

Alleston Solar Farm, Pembrokeshire

Alternative Sites Assessment

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On behalf of Alleston Clean Energy Limited



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For and on behalf of Stantec UK Limited

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Topography Plan

Flood Zone Plan

Appendix D Appendix E



Contents

1	Introduction	3
2	Site and Development Description	4
3	Planning Policy Context	8
4	Methodology1	6
5	Defining the Study Area1	7
6	Site Selection Criteria1	9
7	Review of Commercial Rooftops, Previously Developed Land and Land of Lower Agricultural	
8	Assessment of Sites2	25
9	Development Design and Mitigation4	! 5
10	Summary and Conclusions4	18
Figure 9	1: Site Location Plan	
	1: Site Selection Criteria	
	1: Key	
Table 8	3: Assessment of Site 1	
	4: Assessment of Site 2	
	ndices	
Append	x A Location Plan	
Append	x B Constraints Plan	
Append	x C Agricultural Land Classification Plan	



Executive Summary

This Alternative Sites Assessment (ASA) has been prepared, on behalf of Alleston Clean Energy Limited, to support a Development of National Significance (DNS) application for the construction, operation and decommissioning of a ground mounted photovoltaic (PV) solar farm and associated infrastructure on Land at Alleston Farm, Lower Lamphey Road, Lamphey, Pembrokeshire. The purpose of this report is to provide a desk top evaluation of potential alternative sites that could accommodate the development, with focus given to the availability of previously developed land, rooftops, non BMV, or land that is considered less constrained. The report therefore provides justification for using the site to accommodate the proposal.

The NPPF is clear that renewable applications are not required to demonstrate need for the development. However, as stated in Prosperity for All (A Low Carbon Wales) (2019) and Net Zero Wales (2021) the Welsh government is legally bound to reduce power sector emissions and to increase the delivery of renewable energy developments. This demonstrates an overriding need for ground mounted PV solar farms.

Following an Agricultural Land Classification (ALC) Survey in 2023 and 2024, all of the land within the application site proposed to accommodate the solar farm development was determined to be Grade 2, Grade 3a and Grade 3b agricultural land. Grade 2 and 3a agricultural land is defined as Best and Most Versatile (BMV) in planning policy terms. The ASA was conducted to demonstrate compliance with Planning Policy Wales Edition 12 (PPW) (February 2024) and Pembrokeshire County Council (PCC) Renewable Energy Spatial Planning Guidance (October 2016). The key policy test and driver for the ASA is in response to Paragraph 3.59 of the PPW which states that:

"Land in grades 1, 2 and 3a should only be developed if there is an overriding need for the development, and either previously developed land or land in lower agricultural grades is unavailable, or available lower grade land has an environmental value recognised by a landscape, wildlife, historic or archaeological designation which outweighs the agricultural considerations. If land in grades 1, 2 or 3a does need to be developed, and there is a choice between sites of different grades, development should be directed to land of the lowest grade."

The overriding need test in the policy is addressed in the Planning Statement supporting the DNS application. This report addresses the potential for the availability of alternative land for the development, which is unconstrained by BMV.

There is no established assessment methodology for the consideration of alternatives in respect of BMV. Notwithstanding this, a robust methodology has been adopted in this ASA given the policy requirements. The ASA was conducted by adopting the following stages of work:

- Defining the search area;
- Determining site selection criteria;
- Conducting a review of commercial rooftops and considering the availability of previously developed land (PDL);
- Giving consideration to land of lower agricultural grade;
- Assessment of the identified reasonable alternative sites; and
- Assessment of the development site itself and consideration of the temporary loss of any BMV throughout the lifetime of the project at a local, regional and national scale.

The proposed solar farm will connect onto the National Grid Electricity Distribution network via the wooden pole mounted 132kV overhead lines (OHL), that cross the development site. The point of connection was awarded



into the Pembroke substation to Golden Hill substation, and therefore a 3km radius surrounding this 132kV circuit was determined for the search area.

No suitable rooftop or PDL sites were identified within the search area. Nine sites of similar or lower grade agricultural land and adequate area were identified as potentially suitable for solar farm development. Following assessment of environmental constraints and operational requirements, all nine sites were found to be unsuitable for the development due to historic, environmental, flood risk and landscape constraints.

Land at Alleston Farm, Lamphey, Pembrokeshire has been assessed against the same site selection criteria as the alternative sites. Constraints highlighted through this assessment included the Ancient Woodland 'Alleston Wood', Grade II Listed Building 'Alleston Farmhouse' and BMV on Site. Measures for protecting and enhancing BMV agricultural land are detailed, including design measures to facilitate grazing within the Site and reducing the amount of infrastructure placed on BMV agricultural land. Such measures are further detailed within Chapter 8 Agricultural Land of the Environmental Statement. Enhancements and protection measures to the Ancient Woodland and Grade II Listed Building are also implemented into the design which is detailed in Chapter 6 Historic Environment, Chapter 7 Landscape and Visual Effects and Chapter 9 Biodiversity of the Environmental Statement.

The ASA concludes that the lack of suitable alternative sites and the design of the Development to protect BMV agricultural land demonstrates that the development is in compliance with national and local planning policy.



1 Introduction

- 1.1.1 This Alternative Sites Assessment (ASA) has been prepared by Stantec on behalf of Alleston Clean Energy Limited (the Applicant) to support a Development of National Significance (DNS) application for a ground mounted photovoltaic solar farm together with associated equipment, infrastructure and ancillary works (the Development). The Development is located on Land at Alleston Farm, Lower Lamphey Road, Lamphey, Pembrokeshire (the Site) and lies within the administrative boundary of Pembrokeshire County Council (PCC).
- 1.1.2 The purpose of this ASA is to outline the robust site selection process undertaken by the Applicant. An assessment of the environmental and operational constraints of the Site and alternative sites was conducted in order to facilitate the Development. Planning Policy Wales (PPW) sets out a number of factors that should be considered in the site selection process for all forms of developments. In regard to agricultural land, Paragraph 3.59 states that

"Land in grades 1, 2 and 3a should only be developed if there is an overriding need for the development, and either previously developed land or land in lower agricultural grades is unavailable, or available lower grade land has an environmental value recognised by a landscape, wildlife, historic or archaeological designation which outweighs the agricultural considerations. If land in grades 1, 2 or 3a does need to be developed, and there is a choice between sites of different grades, development should be directed to land of the lowest grade."

1.1.3 This paragraph is all encompassing for Developments in Wales, which unlike the Development, are likely permanent and disruptive to higher quality agricultural land. The development is temporary, meaning that it is reversible and no BMW would be permanently lost. Accordingly, the ASA outlines the assessment which was carried out considering the above criteria in PPW and additional national planning policy. Compliance with PPW will be given due weight and balance against other material considerations in the determination of this planning application.

1.2 Structure of this Assessment

- 1.2.1 The ASA is structured as follows:
 - Introduction;
 - Site and Development Description;
 - Planning Policy and Context;
 - Methodology;
 - Defining the Search Area;
 - Site Selection Criteria;
 - Assessment of Alternative Sites;
 - Development Design and Mitigation; and
 - Summary and Conclusions.



2 Site and Development Description

2.1 Site Context

2.1.1 The Site is located on Land at Alleston Farm, Lower Lamphey Road, Lamphey, Pembrokeshire (see Figure 2.1). Its northern boundary broadly follows the alignment of the Lower Lamphey Road. Watery Lane forms the western and south-western boundaries of the Site. The southern boundary follows an existing area of woodland in a south-easterly direction. There are a small number of residential properties located adjacent to the north and west of the Site boundary.

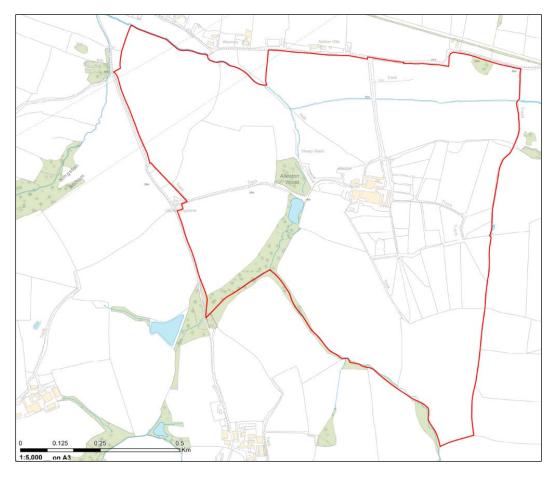


Figure 2.1: Site Location Plan

- 2.1.2 The residential dwellings of Pembroke are 190m north-west of the Site whilst the village of Lamphey is located 370m to the north-eastern corner of the Site.
- 2.1.3 Land use in the surrounding area of the Site is predominantly agricultural, with scattered farmhouses as well as residential developments associated with Pembroke and Lamphey. The West Wales railway line, which connects Pembroke and Lamphey, runs approximately 40m north of the Site. Pembroke train station is located 680m north-east of the Site and Lamphey train station is located 415m east of the Site.

2.2 Site Description

2.2.1 The Site encompasses approximately 96 hectares (ha) and comprises several agricultural fields separated by rows of mature hedgerows.



- 2.2.2 Alleston Farmhouse, a Grade II Listed building, together with its associated buildings is located within the centre of the Site and is accessed from the north along Lower Lamphey Road and the west along Watery Lane, both unnamed tracks. It is proposed to use the existing northern access from Lower Lamphey Road as the access to the Site.
- 2.2.3 Some of the eastern fields within the Site are currently used for equestrian activities, which will continue. An area of mature trees and vegetation are located within the south-western region of the Site and run into the central region of the Site, this collection of trees is known as Alleston Wood, there are no plans to remove any of these trees.
- 2.2.4 There are two Public Right of Ways (PRoW) which cross and meet in the centre of the Site. The first PRoW (SP32/52) runs to the western boundary of the Site and is accessible via Watery Lane. This PRoW connects to a bridleway (SP32/68) which borders the west of the site and runs in a north-south direction, on Watery Lane. The second PRoW (SP32/51) runs in a north-south direction across the northern and southern area of the Site. This PRoW will be diverted to the southwestern edge of the farm's boundary via a Secondary Consent submitted alongside the main application.

2.3 Environmental Baseline Conditions

Heritage

- 2.3.1 There are no World Heritage Sites or Scheduled Monuments within or adjacent to the Site, and the Site is not located within a Conservation Area.
- 2.3.2 As mentioned above, the Grade II Listed Building Alleston Farmhouse and associated buildings are located within the centre of the Site.
- 2.3.3 Lamphey and Bishop's Palace & Lamphey Court, a Grade II* Registered Historic Park and Garden, located approximately 230m north of the Site. Additionally, Bishop's Palace, Lamphey, a Scheduled Monument is located approximately 630m north of the Site and the Lamphey Bishop's Palace & Lamphey Court, Grade II* Listed Building, is located approximately 640m north of the Site. An additional Grade II* Listed Building, Kingston Farm is located approximately 1.2km south-west of the Site.

Biodiversity

- 2.3.4 The Site is not covered by any international or national ecological, landscape or heritage designations. Pembrokeshire Coast National Park is located approximately 300m east of the Site, beyond the B4584.
- 2.3.5 Statutory ecological designations within 2km of the Site include:
 - Freshwater East Local Nature Reserve (LNR), 1.4km south-east of the Site;
 - Freshwater East Cliffs to Skrinkle Haven Site of Special Scientific Interest (SSSI), 1.4km southeast;
 - Pembroke Mill Ponds LNR, 1.5km north-west;
 - Stackpole Quay-Trewent Point SSSI, 1.5km south;
 - Milford Haven Waterway SSSI, 1.9km north-west;
 - Pembrokeshire Marine Special Area of Conservation (SAC), 1.4km south-east; and
 - Bristol Channel Approaches SAC, 1.5km south-east.



- 2.3.6 Internationally designated ecological Sites within 10km of the Site include:
 - Pembrokeshire Bat Sites and Bosherton Lakes SAC, 3.8km south-west and compromising five SSSIs within 5km;
 - Skomer, Skokholm and the Seas of Pembrokshire Special Protection Area (SPA), 4km south;
 - Limestone Coast of South West Wales SAC, 4.2km south-west; and
 - Castlemartin Coast SPA, 4.2km south-west.

Drainage and Flood Risk

2.3.7 Two unnamed water courses are located in the northern region of the Site. Areas in close proximity to the watercourse have elevated food risk categorised as high and medium on the Natural Resources Wales Flood and Coastal Erosion Risk Mapsⁱ.

Agricultural Land

- 2.3.8 Agricultural Land Classification (ALC) mapping undertaken for the Site has identified Best and Most Versatile (BMV) Land within the Site of Grades 2 and 3a as well as non-BMV land, within Grade 3b. The areas considered to be Grade 2 are exclusively within the northern region of the Site. The Site was surveyed in April 2023 and January 2024 by Amet Property to assess the agricultural quality of the Site. The detailed survey found the Site to comprise of 7.4 ha of Grade 2, 35.3 ha of Grade 3a and 46.8 ha of Grade 3b. Of the identified BMV agricultural land on Site, only 8.6 ha will be developed upon.
- 2.3.9 In regard to farm businesses on Site, the land is used for arable farming, with part of the Site in use for commercial equine activities as part of the overall farm business. Different areas with the Site are let to various farmers, who specifically grow maize and potatoes. The farm has also further diversified into making small-bale haylage.

Air Quality

2.3.10 The Site is not located within or in close proximity to an Air Quality Management Area (AQMA). The nearest AQMA is 'AQMA NO.2 2012' declared by PCC in 2012 for exceedances of Nitrogen Dioxide.

2.4 The Development

- 2.4.1 A DNS application is proposed for the construction, temporary operation, and decommissioning of a solar farm and associated equipment such as inverters, transformer stations, substation, fencing, CCTV, weather monitoring stations and cabling. The final connection point to the electricity grid will be to one of the 132kV overhead pylons located within the Site. The solar farm Development will have an operational lifespan of 40 years from the date of first export of electricity, after which it will be decommissioned.
- 2.4.2 The solar photovoltaic (PV) panels will have an anti-reflective coating. They will be ground mounted to a piled frame made of galvanized steel or aluminium. The PV panels will be crystalline silicon. Either monofacial or bifacial modules will be used.
- 2.4.3 The PV modules will be installed on to a fixed tilt structure, facing south, with a tilt range of 10-25 degrees. The spacing between the rows within a south facing framework can range between 2.5 5 metres. The lowest point of the panel would be a minimum of 0.8m from the ground and up to approximately 3m at their highest point (flat ground).



- 2.4.4 The mounting posts for the support structure are pile driven into the ground at a depth of 0.5–4.5 metres below ground level, depending on the ground condition, the optimum pile depth will be determined by a survey to be carried out prior to construction.
- 2.4.5 CCTV cameras will be mounted on posts 3 5m tall, and positioned at appropriate intervals to ensure that the entire perimeter fence is monitored. Up to 3 weather stations will be installed to measure performance and these will be up to 5m in height.
- 2.4.6 The perimeter fencing for the Development will consist of deer type fencing and gates of up to 2m in height. The fence will be offset by 100mm from the ground to allow passage of small animals and will include mammal gates at appropriate intervals.
- 2.4.7 Internal tracks to allow vehicular access between fields will be constructed of compacted crushed stone, utilising existing internal gateways/gaps where possible. For single tracks, the width typically ranges between 3.5-4 metres whereas a 2-way track would be up to 6 metres wide.

Substation/HV Compound

2.4.8 A HV substation compound will be located in the centre (~51.665852, -4.890311) of the Site and will provide the infrastructure to connect the solar farm to the electrical grid via a 132kV pylon within the Site area. The substation/HV compound, will be surrounded by a palisade fence. Furthermore, a communication mast is potentially required to service the substation. The mast would not be a prominent feature and details can be provided prior to Development commencing, if necessary.

MV Switchgear Room/Edge of Park Switchgear Station

2.4.9 The MV switchgear room accommodates the switchgear panels to protect the equipment and allow safe isolation of the MV electrical circuits.

Monitoring / Control Building

2.4.10 A monitoring cabin/building will be located next to the HV Compound. The cabin will house the telecommunications/control/SCADA and security system equipment (CCTV), to enable 24-hour remote monitoring of the Site to identify any faults and to relay CCTV footage to an external security company.

Temporary Construction Compound

- 2.4.11 There are two construction compounds proposed within the Site, providing an area for temporary storage, unloading of trucks and the necessary parking and welfare facilities for the workers onsite will be installed and subsequently removed once the construction has been completed. One of which will predominantly be used for the substation infrastructure and the other for the whole site, more centrally located.
- 2.4.12 The road layout would allow sufficient room for deliver vehicles to manoeuvre, unload their cargoes and exit in a forward gear. The compound would provide parking for light vehicles and HGVs undertaking deliveries to unload. A temporary permeable stone surface will be used for the compound.

Storage Containers

2.4.13 Two 40ft shipping containers will be installed to provide storage space for the solar farm.

Grid Connection

2.4.14 Onsite grid connection onto 132kV overhead line (OHL). Alleston Solar Farm will connect to the Pembroke GSP via a tee-in arrangement at or near pole 82 of the Pembroke to Golden Hill 132kV circuit located within the site. A short new 132kV underground cable (UGC) will be installed between this point of connection and the Alleston Solar Farm project substation.



3 Planning Policy Context

3.1.1 This report considers the planning policy and guidance most relevant to the consideration of alternative sites. A crucial aspect of this context is the legally binding goal set by the Welsh Government to not only achieve net zero by 2050, but to increase the renewable electricity generation from solar PV by 2035. The following national and local planning policies are relevant to the ASA.

National Planning Policy

Net Zero Wales (October 2021)ii

- 3.1.2 In 2021, the Welsh Government published Net Zero Wales which explains policies and proposals in respect of energy generation. The following goals were set:
 - 1 GW additional renewable energy capacity installed by 2025
 - No new build unabated fossil fuel generation in Wales from 2021. All current unabated gas generation removed from the system by 2035.
- 3.1.3 Policy 22 of Net Zero Wales seeks to increase the delivery of renewable energy developments through the planning systems. A positive policy framework for the consenting and development of large-scale renewable energy projects and associated infrastructure.

All Wales Plan 2021-25: Working Together to Reach Net Zero (April 2022)iii

3.1.4 The All Wales Plan notes the Wales Government commitment to net zero and addressing the climate emergency through a series of pledges from relevant agencies and suggested individual pledges for those living in Wales. Pledges specifically state that renewable energy will be supported and developed within Wales.

Future Wales: The National Plan 2040 (February 2021) iv

- 3.1.5 Future Wales is the Welsh Government's National Development Framework and is the highest tier of the Development Plan in Wales. It sets out a strategy for addressing key national priorities through the planning system, which include achieving decarbonisation, climate-resilience and achieving net zero. Future Wales recognises the challenges climate change poses and the potential significant impacts on the wellbeing of both current and future generations. Future Wales highlights that increasing temperatures and extreme weather events caused by climate change are putting pressure on infrastructure and the built environment, which all contribute to social and economic resilience. Future Wales:
 - Supports a low carbon economy and the decarbonisation of industry, and the growth of sustainable and renewable energy; and
 - Supports infrastructure development, including transport, energy, and digital communications.
- 3.1.6 Furthermore, Future Wales sets out the following ambitious targets for the generation of renewable energy:
 - 70% of electricity consumption to be generated form renewable energy by 2030
 - One gigawatt of renewable energy capacity to be locally owned by 2030
 - New renewable energy projects to have at least an element of local ownership from 2020.



- 3.1.7 Section 2 states that Future Wales together with Planning Policy Wales will ensure the planning system delivers a resilient and decarbonised Wales.
- 3.1.8 Section 3 includes the Future Wales' Outcomes which are described as 'collectively a statement of where we want to be in 20 years' time. Every part of Future Wales...is concerned with achieving the Outcomes'. The Outcome of principal relevance to the Development is:
 - "A Wales where people live in places which are decarbonised and climate resilient: The challenges of the climate emergency demand urgent action on carbon emissions and the planning system must help Wales lead the way in promoting and delivering a competitive, sustainable decarbonised society".
- 3.1.9 Policy 17 and 18 of Future Wales are of principal relevance to the Development.
- 3.1.10 Policy 17 of Future Wales relates to 'renewable and low carbon energy and associated infrastructure'. Policy 17 confirms that the Welsh Government strongly supports the principle of developing renewable and low carbon energy from all technologies and at all scales to meet our future energy needs, and that in determining planning applications for renewable and low carbon energy development, decision-makers must give significant weight to the need to meet Wales's international commitments and target to generate 70% of consumed electricity by renewable means by 2030, in order to combat the climate emergency.
- 3.1.11 Policy 18 provides a decision-making framework for renewable and low carbon energy technology is states:

"Proposals for renewable and low carbon projects (including repowering) qualifying as Developments of National Significance will be permitted subject to policy 17 and the following criteria:

- 1. Outside of the Pre-Assessed areas for wind developments and everywhere for all other technologies, the proposed does not have an unacceptable adverse impact on the surrounding landscape (particularly on the setting of National Parks and Areas of Outstanding Natural Beauty);
- 2. There are no unacceptable adverse visual impacts on nearby communities and individual dwellings;
- 3. There are no adverse effects on the integrity of Internally designated sites (including National Site Network sites and Ramsar sites) and the features for which they have been designated (unless there are no alternative solutions, imperative Reasons of Overriding Public Interest and appropriate compensatory measures have been secured;
- 4. There are no unacceptable adverse impacts on national statutory designated sites for nature conservation (and the features for which they have been designated), protect habitats and species;
- 5. The proposal includes biodiversity enhancement measures to provide a net benefit for biodiversity;
- 6. There are no unacceptable adverse impacts on statutorily protected built heritage assets;
- 7. There are no unacceptable adverse impacts by way of shadow flicker, noise, reflected light, air quality or electromagnetic disturbance;



- 8. There are no unacceptable impacts on the operations of defence facilities operations (including aviation and radar) or the Mid Wales Low Fluing Tactical Training Area (TTA-7T);
- 9. There are no unacceptable adverse impacts on the transport network through the transportation of components or source fuels during its construction and / or ongoing operation;
- 10. The proposal includes consideration of the materials needed or generated by the development to ensure the sustainable use and management of resources; and
- 11. There are acceptable provisions relating to the decommissioning of the development at the end of its lifetime, including the removal of infrastructure and effective restoration. The cumulative impacts of existing and consented renewable energy schemes should also be considered."
- 3.1.12 The supporting text to both polices states that Policy 17 demonstrates the Welsh Government's support in principle for all renewable energy projects and technologies. The supporting text also refers to the Welsh Government's target for new renewable energy projects to have at least an element of local ownership from 2020, but specifically states that this is not a planning consideration.

Renewable Energy Deep Dive: Recommendations (Update 3) (March 2024)^v

3.1.13 The Renewable Energy Deep Dive Recommendations was first published in December 2021 and has since been updated a third time in March 2024. Recommendations are put forth to ease the transition to net zero and address the climate emergency effectively. There includes the goal of creating a national energy plan by 2024 to map out where local renewable energy generation can meet energy demand. Other recommendations include addressing the issues with the grid and pushing forward projects to increase the flexibility of the grid. In regard to consenting, recommendation include a review and mapping for the process of land based renewables to obtain an environmental permit.

Planning Policy Wales (Edition 12) (February 2024)vi

- 3.1.14 Planning Policy Wales (PPW) Edition 12 was published in February 2024 and sets out the land use planning policies of the Welsh Government. The primary objective of PPW is to ensure that the planning system contributes towards the delivery of sustainable development and improves the social, economic, environmental and cultural well-being of Wales. PPW highlights that a well-functioning planning system is fundamental for sustainable development and achieving sustainable places.
- 3.1.15 Paragraph 2.27 explains the need for planning authorities to take a balanced approach to implement the Well-being of Future Generations Act and its Sustainable Development Principle. It states there may be occasions when one benefit of a development proposal outweighs others, and in such cases robust evidence should be presented to support these decisions, whilst seeking to maximise contributions against all the well-being goals. It identifies a long list of key factors to consider in the assessment process. In summary these include:
 - How the proposal would support the achievement of a more prosperous, low carbon, innovative and resource efficient Wales;
 - Whether environmental risks are prevented or appropriately managed;
 - Whether the causes and impacts of climate change are fully taken into account through location, design, build, operation, decommissioning and restoration; and
 - Whether a proposal supports decarbonisation and the transition to a low carbon economy.



- 3.1.16 Chapter 3 Strategic and Spatial Choices, specifically section Strategic Placemaking defines the site selection process for developments. Paragraph 3.44 discusses that if there is no previously developed land or underutilised sites, developments should consider suitable and sustainable greenfield sites. It also states considerations should be made for climate change, biodiversity, ecological resilience, sustainable use of resources, and protecting the health, amenity and wellbeing of communities when choosing a location.
- 3.1.17 Chapter 3 further discusses the Best and Most Versatile Agricultural Land and identifies this to be agricultural land of grades 1, 2 and 3a, which should be considered a finite resource for the future. Paragraph 3.59 states that weight should be given to protection grade 1, 2 and 3a from development due to its special importance. Development on BMV agricultural land can be developed only if:
 - There is an overriding need for the development;
 - Previously developed land or land in lower agricultural grades is unavailable; and
 - Available lower grade land has an environmental value recognised by a landscape, wildlife, historic
 or archaeological designation which outweighs the agricultural consideration.
- 3.1.18 Paragraph 3.59 applies to all forms of Developments within Wales, including development of a permanent nature.
- 3.1.19 Chapter 5 discussed Productive and Enterprising Places. Paragraph 5.7.7 of the Energy section presents that the benefits of renewable and low carbon energy, as part of the overall commitment to tackle the climate emergency and increase energy security, is of paramount importance. Chapter 5 advises that, when determining applications for the range of renewable and low carbon energy technologies, planning authorities should take into account:
 - the contribution a proposal will make to meeting identified Welsh, UK and European targets;
 - the contribution to cutting greenhouse gas emissions; and
 - the wider environmental, social and economic benefits and opportunities from renewable and low carbon energy development.
- 3.1.20 Chapter 5 further discusses that local authorities should also identify and require suitable ways to avoid, mitigate or compensate adverse impacts of renewable and low carbon energy development. The construction, operation, decommissioning, remediation and aftercare of proposals should take into account:
 - The need to minimise impacts on local communities;
 - The impact on the natural and historic environment;
 - Cumulative impact;
 - Capacity of, and effects on the transportation network;
 - Grid connection issues where renewable electricity (electricity) energy developments are proposed;
 and
 - The impacts of climate change on the location, design, build and operation of renewable and low carbon energy development.

Future Wales: The National Plan 2040 (February 2021)^{vii}

3.1.21 Future Wales is the Welsh Government's National Development Framework and is the highest tier of the Development Plan in Wales. It sets out a strategy for addressing key national priorities through the



planning system, which include achieving decarbonisation, climate-resilience and achieving net zero. Future Wales recognises the challenges climate change poses and the potential significant impacts on the wellbeing of both current and future generations. Future Wales:

- Supports a low carbon economy and the decarbonisation of industry, and the growth of sustainable and renewable energy; and
- Supports infrastructure development, including transport, energy, and digital communications.
- 3.1.22 Strategic and Spatial Choices discuses strategic placemaking principles such as density, street network, plot-based development and green infrastructure. Policy 8 Flooding discusses that proposals should be prioritised in places that are not at flood risk, followed by places that are managed by flood risk in an acceptable manner. Policy 9 Resilient Ecological Networks and Green Infrastructure states that where project proposals are located, they should be able to adapt to climate change, include habitat protection, restoration or creation, protect species and provide key ecosystem services.
- 3.1.23 Policy 17 Renewable and Low Carbon Energy and Associated Infrastructure of the Strategic and Spatial Choices sections confirms that the Welsh Government strongly supports the principle of developing renewable and low carbon energy from all technologies and at all scales to meet our future energy needs. In determining planning applications for renewable and low carbon energy development, decision-makers must give significant weight to the need to meet Wales's net zero commitments. Policy 18 of Future Wales discusses 'Renewable and Low Carbon Energy Developments of National Significance' sets out criteria for DNS applications. In relation to site selection, Policy 17 and Policy 18 state that developments should ensure there is no significant impact on the natural environment, surrounding local community.

Technical Advice Notesviii

- 3.1.24 A series of Technical Advice Notes (TANs) supplement PPW as listed below:
 - Technical Advice Note 5: Nature Conservation & Planning
 - Technical Advice Note 6: Planning for Sustainable Rural Communities
 - Technical Advice Note 10: Tree Preservation Orders
 - Technical Advice Note 11: Noise
 - Technical Advice Note 12: Design
 - Technical Advice Note 15: Development and Flood Risk
 - Technical Advice Note 18: Transport
 - Technical Advice Note 23: Economic Development
 - Technical Advice Note 24: The Historic Environment

Overarching National Policy Statement for Energy (NPS EN-1) (January 2024)^{ix}

- 3.1.25 Designated in January 2024, the National Policy Statement (NPS) sets out national policy for energy infrastructure. The Overarching NPS (EN-1) sets out the background context, scope and geographical coverage of the 4 parts of the NPS.
- 3.1.26 Paragraph 2.2.1 of the states that the UK legislated for a 2050 net zero greenhouse gas emissions target through the Climate Change Act 2008 Order 2019. However, in 2020, the UK communicated in 2020 to reduce greenhouse gas emissions by 68% from 1990 levels by 2030. In April 2021, the



government legislated the sixth carbon budget which requires the UK to reduce greenhouse gas from 1990 levels by 78% by 2035. Paragraph 2.2.2 explains that the UK government will continue to update this decarbonisation plan in the coming years.

- 3.1.27 To meet the noted net zero targets, EN-1 sets out goals for decarbonising the power sector, enabling security of energy supplies, and enforcing sustainable development. Paragraph 2.3.3 states that our objectives for the energy system are to ensure our supply of energy always remains secure, reliable, affordable, and consistent with meeting our target to cut GHG emissions to net zero by 2050. EN-1 clearly states the need for new energy infrastructure to increase the supply of clean energy from renewables, nuclear and hydrogen manufactured, as well as developing carbon capture and storage.
- 3.1.28 Paragraph 3.3.65 states that there is an urgent need for new electricity network infrastructure to meet the UK's energy objectives. Solar and wind are identified to play a large role in the net zero future. Paragraph 3.3.20 explains:

"Our analysis shows that a secure, reliable, affordable, net zero consistent system in 2050 is likely to compromise predominantly of wind and solar".

National Policy Statement for Renewable Energy Infrastructure (NPS EN-3) (January 2024)^x

3.1.29 NPS EN-3 is a technology specific NPS regarding renewable electricity generation (both onshore and offshore). Paragraph 1.1.2 states that

"Electricity generation from renewable sources of energy is an essential element of the transition to net zero and meeting our statutory targets for the sixth carbon budget (CB6). Our analysis suggests that demand for electricity is likely to increase significant over the coming years and could more than double by 2050. This could require a fourfold increase in low carbon electricity generation, with most of this likely to come from renewables."

- 3.1.30 The EN-3 further describes essential renewable sources by stating 'solar farms are one of the most established renewable electricity technologies in the UK and the cheapest form of electricity generation' in paragraph 2.10.13. Paragraph 2.10.10 notes a goal of 70 gigawatts in combined ground and rooftop solar deployment by 2035.
- 3.1.31 The key factors influencing site selection and design (paragraph 2.10.18 to paragraph 2.10.48) are noted below:
 - Irradiance and site topography;
 - Network connection;
 - Proximity of a site to dwellings;
 - Agriculture land classification and land type;
 - Accessibility:
 - Public rights of ways; and
 - Security and lighting.
- 3.1.32 It should be noted that, in relation to agricultural land, at paragraph 2.10.29 NPS EN-3 clarifies that "land type should not be a predominating factor in determining the suitability of the site location."
- 3.1.33 Technical considerations for solar farms (paragraph 2.10.49 to paragraph 2.10.69) are listed as:
 - Capacity of a site;



- Site layout design and appearance;
- Decommissioning; and
- Flexibility in the project details.
- 3.1.34 Impacts to be considered from a solar development (paragraph 2.10.73 to paragraph 1.11.44) include:
 - Biodiversity, ecological, geological conservation and water management;
 - Landscape, visual and residential amenity;
 - Glint and glare;
 - Cultural heritage; and
 - Construction including traffic and transport noise and vibration.
- 3.1.35 The factors that influence site selection and technical considerations noted in the EN-3 will be addressed.

3.2 Local Planning Policy

Pembrokeshire County Council Local Development Plan (February 2013)xi

- 3.2.1 The Pembrokeshire County Council adopted a Local Development Plan in February 2013. Relevant policies within the Local plan include:
 - Policy SP1 Sustainable Development: All development proposals must demonstrate positive economic, social and environmental impacts, as well as how they will be achieved and adverse impacts avoided;
 - Policy GN.1 General Development Policy: Lists criteria for developments to meet such as limiting adverse effects on landscape character, protecting the natural environment, and avoiding impact on water quality;
 - Policy GN.2 Sustainable Design: Lists criteria for sustainable design such as incorporating resource efficient and climate response design;
 - Policy GN.3 Infrastructure and New Development: New infrastructure must be provided in scale and on site wherever appropriate;
 - Policy GN.4 Resource Efficiency and Renewable and Low-carbon Energy Proposals: Developments which enable the supply of renewable energy through environmentally accepted solutions will be supported;
 - Policy GN.10 Farm Diversification: Diversifying the range of economic activities on a farm will be permitted as long as agricultural operation is continued;
 - Policy GN.35 Protection of Open Spaces with Amenity Value: Developments should not adversely affect the appearance, character or local amenity value of areas of public and private open space. If an adverse effect is identified, the development must demonstrate that no suitable alternative site is available;
 - Policy GN.37: Protection and Enhancement of Biodiversity: Positive approach to maintaining and enhancing biodiversity should be implemented. Disruption or harm to habitats should be minimised or mitigated through careful design, work scheduling or other measures; and



- Policy GN.38: Protection and Enhancement of the Historic Environment: developments should protect or enhance character and integrity of sites with architectural, historical, and/or archaeological importance.
- 3.2.2 PCC declared a Climate Emergency in May 2019 and has committed to becoming a net zero carbon organisation by 2030 and district wide net zero by 2050. As a part of the Well-being plan for Pembrokeshire, there are multiple plans to achieve net zero by 2050, including Project Plan: Decarbonisation and Net Zero^{xii}.

Pembrokeshire County Council Renewable Energy Supplementary Planning Guidance (October 2016)^{xiii}

3.2.3 PCC published Supplementary Planning Guidance (SPG) relating directly to renewable energy which provides guidance for renewable energy developments, specifically solar, wind and biomass. The SPG discusses impacts of large-scale solar PV schemes on the historic and natural environment. Visual impact should be assessed and minimised by organising the layout of panels around irregular patterns, such as site topography. Impact upon species and their habitats, as well as surrounding environments should be reduced. The SPG specifically mentions that development should avoid placing solar PV on BMV, as this can reduce the capacity for growing crops and the range of farm animals that can graze said areas.

LDP Renewable Energy Assessment Report for Pembrokeshire County Council (April 2017)xiv

- 3.2.4 The Renewable Energy Assessment Report was produced by National Energy Foundation and expands on the Renewable Energy Toolkit for Planners (September 2015)^{xv} specifically for PCC. The Report includes an assessment of potential solar PV farms in PCC, as well as the approach to site allocations for PV developments. The methodology for local authorities and site allocations is based off the Toolkit, which notes a six-step approach to determining an allocation:
 - Step 1: Map locations of built-up areas and infrastructure
 - Step 2: Map further environmental and heritage constraints
 - Step 3: Map areas of suitable slope and topology
 - Step 4: Address cumulative impacts
 - Step 5: Assess potential installed capacity and energy output
 - Step 6: Map locations of suitable Agricultural Land Classification and apply further constraints as necessary



4 Methodology

- 4.1.1 This section of the ASA sets out the qualitative methodology through a series of stages which has been utilised in order to carry out this desk-based assessment.
- 4.1.2 There is no defined scope for ASAs set out in local or national planning policy or guidance, however PPW and the PCC Local Development Plan aided in adapting a methodology for alternative site selection. Additionally, the Applicant investigated relevant approaches to ASAs in granted DNS solar projects on BMV land, including Penpergwm Solar Farm (DNS/3252305) and Parc Solar Traffwl (DNS/3217391). In addition, the Renewable Energy Toolkit for Planners methodology outlined for local authorities determining solar farm allocations was followed.
- 4.1.3 Consequently, the ASA has been informed by the following stages of investigation:
 - Stage 1: Defining the Study Area (Chapter 5)
 - Stage 2: Defining Site Selection Criteria (Chapter 6)
 - Stage 3: Review of PDL, Commercial Rooftops, Non-Agricultural Land and Lower Grade Agricultural Land (Chapter 7)
 - Stage 4: Assessment of Alternative Sites (Chapter 8)
 - Stage 5: Assessment of the Site (Chapter 9)
- 4.1.4 The first stage of the ASA was defining a study area in which alternative sites would be identified and assessed. Grid connection is used as the basis for defining the study area as this is fundamental to the deliverability of a solar farm. As short a cable run as possible is required to allow the development to be as economical as possible as well as to minimise energy losses in the cabling.
- 4.1.5 The second stage in the ASA is to develop an appropriate site selection criteria, which incorporates national and local planning policy and guidance. The site selection criteria also explains relevant commercial considerations as well as operational requirements. The criteria is established by specific requirements during the operational phase and the site selection criteria has been split into operational requirements and environmental considerations.
- 4.1.6 The third stage of the ASA comprises assessing PDL, commercial rooftops, non-agricultural land and land of lower agricultural quality within the study area. This stage demonstrates that the site selection process is in accordance with PPW, NPS EN-3 and the PCC Renewable Energy SPG.
- 4.1.7 Following the identification of alternative sites in the third stage these sites will be reviewed and assessed against site selection criteria to determine the viability of the alternative site in stage 4. Alternative sites and the Site will be graded to determine the level and significance of constraint of each criteria.
- 4.1.8 Stage 5 considers the suitability of the development Site, taking into account planning, environmental and technical criteria and identifies its suitability.



5 Defining the Study Area

- 5.1.1 In order to undertake the ASA, an appropriate and reasonable study area was defined. There is no national or local planning policy, or established methodology which provides guidance on the size of the search area when assessing alternative sites. This is supported in the Minister's Report for Parc Solar Traffwll, which stated that the potential search area for alternative sites has "no weight in determination" of planning applications. The Report further confirms there is no planning policy which directs solar development to specific search areas.
- 5.1.2 The search area was defined by first looking at the grid connection procured by the Applicant. The most important locational factor for renewable energy projects is proximity to the point of connection to the electricity network. Viable grid connections is an essential material consideration and is instrumental in defining the area of search for alternative sites. This notion of basing the search area on the grid connection was supported by the Inspectors Report for Parc Solar Traffwllxvi, which detailed in paragraph 121 that limiting the search area to grid connection was "the only feasible option for connecting at this scale to the distribution".
- 5.1.3 The availability of a connection to the grid (given lack of capacity) is a significant factor that weighs in favour of renewable energy projects. The issues with grid connections are recognized by the Welsh Government. The House of Commons Welsh Affairs committee produced a report on renewable energy in Wales**vii, stating "a considerable amount of evidence arguing that grid capacity issues are currently significantly hindering renewable energy deployment throughout Wales, and are likely to continue to do so in the future". Issues with grid capacity are additionally recognised within the National Infrastructure Strategy Fairer, Faster and Greener (2020)**viii which states increased investment into the grid will be needed to accommodate low carbon generation. NPS EN-1 further recognises how grid connection is an important element for any renewable energy project. The availability of grid capacity and the ability to connect to the grid is therefore a significant material consideration in the site selection process.
- 5.1.4 In this case, the Applicant made an application for a grid connection to the relevant Distribution Network Operation (DNO). The DNO granted the Application a connection via a tee-in agreement at or near pole 82 of the Pembroke to Golden Hill 132kV circuit which is located within the Site. The DNO granted the Applicant a connection into this circuit because sufficient capacity from the Pembroke substation to the Golden Hill substation was identified. It cannot be reasonably assumed that there is capacity at another distribution line or 132kV circuit. This is because voltages and the capacity of the network on each distribution line vary. Additionally, given the grid connection queue, considering additional distribution lines would delay the Development significantly, affecting the ability of the Welsh Government to hit legally binding net zero and renewable energy targets.
- 5.1.5 Therefore, a radius of 3km surrounding the 132kV circuit form Pembroke to Golden Hill was chosen for the search area. The further a solar farm development is from the grid connection, the less feasible the development is. This is due to additional costs of cables, the environmental impacts of their installation, mitigation of such impacts and landowner negotiations. Additionally, the longer the cable, the more energy that would be lost through the transport. This is supported by NPS EN-3 paragraph 2.10.25 which explains that
 - "to maximise grid infrastructure, minimise disruption to existing local community infrastructure or biodiversity and reduce overall costs, applicants may choose a site based on nearby available grid export capacity. Going too far from a suitable grid connection can lead to power loss of transferring the electricity generated to the grid. Also, increased cabling and labour costs would make the project uneconomical".
- 5.1.6 A similar approach in deciding the 3km search radius was accepted in the Alternative Site Search Report^{xix} for the granted DNS for Penpergwm Solar Farm which used a 1km search radius from the powerline to identify alternative sites. Therefore, a 1km radius has been deemed acceptable for that site. The Applicant has increased the radius to 3km to reflect the fact that the site itself is more than 1km across. This ensures that, for the avoidance of doubt, a robust assessment was carried out. Considering grid connection constraints and the example study reviewed, an appropriate search area



for this project was identified to be 3km surrounding the distribution line from Pembrokeshire substation to Golden Hill substation.

5.1.7 The study area location plan can be seen in Appendix A.



6 Site Selection Criteria

- 6.1.1 Site Selection Criteria, as set out in Table 6.1 is based on the impacts, technical considerations and environmental factors influencing site selection and design listed in PPW, NPS EN-3 and PCC Local Development Plan.
- 6.1.2 Site selection criteria is used to identify previously developed land and agricultural land of a lower grade within the search area outlined in Section 5, that could be suitable to host the Development. If there are no suitable PDL sites that meet the criteria in Table 6.1 within the search area, then non-agricultural sites will be identified. Following this, if non-agricultural sites are not suitable, sites with lower grade BMV or reduced amount of BMV will be identified. Previously developed sites, non-agricultural sites, and agricultural land will only be identified as suitable if they are within the defined search area and meet the site selection criteria listed in Table 6.1.

Table 6.1: Site Selection Criteria

Operational	Suitable location	Potential sites should be contained within an area of the
Requirements	which benefits	UK that receive high levels of solar radiation in accordance
	from high levels	with the Solar Photovoltaic Power Potential UK map ^{xx} .
	of sunlight	High solar radiation ensures high power output of the solar
		panels.
	Suitable size,	The Applicant sought sites for a solar farm of
	shape,	approximately 49 MW. NPS EN-3 paragraph 2.10.17
	orientation and	states that although this will differ per site, generally solar
	topography	farm and associated infrastructure require 0.8 ha to 1.6 ha per each MW of output, but this will clearly be dependent on site specific characteristics including irradiance. Therefore, in order to deliver a scheme of the 49 MW scale, the Applicant theoretically requires a site area of a minimum 39 ha to 78 ha. This size requirement only applies when the site is void of physical obstructions and constraints, such as trees or watercourses. In this case, the site area required would exceed the 39 ha to 78 ha approximately as more area for the Development outside the obstructions would be needed. Additionally, a site characterised by rolling hills would increase the Development footprint owing to the levels of the site. A combination of topographical and physical constraints within the site will further increase the developable area required for the viability of the Development.
		A fragmented site, in which the Development footprint would be divided across multiple sites, would further increase the size of the site area needed for 49 MW of solar energy. Additionally, each site would require specific individual infrastructure and associated grid connection costs. As such, a site that is contained within one single parcel is preferred.
	Suitable for	The site must be accessible for the construction phase,
	construction	operational and decommissioning phases to allow for
	phase in	vehicles to enter and leave the site using the wider road
	deliveries and	



	access to wider	network. This is particularly relevant for Heavy Goods
	road network	Vehicles (HGVs) used in the construction phase.
	Suitable for the	The site must be available for the entire construction,
	entire	operation, decommissioning phases of the Development in
	construction,	order to be considered viable. The operation phase will last
	operational and	approximately 40 years.
	decommissioning	approximatory to yours.
	_	
	phase	
	Proximity to	Sites should not be in close proximity to dwellings and
	settlements	settlements to reduce impacts of decreased visual
		amenity, glint and glare and increased noise.
	Location is not	The site must be available for a solar development and not
	allocated within	allocated for a non-solar development within the PCC
	the PCC Local	Local Development Plan. There are multiple areas
	Development	allocated for mixed-use, retail, employment and housing
	Plan.	developments within the Local Plan. The are 33 Proposal
	riaii.	·
		Maps for the Local Development Plan and the search area
		falls within Proposal Maps 24, 25, 27, 28, 29, 31 and 32.
		These maps demonstrate the search area holds
		allocations and environmental constraints such as:
		 Sites protected by environmental designations;
		Historic parks and gardens;
		Conservation areas;
		Employment allocations;
		 Mineral and quarry sites; and
		 The green wedge.
		- The green weage.
		The control of the co
		These areas will be considered when choosing alternative
		sites.
Environmental	Sensitive areas	EIA sensitive areas are classified as:
Considerations	as classified by	
	EIA regulations	 Land notified under section 28(1) (Sites of Special
		Scientific Interest) of the Wildlife and Countryside Act
		1981(21)
		A National Park within the meaning of the National
		Parks and Access to the Countryside Act 1949;
		The Broads The Broads
		 A property appearing on the World Heritage List kept
		under article 11(2) of the 1972 UNECO Convention for
		the Protection of the World Cultural and Natural
		Heritage;
		 A Scheduled monument within the meaning of the
		Ancient Monuments and Archaeological Areas Act
		1979
		An Area of Outstanding Natural Beauty designated as
		such by an order made by Natural England under
		section 82(1) (areas of outstanding natural beauty) of
		* * * * * * * * * * * * * * * * * * * *
		the Countryside and Rights of Way Act 2000(26)



	 A European site within the meaning of regulation 8 of the Conservation of Habitats and Species Regulations 2010(27) Projects should avoid being located on or in proximity of the areas above to avoid adverse impacts that could arise within sensitive areas.
Flood Risk	Potential projects in high-risk flood areas should be avoided. In cases where a development is necessary, solar panels can adapt to flooding through design mechanisms such as raising infrastructure. Although solar panels are not damaged by water, ancillary components such as inverters and substations can be, which would therefore affect the functioning of the system. Therefore, choosing sites entirely in high-risk flood zones should be avoided.
Landscape and	The physical features of the landscape as well as the
Visual	landscape character of sites and the surrounding area can
	be affected by developments. The local character can be
	assessed using the Pembrokeshire County Landscape
	Character Assessment (May 2022) ^{xxi} . Local and national
	planning policy ensure developments are carefully
Heritage	designed to reduce such impacts. Developments should ensure there is no significant harm
Heritage	to heritage assets such as scheduled monuments or listed
	buildings. If an impact on heritage assets is identified, a
	subjective assessment must be completed which identifies
	mitigation measures to reduce any adverse effect.
Ecological	Habitats and species should be protected and enhanced
	where possible during the lifespan of the Development.
	Enhancement can be delivered by achieving a Biodiversity
	Net Gain. Developments should avoid areas designated
	for species and/or special habitats where possible.

6.1.3 The site selection criteria outlined in the search area can be seen in the following:

Appendix A: Location Plan

Appendix B: Constraints Plan

Appendix C: Agricultural Land Classification Plan

Appendix D: Topography Plan

■ Appendix E: Flood Zone Plan



7 Review of Commercial Rooftops, Previously Developed Land and Land of Lower Agricultural Grade

7.1 Overview

7.1.1 Alternative sites for the Development were searched for by reviewing available commercial rooftops, PDL and agricultural land of lower grades through a desk based assessment.

7.2 Commercial Rooftops

7.2.1 A search for commercial rooftops within the established search area was completed. There were no spaces which measured close to 39 ha to 78 ha to facilitate the Development. More than one commercial rooftop could not facilitate the Development as this would increase the associated infrastructure needed to connect the multiple solar arrays across different roofs, thus increasing the costs. Fragmented rooftops for solar developments have extensive constraints such as landowner negotiations, decreased power output and visual impacts to villages and towns. Therefore, commercial rooftops would not be viable and were not considered further in the assessment of alternative sites.

7.3 Previously Developed Land and Non-Agricultural Land

7.3.1 As detailed in PPW, previously developed land is defined as land:

"which is or was occupied by a permanent structure (excluding agricultural or forestry buildings) and associated fixed surface infrastructure. The curtilage of the development is included, as are defence buildings and land used for mineral extraction and waste disposal where provision for restoration has not been made through development management procedures. It is further stated that, excluded from the definition are:

- land and buildings currently in use for agricultural or forestry purposes;
- land which has not been developed previously, for example parks, recreation grounds, golf courses and allotments, even though these areas may contain certain urban features such as paths, pavilions and other buildings;
- land where the remains of any structure or activity have blended into the landscape over time so that they can reasonably be considered part of the natural surroundings;
- land which is species rich and biodiverse and may qualify as section 7 habitat' or be identified as having nature conservation value; and
- previously developed land subsequently put to an amenity use."
- 7.3.2 Appendix A Study Area Location Plan and Appendix C Agricultural Land Classification Plan show the search area and agricultural classification of all land within the search area. These plans show that the search area is predominately agricultural land void of built development and previously developed land when using PPW's definition above. This is with the exception of the urban area Pembroke and scattered villages such as Hundleton and Maiden Wells, as shown in Appendix B.
- 7.3.3 In accordance with the requirements set out within the Site Selection Criteria, a site area of approximately 39 ha to 78 ha is required to deliver the Development owing to the land use requirements and land used for the installation of PV panels. **The areas of previously developed land identified**



within the study area are not of an adequate size to accommodate the development and therefore has been discounted from the assessment.

7.4 Lower Grade Agricultural Land

- 7.4.1 The quality of agricultural land is graded from Grade 1 (highest quality agricultural land) to Grade 5 (poorest quality agricultural land). Grades 1-3a are identified to be Best and Most Versatile (BMV) land:
 - Grade 1: excellent quality agricultural land;
 - Grade 2: good quality agricultural land;
 - Grade 3a: good to moderate quality agricultural land;
 - Grade 3b: moderate quality agricultural land;
 - Grade 4: poor quality agricultural land; and
 - Grade 5: very poor-quality agricultural land.
- 7.4.2 Appendix C Agricultural Land Classification Plan shows the agricultural land classifications within the established search area. This Plan is based on the Predictive Agricultural Land Classification (ALC) Map 2^{xxii} from the Welsh Government which is high level and does not indicate the exact ALC grading of the area. However, this predicts that 37.5% of agricultural land in Pembrokeshire is expected to fall into ALC Grades 1, 2 and 3, compared to the national average of 19.1%. There is approximately 33,700ha of BMV land in Pembrokeshire.
- 7.4.3 There are no sites of or close to 39 ha or 78 ha that are completely Grade 3b, Grade 4 or Grade 5 agricultural land. Therefore, alternative sites that comprised of mixtures of agricultural land lower quality than Grade 2 were considered. Table 7.1 and Figure 7.1 identify the alternative sites of Grade 3a, 3b, 4 and non-agricultural land which were assessed against the site selection criteria.

Table 7.1: Alternative Sites

Site	Site Name
Application Site	Land at Alleston Farm, Lower Lamphey Road, Lamphey, Pembrokeshire
Site 1	Land at Kingston Hill and Woodsend, between Maiden Wells and Lamphey
Site 2	Land at Penny Bridge, to the east of Pembroke
Site 3	Land at Kingston Bottom, between Hill Farm and Kingston Cottage
Site 4	Land to the north of Underdown Bottom, to the east of Pembroke
Site 5	Land at Windsor Farm, to the east of Pembroke
Site 6	Land at Penny Bridge, to the east of Pembroke
Site 7	Land at Sunny View, to the east of Hundleton
Site 8	Land at Underhill Wood, to the east of St Twynnells
Site 9	Land at King's Mill, to the north of Warren



Figure 7.1 Alternative Sites