

LANDSCAPE AND VISUAL IMPACT APPRAISAL PROPOSED SOLAR FARM

PANTYBRAD ROAD | LLANTRISANT | CF72 8YY



PREPARED BY



Sirius Planning | 4245 Thorpe Park |
Leeds | LS15 8GB

PREPARED FOR



Infinite Renewables | Number One Waterton
Park | Bridgend | Wales | CF31 3PH

REPORT NUMBER

IR1013/LVIA

REPORT STATUS

DRAFT

REVISION

.

REPORT DATE

April 2020

WRITTEN & PREPARED BY

Alex Stappard CMLI | Principal Landscape Architect / Planner

REVIEWED & APPROVED BY

David Baker | Development Director

AUTHORISED BY

Sirius Planning

CONTENTS

1. INTRODUCTION	5
1.1 INTRODUCTION	6
1.2 LLANTRISANT SOLAR FARM – THE SITE AND PROPOSALS	6
1.3 SCHEME OUTLINE.....	7
1.4 STUDY AREA	7
1.5 CHAPTER STRUCTURE	8
2. METHODOLOGY	9
2.1 METHODOLOGY	10
3. PLANNING POLICY CONTEXT	13
3.1 PLANNING POLICY CONTEXT	14
3.2 LOCAL CONTEXT	14
3.3 MATERIAL CONSIDERATIONS	15
4. LANDSCAPE ASSESSMENT - BASELINE	17
4.1 LANDSCAPE ASSESSMENT – BASELINE SITUATION	18
5. VISUAL ASSESSMENT - BASELINE	23
5.1 VISUAL ASSESSMENT – BASELINE SITUATION.....	24
6. SCHEME LAYOUT – LANDSCAPE MITIGATION AND ENHANCEMENT.....	29
6.1 LANDSCAPE MITIGATION	30
7. LANDSCAPE ASSESSMENT	32
7.1 LANDSCAPE ASSESSMENT	33
8. VISUAL ASSESSMENT.....	36
8.1 VISUAL ASSESSMENT.....	37
9. SUMMARY AND CONCLUSION	38
Appendix 1 - Methodology	38
Appendix 2 - Landscape Character	38

DRAWING SCHEDULE

Drawing Number	Drawing Title	Scale	Sheet Size
IR1013/05/01	Site Location Plan and Study Area	1:25,000	A3
IR1013/05/02	Landscape Character – LANDMAP Visual and Sensory	1:25,000	A3
IR1013/05/03	Landscape and Visual Context –Recreational Routes and Visual Receptors	1:25,000	A3
IR1013/05/04	Zone of Theoretical Visibility (2.5m)	1:25,000	A3
IR1013/05/05	Viewpoint 1 - Photomontage	NTS	A3
IR1013/05/06	Viewpoint 2 - Photomontage	NTS	A3
IR1013/05/07	Viewpoint 3 - Photomontage	NTS	A3
IR1013/05/08	Viewpoint 4 - Photomontage	NTS	A3
IR1013/05/09	Landscape Masterplan	NTS	A3

APPENDIX SCHEDULE

Appendix Number	Title
Appendix 1	Methodology – Solar Farm LVIA (non EIA)
Appendix 2	Landscape Character (LANDMAP ASPECT AREAS)



1. INTRODUCTION

1.1 INTRODUCTION

1.1.1 Sirius Planning Limited was appointed to undertake a Landscape and Visual Impact Appraisal (LVIA) for a solar farm and associated infrastructure (including substation, fencing and cabling) on land to the north of the Royal Mint, Llantrisant, within Rhondda Cynon Taff administrative area.

1.1.2 The assessment and methodology for this LVIA conforms to the relevant parts of the Guidelines for Landscape and Visual Impact Assessment, Third Edition (Landscape Institute and IEMA, 2013). The assessment focuses on the identification of likely 'Substantial' landscape and visual effects, including those that are, positive and negative, direct and indirect, long, medium and short term, and reversible and irreversible, as well as cumulative effects (where applicable). This includes the potential effects on local landscape character and landscape designations, as well as the potential effects on views experienced by people (receptors) including (but not limited to); settlements, public rights of way, registered parks and gardens and transportation corridors.

1.1.3 As the scheme (through screening with the Welsh Government) was confirmed to be non EIA, an 'Impact Appraisal' is undertaken instead of an 'Impact Assessment'. The Landscape Institute issued the following Statement of Clarification 4 For Non-EIA Landscape and Visual Impact Appraisal:

In carrying out appraisals, the same principles and process as LVIA may be applied but, in so doing, it is not required to establish whether the effects arising are or are not significant given that the exercise is not being undertaken for EIA purposes. The reason is that should a landscape professional apply LVIA principles and processes in carrying out an appraisal and then go on to determine that certain effects would be likely to be significant, given the term 'significant' is enshrined in EIA Regulations, such a judgement could trigger the requirement for a formal EIA.

The emphasis on likely 'significant effects' in formal LVIA stresses the need for an approach that is GLVIA3 Statement of Clarification 1/13 10-06-13 proportional to the scale of the project that is being assessed and the nature of its likely effects. The same principle – focussing on a proportional approach – also applies to appraisals of landscape and visual impacts outside the formal requirements of EIA.

1.1.4 The main objectives of the LVA, in relation to this development, are as follows:

- To identify, evaluate and describe the current landscape character of the site and its local surroundings and any notable individual landscape elements within the site.
- To determine the sensitivity of the landscape to the type of development proposed.
- To identify potential visual receptors (i.e. people who would be able to see the development) and evaluate their sensitivity to the type of changes proposed.
- To identify and describe any effects of the development in so far as they affect the landscape and/or views of it and to evaluate the magnitude of change due to these effects; and
- To assess the effects of the development in consideration of the magnitude of potential effects to be assessed, mitigation proposals identified and the residual effect (with mitigation in place) and to demonstrate the effectiveness of the mitigation proposed.

1.2 LLANTRISANT SOLAR FARM – THE SITE AND PROPOSALS

1.2.1 The application site covers an area of hillside pasture, measuring c.2ha within the fringes of the valley of the Nant Muchudd river corridor. Ground levels within the site range from 112m AOD to 133m AOD. The site is characterised by an operational wind turbine, known as the 'daffodil' owing to the colouring, yellow tower and green blades. The turbine is 100m to tip height, with a 61.5m hub height. The turbine

supplies electricity directly to the Royal Mint factory c.400m to the south of the site. The factory and associated warehouses of the industrial area characterise the lower lying area beneath the site, at ground levels of c.65m AOD. The site location is shown on Drawing IR1013/04/01.

- 1.2.2 The host field is bordered by mature hedgerows with hedge trees to all sides, a local road passing upon the eastern boundary allowing glimpsed views in towards the turbine and grassland field. The main residential area of Llantrisant is c.1.8km to the south, upon rising land, beyond the industrial estate and the open area of Llantrisant Common. The closest residential receptor, a farm, is c.240m to the east, Rhiwfelin Fach.

1.3 SCHEME OUTLINE

- 1.3.1 The site proposals entail:

- Photovoltaic (PV) panels and associated supporting frames;
- String inverters, attached to the underside of the panels, and substation (housed in prefabricated container);
- Associated cabling (largely below ground);
- Post and rail fencing; and
- Temporary set down area.

- 1.3.2 The solar farm and associated infrastructure will have a peak electrical generating capacity of circa 2MW and will be designed to supply power directly to The Royal Mint's site. The solar arrays will be connected to string inverters attached to the underside of the panels and a substation which converts the electricity generated by the PV panels. A below ground cable will connect the facility to the point of connection via the existing electrical infrastructure installed for the wind turbine.

- 1.3.3 The panels will be arranged in rows in an east-west alignment across the deployment area and will be angled between 10° and 35° to the horizontal and orientated south. All panels will be mounted on frames and have a maximum height of up to 2.5m above ground level; the lowest part of the panel will be circa 800mm above ground level. The rows of panels will be 1.5m apart to avoid shadowing and allow for scheduled maintenance.

- 1.3.4 The application site will be secured by the existing post and wire fencing along the northern and western boundary, and a new post and rail fence along the eastern and southern boundary.

1.4 STUDY AREA

- 1.4.1 It is accepted practice within LVIA work that the extent of the study area for a development is broadly defined by the visual envelope of the proposed development and the anticipated extent of the visibility based on landform combined with developed and natural features. The study area for this appraisal extends to a c.2 km radius from the perimeter of the proposed development.

- 1.4.2 Although the study area and ZTV extends to 2 km, detailed consideration of the landscape and visual effects of the solar farm will be focused to a 1 km study area. The study area was selected for the assessment on the basis of the scale of the proposal; ~2.5m high panels and their actual theoretical visibility considering the scale of the new development, existing development within 1 km and the nature of the surrounding topography. The likelihood of the panels being highly noticeable at distances over 1 km from the site is considered low. The existing turbine within the host field is used as a locational marker and level of scale within the assessment.

- 1.4.3 GLVIA, section 5.2, additionally states that a study area should *"include the site itself and the full extent of the wider landscape around it which the proposed development may influence in a significant manner. This will usually be based on the extent of landscape character areas likely to be significantly*

affected either directly or indirectly”.

1.5 CHAPTER STRUCTURE

1.5.1 This chapter is structured as follows:

- Introduction;
- Methodology;
- Policy Context;
- Baseline Landscape Conditions;
- Baseline Visual Conditions;
- Scheme Design, Mitigation and Enhancement;
- Assessment of Landscape Effect;
- Assessment of Visual Effect; and,
- Summary and Conclusion.



2. METHODOLOGY

2.1 METHODOLOGY

2.1.1 The methodology for this LVIA conforms to the relevant parts of the ‘*Guidelines for Landscape and Visual Impact Assessment, Third Edition (Landscape Institute and IEMA, 2013)*’. The assessment focuses on the identification of likely landscape and visual effects, including those that are, positive and negative, direct and indirect, long, medium and short term, and reversible and irreversible, as well as cumulative effects.

2.1.2 Detailed explanation of the methodology including the basis on which judgements have been made on the sensitivity of the receptors, magnitude of change and level of effects is contained within **Appendix 1**.

2.1.3 For the purposes of clarity, the European Landscape Convention (ELC) (2000), defines the term ‘landscape’ as:

“an area, as perceived by people, whose character is the result of the action and interaction of natural and/or human factors”.

2.1.4 The ELC confirms that the “landscape should be considered as a resource in its own right. It provides an integrated way of conceptualising our surroundings and is increasingly considered to provide a useful spatial framework for thinking about a wide range of environmental, land use and development issues”. The ELC applies to all landscapes; natural, rural, urban and peri-urban areas, including land, inland water and marine areas. It considers landscapes that might be considered outstanding as well as every day or degraded landscapes.

2.1.5 Additional guidance has also been taken from the following publications:

- *Landscape Institute Technical Guidance Note 06/19 September 2019, Visual Representation of Development Proposals;*
- *Landscape Character Guidance for England and Scotland, Topic Paper 9, Climate change and natural forces, the consequences for landscape character, SNH/CA;*
- *Landscape Character Guidance for England and Scotland, Topic Paper 6, Techniques for Judging Capacity and Sensitivity, SNH/CA, 2004;*
- *Landscape Character Assessment: Guidance for England and Scotland (The Countryside Agency and Scottish Natural Heritage, 2002); and,*
- *Council of Europe, The European Landscape Convention (2000, ratified 2006) ETS No. 176.*

Assessment Process

2.1.6 This LVIA assessment has 3 key stages, summarised as follows:

- **Baseline** – gathering of documented information; existing landscape character studies, identification of landscape and visual receptors, scoping of the assessment, agreement of viewpoints and assessment parameters, discussion with relevant consultees and the local planning authority, site visits and initial reporting of design issues with client designer;
- **Design** – Review of initial design and ongoing design iterations following baseline survey, including responses to other specialisms e.g. ecology and cultural heritage. Consideration of mitigation options and enhancement (where appropriate); and,
- **Assessment** – involves of an assessment of the landscape and visual effects of the scheme, involves site and desk based survey and assessment. Due to the scale of development, site focussed and height above ground level, any cumulative effects are also considered within this stage.

Landscape and Visual Effects

2.1.7 LVIA is a tool used to identify and assess the significance of and the effects of change resulting from development on both the landscape as an environmental resource in its own right and on people's views and visual amenity (GLVIA 2013, para 1.1).

2.1.8 Landscape and visual effects are assessed separately within this LVIA, *"the assessments are known as impact assessments but the European Union Directive refers to assessment of the effects, which are changes arising from the development that is being assessed"*. (GLVIA 2013, para 1.15). Impact is defined as 'action being taken' and the effect is defined as the 'change resulting from the action'.

2.1.9 Landscape effects are defined as:

"An assessment of landscape effects deals with the effects of change and development on landscape as a resource. How the proposal will affect the elements that make up the landscape, the aesthetic and perceptual aspects of the landscape and its distinctive character" (GLVIA 2013 para 5.1).

2.1.10 Visual effects are defined as:

"An assessment of visual effects deals with the effects of change and development on the views available to people and their visual amenity. Assessing how the surroundings of individuals or groups of people may be specifically affected by changes in the content and character of views as a result of the change or loss of existing elements of the landscape and/or introduction of new elements" (GLVIA 2013 para 6.1).

Level of Effect

2.1.11 The appraisal will consider the landscape and visual baseline characteristics within the defined study area, together with an appraisal of landscape and visual effects. Effects will be considered to be either 'Substantial' or 'Not Substantial' in accordance with the criteria in the methodology. 'Substantial' effects are those that should be given due consideration in the eventual decision making process, effects that are 'Not Substantial' are of a lesser concern.

2.1.12 This appraisal is for a scheme which the LPA have confirmed does not constitute EIA development; the Landscape Institute has issued advice in relation to L&V Appraisals (Assessments) outside a formal EIA process in its 'Statement of Clarification 1/13':

"In carrying out appraisals, the same principles and process as LVIA may be applied but, in so doing, it is not required to establish whether the effects arising are or are not significant given that the exercise is not being undertaken for EIA purposes. ... The emphasis on likely 'significant effects' in formal LVIA stresses the need for an approach that is proportional to the scale of the project that is being assessed and the nature of its likely effects. The same principle – focussing on a proportional approach – also applies to appraisals of landscape and visual impacts outside the formal requirements of EIA".

2.1.13 The detailed criteria used to determine the level of effect is listed in Appendix LVIA-1 Methodology. As with all LVIAs, it should be noted that while the methodology is designed to be robust and transparent, in line with best practice, professional judgement is finally applied to determine the level of effects, and whether the effects are considered 'Substantial' or 'Not Substantial'.

Timescale of Effects

2.1.14 The principal landscape and visual effects, which are reversible, occur during the operational lifetime of the development, considered to be permanent. The effects of the development are likely to reduce as mitigation planting matures.

2.1.15 The principal landscape and visual effects, which are reversible, occur during the operational lifetime

of the solar farm, which will be 25 years, but owing to the height and layout of the scheme there is the potential for mitigation screening with planting which will over time mature and grow to screen the development further. The effects of the development may reduce over time. Effects during construction, scheme opening and future operation are considered.

- 2.1.16 The only receptor likely to experience construction effects that are markedly different to the operational effects is the site itself, which will temporarily take on the character of a construction site. These effects will be short term, different in nature to those experienced once the development is complete, but similar in terms of their magnitude and level.

Seasonal Effects

- 2.1.17 Within the assessment consideration is given to the seasonal differences in effects arising from the varying degree of screening and/or filtering of views by vegetation that will apply year round. The assessment considers the visual screening effects that vegetation would provide in both summer and winter months (when deciduous vegetation is not in leaf), and if it is considered that there would be considerable differences in the screening and/or filtering of vegetation between the summer and winter months, it will be stated.

Subjectivity of the Nature of Effects

- 2.1.18 This LVIA does not state explicitly whether the effects of the solar farm development on landscape and visual amenity is adverse, neutral or beneficial. However, it is acknowledged that the GLVIA 2013 states that professional opinion should be applied, and a positive or negative judgement stated (Para 5.37 and 6.29). It is commonly accepted that the nature (or valency) of effects of a development are subjective based upon the attitude of the individual.
- 2.1.19 In accordance with GLVIA 2013 a 'precautionary approach' is taken and therefore, although the nature of effects is not stated within the assessment, effects would be negative unless stated otherwise. This precautionary approach of negative effects should be considered with the caveat that the valency of effect must always be considered by the decision makers, the approach should not be concluded to be the final judgement and it should be acknowledged that people may also see the development as either a positive or neutral addition.

Assessment Limitations

- 2.1.20 The appraisal of landscape and visual effects is undertaken from publicly accessible locations only including; roads, parks and public rights of way to represent potential impacts on a range of receptors. Consideration of the effect on views from residential receptors is undertaken from representative publicly accessible points at a ground level and analysis of map data. This assessment does not consider or assess impacts from every theoretical location where the development would be visible.



3. PLANNING POLICY CONTEXT

3.1 PLANNING POLICY CONTEXT

- 3.1.1 This section sets out the landscape and visual focussed planning policies and material considerations, which are relevant both to the site and the type of development proposed, giving consideration to National, and local planning policy.
- 3.1.2 Section 38(6) of the Planning and Compulsory Purchase Act 2004 requires planning applications to be determined in accordance with the provisions of the Development Plan unless material considerations indicate otherwise.
- 3.1.3 The proposed development site falls within the administrative boundaries of Rhondda Cynon Taf County Borough Council. The adopted Local Plan for the application site comprises:
- Rhondda Cynon Taf Local Development Plan up to 2021 (Adopted March 2011)
- 3.1.4 Given the primacy of the development plan in the decision-making process, it is imperative that this Planning Statement identifies and appraises the planning policies that are of relevance in determining this planning application.

3.2 LOCAL CONTEXT

- 3.2.1 The Rhondda Cynon Taf Local Development Plan was formally adopted in March 2011 and sets out how the County Borough will be developed to 2021. The Plan contains detailed policies which controls the form of new development and sets out what new development should look like.
- 3.2.2 Under the adopted proposals map, the site is located outside settlement boundaries and is therefore within the 'open' countryside. The site is also designated as within a Special Landscape Area and a Minerals Safeguarding Area for Sandstone Resources.
- 3.2.3 The following table provides an assessment of policies within the Rhondda Cynon Taff Local Development Plan which are considered relevant to the proposed development and this appraisal of landscape and visual effects.

Table 5.1: Policy Appraisal – Rhondda Cynon Taf Local Development Plan

Policy	Commentary
<p><u>Policy AW 5 - New Development</u></p> <p><i>“Development proposals will be supported where: -</i></p> <p><i>1) Amenity</i></p> <p><i>a) The scale, form and design of the development would have no unacceptable effect on the character and appearance of the site and the surrounding area;</i></p>	<p>The proposed development is to construct and operate a 2MW solar farm located within the field unit of 'Daffodil' wind turbine. The primary purpose of the proposal is to supply green energy to the Royal Mint who are a large consumer of energy.</p> <p>The Landscape and Visual Appraisal will consider the scale, form and design of the new development, and effects upon the character of the area.</p>
<p><u>Policy AW 6 - Design and Placemaking</u></p> <p><i>“Development Proposals will be supported where: - ...</i></p> <p><i>2. They are appropriate to the local context in terms of siting, appearance, scale, height, massing, elevational treatment, materials and detailing; ...</i></p>	<p>The proposal is for a solar farm development located within the field unit of 'Daffodil' wind turbine. The primary purpose of the proposal is to supply green energy to the Royal Mint who are a large consumer of energy.</p>

<p>7. <i>Landscaping and planting are integral to the scheme and enhance the site and the wider context...</i></p> <p>15. <i>The development promotes energy efficiency and the use of renewable energy..."</i></p>	<p>The Landscape and Visual Appraisal will consider the scale of the development with regards to local features.</p> <p>The existing landscaping bordering the site will be maintained and managed. All hedges and ditches bordering the site will be retained with a 4m perimeter buffer included between the hedgerows and proposed panels.</p> <p>The proposed solar farm will contribute towards achieving the renewable energy targets set by the Welsh Government and RCTCBC overarching 2050 target of Net Zero.</p>
<p><u>Policy AW 8 - Protection And Enhancement Of The Natural Environment</u></p> <p><i>"Rhondda Cynon Taf's distinctive natural heritage will be preserved and enhanced by protecting it from inappropriate development. Development proposals will only be permitted where:-</i></p> <p>12. <i>There would be no unacceptable impact upon features of importance to landscape or nature conservation, including ecological networks, the quality of natural resources such as air, water and soil, and the natural drainage of surface water..."</i></p>	<p>The proposal is for a solar farm development which will supply green energy to the Royal Mint.</p> <p>The Landscape and Visual Appraisal will assess impacts upon landscape features of importance in accordance with this policy.</p>
<p><u>Policy SSA 23 – Special Landscape Areas</u></p> <p><i>"Special Landscape Areas are identified at the following locations:</i></p> <p>6. <i>Mynydd y Glyn and Nant Muchudd Basin;</i></p> <p><i>Development within the defined Special Landscape Areas will be expected to conform to the highest standards of design, siting, layout and materials appropriate to the character of the area."</i></p>	<p>The application site is located within Special Landscape Area 6, an assessment of the impact of the development upon this SLA will be undertaken.</p>

3.3 MATERIAL CONSIDERATIONS

Planning Policy Wales (Edition 10, December 2018)

- 3.3.1 In December 2018, the Welsh Government (WG) published an update to national planning policy in the form of the 10th edition of Planning Policy Wales (PPW). PPW sets out the land use planning policies of the WG.
- 3.3.2 The PPW sets out the key planning principles in Figure 3 stating that *"The planning system has a vital role to play in making development resilient to climate change, decarbonising society and developing a circular economy for the benefit of both the built and natural environments and to contribute to the achievement of the well-being goals."*
- 3.3.3 The proposed development is to construct and operate a 2MW (export capacity) solar farm, the Welsh Government is supportive of renewable and low carbon energy projects. The proposed solar farm will contribute towards achieving the renewable energy targets set by the Welsh Government and RCTCBC overarching 2050 target of Net Zero.

Technical Advice Note (Wales) 8 (TAN 8) – Planning for Renewable Energy (2005)

- 3.3.4 TAN 8 Planning for Renewable Energy provides advice on how renewable energy technologies should be accounted for as part of the development management process. Paragraph 2.1 states that *"The*

planning system has an important role to play in achieving the Assembly Government's commitment to enabling the deployment of all forms of renewable energy technologies in Wales".

- 3.3.5 TAN 8 outlines the support for renewable energy schemes providing they do not cause demonstrable harm to the nearby statutory designations, paragraph 3.15 states *"Other than in circumstances where visual impact is critically damaging to a listed building, ancient monument or a conservation area vista, proposals for appropriately designed solar thermal and PV systems should be supported"*.

Emerging National Development Framework

- 3.3.6 The draft National Development Framework (NDF) which sets out the direction for development in Wales from 2020 to 2040 was published for consultation in 2019. Under the draft NDF the site is located within a solar and wind energy priority area where significant weight will be given to the proposal's contribution to reducing Wales' greenhouse gas emissions and meeting Wales decarbonisation and renewable energy targets (draft policy 10). The draft NDF also states that there is an acceptance of landscape change in the identified solar propriety areas.
- 3.3.7 All planning policies are considered in detail within the accompanying Planning Statement.



4. LANDSCAPE ASSESSMENT - BASELINE

4.1 LANDSCAPE ASSESSMENT – BASELINE SITUATION

4.1.1 An overview of the existing landscape for both the application site and the wider study area as a whole has been determined by observations made during site visits and review of the published Landscape Character Assessments.

4.1.2 It follows from the above that in order to assess whether landscape character is ‘substantially’ affected by a development, it should be determined what and how each of the key characteristics would be affected. The judgement of magnitude therefore reflects the degree to which the key characteristics and elements which form those characteristics will be altered by the proposals. The scale of the wind turbine (development), the nature and sensitivity of the receiving landscape, and local ‘barriers’ in the landscape (such as breaks of topography, woodlands, settlements, and roads or rivers) will influence the exact extent of effect of the wind turbine (development).

National Landscape Character

4.1.3 LANDMAP (Countryside Council for Wales, now Natural Resources Wales) details the Welsh national level approach to landscape assessment. It is a GIS (Geographical Information System) based landscape resource where landscape characteristics, qualities and influences on the landscape are recorded and evaluated into a nationally consistent data set.

4.1.4 LANDMAP is formally recognised in Planning Policy Wales (PPW) (2016) as the starting point for landscape assessments in Wales. LANDMAP provides information for all of Wales’ landscapes apart from the built up areas of Cardiff and Swansea. It states that “*all EIAs in Wales should therefore include an assessment using the information provided in LANDMAP as part of their ES chapter on landscape and visual effects. In particular, it should be used to inform a thorough understanding of the baseline conditions*” (LANDMAP Guidance Note 3, May 2013).

4.1.5 LANDMAP Information is defined by five methodological chapters: Cultural Landscape, Geological Landscape, Historic Landscape, Landscape Habitats and Visual & Sensory. These chapters are considered the key national level landscape guidance for Wales. Although this development does not constitute ‘EIA development’, LANDMAP, as the most comprehensive landscape

4.1.6 With regard to the site, it is located within the following LANDMAP Aspect Areas (pdf copies contained within Appendix xx):

- Geological – CYNONGL032 Upper Ely. Classification: Glacial mountain valley
Evaluation: **Moderate**
- Landscape Habitats – CYNONLH094. Classification: Improved Grassland.
Evaluation: **Moderate**
- Visual and Sensory – CYNONVS966 bettws. Classification: Open Rolling Lowland
Evaluation: **Moderate**
- Historic Landscape – CYNONHL649 Nant Castellau and Nant Machudd. Classification: Irregular Fieldscapes
Evaluation: **High**
- Cultural Landscape – CYNONCL056 Designated Landscape Areas. Classification: Other Institutions (specify)
Evaluation: **High**

- 4.1.7 Visual and sensory is considered the most relevant resource for this LVIA so is considered in detail although all aspect areas are important, so key points highlighted where appropriate.

Visual and Sensory – CYNONVS966 bettws. Classification: Open Rolling Lowland Evaluation: **Moderate**

- 4.1.8 With regard to scenic quality the assessment highlights, ‘Moderate; scenic quality varies from pleasant / attractive views, particularly northerly, and unpleasant views south to the urban edge of Bridgend’.
- 4.1.9 The Aspect Area covers an area stretching from the southern slopes of the site northwards c.3.5km to Tonyrefail upon rolling grassland hillsides. The Aspect Areas summarises: ‘*Undulating landscape of generally southerly facing agricultural land with pronounced field pattern (some hedges) and feeling of a more controlled / managed / settled. A comfortable landscape with scattered farmsteads and villages isolated woodland, views south dominated by urban form*’.
- 4.1.10 This is confirmed at a site level, views south from the site area are also dominated by urban form of the Llantrisant Business Park, the Royal Glamorgan Hospital and Talbot Green beyond. This is in contrast to the settled landscape to the north of the site, but wind turbines are a modern feature, developments that have taken place since the Aspect Area was reviewed.

Special Landscape Areas

- 4.1.11 Details of the SLAs are contained in the Rhondda Cynon Taf Special Landscape Area Study (2007) and Rhondda Cynon Taff Proposals for Designation of Special Landscape Areas (2008) (Evidence base doc 49).

Policy NSA 25 – Special Landscape Areas

‘Development within the defined Special Landscape Areas will be expected to conform to the highest standards of design, siting, layout and materials appropriate to the character of the area.

Special Landscape Areas (SLAs) have been designated to protect areas of fine landscape quality within Rhondda Cynon Taf. The designation of these landscape areas has been undertaken at local level using a regionally agreed methodology. The methodology used to identify the SLA’s in Rhondda Cynon Taf builds on the Countryside Council for Wales LANDMAP methodology and considers factors such as:

- *Prominence;*
- *Spectacle – dramatic topography and views;*
- *Unspoilt areas - Pre-industrial patterns of land use;*
- *Remoteness and Tranquillity;*
- *Vulnerability and sensitivity to change;*
- *Locally rare landscape;*
- *Setting for special landscapes.*

In order to protect the visual qualities of each SLA, development proposals within these areas will be required to conform to the highest possible design standards.

In the Northern Strategy Area, SLAs have been identified to protect the distinctive upland / valley landscape of the area. Particular consideration has been given to the protection of the unspoilt valley slopes and ridges which form a visual backdrop to the settlements of the area.’

- 4.1.12 The study places the site within the proposed SLA 6 ‘Mynydd Glyn and Nant Muchudd Basin’, the

primary landscape qualities and features are defined (note only those applicable are listed below) :

- *Largest area in RCT of un-industrialised lowland farmland rising to open and forested hill of Mynydd Glyn to north.*
- *In basin there is a very attractive network of narrow winding lanes, small irregular fields bounded by large mixed hedges and many trees, scattered farms, unlike any other part of RCT.*
- *This forms a major part of the wide views north from Llantrisant although secluded from all other areas*
- *The basin has many areas of unimproved grassland primary habitats – candidate SSSI*
- *Stone walls and open grassland on higher slopes.*
- *Steep northern sides of Mynydd Glyn are the dominant backdrop to Porth, Trehafod and Pontypridd, with steep, wild rocky areas providing sharp contrasts to the settlements*
- *There are varied and extensive views from Mynydd Glyn to the Rhondda Valleys and across the coalfield plateau to the north, and south to the Llantrisant ridge*
- *Forestry with extensive felled areas and variety reaches down the eastern sides of Mynydd Glyn*
- *Traditional smallholdings and allotments on steep northern slopes overlooking Pontypridd and Trehafod*

Key Policies and management:

- *Ensure no large-scale developments to spoil integrity and seclusion of basin and surrounding slopes*
- *Conserve primary habitats relating to unimproved grassland*
- *Conserve old patterns of farmland, with large hedges and many trees*
- *Conserve patterns of smallholdings and associated uses on the northern edges of Mynydd Glyn for cultural interest*
- *Continue to increase variety within forestry*

Local Landscape Character

- 4.1.13 An overview of the existing landscape elements and features of the site and the study area has been determined by observations made during site visits and through review of the LANDMAP classification information up to the defined study area boundaries. The local landscape of the site, and its immediate surroundings, is not covered by any national or local landscape designations however this does not mean that the site would not be valued locally. Local landscape character is considered in detail at a site level and within a 1km focussed study area.

Landscape Value

- 4.1.14 Paragraph 5.19 of GLVIA3 identifies that following a review of existing landscape designations “*the value attached to undesignated landscapes also needs to be carefully considered and individual elements of the landscape – such as trees, buildings or hedgerows – may also have value.*” This LVIA provides a review of undesignated landscapes and landscape elements, which includes (but is not limited to) hedgerows, woodland, watercourses and trees, and attributes a value to each element.
- 4.1.15 The value of the landscape potentially affected by a proposed development is evaluated when establishing the landscape baseline and is judged as being High, Moderate or Low. This is in accordance with paragraph 5.44 of GLVIA3. Landscape value is also referred to in the following section as part of

the method for 'Assessing the Level of Landscape Effects'.

4.1.16 The landscape value of the site and the immediate adjoining area is considered with reference to the indications of Landscape Value as identified in Table 1.2 of the Methodology (Appendix 1). Below, the following provides an analysis of each of the indications and classifies the landscape value in accordance with Table 1.3 of the Methodology.

Landscape Indications Value Considerations	Description	Value Method Criteria	Value Assessment
Landscape Quality (condition)	The physical state of the site is not typical of the local area due to the presence of the operational turbine within the field unit. Away from the turbine, the fringes of the site are typical (mature field boundaries), but the influence of the existing development extends to a local level.	<i>Low importance and rarity at a local level. Area has some redeeming features. Does not lie within, or adjacent to a designated landscape.</i>	Low
Scenic Quality	The locally elevated nature of the site provides views south over the local landscape, views to lower areas of urban form (primarily industrial) northern areas an attractive rural setting, typical of locality. Scenic setting of the site negatively influenced by the operational turbine.	<i>Does not present locally important scenic interest (due to existing development) Low importance and rarity at a local level. Area has some redeeming features.</i>	Low
Rarity	The site contains no features or elements of value that are considered rare.	<i>Low importance and rarity at a local level.</i>	Low
Representativeness	Excluding the turbine the site field is a representative (typical and common) feature of the wider landscape of the slopes and upper areas in the locality, away from urban development. Grassland, surrounded by mature hawthorn hedgerows and occasional trees.	<i>Area identified as having some redeeming features, but with features identified for improvement.</i>	Low
Conservation Interests	The site contains no features of wildlife, earth science or cultural interest that contribute to landscape value.	<i>Low importance and rarity at a local level</i>	Low
Recreational Value	The site is not publicly accessible, wider recreational routes unaffected.	<i>Low importance</i>	Very Low

Perceptual Aspects	The site is not valued for wildness / tranquillity, influenced by the operational turbine.	<i>Site does not present locally important features linked to perceptual aspects</i>	Very Low
Associations	The site is not associated with any people / events that contribute to perceptions of natural beauty in the local area. The 'Daffodil Turbine' does though act as a local landmark, set about (and providing renewable energy to) the culturally significant Royal Mint site	<i>Low importance</i>	Very Low
Landscape Value Summary	Overall, through the consideration of the indicators of landscape value, the site is concluded to be of a Low landscape value. The site's value is influenced by the presence of the operational turbine and the near distance to the lower lying industrial areas focussed upon the Royal Mint facility.		Low

Landscape Receptors

Landscape Designations within 2 km

- 4.1.17 Landscape designations within the study area (applicable to this LVIA) are illustrated on Figure 3. Relevant designations mapped at this stage would include; Registered Parks and Gardens (RPG); Country Parks (CP); and, landscape designations within the Local Plan/Development Framework (if still applicable) such as: Special Landscape Areas (SLA) and any national landscape designations; Areas of Outstanding Natural Beauty (AONB); and, National Parks (NP).
- 4.1.18 Landscape receptors where views are an important component of the landscape setting / designated landscape are considered within the visual effects section. The locally designated Special Landscape Area is discussed in Section 4.1.11, and landscape effects discussed in the following sections.
- 4.1.19 Review of local data has confirmed that there are no landscape designations (as previously described) within 1 km of the site boundary. The closest Registered Park and Garden is c.3.2 km to the south west of the site, Llanharen House (Grade II). The Rhondda Historic Landscape Area is c. 4.2 km to the north of the site. Due to the separation distances and scale of development effects on designated landscapes are therefore not assessed.
- 4.1.20 The nearest designated heritage assets to the site is an earthworks, c.2km to the north east, upon the hillside above Castellau.

Low Sensitivity Receptors

- 4.1.21 The nearest non-residential properties to the application site the Llantrisant Business park Estate, The Royal Mint (the main industrial building within the area) which is also the location of The Royal Mint Experience, visitor attraction.



5. VISUAL ASSESSMENT - BASELINE

5.1 VISUAL ASSESSMENT – BASELINE SITUATION

Zone of Theoretical Visibility (ZTV)

- 5.1.1 As discussed in the methodology, land that may potentially be visually connected with the proposed development has been identified and mapped at the outset in accordance with paragraph 6.6 of GLVIA 3. ZTV mapping has been produced to determine the area over which the proposed turbine theoretically could be seen. ZTV maps are generated by a computer from a Digital Terrain Model (DTM) representing the bare ground topography, with visual barriers added, overlaid on a map base.
- 5.1.2 The ZTV indicates the maximum theoretical area in which the proposed development may be visible. The analysis was carried out using representative height points spaced within the internal site area, at a height of 2.5m above ground level. The analysis uses map data (taken from Ordnance Survey Vector Map District) includes the addition of the 'Building' layer, modelled at an assumed average height of 7.5m above ground level, and the 'Woodland' layer, modelled at an assumed average height of 15m above ground level.
- 5.1.3 The addition of these visual barriers over the bare earth topographic model provides a more realistic indication of the potential visibility of the development within the local landscape setting. Visibility mapping is presented on 1:10,000 scale OS base mapping. Areas with visibility to represented height points arranged within the site (at least one) to a height of 2.5 m above ground level (representative height of a solar array).
- 5.1.4 Visibility levels are further refined through the site survey and consideration of visibility from the identified receptors; settlements, recreational routes, landscape receptors and the viewpoint assessment.
- 5.1.5 The ZTV illustrates that there is the potential for theoretical visibility to the development from within central and south eastern zone of the study area only. Visibility is predominantly restricted by topography, the slope upon where the development is set is south facing. Views within the near central area of the industrial estate are restricted by built form. Visibility is shown to be extensive upon the open area of Llantrisant Common, views within the village are limited by near built form, focused to fringe or elevated areas. Built form restricts views from the settlement of Beddau to the east. Woodland and forestry plantation restricts visibility from the area of Llantrisant Forest to the west. The illustrated theoretical visibility to the far areas of the study area, to the north west and north east, are not considered due to the separation distances and intervening screening by mature hedgerows.

Geographical Extent

- 5.1.6 The geographical extent of effects is influenced by the landscape setting and established features around the site, the scale of the proposed development (up to 2.5m tall solar panels within a c. 2 ha. site and associated infrastructure), the site levels and localised screening vegetation and built form.
- 5.1.7 Visibility at a local level is limited to areas south and east of the site, restricted to the industrial areas within the valley, Llantrisant Common extending to the village of Llantrisant, and over the rising field up to Beddau in the east, up to c.2 km from the site. The geographical extents of visibility is further restricted by built form and vegetation within the local area. A low (medium) level of effect is concluded when considering the geographical extent of the development.

Cumulative Assessment

5.1.8 Opportunities exist for potential cumulative views, where more than one solar farm, including the proposed development, may be seen either simultaneously or sequentially. Solar farms with the potential to generate cumulative effects include those which; are constructed, are in construction; have planning permission and are not yet constructed; or, are awaiting determination of planning permission.

5.1.9 There are no other solar farms constructed, consented or in planning within the local study area. Established features such as the Daffodil turbine and local industrial buildings are considered as part of the visual baseline.

Key Receptors

5.1.10 The key visual receptors within the study area will consist of (people within) settlements, users of public rights of way (cycle ways and footpaths), and users of recreational facilities, transportation and public access networks. Registered parks and gardens and country parks are considered in the landscape baseline and effects sections but views are considered where a view is a key component of the designated landscape.

Residential Properties

5.1.11 Residential properties are considered to have a high sensitivity to visual change as there is the potential for large numbers of receptors (people) to be concentrated in the properties / settlements with the potential for continuous fixed views. It should be noted that many individual dwellings and dwellings within settlements, even when close to other proposed developments, may have 'no' or 'limited visibility' to the said development due to localised screening features. For each individual property close to the development site, the exact degree of visibility will depend on the orientation of the property, the orientation of the windows in the property, and the degree of screening provided by localised landform, trees, hedgerows and surrounding built features. There is only one property within 500m so individual properties up to 1km from the site are assessed, with additional residential groups added where necessary.

5.1.12 There are 14 residential receptors / settlement groups considered in detail within the local study area (distances quoted to the building from closest area of site boundary). Residential receptors include:

- R1, Rhiwfelin Fach (Farm) c. 250 m east;
 - R2, Rhiwfelin Fawr (farm) c. 500 north west;
 - R3, Dyffryn-uchaf (farm) c. 630 south west;
 - R4, Rhiwfelin Fawr (Llantrisant) Care Home, c.700 m north;
 - R5, Fferm Coed car Mawr (and barn) , c.700 m north;
 - R6, Dyffryn-isaf, c. 750 m south-west;
 - R7, Ynysmaerdy Terrace grouping, c.850m south west;
 - R8, Signalmans Cottage, c 875m south west;
 - R9, Llwynau Farm (incl the barn) c. 875 m east;
 - R10, Bedw, c. 980m west;
 - R11, Tay-y-fedw, c . 975m east;
 - R12, Tr Nant Trout Farm, c. 920 m north east;
 - R13, Beddau (western edge) c. 2km east; and
 - R14, Llantrisant (northern edge) c. 1.8km south
-
- Note that analysis of the ZTV confirms that there would be no visibility from receptors: R1, R2, R3, R4, R5, R9, R10, and R12. These will not be considered in the assessment of visual

effects.

Transportation and Public Access Network

Recreational Routes

- 5.1.13 There is a limited network of public rights of way within the 1km study area however the closest footpath links in with Old Llantrisant Road opposite the site entrance, which connects with Rhiwfelin fach farm to the east, footpath number ANT/174/2. At this point the footpath splits into a northern, eastern and southern sections, footpath ANT/172/1, ANT/173/1, ANT/175/1 spanning the hillside to the east of the site, c.250 m east of the site.
- 5.1.14 The Ridgeway Walk passes within the southern area of the study area, connecting Llantrisant, the Hospital site and Llantrisant Forest. The ZTV illustrates that there would be very limited theoretical visibility from this route.

Vehicular Routes

- 5.1.15 Within the focussed study area the main potential for visibility into the site is gained from Old Llantrisant Road which passes the site entrance. Views from this road are considered within Viewpoint 1, which is set upon the road.

Selected Recreational / Cultural Destinations

- 5.1.16 Within the 1 km study area, there are no other 'high sensitivity' recreational or cultural destinations, (e.g. Registered Parks and gardens) which have a focus on landscape appreciation, that should be considered.

Viewpoint Assessment – Baseline Views

- 5.1.17 Four viewpoints have been selected on the basis that they provide views to (or illustrate the limited visibility) of the proposed solar farm from sensitive receptors (e.g. residential, recreational, public rights of way and tourist destinations) and representative locations within the study area. An allowance is made for the provision of 8 photomontages and 8 annotated viewpoints as part of the submission, these are highlighted in the following table.
- 5.1.18 A full list of viewpoints including: a brief description of location; justification for selection; and, approximate distance from the development, is included in the following table.
- 5.1.19 The locations of the viewpoints are illustrated on Drawing ARM1007_08_02_R0 Potential Viewpoints. The viewpoints selected are considered to represent a broad selection of the publicly accessible locations with visibility to the development whilst being representative of the scale of the development within the local landscape. The viewpoints are submitted to the local authority for discussion.

Table VP01

Viewpoint reference	Name (and closest plot area)	Location		Comments	Receptors
1	Old Llantrisant Road. Site entrance / Public Footpath.	Distance from site boundary	10m	View from the site entrance gate at the closest publicly accessible location. Existing views to 'Daffodil Turbine'	Road and footpath users (High Sensitivity)
		Direction from site	East		
		NGR	E. 303807 N. 185490		
		Height	c.122m AOD		
<p><u>Baseline Description – Viewpoint 1</u></p> <p>View west to site entrance from Old Llantrisant Road. Site entrance formed for construction of the turbine and the yellow and green 'Daffodil' turbine a dominant feature in the view. Elevated location allows distant views beyond west to the Llantrisant Forest area. Mature hedgerow and hedge trees upon the northern boundary of the site an attractive boundary feature. Distant views to electricity pylons and turbine to the north west.</p>					
2	The Royal Mint, Llantrisant Business Park	Distance from site	c.630m	View from main road outside the Royal Mint. Existing views to 'Daffodil Turbine'	Workers within the business park, representative of passing roads and visitors to the tourist attraction. (Low / High Sensitivity)
		Direction from site	South		
		NGR	E. 303842 N. 184768		
		Height	c.66m AOD		
<p><u>Baseline Description – Viewpoint 2</u></p> <p>View from valley floor, north towards the site and the prominent daffodil turbine. The Royal Mint forms the main focus of the view, with the near large buildings (both the factory and the 'experience' visitor centre), however the movement and colour of the turbine beyond a noticeable feature. Road corridor infrastructure, traffic lights, signage and street lamps also dominate the near view. Near built form limits further distant views north, the field of the site area and boundary hedgerow form the horizon.</p>					
3	Llantrisant Common, Common Road, Llantrisant	Distance from site	c.1.8km	View from local road corridor, open access common, also representative of the view from properties in northern and central Llantrisant village	Road users, walkers, residential. (High Sensitivity)
		Direction from site	South		
		NGR	E. 304692 N. 183832		

Viewpoint reference	Name (and closest plot area)	Location		Comments	Receptors
		Height	c.112m AOD	upon rising ground to the south. Existing views to 'Daffodil Turbine'	
<p><u>Baseline Description – Viewpoint 3</u></p> <p>Views north over the scrubland of Llantrisant Common, and the main local road that passes through, Old Llantrisant Road. The daffodil turbine forms a noticeable feature within the landscape to the north, although it is viewed against the hillside backdrop. The site area is visible around the base of, and behind, the turbine. The Royal Mint, and surrounding Industrial Estate is largely screened from this location, by landform and intermediate vegetation. Distant views to large scale windfarms and electricity pylons.</p>					
4	B4595, Beddau	Distance from site	c.2.1km	View from local road corridor and footpath from the western edge of nearest settlement to the east. Locally elevated location with open views to the west to the existing 'Daffodil Turbine'	Road users, walkers, residential. (High Sensitivity)
		Direction from site	South		
		NGR	E. 305654 N. 184746		
		Height	c.128m AOD		
<p><u>Baseline Description – Viewpoint 4</u></p> <p>View west from the fringe of Beddau, the daffodil turbine acts as a marker for the site, forming a noticeable feature in intermediate views west. The site around the turbine, with surrounding hedges and trees, visible from this location. Llantrisant Common, the scrubland upon it, is visible beyond the photograph location, with the Llantrisant industrial estate set beneath the site beyond the common area. Distant views to the wind farms upon the horizon to the north west of the large Llantrisant Forest (plantation)</p>					

Visual Mitigation

- 5.1.20 The mitigation proposed for visual effects is as discussed previously for the landscape mitigation, developed to serve a dual purpose, which will be considered in the assessment of effects.



6. SCHEME LAYOUT – LANDSCAPE MITIGATION AND ENHANCEMENT

6.1 LANDSCAPE MITIGATION

- 6.1.1 Mitigation is included and considered as it is an integral part of the design and assessment process. The mitigation proposals incorporate features primarily for landscape and visual reasons but are additionally informed by the findings of the ecological and cultural heritage assessments where applicable. Drawing 9, the Malthouse Farm Landscape Masterplan illustrates the proposed mitigation.
- 6.1.2 Mitigation seeks to integrate the development into the local landscape, screen views to the site from sensitive receptors and provide landscape (and often ecological) enhancement using un-utilised land within the site ownership areas, and off site if necessary.
- 6.1.3 The layout of the arrays within the site is designed so that the existing mature vegetation around the site boundary is retained. Appropriate buffers are integrated to the vegetation (typically a minimum of 4m from vegetation to the site boundary fence and a further 4m to the solar arrays) with development restricted from within the canopy of trees and hedges.
- 6.1.4 The construction process of the solar arrays, the main land use feature of the development, is of a light footprint as the steel posts (of the panel frames) are driven into the fields with no foundations required. This construction method is of a minimal disturbance to ground conditions, the land cover of the field can remain as grass pasture, the field remains available for low intensity grazing or left as fallow, part retaining the current agricultural landscape characteristic of the site areas. Security fencing around the site will be post and rail stock fencing to protect the arrays from grazing by larger stock, e.g. cows.
- 6.1.5 General mitigation principles applied to the Solar Farm site areas entails:
- All existing boundary hedgerows will be retained, including hedge trees. The hedges help to screen visibility from publicly accessible areas to the solar panels.
 - In the minimum 4m gap between the boundary hedges and site security fence, a meadow grassland mix will be allowed to naturally recolonise (sown if required) subject to a low intensity management regime (an annual cut or grazing). The meadow grassland fringes will provide enhanced habitat fringes and contribute to increasing biodiversity levels in the local area.
 - In the main site area within the site boundary fence the grass pasture will be sown and managed as meadow grassland, allowed to grow or grazed by sheep as deemed appropriate by the landowner.
 - Where there are current gaps in the perimeter hedgerows, these will be filled with a native locally appropriate mixed species hedgerow mix; for example at the site entrance.
 - By the site entrance a limited number of additional standard sized hedge trees will be planted along the hedgerows at random spacing's to increase tree coverage levels, filter visibility and provide green links between existing woodland and scrub areas locally.
 - A landscape and ecological management plan should be devised and adhered to for all retained and created habitats in order for them to maintain existing value and/or realise enhanced value, making sure that management is appropriate and ongoing for the life of the development.
- 6.1.6 The effectiveness of all the mitigation proposals, in combination with existing retained and protected

vegetation, can be seen on the illustrative photomontages (Drawing No.s 5-8). The mitigation proposals seek to screen the proposed development from the view of receptors, integrate the scheme into the local landscape (in accordance with the landscape character assessment) and improve the landscape and ecological structure of the area.

- 6.1.7 The mitigation treatments and existing features are shown on the proposed Landscape Masterplan and Mitigation drawing is shown on Drawing 9.



7. LANDSCAPE ASSESSMENT

7.1 INTRODUCTION

7.1.1 In order to assess whether landscape character is ‘substantially’ affected by a development, it should be determined what and how each of the key characteristics would be affected. The judgement of magnitude therefore reflects the degree to which the key characteristics and elements which form those characteristics will be altered by the proposals. The scale of the development, the nature and sensitivity of the receiving landscape, and local ‘barriers’ in the landscape (such as breaks of topography, woodlands, settlements, and roads or rivers) will influence the exact extent of effect of the development.

7.1.2 EFFECTS ON LANDSCAPE CHARACTER - LANDSCAPE SENSITIVITY

7.1.3 Landscape receptors are assessed in terms of sensitivity which combines judgements of their susceptibility to the type of change or development concerned and the value attached to the landscape. Sensitivity is specific to the project/development.

Susceptibility to change

7.1.4 The susceptibility to change of the landscape to the solar farm development is determined with reference to the baseline assessment of the existing landscape (and described as High, Medium, or Low). It is assessed by considering the existing landscape, elements and features, landscape character and key characteristics and landscape value. Landscape characteristics of the application site and immediate surroundings (up to ~500m) are considered, including the host visual and sensory LANDMAP aspect area.

7.1.5 Considering the scale of the proposed development, local landscape features (surrounding hedgerows, hillside location and near turbine development, the susceptibility to change of the landscape, is Low. It is considered that the local landscape of the site, a focussed ‘energy generating landscape’ and immediate surrounds (grassland field) could accommodate the development, surrounding the turbine.

Value of the Landscape Receptor (Site <250m)

7.1.6 The Value of the landscape receptor, a grassland pasture field, containing an operational wind turbine is considered with reference to the methodology and the landscape value conclusions from the baseline chapter.

7.1.7 The site and surrounding area (<250m) are not subject to any national, regional or local landscape designations and contains few sensitive elements cited in the referenced landscape character assessments.

7.1.8 The site’s value is substantially influenced by the presence of the operational turbine and the near distance to the lower lying industrial areas focussed upon the Royal Mint facility. Through the consideration of the indicators of landscape value, the site is concluded to be of a Low landscape value. These are: *“Areas identified as having some redeeming feature(s) and possibly identified for improvement. Does not lie within or adjacent to a designated landscape. Does not present locally important / distinctive landscape characteristics or scenic interest / value”*.

7.1.9 It is noted that wider areas away from the site would be considered to be of a Medium-Low value. An attractive, albeit locally typical pastoral hillside landscape.

Overall sensitivity of the site and local area

7.1.10 The susceptibility to change of the local landscape and landscape value indicators are considered to be

low and low. The landscape sensitivity of the site to the proposed development is therefore concluded to be low.

- 7.1.11 In accordance with the methodology, these are “*landscapes, elements, and associated land uses which by nature of their character would be able to accommodate change of the type proposed that are non-designated with few features of value through use or perception*”. The application site has no features that would be lost that could not be replaced and contains landscape elements with a low susceptibility to change.

Magnitude of Landscape Effects

- 7.1.12 Landscape effects arising as a result of the proposed development are considered with reference to the criteria established in the methodology including; size and scale of effect; geographical extent; and, duration and reversibility. The type of effect considered includes:

- The potential operational effects upon the landscape fabric within the site (direct effect);
- The potential operational effects on the host landscape character area (direct effect), including the consideration of any effects within designated areas; and,
- The potential operational effects on the wider landscape character areas within the study area (indirect effects), including consideration of any effects within designated areas. *Note – not applicable in this instance due to the scale of development and local landscape setting.*

- 7.1.13 It is acknowledged that there is an overlap between perception of change to landscape character and visual amenity; landscape character is derived from the combination pattern of landscape elements in the view. The effects of a development (a solar farm development in this instance) on landscape character arise from its relationship to these combinations and patterns.

Scale of Effect

- 7.1.14 Consideration is given to the scale of the change in the landscape that is experienced as a result of each effect and can include both the loss and addition of new features. The development would result in a change to a c.1.7ha. area of a grassland field parcel, set within an overall area of c.7ha, including the host turbine. The proposed solar development will not substantially change the key characteristics of the wider landscape due to the scale (height) of development, effects largely retained by surrounding vegetation. The overall scale of effect is **low**.

Geographical Extent

- 7.1.15 The geographical extent of effects is influenced by the landscape setting (established features around the site), the scale of the proposed development, the site and localised topography and is distinct from the scale of effect.
- 7.1.16 Due to the local features; the mature perimeter hedgerows / trees and topographic variations the geographical extent of effect would be limited to a site level and the immediate setting (adjoining fields with visibility) only. The geographical extent of effect is **low**.

Duration and Reversibility of the Landscape Effects

- 7.1.17 The development is considered long term (25 years) but reversible due method of building, the solar arrays and infrastructure could be removed and the field returned to pasture. A **low-moderate** level of effect is concluded with regards to duration and reversibility of landscape effects.

Overall Magnitude of Landscape Effects

- 7.1.18 Magnitude is considered with regard to the methodology and the established; scale, geographical

extent, and duration and reversibility of landscape effects. The magnitude of change arising from the proposed solar farm is considered to be **Low**. In accordance with the methodology *“the development changes would result in a minor alteration to landscape elements, introducing elements that are not uncharacteristic with the surrounding landscape”*.

Overall Level (Significance) of Landscape Effect upon the Site and Local Area

- 7.1.19 The level of effect is determined by consideration of the landscape sensitivity and magnitude of landscape effect. With reference to the evaluation of the landscape effects in accordance with the methodology, a Low landscape sensitivity and a Low magnitude of change is considered to result in a **Minor** significance of landscape effect overall, this is a Not Substantial effect.
- 7.1.20 The proposed development would affect an area of recognised landscape character of to low value / susceptibility to change but would be limited effect within the local context. Overall, the effects would not be considered to be effects that would be a material factor in the decision making process.

Assessment of Predicted Effect on Landscape Receptors

- 7.1.21 As established in the baseline section there are no landscape receptors within the study area with the potential to be substantially affected by the proposed development.
- 7.1.22 Effects upon SLA 6 Mynydd Glyn and Nant Muchudd Basin, are as discussed at a landscape and site level. The development is not considered to be large scale, in comparison to the near industrial estate and operational turbine, and will not affect the seclusion of the surrounding areas. The grassland field area will be retained, and the network of surrounding hedgerows and trees retained and protected. The site, set within the existing field structure, restricts the spread of effects within the local area, conserving wider landscape pattern.



8. VISUAL ASSESSMENT

8.1 VISUAL ASSESSMENT

Assessment of Predicted Visual Effect on Residential Properties within 500m

- 8.1.1 As outlined within the baseline section, there are eight residential receptors / groups within the study area with potential visibility to the proposed development.
- 8.1.2 Note that analysis of the ZTV confirms that there would be no visibility from receptors: R1, R2, R3, R4, R5, R9, R10, and R12. These will not be considered in the assessment of visual effects.

Table 7.1: Residential Receptors Visual Assessment – note only those with theoretical visibility as illustrated by the ZTV are considered.

R6, Dyffryn-isaf	
Distance from site (closest area of the site boundary)	c. 750 m south-west;
Susceptibility to change	Residents (property not accessible so view considered from road to the south and from within the site, and analysis of aerial photography). High
Value of view	No recognition of importance in local planning policy or published literature. Views are likely to be valued by the residents and visitors to the property.
Sensitivity of visual receptor	High
Scale of visual effect	The property is set close to the valley floor, the intermediate hillside to the site contains numerous banks of mature hedgerows and block of trees. All ground level views between the property and the site are considered to be screened. Neutral.
Geographical extent	No visibility – not applicable
Duration and reversibility of effect	No visibility – not applicable
Magnitude of visual effect	Neutral
LEVEL OF VISUAL EFFECT	Neutral A NOT SUBSTANTIAL visual effect

R7, Ynysmaerdy Terrace grouping	
Distance from site (closest area of the site boundary)	c.850m south west
Susceptibility to change	Residents (property not accessible so view considered from road to the west, from within the site, and analysis of aerial photography). High
Value of view	No recognition of importance in local planning policy or published literature. Views are likely to be valued by the residents and visitors to the property.

Sensitivity of visual receptor	High
Scale of visual effect	Outlook and view from the properties at a ground level screened by near built form and mature vegetation. Potential for distant views from upper storey windows aligned north east to the upper area of the site. Due to the separation distance the development would be small scale with the focus of the view in this area upon the operational turbine and industrial areas beneath. A low scale of effect.
Geographical extent	850m to the north east, occupying a small area of the visible hillside / landscape context
Duration and reversibility of effect	Long term but reversible.
Magnitude of visual effect	Low
LEVEL OF VISUAL EFFECT	Minor-Neutral A NOT SUBSTANTIAL visual effect

R8, Signalmans Cottage	
Distance from site (closest area of the site boundary)	c 875m south west
Susceptibility to change	Residents (property not accessible so view considered from nearby road and from within the site, and analysis of aerial photography). High
Value of view	No recognition of importance in local planning policy or published literature. Views are likely to be valued by the residents and visitors to the property.
Sensitivity of visual receptor	High
Scale of visual effect	The property is set upon the valley floor, surrounded by mature banks of vegetation, below the road corridor. The intermediate hillside also contains numerous banks of mature hedgerows and block of trees. All ground level views between the property and the site are considered to be screened. Neutral.
Geographical extent	No visibility – not applicable
Duration and reversibility of effect	No visibility – not applicable
Magnitude of visual effect	Neutral
LEVEL OF VISUAL EFFECT	Neutral A NOT SUBSTANTIAL visual effect

R11, Tay-y-fedw	
Distance from site (closest area of the site boundary)	c . 975m east
Susceptibility to change	Residents (property not accessible so view considered from road to the west, from within the site, and analysis of aerial photography). High

Value of view	No recognition of importance in local planning policy or published literature. Views are likely to be valued by the residents and visitors to the property.
Sensitivity of visual receptor	High
Scale of visual effect	Outlook and view from the properties at a ground level screened by near mature vegetation around the properties and the intermediate area. Due to the intervening low area though there is the potential for limited visibility to the site from upper storey windows aligned west. Due to the separation distance the development would be small scale with the focus of the view in this area upon the operational turbine and industrial areas within the lower lying areas beneath. Potential to screen over time by managing the height of hedgerows upon sites eastern boundary. A low scale of effect.
Geographical extent	c.975m to the west, occupying a small area of the visible hillside / landscape context
Duration and reversibility of effect	Long term but reversible.
Magnitude of visual effect	Low
LEVEL OF VISUAL EFFECT	Minor-Neutral A NOT SUBSTANTIAL visual effect

8.1.3 The scale of visual effects from R13, Beddau (western edge) c. 2km east; and R14, Llantrisant (northern edge) c. 1.8km south are considered within the viewpoint assessment, Viewpoints 3 and 4 respectively.

8.1.4 In summary, the residential visual receptors within 1km of the site have been assessed and it is concluded that none would experience visual effects of a substantial nature. The assessment has established that there would be very limited visibility to the site area and development proposals from any of the residential receptors within the study area.

Assessment of Predicted Visual Effect on Recreational Routes within 500m

8.1.5 As discussed in the baseline section there is a very limited network of footpaths and trails within the 1km study area and one higher sensitivity regional/national route, the Ridgeway walk.

8.1.6 The closest footpath links in with Old Llantrisant Road opposite the site entrance, views from the path in the area are as discussed for Viewpoint 1. This path connects with Rhiwfelin Fach Farm to the east, footpath number ANT/174/2. At this point the footpath splits into a northern, eastern and southern sections, footpath ANT/172/1, ANT/173/1, ANT/175/1 spanning the hillside to the east of the site, c.250 m east of the site. The ZTV confirms that there would be no visibility to the site from the paths within this near area.

8.1.7 Visibility from the Ridgeway Walk within the valley floor would be screened by near built form and vegetation. Visibility from the more elevated sections of the route within Llantrisant Forest are currently screened by coniferous plantation, and at a separation distance of c.1.5 km.

8.1.8 The visual assessment has established that no recreational routes within the focussed study area will experience substantial visual effects.

Viewpoint Assessment

8.1.9 Visual receptor sensitivity to change is defined as being; high, medium, low or negligible depending upon the activity of the receptor. The viewpoint assessment considers:

- The nature of the view of the development e.g. full, partial, glimpse.
- The proportion of the development or features that would be visible e.g. full, most, small, part, none.
- The distance of the viewpoint from the development and whether the viewer would focus on the development due to its scale and proximity or whether the development would be only a small, minor element in a panoramic view.
- Whether the view is stationary or transient or one of a sequence of views, as from a footpath or moving vehicle.
- The nature of the changes, e.g. changes in the skyline profile, a new visual focus, changes in visual simplicity or complexity and alteration of visual scale.

8.1.10 The existing level of visibility from the four viewpoints is illustrated on the viewpoint sheets (Figures 5 - 8). Detailed analysis of the viewpoints is made with reference to the current baseline views. The viewpoint assessment considers the existing visible local features, e.g. trees and built structures and the proposed mitigation vegetation at scheme opening and ~5 years from planting to take account of the screening and enhancement potential of the existing vegetation and mitigation. The analysis of the magnitude of change, and the resulting visual effect is considered in the following table as follows:

Viewpoint 1 - Old Llantrisant Road (Pantybrad Road). Site entrance / Public Footpath.	
Visual receptor / susceptibility to change	Road and footpath users
Value of view	No recognition in planning terms (landscape and heritage) or literature. Not a defined scenic route.
Sensitivity of visual receptor	High
Scale of visual effect	The photomontage illustrates visibility to the north eastern area of the site only, through the area of the access gate and along the track. The eastern edge of approximately 10 rows are visible before the site descends down the slope, away from the view screened by intervening landform. Distant views remain to the west, beyond the site area to the hill sides of Llantrisant Forest. The Daffodil Turbine remains the dominate feature in the view, the vertical scale of the proposed solar arrays significantly smaller. Visibility to the roadside post and rail fencing, the location for the proposed additional hedgerow planting. This will screen views into the site once it becomes established.
Geographical extent	Viewpoint c.10 m from the site entrance and c.70 m to the closest solar array. Limited to small section of road beside entrance only.
Duration and reversibility of effect	Long term but reversible
Magnitude of visual effect	Low
LEVEL OF VISUAL EFFECT	Minor-Moderate, a NOT SUBSTANTIAL visual effect

Viewpoint 2 - The Royal Mint, Llantrisant Business Park	
Visual receptor / susceptibility to change	representative of passing roads and visitors to the tourist attraction
Value of view	No recognition in planning terms (landscape and heritage) or literature. Not a defined scenic route.

Landscape and Visual Impact Appraisal
Proposed Solar Farm off Pantybrad Road, Llantrisant

Sensitivity of visual receptor	High – tourism destination, Low – employment zone, Medium overall
Scale of visual effect	The photomontage illustrates the view to the solar arrays upon the hillside beyond the daffodil turbine. The eastern area of the site is visible, the western area screened by the near buildings. The colour change from the grass of the field to the dark blue / greys of the arrays is the main change, however due to the separation distance, large scale intervening features and the turbine, the scale of the visual change is small. It is notable that the scheme does not form a new skyline feature, the perimeter hedgerow to the north remains visible.
Geographical extent	c.630m to the north, channelled view between near built form.
Duration and reversibility of effect	Long term, but reversible.
Magnitude of visual effect	Low - Negligible
LEVEL OF VISUAL EFFECT	Neutral – Minor, a NOT SUBSTANTIAL visual effect

Viewpoint 3 - Llantrisant Common, Common Road, Llantrisant	
Visual receptor / susceptibility to change	Road users, walkers, residential.
Value of view	No recognition in planning terms (landscape and heritage) or literature. Not a defined scenic route.
Sensitivity of visual receptor	Road users, walkers upon the common, nearby residential. High
Scale of visual effect	The photomontage illustrates that the site would be perceptible upon the rising hillside, the colour of the development a contrast to the surrounding fields, albeit a muted tone. The Daffodil turbine remains the visible focal point within the local area, due to the distance and angle of view the solar farm represents a small feature, set within the established field structure, within the northern panorama. From this location site also partially screened by near road signage and vegetation.
Geographical extent	c.1.8 km to the north
Duration and reversibility of effect	Long term, but reversible.
Magnitude of visual effect	Negligible
LEVEL OF VISUAL EFFECT	Neutral – Minor, a NOT SUBSTANTIAL visual effect

Viewpoint 4 – B4595, Beddau	
Visual receptor / susceptibility to change	Road users, walkers, residential.
Value of view	No recognition in planning terms (landscape and heritage) or literature. Not a defined scenic route / area
Sensitivity of visual receptor	High
Scale of visual effect	A similar scale and area of site visible to Viewpoint 3, albeit from a different angle. The photomontage illustrates that the site would be perceptible upon the rising hillside, the colour of the development a contrast to the surrounding fields, albeit a

	<p>muted tone. The Daffodil turbine remains the visible focal point within the local area, due to the distance and angle of view the solar farm represents a small feature, set within the established field structure, within the western panorama. The large wind farms further to the west and the visible Royal Mint area are all of a larger visible scale than that of the proposed solar farm. Within the wider landscape the dark shades of the solar arrays blends in further with the dark shades of deciduous trees, woodlands and hedgerows.</p>
Geographical extent	c.2.1km west
Duration and reversibility of effect	Long term, but reversible
Magnitude of visual effect	Negligible
LEVEL OF VISUAL EFFECT	Neutral – Minor, a NOT SUBSTANTIAL visual effect

8.1.11 In summary the viewpoint assessment, undertaken from a representative selection of publicly accessible locations in the study area, demonstrates that the main visual changes as a result of the development would be restricted to the areas in the vicinity of the site entrance, Old Llantrisant Road (Pantybrad Road) the location of viewpoint 1. The viewpoint does though demonstrate the limited section of road and area from which the solar farm (north eastern fringes only) would be visible. Despite the potential for visibility, due to the scale of development, separation distance and angle of view, the visual effects are considered to be of a not substantial level. The other viewpoints illustrate the limited scale of the development set within an established field structure within a local area of existing and established large scale features including the Royal Mint industrial area and the daffodil turbine.



9. SUMMARY AND CONCLUSION

9.1 SUMMARY AND CONCLUSION

- 9.1.1 This Landscape and Visual Appraisal (LVA) has demonstrated that the development can be assimilated within the local landscape of the site and the study area any substantial landscape effects. The assessment established that the landscape sensitivity of the site to the proposed development to be **low**.
- 9.1.2 In accordance with the methodology, these are “*landscapes, elements, and associated land uses which by nature of their character would be able to accommodate change of the type proposed that are non-designated with few features of value through use or perception*”. The application site has no features that would be lost that could not be replaced and contains landscape elements with a low susceptibility to change. With reference to the evaluation of the landscape effects in accordance with the methodology, a Low landscape sensitivity and a Low magnitude of change is considered to result in a **Minor** significance of landscape effect overall, this is a Not Substantial effect.
- 9.1.3 The proposed development would affect an area of recognised landscape character of to low value / susceptibility to change but would be limited effect within the local context. Overall, the effects would not be considered to be effects that would be a material factor in the decision making process.
- 9.1.4 The visual assessment considered the main receptors within 500m of the site, there are very limited residential receptors with any potential for visibility to the site area, views generally restricted by the changes in levels, the lower lying developed areas and the site upon the hillside, surrounded by banks of mature vegetation.
- 9.1.5 The limited areas with visibility are restricted to a very small geographical area and focussed to the locations of the viewpoints. Whilst visible, the scale of the development is small and within a setting of other large scale features in the locality, e.g. the daffodil turbine and the Royal Mint.
- 9.1.6 This LVA demonstrates that the proposed solar farm development could be successfully integrated into the surrounding landscape without causing substantial harm to the landscape character and visual amenity in the local area.



Appendix 1 - Methodology

1.1 METHODOLOGY

Landscape and Visual Impact Appraisal (LVIA) Methodology (non-EIA)

Introduction

1.1.1 The methodology for this LVA is based upon LVIA methodology and conforms to the relevant parts of the Guidelines for Landscape and Visual Impact Assessment, Third Edition (Landscape Institute and IEMA, 2013). The assessment (appraisal in this instance) focuses on the identification of likely substantial landscape and visual effects, including those that are, positive and negative, direct and indirect, long, medium and short term, and reversible and irreversible, as well as cumulative effects.

1.1.2 For the purposes of clarity, the European Landscape Convention (ELC) (2000), the term 'landscape' is defined as:

"An area, as perceived by people, whose character is the result of the action and interaction of natural and/or human factors"

1.1.3 The ELC confirms that the landscape should be considered as a resource in its own right. It provides an integrated way of conceptualising our surroundings and is increasingly considered to provide a useful spatial framework for thinking about a wide range of environmental, land use and development issues. The ELC applies to all landscapes; natural, rural, urban and peri-urban areas, including land, inland water and marine areas. It considers land landscapes that might be considered outstanding as well as every day or degraded landscapes.

1.1.4 Additional guidance has also been taken from the following publications:

- Landscape Institute Advice Note 01/11 – *Photography and photomontage in landscape and visual impact assessment* (Landscape Institute, January 2011);
- Landscape Character Guidance for England and Scotland, Topic Paper 9, *Climate change and natural forces, the consequences for landscape character*, SNH/CA;
- Landscape Character Guidance for England and Scotland, Topic Paper 6, *Techniques for Judging Capacity and Sensitivity*, SNH/CA, 2004;
- *Landscape Character Assessment: Guidance for England and Scotland* (The Countryside Agency and Scottish Natural Heritage, 2002); and
- Council of Europe, The European Landscape Convention (2000, ratified 2006) ETS No. 176.

Data Gathering Methodology

Introduction

1.1.5 The evaluation of landscape and visual effects are discussed in separate sections. At the outset of the LVA it is useful to provide a definition of the terms 'landscape effects' and 'visual effects':

- **Landscape Effects:** These consist of the changes in the fabric, character and quality of the landscape which it is predicted would result from the development, *"assessing effects on the landscape as a resource in its own right"* (GLVIA 2013). Consideration is given to how the

proposal will affect the elements that make up the landscape, the aesthetic and perceptual aspects of the landscape and its distinctive character. The development will have direct and indirect effects on the landscape. Direct effects physically alter landscape elements (directly attributable to the proposed development), whereas indirect effects can affect the landscape character, often away from the site. In order to establish the potential landscape effects the value of the landscape needs consideration.

- **Visual Effects:** These are the predicted effects on views available from publicly accessible areas and residential dwellings i.e. visual receptors and peoples general visual amenity. Specific effects result from changing the constituent elements within an existing view. This may be caused by the construction of a feature, or the obstruction, or modification of an existing view. *“assessing effects on specific views and on the general visual amenity experienced by people”* (GLVIA 2013).

1.1.6 The significance (level) of any landscape / visual effects is a product of the magnitude of any change and the sensitivity of the receptor, which may include the landscape, landscape receptors or people either at home, using the local roads, cycle ways and public rights of way (PROW) network, visiting viewpoints, tourist attractions, and undertaking recreational activities.

Appraisal Methodology

1.1.7 The following section outlines the stages in the appraisal of the landscape and visual effects as a result of the proposed development.

Assessing Landscape Effects

1.1.8 The potential landscape effects, occurring during the construction and operation period, may therefore include but are not restricted to, the following:

- Changes to landscape elements;
- Changes to landscape qualities;
- Changes to landscape character;
- Effects upon nationally and locally designated landscapes (e.g. Registered Parks and Gardens, Country Parks; and,
- Cumulative landscape effects.

Establishing the value of the landscape

1.1.9 Landscape value is the “the relative value that is attached to different landscapes by society. A landscape may be valued by different stakeholders for a whole variety of reasons” (GLVIA 2013). Landscape value is assessed as part of the landscape baseline.

1.1.10 In some cases, landscape value is indicated by the presence of a landscape planning designation such as a National Scenic Area or National Park indicating a landscape of national value or a locally designated landscape such as an Area of Great Landscape Value or Special Landscape Area. It should be noted that, in virtually all circumstances, landscapes are valued (frequently highly) in the local context by various, if not all, sections of the local community.

1.1.11 Factors that can help (but are not limited to) in the identification of valued landscapes are listed in Table 6.3.2.

Table 1: Indications of Landscape Value

Landscape quality (condition)	A measure of the physical state of the landscape. It may include the extent to which typical character is represented in individual areas, the intactness of the landscape and condition of individual elements.
Scenic quality	The term used to describe landscapes that appeal primarily to the senses (primarily but not wholly the visual senses).
Rarity	The presence of rare elements or features in the landscape the presence of a rare Landscape Character Type.
Representativeness	Whether the landscape contains a particular character and/or features and elements which are considered particularly important examples.
Conservation interests	The presence of features of wildlife, earth science or archaeological or historical and cultural interest can add to the value of the landscape as well as having value in their own right.
Recreation value	Evidence that the landscape is valued for recreational activity where experience of landscape is important.
Perceptual aspects	A landscape may be valued for its perceptual qualities, notably wildness and /or tranquility
Associations	Some landscapes are associated with particular people, such as artists or writers, or events in history that contribute to perceptions of the natural beauty of the area.

1.1.12 Following consideration of the value indicators, landscape value is classified as either, High, Medium or Low, based on the criteria set out in Table 6.3.3.

Table 2: Landscape Value Classification

Value	Sub Value	Typical criteria, scale and examples.
High	Exceptional	Very high importance and rarity, no or limited potential for substitution. International, national importance. World Heritage Site, National Park, AONB.
	High	High importance and rarity, limited potential for substitution. National importance. National Park, AONB, AGLV. Important to the setting of a registered historic park and garden. Presents locally important landscape characteristics or scenic value; or Presents important public amenity value by way of views, access, biodiversity, cultural or opportunity for quiet enjoyment (relative tranquility).
Medium	Medium	Medium importance and rarity, limited potential for substitution. Regional and local scale. Undesignated but value expressed

		<p>through non official publications or demonstrable use. Lies wholly or partially within a designated landscape but where localised character and scenic value is less distinctive or has become degraded. Lies adjacent to a designed landscape. Presents locally distinctive landscape characteristics with some scenic interest.</p> <p>Presents some public amenity value by way of views, access, biodiversity, cultural or opportunity for quiet enjoyment (relative tranquility).</p>
Low	Low	<p>Low importance and rarity at local scale. Areas identified as having some redeeming feature(s) and possibly identified for improvement. Does not lie within or adjacent to a designated landscape. Does not present locally important / distinctive landscape characteristics or scenic interest / value. Does not present important public amenity value by way of views, access, biodiversity, cultural or opportunity for quiet enjoyment (relative tranquility).</p>
	Very Low	<p>Low importance and rarity at local scale. Areas identified for recovery, restoration and enhancement.</p>

Assessing the level of landscape effects

- 1.1.13 Landscape effects, for each identified landscape receptor, are established through combination of (i) the sensitivity of the landscape receptor and (ii) the magnitude of effect.

Landscape Sensitivity

- 1.1.14 Landscape receptors are assessed in terms of their sensitivity combining judgements of their susceptibility to the type of change or development proposed and the value attached to the landscape. Sensitivity is specific to the particular project or development that is being proposed and to the location in question.

Susceptibility to change

- 1.1.15 Susceptibility in considering landscape sensitivity considers the ability of a defined landscape (or visual receptor) to accommodate the specific proposed development without undue negative consequences. This means “the ability of the landscape receptor (whether it be the overall character or quality / condition of a particular landscape type or area, or an individual element and/or feature, or a particular aesthetic and perceptual aspect) to accommodate the proposed development without undue consequences for the maintenance of the baseline situation and/or the achievement of landscape planning policies and strategies”. (GLVIA 2013). Susceptibility to change should not be recorded as part of the landscape baseline but it should be considered as part of the appraisal of effects.

Table 3: Guidelines Indicating the Susceptibility of Landscape Character to Change

Susceptibility	Description
Very High	Key characteristics of the landscape highly vulnerable to the proposal and the development could not be accommodated without a significant change in character, leading to a new character.

High	Key characteristics are vulnerable to the proposal and it is likely that the development could not be accommodated without a significant change in character.
Medium	Some characteristics of the landscape are vulnerable to the proposal, but in general the landscape could accommodate the development without a significant change in the character.
Low	The development is only likely to have a minor influence on the key characteristics and the landscape could accommodate the development without a significant change in character.
Negligible	The development is not likely to influence the key characteristics and the landscape could accommodate the development with no change in character.

Value of the Landscape Receptor

1.1.16 The value of the landscape receptors is established during the baseline covering:

- The value of the landscape character types / areas or landscape receptor that may be affected, based on a review of designations at both a national and local levels, and, where there are no designations, judgments based on criteria that can be used to establish landscape value;
- The value of individual contributors to landscape character, especially the key characteristics, which may include individual elements of the landscape, particular landscape features, notable aesthetic, perceptual or experiential qualities, and combinations of these contributors.

1.1.17 There can be complex relationships between the value attached to landscape receptors and their susceptibility to change. This is especially important when considering change within or close to designated landscapes. For example:

- An internationally, nationally or locally valued landscape does not automatically, or by definition, have high susceptibility to all types of change. It is possible to have a low susceptibility to change resulting from a particular type of development, by virtue of the characteristics of the landscape and nature of the proposal.
- The particular type of change or development proposed may not compromise the specific basis for the value attached to the landscape.

Magnitude of Landscape Effect

1.1.18 Effects of development upon landscape receptors need to be assessed in terms of its scale of effect, the geographical extent of the area influenced, and its duration and reversibility.

Scale of effect

1.1.19 Judgements on the scale of change in the landscape that is likely to be experienced as a result of each effect. The effect of both loss or addition of new features may be judged as major, moderate, minor or none, taking account of:

- The extent of landscape elements that will be lost, proportion of total extents and contribution of elements to the landscape character;
- The degree to which aesthetic or perceptual aspects of the landscape are altered either by removal of existing components of the landscape or addition of new ones; and

- Whether the effect changes the key characteristics of the landscape, which are critical to its distinctive character.

Geographical Extent

1.1.20 This is distinct from the size / scale of effect, there may, for example, be moderate loss of landscape elements over a large geographical area, or a major addition affecting a very localised area. In general, effects may have an influence at the following scales, although this varies due to the nature of the project, and all are not always relevant on every occasion:

- At the site level, within the development site itself;
- At the level of the immediate setting of the site;
- At the scale of the landscape type or character area within which the proposal lies;
- On a larger scale, influencing several landscape types or character areas.

Duration of Landscape Effect

1.1.21 Duration can be judged on the scale such as short term, medium term or long term, where, for example, short term might be zero to five years, medium term five to ten years and long term ten to twenty-five years. There is no fixed rule on this definition however (GLVIA 2013). When duration is included in an appraisal of effects, the assumptions behind the judgement must be made clear.

Reversibility of effect

1.1.22 Reversibility is a judgement about the prospects and the practicality of the particular effect being reversed in, for example, a generation. Some forms of development, like housing, can be considered permanent however other developments such as wind turbines are considered to be reversible since they have a limited and defined life span (c.25 years) and they can be removed and land reinstated.

1.1.23 Consideration of the effect of the development upon the landscape resource is assessed through professional judgment, based on (i) the sensitivity of receptors and (ii) the magnitude of the predicted effects. (GLVIA 2013).

Landscape Sensitivity and Magnitude

1.1.24 The evaluation of landscape sensitivity and magnitude are described in the following table and the level of an effect is determined by the consideration of sensitivity and magnitude of change.

Table 4: Landscape Sensitivity and Magnitude

Landscape Sensitivity Categories	
High	<p>Landscape character, elements, and associated land uses where through consideration of the landscape resource and value they would be unable to accommodate change of the type proposed. Generally, this would be:</p> <ul style="list-style-type: none"> • High value landscapes, protected at an international or national level (World Heritage Site/Areas of Outstanding Natural Beauty). However aspects which underpin such value may also be present outside designated areas, especially at a local scale.

	<ul style="list-style-type: none"> • Areas of special recognised value through use, perception or historic and cultural associations. • Likely to contain features that are rare and could not be replaced. • Landscape elements with a high susceptibility to change, unable to accommodate proposed development without undue consequences.
<p>Medium</p>	<p>Landscape character, elements, and associated land uses which by nature of their character would be able to partly accommodate change of the type proposed. Generally, this would be:</p> <ul style="list-style-type: none"> • Medium value landscape protected at a local level (Area of Important Landscape Value) or at a non-designated local level. • Where there is evidence of local value and use (non-statutory local publications) through use, perception or historic / cultural associations. • Comprised of commonplace elements and features creating generally unremarkable character, but some sense of place. • Likely to contain some features and elements that could not be replaced. • Landscape elements with a medium susceptibility to change, partly able to accommodate the proposed development without undue consequences.
<p>Low</p>	<p>Landscape character, elements, and associated land uses which by nature of their character would be able to accommodate change of the type proposed. Generally, this would be:</p> <ul style="list-style-type: none"> • Lower value and non-designated landscapes. • Comprised of features and elements that are discordant, derelict or in decline, indistinct character with little or no sense of place. • Containing few, if any, features of value through use, perception or historic / cultural associations. • Likely to contain few, if any, features or elements that could not be replaced. • Landscape elements with a low susceptibility to change, able to accommodate the proposed development without undue consequences.
<p>Magnitude of Change Categories</p>	

High	Total loss or substantial alteration to key landscape elements/features/characteristics of the baseline or introduction of uncharacteristic elements which would give rise to a fresh characterising effect.
Medium	Partial loss or moderate alteration to one or more key landscape elements/features/characteristics of the baseline and/or introduction of elements that may be prominent but not necessarily substantially uncharacteristic with the attributes of the receiving landscape but which could co-characterise parts of the landscape.
Low	Minor loss or alteration to one or more key landscape elements/features/characteristics of the baseline and/or introduction of elements that may not be uncharacteristic with the surrounding landscape or may not lead to a characterising or co-characterising effect.
Negligible	Very minor loss or alteration to one or more key landscape elements/features/characteristics of the baseline and/or the introduction of elements that are not uncharacteristic of the surrounding landscape. Change would be barely distinguishable approximating to no change.
No Change	No noticeable loss, damage or alteration to character or features or elements.

Level (Significance) of Landscape Effect

- 1.1.25 The significance of effect is determined by consideration of landscape sensitivity and the magnitude of change.
- 1.1.26 In accordance with paragraphs 3.34 and 3.35 of GLVIA 3rd Edition it is acknowledged that the historic use of a matrix, a formulaic approach, led to the same weighting of level of effect (significance in EIA terms) levels which were not always appropriate. The following criteria are therefore provided to assist in determining the level of effect. The table applies typical criteria to each level of effect however it should be noted that different scenarios of landscape value, sensitivity, susceptibility to change, scale of effect, geographical extent, and reversibility of effects could apply to influence significance as discussed in the appraisal. The criteria are typical examples, intermediate levels (e.g. Moderate - Minor) may apply and all effects are clearly explained.

Table 5: Typical criteria for determining the overall level of landscape effects

Level (Significance in EIA terms) of Landscape Effect	Typical Criteria
Severe	<p>The proposal would:</p> <ul style="list-style-type: none"> ● Be at complete variance with the character (landform, scale, and pattern) of the landscape, both locally and at a wider scale. ● Permanently degrade, diminish or destroy the integrity of valued characteristic features, elements and/or their setting. ● Cause a high value / high susceptible to change landscape to be permanently changed. ● Cause a sense of place to be lost. <p><i>Indicates an effect that is very important in the planning decision making process.</i></p>

Major	<p>The proposal would:</p> <ul style="list-style-type: none"> ● Be at considerable variance with the character (landform, scale, and pattern) of the landscape. ● Degrade or diminish the integrity of valued characteristic features, elements and /or their setting. ● Cause a high value / high susceptible to change landscape to be markedly changed. ● Large effect within the context of the wider area. ● Cannot be fully mitigated and may cumulatively amount to a 'significant' effect. ● Damage a sense of place. <p><i>Indicates an effect that is, in itself, material in the planning decision making process.</i></p>
Moderate	<p>The proposal would:</p> <ul style="list-style-type: none"> ● Conflict with the character (including quality and value) of the landscape. ● Have an adverse impact on characteristic features or elements. ● Cause a medium value / medium susceptible to change landscape to be markedly changed. ● Noticeable effect within the context of the wider area. ● Diminish a sense of place. <p><i>Indicates a noticeable effect that is not, in itself, material in the decision making process.</i></p>
Minor	<p>The proposal would:</p> <ul style="list-style-type: none"> ● Not quite fit into the landform and scale of the landscape. ● Affect an area of recognised landscape character of medium to low value / susceptibility to change. ● Limited effect within the local context. ● Affect an area of undistinctive sense of place. <p><i>Indicates that effect that is trivial in the planning decision making process.</i></p>
Neutral	<p>The proposal would:</p> <ul style="list-style-type: none"> ● Complement the scale, landform and pattern of the landscape. ● Maintain / un-affect existing landscape policy. ● Result in a degree of change so small as to have little or no effect upon landscape receptors of low sensitivity. <p><i>Indicates an effect that is akin to no change and is thus not relevant to the planning decision making process.</i></p>

1.1.27 For this appraisal, 'Substantial' landscape and visual effects resulting from the proposed development would be all those effects that result in a 'Severe' or a 'Major' effect and any exceptions would be clearly explained. There may, for example, be exceptions in the case of lower magnitudes of change affecting receptors of higher landscape and or visual sensitivity leading to a Major effect. Substantial effects are not necessarily adverse effects or unacceptable.

1.1.28 Where intermediate ratings are given, e.g. Moderate-Minor, this indicates an effect that is both less

than Moderate and more than Minor, rather than one which varies across the range. In such cases the higher range is always given first, but this does not mean the impact is closer to that higher rating but done to facilitate the identification of effects within tables. A Major-Moderate effect can be either substantial or not substantial and dependent upon locally specific factors which will be clearly explained.

- 1.1.29 The conclusion that some effects are ‘substantial’ must not be taken to imply that the development should warrant refusal. As with many aspects of landscape and visual appraisal, the level of the effect also needs to be qualified with respect to the scale over which it is felt and the type or nature of the effect. An effect may be locally substantial, or substantial with respect to a small number of receptors, but not substantial when judged in a wider context, considered with other potential effects and benefits.
- 1.1.30 A final statement summarising the substantial effects will be provided distinguishing between substantial effects that are likely to influence the eventual decision and those that may be of a lesser concern.

Nature of Landscape Effect

- 1.1.31 This LVA does not state explicitly whether the effects of the development on landscape and visual amenity is adverse, neutral or beneficial, however it is acknowledged in the GLVIA 2014 state that professional opinion should be applied, and a positive or negative judgement applied (Para 5.37 and 6.29).
- 1.1.32 It is commonly accepted that the nature (or valency) of effects of a development are subjective based upon the attitude of the individual and public opinion should also be considered. All responses are equally valid and will affect the perceptual aspects of landscape character. In examining landscape effects, it is not realistic to ignore public opinion (nor the likelihood that professionally qualified landscape architects may have differing positions).
- 1.1.33 In accordance with GLVIA a precautionary approach is taken so although the nature of effects is not stated within the appraisal, effects would be negative unless stated otherwise. The precautionary approach of negative effects should be considered with the caveat that the valency of effect must always be considered by the decision makers, the approach should not be concluded to be the final judgement and it should be acknowledged that many people would see the development as either a positive or neutral addition.

Assessing Visual Effects

- 1.1.34 The appraisal of visual effects deals with the effects of change and development on the views available to people and their visual amenity. Consideration is given to assessing how the surroundings of individuals or groups of people may be specifically affected by changes in the content and character of views as a result of the change or loss of existing elements of the landscape and/or introduction of new elements.
- 1.1.35 The visual effects are identified for different receptors (people) who will experience the view; at their places of residence, during recreational activities, at work, or when travelling through the area. The visual effects may include the following:
- Visual obstruction: Physical obstruction or blocking of a view, only likely to occur close to the development or within the development site boundary;

- Visual effect: a change to an existing view, views or wider visual amenity as a result of development or the loss of particular landscape elements or features already present in the view;
- Visual amenity: The overall visual amenity of an area may be affected to the extent that the visual appearance of a particular visual setting, or 'sense of place' of a particular location, such as a settlement or individual property, could be altered by a development. Effects on visual amenity of key locations are considered in the context of landscape change and may also be either negative or positive; and
- Cumulative visual effects: the cumulative or incremental visibility of similar types of development may combine to have a cumulative visual effect.

Assessing the level (significance in EIA terms) of visual effects

1.1.36 Visual effects, for each identified visual receptor, are established through combination of (i) the sensitivity of the visual receptor and (ii) the magnitude of visual effect.

1, Visual Receptor Sensitivity

1.1.37 The sensitivity of visual receptors (people) is assessed in terms of their susceptibility to the type of change or development proposed and the value attached to the particular views. Sensitivity is specific to the particular project or development that is being proposed and to the location and view in question.

Susceptibility to change

1.1.38 The susceptibility of different visual receptors to changes in views and visual amenity is mainly a function of :

- The occupation or activity of people experiencing the view at particular locations; and
- The extent to which their attention or interest may therefore be focussed on the views and the visual amenity they experience at particular locations.

1.1.39 The visual receptors most susceptible to change are generally likely to include:

- Residents at home;
- People, whether residents or visitors, who are engaged in outdoor recreation, including use of public rights of way, whose attention or interest is likely to be focused on the landscape and particular views;
- Visitors to heritage assets, or to other attractions, whose views of the surroundings are an important contributor to the experience; and
- Communities where views contribute to the landscape setting enjoyed by residents in the area.

1.1.40 Travellers on road, rail or other transport routes fall into an intermediate category of moderate susceptibility to change. Where travel involves recognised scenic routes, awareness of views is likely to be particularly high.

1.1.41 The visual receptors likely to be least sensitive to change include:

- People engaged in outdoor sport or recreation which does not involve or depend upon appreciation of views of the landscape; and

- People at their place of work whose attention may be focused on their work or activity, not on their surroundings, and where the setting is not important to the quality of working life (although to be judged on case by case basis as there may on occasion be cases where views are important to the setting and quality of working life).

1.1.42 The division in levels of susceptibility to change is a gradual one; each project should consider the nature of the groups of people who will be affected and the extent to which their attention is likely to be focused on views and visual amenity. The susceptibility of visual receptors to change is recorded as high, medium or low. (GLVIA 2013).

Value attached to views

1.1.43 When considering the susceptibility of visual receptors to change additional judgements should be made about the value attached to the views experienced, this should take account of:

- Recognition of the value attached to particular views, for example in relation to designed landscapes, or through planning designations;
- Indicators of the value attached to views by visitors, for example through appearances in guidebooks, tourist maps or through the provision of facilities for their enjoyment (e.g. parking / viewing areas, interpretation material and references in literature / art. (GLVIA 2013)

2, Magnitude of Visual Effects

1.1.44 Effects of development upon landscape receptors need to be assessed in terms of its scale of effect, the geographical extent of the area influenced, and its duration and reversibility.

Scale of effect

1.1.45 Judging the magnitude of the visual effects identified needs to take account of:

- The scale of the change in view with respect to the loss or addition of features in the view and changes in its composition, including the proportion of the view occupied by the development;
- The degree of contrast or integration of any new features or changes in the landscape with the existing or remaining landscape elements and characteristics in terms of form, scale, mass, line, height, colour and texture;
- The nature of the view of the proposed development, in terms of the relative amount of time over which it will be experienced and whether views will be full, partial or glimpses.

Geographical extent

1.1.46 The geographical extent of a visual effect will vary with different viewpoints and is likely to reflect:

- the angle of view in relation to the main activity of the receptor;
- the distance of the viewpoint from the proposed development;
- the extent of area over which changes would be visible.

Duration and reversibility of visual effects

1.1.47 As with landscape effects these are separate but linked considerations. Similar categories are used, short term, medium term or long term, provided that their meaning is clearly stated with criteria for the lengths of time encompassed in each case. (GLVIA 2013).

Visual Sensitivity and Magnitude

1.1.48 The evaluation of visual sensitivity and magnitude are described in the following table, the level of an effect is determined by the consideration of sensitivity and magnitude of change.

Table 6: Visual Receptor Sensitivity and Magnitude

Definition of Visual Receptor Sensitivity (Susceptibility to change) Categories	
High	Residents. Users of outdoor recreational facilities including footpaths, cycle ways and recreational (scenic) road users. People experiencing views from important landscape features of physical, cultural or historic interest, beauty spots and picnic areas.
Medium	Road users and travellers on trains experiencing views from transport routes. People engaged in outdoor sport that involves an appreciation of the landscape. Schools and other institutional buildings, and their outdoor areas.
Low	Workers, users of facilities and commercial buildings (indoors) experiencing views from buildings, where setting is not important to the quality of working life. People engaged in outdoor sport / recreation that does not involve / depend upon an appreciation of the landscape.
Magnitude of Change	
High	Substantial change, where the proposals would have a defining influence on the view. Change very prominent leading to a substantial obstruction or complete change in character and composition of the baseline existing view.
Medium	Moderate change in view, occurs where the proposals would be clearly noticeable and an important new element in the view. It may involve partial obstruction of existing view or partial change in character and composition of the baseline existing view.
Low	The proposals would be partially visible or visible at sufficient distance to be perceptible and result in limited or minor changes to the view. The character and composition, although altered will be similar to the baseline existing situation.
Negligible	Change would be barely perceptible. The composition and character of the view would be substantially unaltered, approximating to little or no change.

Level (Significance in EIA terms) of Visual Effect

1.1.49 The level of effect is determined by consideration of the visual receptor sensitivity and magnitude of visual change.

1.1.50 In accordance with paragraphs 3.34 and 3.35 of GLVIA 3rd Edition it is acknowledged that the historic

use of a matrix, a formulaic approach, led to the same weighting of levels which were not always appropriate. The following criteria are therefore provided to assist in determining the level of effect. The table assigns typical criteria to each level however it should be noted that the different scenarios of susceptibility to change, value of the view, sensitivity of the receptor location, size, geographical extent and reversibility of effects could apply to influence effects as described in the appraisal. The criteria in the following table are provided as typical examples only, intermediate levels (e.g. Moderate-Minor) may apply and all effects will be clearly explained.

Table 7: Typical criteria for determining the overall level of visual effects

Level (Significance in EIA terms) of Visual Effect	Typical Criteria
Severe	<p>The proposal would:</p> <ul style="list-style-type: none"> • Cause the permanent loss of views from a high sensitivity / susceptibility to change receptor and / or experienced by a very large number of people, and; • Constitute a dominant discordant feature in the view, totally out of character with the existing situation. <p><i>Indicates an effect that is very important in the planning decision making process.</i></p>
Major	<p>The proposal would:</p> <ul style="list-style-type: none"> • Cause a substantial deterioration to a view from a high sensitivity / susceptible to change receptor, and; • Constitute a major discordant feature in the view. <p><i>Indicates an effect that is, in itself, material in the planning decision making process.</i></p>
Moderate	<p>The proposal would:</p> <ul style="list-style-type: none"> • Cause a noticeable deterioration to a view, but not dominating from a medium sensitivity / susceptible to change receptor, • Be experienced by a medium number of people, and; • Constitute a moderate discordant feature in the view <p><i>Indicates a noticeable effect that is not, in itself, material in the decision making process.</i></p>
Minor	<p>The proposal would:</p> <ul style="list-style-type: none"> • Cause a barely noticeable deterioration to a view from a low sensitivity / susceptible to change receptor • Be experienced by a small number of people, and; • Constitute a minor discordant feature in the view <p><i>Indicates that effect that is trivial in the planning decision making process.</i></p>
Neutral	<p>The proposal would:</p> <ul style="list-style-type: none"> • Result in no discernible deterioration (or improvement) to the existing view;

	<ul style="list-style-type: none"> • Be experienced by a very small number of people, visual receptors would be of low sensitivity to the changes. <p><i>Indicates an effect that is akin to no change and is thus not relevant to the planning decision making process.</i></p>
--	-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

1.1.51 For this appraisal, ‘Substantial’ visual effects resulting from the development would be all those effects that result in a ‘Severe’ or a ‘Major’ effect and any exceptions would be clearly explained. There may, for example, be exceptions in the case of lower magnitudes of change affecting receptors of higher sensitivity leading to a Major effect. Substantial effects are not necessarily adverse effects or unacceptable.

1.1.52 Where intermediate ratings are given, e.g. Moderate-Minor, this indicates an effect that is both less than Moderate and more than Minor, rather than one which varies across the range. In such cases the higher range is always given first, but this does not mean the impact is closer to that higher rating but done to facilitate the identification of effects within tables. A Major-Moderate effect can be either substantial or not substantial and dependent upon locally specific factors which will be clearly explained.

1.1.53 A final statement summarising the substantial effects will be provided distinguishing between substantial effects that are likely to influence the eventual decision and those that may be of a lesser concern.

Nature of Visual Effect

1.1.54 This LVA does not state explicitly whether the effects of the development on landscape and visual amenity is adverse, neutral or beneficial, however it is acknowledged the GLVIA 2014 state that professional opinion should be applied, and a positive or negative judgement applied (Para 5.37 and 6.29).

1.1.55 It is commonly accepted that the nature (or valency) of effects of a development are subjective based upon the attitude of the individual and public opinion should also be considered. All responses are equally valid and will affect the perceptual aspects of visual amenity. In examining visual effects, it is not realistic to ignore public opinion (nor the likelihood that professionally qualified landscape architects may have differing positions).

1.1.56 In accordance with GLVIA a precautionary approach is taken so although the nature of effects is not stated within the appraisal, effects would be negative unless stated otherwise. The precautionary approach of negative effects should be considered with the caveat that the valency of effect must always be considered by the decision makers, the approach should not be concluded to be the final judgement and it should be acknowledged that many people would see the development as either a positive or neutral addition.

1.1.57 It should be reiterated that although the LVA has considered visual effects from a number of viewpoints, including some from residential properties, planning law confers no right of view. Accordingly, a finding that there may be adverse effect upon a view would not be, of itself, capable of justifying a decision to grant or refuse planning permission.



**Appendix 2 –
Landscape Character**

