Natural Beauty (AONB), Areas of Great Landscape Value (AGLV) or other such landscape character or quality designations.
- 4.4.7 The Site is not located within any statutory landscape designations although parts of the site fall within a non-statutory Site of Importance for Nature Conservation (SINC) as identified in Figure 3. Landscape Designations. Similarly the Site is located within the Neath & Port Talbot Green Wedge Policy EN3, 'Green Wedge 4' although it should be noted this policy is to prevent settlement coalescence and is not a landscape designation per se.
- 4.4.8 The Site comprises two fields with tree lined boundaries to the North and East (refer to Figure 02 Aerial Photograph). There are no neighbouring residential properties with seasonal views of the Site in winter by the properties to the Southern edge of the Llandarcy Conservation Area. The site is not publicly accessible and there are no permissive footpaths.
- 4.4.9 The value of the landscape can therefore be considered to be of medium susceptibility and medium sensitivity to the type of development proposed.

4.5 Landscape Mitigation Measures

- 4.5.1 The design of the layout for the proposed development has been prepared by Chamberlain Moss King Architecture. This has been prepared in accordance with a series of design principles to address the criteria of the Planning Policy Wales, the Neath Port Talbot County Borough Council Local Development Plan and the most efficient running of the solar farm.

Development Proposals

- 4.5.2 The development proposes a solar farm as illustrated in Figure 10. Site Layout Plan. The design of the layout has evolved to maximise the opportunities provided by the Site and minimise and mitigate the effect on the identified constraints.

4.5.3 The landscape constraints include:

- existing trees to the Eastern site boundary
- existing woodland to the Northern boundary
- grade 3 agricultural land
- undulating landform
- field pattern

4.5.4 The landscape opportunities include:

- the retention and enhancement of the existing boundary woodland as an inclusive element of the development retaining and improving the existing habitat;
- the retention of the existing boundary trees;
- the provision of additional woodland to the boundaries of the development to enhance the screening of the development and improve biodiversity.
- the reinforcement of the historic field pattern through the provision of boundary hedgerows enhancing the scheme's appearance and biodiversity.

Mitigation Strategy (Landscape)

4.5.5 The landscape mitigation strategy for the proposed development revolves around three core principles as illustrated within Figure 11 'Landscape Strategy Plan'. These principles have evolved as part of the landscape assessment process to protect and respond to the landscape resources and planning policy guidance and have informed the design of the proposed development layout.

Core Principles (Landscape)

- 1) *To conserve and enhance the existing landscape features including existing, woodland and mature boundary trees.*
- 2) *To enhance the landscape character by incorporating soft landscape features such as hedgerows and trees to the edges of the development.*
- 3) *To maintain the existing landscape character by retaining the open grass land use and field pattern.*

4.5.6 Any retained trees and hedgerows are to be protected in accordance with British Standard 5837:2012 'Trees in relation to design, demolition and construction – Recommendations'.

4.6 Prediction of Landscape effects

Landscape Receptors

4.6.1 The anticipated landscape effects of the proposed development on the Site have been evaluated in relation to the statutory and non-statutory landscape designations or classifications, the local landscape character assessment and the individual landscape elements and features.

Land Use

- 4.6.2 The effect of the development proposals on the land use of the Site will be a negative change from open grassland to grassland covered with the long term static PV panel installation (25 years) resulting in a low magnitude of land use change. The scale of the proposed effect on the land use is therefore be considered to be slight moderate adverse.

Topography

- 4.6.3 The effect of the proposed development on the topography of the Site will result in No change with the proposed layout designed to follow the landform resulting in a negligible effect.

LANDMAP Landscape Character

- 4.6.4 The effects on the landscape character LANDMAP aspects geological, habitats, historic and cultural services within the site and its surroundings will be for the most part negligible with the key components of the landscape character including deciduous woodland, upland grassland, dry stone walls being largely unaffected by the proposals.
- 4.6.5 There is however potential for there to be landscape character effects from the visual influence of the Solar Farm proposals on the Visual & Sensory Aspect areas within and surrounding the site as illustrated in Figure 8. LANDMAP Visual & Sensory Aspects & VE and the Individual Viewpoints 1-7 in Figures 14 & 15.
- 4.6.6 The susceptibility and sensitivity of the aspect areas is derived from the overall evaluations assessed within the LANDMAP database and as summarised within Table 7 above with the sensitivity of the aspect areas ranging from High to Low.
- 4.6.7 As illustrated within Figure 13. Viewpoint Locations & Visual Envelope Plan and the corresponding Viewpoint photomontages the intervisibility of the proposed development with other aspect areas is limited by the existing topography and woodland, trees and hedges to the West, South and East with moderate sized areas of the Gelli-bwch hills (NPTVS229), Gelli-bwch works (NPTVS592) Neath (NPTVS720) aspects and small parts of the Tal-y-fedw (NPTVS902), Crymlyn (SWNSVS955), Crymlyn Bog (NPTVS944) and SWNSVS429 to the North potentially effected.
- 4.6.8 The effect on the high sensitivity Visual & Sensory Aspect areas including Gelli-bwch hills (NPTVS229) in which the site is located; Crymlyn Bog (NPTVS944) and Crymlyn (SWNSVS955) is considered to be Moderate Substantial in the immediate vicinity of the proposals with a medium magnitude due to the proposals being screened by the landform and the existing tree, hedges and woodland to Negligible – Slight where the intervening vegetation, topography and distance make the proposals virtually imperceptible.
- 4.6.9 The effect on the moderate sensitivity Visual & Sensory Aspect areas including Gelli-bwch works (NPTVS592), Tal-y-fedw (NPTVS902) is considered to be Slight Moderate to Negligible with the proposed development considered to have a low magnitude of effect due to the screening effect of the existing woodland, tree cover and the context of the views.
- 4.6.10 The effect on the low sensitivity Visual & Sensory Aspect Areas including Neath (NPTVS720) and SWNSVS429 is Slight to Negligible with the intervening woodland and distance making the proposals virtually imperceptible.

Table 8. LANDMAP Summary of Effect on Landscape Character Aspects				
UID: Area Name	Susceptibility	Sensitivity	Magnitude	Scale of Effect
Geological:				
Jersey Marine (NPTGL002)	Medium	Medium	Negligible	Negligible
Habitats:				
NPTLH051	High	High	Negligible	Negligible
Historic:				
Pant y Sais (NPTHL037)	High	High	Negligible	Negligible
Cultural:				
Gelli-bwch hills (NPTCLS017)	High	High	Medium	Moderate Substantial Adverse
Visual & Sensory:				
Gelli-bwch hills (NPTVS229)	High	High	Medium	Moderate Substantial Adverse
Gelli-bwch works (NPTVS592)	Medium	Medium	Low	Slight Moderate Adverse
Neath (NPTVS720)	Low	Low	Low	Slight Adverse
Tal-y-fedw (NPTVS902)	Medium	Medium	No change	Negligible
Crymlyn Bog (NPTVS944)	High	High	No change	Negligible Slight
SWNSVS429	Low	Low	No change	Negligible
Crymlyn (SWNSVS955)	High	High	No change	Negligible Slight

Local Landscape Character

- 4.6.11 The local landscape character assessment identifies the site as being within the landscape area LCA 43 'Jersey Marine' with key characteristics including; a dominant landform rising to 106m AOD above the lower Neath Valley, significant deciduous woodland cover on lower slopes, boundaries dominated by managed hedges, exposed rock on upper slopes, exposed upland feel and panoramic views from high ground, well preserved and scheduled cairns.
- 4.6.12 The proposed development retains the existing landscape characteristics to the boundaries of the site, retaining and enhancing the existing woodland to the North with the re-introduction of a native hedge to the Western boundary and the retention of the scrub and trees to the East. The magnitude of change to the landscape character is therefore considered to be medium with a moderate long-term change in the area local to the site with the upland feel interrupted by the Solar panels although the detrimental effects on the landscape character would be reversible on the decommissioning of the proposed development. The proposals are therefore considered to have a moderate adverse effect on the local landscape character.

Cultural Heritage

- 4.6.13 As set out within the Heritage Settings Assessment the proposed development will have a negligible effect on the registered or designated cultural heritage features within proximity to the Site, with a low magnitude of landscape change to the setting of the Llandarcy Conservation Area with seasonal intervisibility between the proposed development and the Southwestern edge resulting in a slight moderate effect on the cultural heritage of the site and surroundings. The magnitude of effect on the setting of the Conservation area would however be mitigated by the proposed planting mitigation with the proposals reversible on the decommissioning of the development resulting in an overall slight adverse effect on the cultural heritage.

Landscape Features

- 4.6.14 The proposed development has been designed to retain and enhance the existing woodland and mature trees that border the Site, which are for the most part to be retained, managed and augmented where required with understorey planting, proposed trees and new hedgerow planting particularly to the Northern and Eastern boundaries.
- 4.6.15 The magnitude of change is considered to be low resulting in a slight – moderate adverse effect. The proposed landscape scheme will however increase the biodiversity of the site and as such the proposals will have an overall negligible effect on the existing landscape features.

Landscape Value

- 4.6.16 The effect of the proposed development on the condition or quality of the landscape is deemed to be of a medium magnitude with a notable alteration of the land cover over a large proportion of the Site which is located within the setting of the Llandarcy Conservation Area and enclosed by a Site of Importance for Nature Conservation resulting in a moderate adverse effect. This magnitude of the effect would be mitigated by the planting proposals resulting in an overall slight moderate effect on the landscape value of the site

Table 9: Landscape Effect Summary				
Receptor Type	Receptor Sensitivity	Magnitude of Change (without Mitigation)	Scale of Proposed effect	Judged Scale of Proposed effect with Mitigation where applicable
Land use	Medium	Low	Slight moderate adverse	Slight moderate adverse
Topography	Medium	No change	Negligible	Negligible
Landscape Character	High / Medium	Medium	Moderate Substantial adverse	Moderate adverse
Cultural Heritage	Medium	Low	Slight moderate adverse	Slight adverse
Landscape Features	Medium	Low	Slight moderate adverse	Negligible
Landscape value	Medium	Medium	Moderate adverse	Slight moderate

VISUAL ASSESSMENT

5.0 ASSESSMENT OF VISUAL EFFECTS

- 5.0.1 The following section provides a summary of the baseline or current condition of the Site and surrounding area within a 2 km study area, informed by the desktop and field surveys against which the likely visual effect of the development proposals is to be assessed.

5.1 Baseline Conditions

Settlement

- 5.1.1 The Site is located in an area of upland farmland within Gelli-bwch Farm to the South of Llandarcy and the Coed Darcy new village with the village of Jersey Marine to the South (refer to Figure 1 Location Plan).

Transport

- 5.1.2 The main transport links to the Site are by road. The Llandarcy Road, links to the B4290 and M4 motorway which runs North to South through the Neath Valley.

Public Rights of Way (PROW's)

- 5.1.3 No public rights of way cross the Site and there no public rights of way within a kilometre of the site boundary.
- 5.1.4 The nearest public right of way (PROW) to the Site is PROW 12 27/1 over a Kilometre away to the South. Similarly there few public rights of way (PROW) within 2 kilometres of the Site with PROW 12 13/1 and PROW 12 26/1 to the Northwest and PROW 37 MO.ANC3/1 to the Southeast. PROW LT408 is over 2 Kilometres away from the site to the Northwest at Summer House Hill.
- 5.1.5 To the South of Jersey Marine the Wales Coast Path follows the A48 to the edge of Jersey Marine and then heads West along the Tennant Canal towpath.

5.2 Visual baseline

- 5.2.1 As part of the visual assessment the roads, footpaths and areas available to public access were reviewed to inform and further define the 'Zone of Theoretical Visibility' (see Figure 12) which was generated digitally from OS terrain (only) data. Only areas identified by the computer generated model shown on the ZTV plan and following desk tops analysis were assessed in detail on Site to identify the specific actual viewpoints. A total of seven viewpoints were recorded as identified in Figure 13. Viewpoint Location & Visual Envelope Plan.
- 5.2.2 Figure 12. Zone of Theoretical Visibility illustrates the limited potential for views of the proposed development within 2 kilometres of the site with the elevated topography blocking views from the Southwest.
- 5.2.3 The field survey has determined that topography, vegetation, settlement and most notably the existing woodland and trees local to the site obstruct views of the Site from many locations. An approximate area from where the Site may actually be visible is represented as the visual envelope and illustrated in Figure 13. Viewpoint Location & Visual Envelope Plan.

5.2.4 The seven viewpoints are considered to represent the visibility of the proposed development within the landscape based on the ZTV plan and subsequent field survey. The locations of the viewpoints are shown on Figure 13 with the photomontages shown in Figures 14 & 15.

5.2.5 Viewpoint 1: Llandarcy Road East

Description of View: A short distance (3m) transient, partial and seasonal view of the Northeastern corner of the Site looking East from the lay by alongside the Llandarcy Road. The viewpoint illustrates the landscape character of the LANDMAP Visual & Sensory NPTVS229 Gelli-bwch aspect area.

Visual effect: The proposed Solar farm is for the most part screened from view by the landform with the Northwestern corner and Northern edge of the Solar panel array and security fence within the view partially screened by the existing roadside woodland resulting in a low magnitude of visual change.

Mitigation guidelines: The view of the Solar Farm can be mitigated by the retention of the existing woodland to the edge of the Llandarcy Road with underplanting to create an understorey and enhance the screening effect. Additional mitigation can be provided through the planting of a boundary hedges in front of the security fencing which should be painted green to reduce visibility when the woodland is in leaf. Views of the solar panels and security fence would gradually diminish as the newly planted woodland understorey and hedgerows reach a height of 2 metres.

5.2.6 Viewpoint 2: Llandarcy Road Southwest

Description of View: A short distance (154m) transient, partial and seasonal view of the Northeastern corner of the Site looking Northwest from the Llandarcy Road and is representative of the potential stationary views from the adjacent property Henbarc Farm. The viewpoint illustrates the landscape character of the LANDMAP Visual & Sensory NPTVS229 Gelli-bwch aspect area.

Visual effect: The proposed Solar farm is for the most part screened from view by the landform and existing trees with the Northeastern corner of the Solar panel array and security fence glimpsed within the view and partially screened by the existing boundary and roadside trees resulting in a low magnitude of visual change.

Mitigation guidelines: The view of the Solar Farm can be mitigated by the retention of the existing boundary trees to the edge of the Llandarcy Road and Eastern site boundary. Additional mitigation to the Eastern boundary through planting of native tree planting in front of the security fencing which should be painted green to reduce visibility.

5.2.7 Viewpoint 3: Rear Access to The Greenway

Description of View: A short distance (136m) transient view of a small part of the Site looking North from the rear access road to the properties off The Greenway, Llandarcy and is representative of stationary views from the rear of the dwellings towards the Site. The viewpoint illustrates the landscape character of the LANDMAP Visual & Sensory NPTVS229 Gelli-bwch aspect area.

Visual effect: The proposed Solar farm is for the most part screened by the landform foreshortening the view and the woodland to the right of the view with the Northern edge of the Solar panel array and security fence within the view partially filtered by the existing roadside woodland resulting in a medium magnitude of visual change.

Mitigation guidelines: The view of the Solar Farm can be mitigated by the retention of the existing woodland to the edge of the Llandarcy Road with underplanting to create an understorey and enhance the screening effect. Additional mitigation can be provided through the planting of an area of scrub or woodland to the unused Northern corner of the site and the the planting of a boundary hedge in front of the security fencing which should be painted green to reduce visibility when the woodland is in leaf. Views of the solar panels and security fence would gradually diminish as the newly planted woodland, woodland understorey and boundary hedgerow reaches a height of 2 metres and over.

5.2.8 Viewpoint 4: Heathland Way

Description of View: A medium distance (630m) transient, partial and seasonal view of the Northern half of the Site looking South from Heathland Way and is representative of the potential stationary views from the Southern edge of Coed Darcy. The viewpoint illustrates the landscape character of the LANDMAP Visual & Sensory NPTVS592 Gelli-bwch Works aspect area.

Visual effect: The proposed Solar farm is partially screened from view by the landform and the woodland to the right of the view with the Northern half of the Solar panel array within the view partially filtered by the existing roadside woodland with the outline of the solar panels and security fencing blending into the dark woodland and tree canopies resulting in a low magnitude of visual change.

Mitigation guidelines: The view of the Solar Farm can be mitigated by the retention of the existing woodland to the edge of the Llandarcy Road with underplanting to create an understorey and enhance the screening effect. Additional mitigation can be provided through the planting of an area of scrub or woodland to the unused Northern corner of the site.

5.2.9 Viewpoint 5: Skewen Park

Description of View: A long distance (2.1km) transient view towards the Site from Skewen Park looking Southwest across Skewen and Coed Darcy and is considered representative of potential stationary residential views of the Site from the Southwest of Skewen. The viewpoint illustrates the landscape character of the LANDMAP Visual & Sensory NPTVS720 Neath aspect area.

Visual effect: The proposed Solar farm is partially screened from view by the landform and the existing woodland to Llandarcy Road and the existing trees to the Eastern site boundary. The solar panels to the higher ground within the middle of the Site will be visible as a faint outline on the crest of the hill extending the built form in the view above the roof line of Coed Darcy resulting in a low magnitude of visual change.

Mitigation guidelines: The view of the Solar Farm can be mitigated by the retention of the existing woodland to the edge of the Llandarcy Road and the existing trees and scrub to the Eastern boundary. Additional mitigation can be provided through the planting of additional trees to the Eastern site boundary. The solar panel array should also be set out to be below the higher ground / ridgeline to the West.

5.2.10 Viewpoint 6: Crymlyn Parc

Description of View: A long distance (1.8km) transient seasonal view towards the Site from Crymlyn Parc Road looking South over the top of Coed Darcy and is representative of the potential transient glimpses from the Crymlyn Road and stationary residential views from the West of Skewen. The viewpoint illustrates the landscape character of the LANDMAP Visual & Sensory NPTVS720 Neath aspect area.

Visual effect: The proposed Solar farm is screened by the existing trees to the Crymlyn Road in the foreground and the existing woodland to the Northern site boundary with the faint outline of the solar panels barely perceptible to the higher ground within the middle of the Site visible with the solar panels blending into the dark back drop of the surrounding woodland and roof line of the Coed Darcy development resulting in a negligible magnitude of visual change.

Mitigation guidelines: The view of the Solar Farm can be mitigated by the retention of the existing woodland to the edge of the Llandarcy Road. The solar panel array should also be set out to be below the higher ground / ridgeline to the West.

5.2.11 Viewpoint 7: Summer House Hill

Description of View: A long distance (2.3km) transient seasonal view towards the Site looking Southeast from PROW LT408 at Summer House Hill and is representative of potential stationary residential views from the houses to the edge of the adjacent housing to the North. The viewpoint illustrates the landscape character of the LANDMAP Visual & Sensory SWNSVS429, SWNSVS955 and NPTVS944 Crymlyn aspect areas.

Visual effect: The proposed Solar farm is for the most part screened from view by the existing woodland to Llandarcy Road with the solar panels blending into the dark back drop of the surrounding woodland resulting in a negligible magnitude of visual change.

Mitigation guidelines: The view of the Solar Farm can be mitigated by the retention of the existing woodland to the edge of the Llandarcy Road with underplanting to create an understorey and enhance the screening effect. Additional mitigation can be provided through the planting of an area of scrub or woodland to the unused Northern corner of the site.

Table 10: Viewpoints Summary				
Name of Viewpoint	Distance / Direction to Site	Receptor Type	Sensitivity	V'point/ Fig No.
Llandarcy Road East	3m East	Motorists	Low	1 (Fig 14)
Llandarcy Road Southwest	154m Southwest	Motorists, Residential	High & Low	2 (Fig 14)
Rear Access to The Greenway	136m North	Residential, Motorists	High & Low	3 (Fig 14)
Heathland Way	630m South	Residential, Motorists	High & Low	4 (Fig 15)
Skewen Park	2.1 km Southwest	Local Parks & Sports Facilities, Residential	High & Low	5 (Fig 15)
Crymlyn Parc	1.8 km South	Residential, Motorists	High & Low	6 (Fig 15)
Summer House Hill	2.3 km Southeast	Residential, Pedestrians	High & Medium	7 (Fig 15)

5.3 Visual Mitigation Measures

Development Proposals

- 5.3.1 The development proposes a solar farm as illustrated in Figure 10. Landscape Strategy Plan. The design of the layout has evolved to maximise the opportunities provided by the Site and minimise and mitigate the effect on the identified visual constraints.

5.3.2 The visual constraints include:

- short distance views from the Llandarcy Road
- short distance views from Llandarcy Conservation Area
- medium distance views from Coed Darcy
- topography

5.3.3 The opportunities for visual mitigation include:

- space to provide additional planting to enhance the existing screening of views of the Solar Farm from the North & East.
- retain and underplant the existing woodland to the Northern boundary.
- planting of boundary hedgerows.
- retain and supplement the existing trees to the Eastern boundary.

Mitigation Strategy (Visual)

5.3.4 Based on the above constraints and opportunities the visual mitigation strategy for the proposed development revolves around four core principles as illustrated within Figure 10. 'Landscape Strategy Plan'. These principles have evolved as part of the visual assessment process to protect and respond to the visual resources and receptors and have informed the design of the proposed development layout.

Core Principles (Visual)

- 1) *Retain and enhance the existing woodland to The Northern boundary and supplement with additional woodland planting.*
- 2) *Retain the existing trees to the Eastern boundary and supplement with additional tree planting.*
- 3) *Restore boundary hedgerow bank to West.*
- 4) *Layout of Solar panels to avoid localised highpoints*

5.4 Prediction of Visual effects.

5.4.1 The anticipated visual effects of the proposed development will be those changes to visual amenity which affect the visual receptors within the Zone of Theoretical Visibility (ZTV) and Visual Envelope as illustrated on Figures 11 & 12. As illustrated within the viewpoint assessment the visual envelope of the Site comparatively small, confined by the landform, existing vegetation, trees and woodland to the South, West and North, with the long distance views from the North seen in the context of the Coed Darcy new village. The result of this is that the proposals have a limited effect on the visual amenity of the surrounding area.

High Sensitivity Visual Receptors

5.4.2 Within the visual envelope the past land use and low lying estuarine landscapes such as Crymlyn Bog have limited the areas that are publicly accessible with the result that the majority of the visual receptors are at the edges of the residential developments and are as such high sensitivity receptors with the proximity of the receptors affecting the magnitude of the visual effect.

- 5.4.3 The views from the high sensitivity receptors within 1 kilometre of the site include the properties at Henbarc Farm, The Green Way and Coed Darcy. From Henbarc Farm (refer to Figure 14. Viewpoint 2) the scale of the proposed visual effect will be moderate adverse with the magnitude of change in the view mitigated through the proposed hedgerow, woodland understorey planting and proposed woodland planting to the Northern part of the site gradually diminishing the view of the solar panels and security fencing resulting in a negligible – slight adverse post mitigation effect.
- 5.4.4 The scale of the proposed visual effect of the view from the rear access road off The Greenway, Llandarcy (refer to Figure 14. Viewpoint 3) is considered to be moderate substantial adverse with the magnitude of change in the view mitigated through the woodland understorey planting, Northern boundary hedgerow and proposed woodland planting to the Northern part of the site gradually diminishing the view of the solar panels and security fencing resulting in a moderate adverse post mitigation effect.
- 5.4.5 From Coed Darcy the scale of the proposed visual effect of the view from Heathland Way (refer to Figure 13. Viewpoint 3) is considered to be moderate adverse with the magnitude of change in the view mitigated through the woodland understorey planting, Northern boundary hedgerow and proposed woodland planting to the Northern part of the site gradually diminishing the view of the solar panels and security fencing resulting in a negligible – slight post mitigation effect.
- 5.4.6 From the medium to long distance residential views (refer to Figure 15. Viewpoints 5, 6 & 7) from Skewen, Crymlyn Parc and Summer House Hill the faint outline of the solar panels is barely perceptible to the higher ground within the middle of the Site with the solar panels blending into the dark back drop of the surrounding woodland and roof line of the Coed Darcy development with the proposed visual effect considered to be moderate to negligible – slight adverse.

Medium Sensitivity Visual Receptors

- 5.4.7 Evaluation of the viewpoints indicates that there are a small number of medium sensitive receptors including the users of the public right of way PROW LT408 (refer to Figure 14. Viewpoint 7) with the faint outline of the solar panels barely perceptible to the higher ground within the middle of the Site with the solar panels blending into the dark back drop of the surrounding woodland and roof line of the Coed Darcy development with the proposed visual effect considered to be negligible.

Low Sensitivity Visual Receptors

- 5.4.8 The low sensitivity receptors include those motorists passing the site along the Llandarcy Road and those using the Crymlyn Road to the West of the M4 Motorway. The short distance view from the Llandarcy Road (refer to Figure 14. Viewpoint 1) is considered to have a slight adverse proposed visual effect with the magnitude of change in the view mitigated through the woodland understorey planting, Northern boundary hedgerow and proposed woodland planting to the Northern part of the site gradually diminishing the view of the solar panels and security fencing resulting in a negligible post mitigation effect. From the Crymlyn Road (refer to Figure 15. Viewpoint 6) there is also considered to be a negligible visual effect.
- 5.4.9 Similarly the proposed visual effect on the view from Skewen Park (refer to Figure 15. Figure 5) with the faint outline of the solar panels barely perceptible to the higher ground within the middle of the Site with the solar panels blending into the dark back drop of the surrounding woodland and roof line of the Coed Darcy development is considered to be slight adverse.

Table 11: Visual Effect Summary						
View Point No.	Distance/ Direction to Site	Receptor Type	Receptor Sensitivity	Magnitude of Change without Mitigation (Table 5)	Scale of Proposed effect (Table 6)	Judged Scale of Proposed effect (with Mitigation)
1 (Fig 14)	3m East	Motorists	Low	Low	Slight adverse	Negligible
2 (Fig 14)	154m Southwest	Residential & Motorists	High & Low	Low	Moderate adverse	Negligible – Slight adverse
3 (Fig 14)	136m North	Residential & Motorists	High & Low	Medium	Moderate substantial adverse	Moderate adverse
4 (Fig 15)	630m South	Residential & Motorists	High & Low	Low	Moderate adverse	Negligible – Slight adverse
5 (Fig 15)	2.1 km Southwest	Residential & Local Park	High & Low	Low	Moderate adverse	Negligible – Slight adverse
6 (Fig 15)	1.8 km South	Residential & Motorists	High & Low	No change	Negligible	Negligible
7 (Fig 15)	2.3 km Southeast	Residential, Pedestrians	High & Medium	No change	Negligible	Negligible

SUMMARY

6.0 NON TECHNICAL SUMMARY

- 6.0.1 The assessment of visual and landscape effects has been carried out in accordance with 'Guidance for Landscape and Visual Impact Assessment', 2013, a joint publication by the Landscape Institute and Institute of Environmental Management and Assessment and the Landscape Character Assessment Guidance for England and Scotland, published by the Countryside Agency; 2002.
- 6.0.2 The proposals are to develop an area of existing grassland for a 4.9 Ha solar farm with the installation of ground mounted photovoltaic solar arrays together with a substation, ancillary infrastructure, security measures, access and landscaping (refer to Figure 10. Site Layout) as described within the Design and Access Statement.

6.1 Landscape effects

- 6.1.1 The Site lies within the control of Neath Port Talbot County Borough Council within the community of Coedffranc.
- 6.1.2 Located within Gelli-bwch Farm the Site area is approximately 4.9 hectares, with the proposed Solar farm containing solar panels mounted on 2.4m high steel framework arranged in rows 11.3m apart and accessed from the Llandarcy Road to the South of Llandarcy. No public rights of way, bridle ways or roads cross the Site (refer to Figure 1. Location Plan).
- 6.1.3 The Agricultural Land Classification (ALC) for the Site, appears to be identified on the ALC Maps for Wales as Grade 3a to 3b 'Good to Moderate' to 'Moderate' agricultural land and is identified within the ecology survey as improved grassland and poor semi improved grassland.
- 6.1.4 The landscape character of the development area is identified at national level as NLCA 38 100. 'Swansea Bay' described as 'A narrow coastal plain links the lowlands of Glamorgan to those of Gwendraeth. In the middle section around Port Talbot its width is constricted by the adjacent sea and steeply uplands. Extensive sandy coast is backed by dunes, with lagoons and important coastal heath. Major river estuaries issue within the area, including those of rivers Loughor, Neath and Tawe'.
- 6.1.5 Within the LANDMAP database the Site is located in the moderate evaluated geological aspect – Jersey Marine NPTGL002, high evaluated habitat aspect – NPTLH051; high evaluated historic aspect – Pant y Sais NPTHL037; high evaluated cultural aspect Gelli-bwch Hills NPTCLS017; high evaluated visual & sensory aspect – Gelli-bwch Hills NPTVS229 and has intervisibility with a number of high to low evaluated visual & sensory aspect areas including Gelli-bwch works NPTVS592 (Moderate); Neath NPTVS720 (Low); Tal-y-fedw NPTVS902 (Moderate), Crymlyn Bog NPTVS944 (High), SWNSV429 (Low) and Crmlyn SWNSVS995 (High).
- 6.1.6 At a regional level the Landscape Character Area as assessed by Neath Port Talbot Borough Council describe the Site as being situated within LCA 43 'Jersey Marine', with key characteristics including: dominant landform rising to 106m AOD above the lower Neath Valley; significant deciduous woodland cover on lower slopes; boundaries dominated by managed hedges; exposed rock on upper slopes; exposed upland feel and panoramic views from high ground; well preserved and scheduled cairns.
- 6.1.7 Within the Site itself there are no known registered or designated cultural heritage assets with the Llandarcy Conservation Area located approximately 148m to the Northeast. The Site area sits within two fields of the historic field pattern to the Western edge of the Gelli-bwch Farm historically bordered by dry stone walls and hedges.

- 6.1.8 To the North the site is defined by the Llandarcy Road and enclosed by the mature Oak Woodland with a redundant track to the Eastern boundary lined with occasional Oak trees and Hawthorn and gorse scrub. To the South and Southwest the site boundary is defined by a localised ridge with remnant sections of dry stone walling giving way to a defunct hedgerow bank to the Northwest (refer to Figure 2. Aerial Photograph).
- 6.1.9 The landscape quality and condition of the Site itself, is classified as being 'Ordinary'. The Site does not lie within or form part of a World Heritage Site, National Park, Area of Outstanding Natural Beauty (AONB), Areas of Great Landscape Value (AGLV) or similar landscape character or quality designations. Parts of the site overlap with the boundary of the Jersey Marine Site of Importance for Nature Conservation (SINC) and the site is within the Green Wedge 4 under the NPT Green Wedge policy EN3.
- 6.1.10 The design of the proposed layout (refer to Figure 10. Site Layout) has evolved to maximise the opportunities provided by the Site and minimise and mitigate the effect on the identified constraints including existing boundary trees, woodland, undulating landform and field pattern.
- 6.1.11 The landscape mitigation strategy (refer to Figure 11. Landscape Strategy Plan) is based on three core principles including the conservation and enhancement of the existing woodland and mature boundary trees, the incorporation of hedgerow and trees edges of the Solar farm and retaining the open grassland and field pattern.
- 6.1.12 The assessment of the likely effects of the proposed development on the landscape receptors after mitigation has concluded that there will potentially be a moderate adverse effect on landscape character, a slight moderate adverse effect on land use and landscape value and a negligible effect on the topography and landscape features.

6.2 Visual effects

- 6.2.1 The Site is located within an area of upland farmland within Gelli-bwch Farm to the South of Llandarcy and the Coed Darcy new village with the village of Jersey Marine to the South (refer to Figure 1 Location Plan).
- 6.2.2 As part of the visual assessment the roads, footpaths and areas available to public access were reviewed to further define the 'Zone of Theoretical Visibility' (see Figure 12) which was generated digitally from OS terrain (only) data. Seven viewpoints were evaluated within the 'visual envelope' of the Site (refer to Figure 13. Viewpoint Location & Visual Envelope), to assess the likely effect of the proposals on the visual receptors as shown in Figures 14-15. The visual receptors identified include residential properties, a local park, public rights of way and motorists.
- 6.2.3 The development proposals maximise the opportunities provided by the Site including the retention of the existing woodland and boundary trees, whilst responding to the visual constraints that include the short distance views from Llandarcy Road and the Llandarcy Conservation area, medium distance views from Coed Darcy and the topography.
- 6.2.4 The landscape strategy plan Figure 11. has been designed to provide landscape mitigation to address the constraints provided by the visual receptors and is based on four core principles including the retention and enhancement of the existing woodland to the Northern boundary, the retention of and planting of additional trees to the Eastern boundary, the restoration of the hedgerow bank to the West and avoiding the localised landform high points.

- 6.2.5 The assessment of the likely visual effects of the development on the high sensitivity visual receptors after mitigation concluded that there will be a moderate adverse effect on the residential properties to the Southwestern edge of Llandarcy and a negligible to slight adverse effect on the residential properties at Henbarc Farm, and from those residential properties overlooking the site from Coed Darcy, Skewen, Crymlyn Parc and Summer House Hill.
- 6.2.6 The likely visual effects of the proposed development on the medium sensitivity visual receptor public right of way LT408, a long distance view from Summer House Hill is considered to be negligible.
- 6.2.7 The assessment of the likely visual effects of the development on the low sensitivity visual receptors after mitigation concluded that there would be a slight adverse visual effect on the visitors to Skewen Park and negligible visual effect on the motorists using the Llandarcy and Crmlyn Roads

6.3 Conclusion

- 6.3.1 This appraisal establishes and confirms that the proposals for a solar farm development for the land to Gelli-bwch Farm can be accommodated within the identified Site without an undue notable effect on the landscape character and visual amenity of the surrounding area.
- 6.3.2 The landscape mitigation proposed within the development including the retention and enhancements of the existing woodland, the retention and additional tree planting to the Eastern boundary and the hedgerow planting to the Northern and Western boundaries will help both screen the development and integrate it into the surrounding landscape.