

## Swansea Council

## TIR JOHN SOLAR FARM

## Planning, Design and Access Statement



Swansea Council

## **TIR JOHN SOLAR FARM**

Planning, Design and Access Statement

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WSP

1 Capital Quarter Tyndall Street Cardiff CF10 4BZ Phone: +44 2920 769 200+44 2920 769 200

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## 1 INTRODUCTION

### 1.1 OVERVIEW

1.1.1. WSP ('the Agent') have been instructed by Swansea Council (SC) ('the Applicant') to prepare and submit a full planning application at Tir John Landfill ('the Site') for:

"The construction, operation, and decommissioning of a ground-mounted solar photovoltaic (PV) farm with an installed generating capacity of 3 Mega-Watt (MW), including ancillary equipment, associated infrastructure and private wire connection"

1.1.2. This Planning, Design and Access Statement (PDAS) has been prepared to accompany the planning application. The PDAS analyses the development in the context of the requirements of relevant planning policy and guidance (at national through to local levels) to provide an overarching analysis of the proposals in the context of site specific and general development policies. The PDAS also explains the design evolution of the Proposed Development and the accessibility of the site.

### 1.2 SUPPORTING DOCUMENTS

- 1.2.1. The PDAS should be read in conjunction with the following documents which accompany the planning application:
  - Planning Application Form;
  - Plans and Drawings
  - Pre-Application Consultation Report (to be submitted with the final planning application following Pre-Application Consultation);
  - Ecology Assessment (including a Reptile Survey Report and Breeding and Wintering Bird Survey Report).
  - Landscape and Visual Impact Assessment (and supporting Landscape and Ecology Mitigation Plan);
  - Habitat Regulations Assessment Stage 1 Screening Report;
  - Land Contamination Preliminary Risk Assessment;
  - Transport Statement;
  - Glint and Glare Study; and
  - Decommission Plan.

### 1.3 FORMAT OF THE DOCUMENT

- 1.3.1. The PDAS is submitted as part of the planning application and is structured as follows:
  - Section 2 (Site Context) describes the location of the Proposed Development and any relevant planning applications in the area surrounding the Site;
  - Section 4 (Consultation) details the consultation and pre-application activities undertaken to date;
  - Section 4 (The Proposed Development) sets out the details of the Proposed Development including design and access considerations;
  - Section 5 (Planning Policy Context) sets out the national and local planning policies relevant to the Proposed Development;

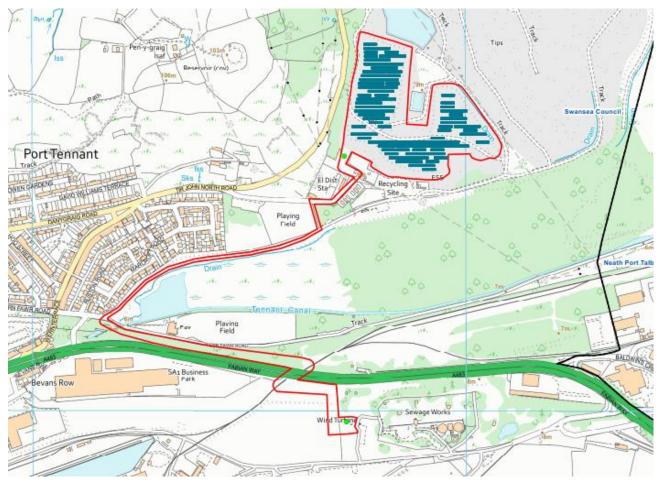
- Section 6 (Planning Considerations) sets out the need for the Proposed Development and environmental considerations; and
- Section 7 (Conclusion) summarises the need for the Proposed Development and how it accords with the planning policy framework.

## 2 SITE CONTEXT

### 2.1 THE SITE

- 2.1.1. The Application Site ('the Site' hereafter), as shown in Figure 2-1 below, has an area of 11 q, and is located within the administrative boundary of Swansea Council (SC).
- 2.1.2. The Site forms part of Tir John Landfill located within Crymlyn Burrows, and comprises of a capped area which is approximately 16% of the total landfill site. The remaining section of the landfill stopped accepting waste in January 2021, and SC have aspirations to cap the remaining area. Adjacent south of the Site is Tir John Household Waste Recycling Centre which remains active.
- 2.1.3. To the north, south and east of the site is Crymlyn Bog National Nature Reserve (NNR), Site of Special Scientific Interest (SSSI), Ramsar, and Special Area of Conservation (SAC), which is a wetland habitat. To the west of the Site is the residential area Port Tennant, and to the south is Swansea Gate Business Park.
- 2.1.4. The Site is accessed via an unclassified road off Wern Fawr Road in Port Tennant. To the west of the site is Dinan Road which travels north from Port Tennant to Crymlyn Bog to the north west of the Site.
- 2.1.5. A network of Public Right of Way (PRoW) footpaths is located to the west of the Site, the closest footpath is B0484 located adjacent west of Dinam Road. The Wales Coast Path runs east to west parallel to the Tennant Canal, approximately 250m south of the solar PV farm Site.
- 2.1.6. The private wire route will connect the proposed solar PV farm to a proposed new substation within Swansea Bay Wastewater Treatment Works south of Fabian Way. The route will travel south west within the verge of the Tir John Landfill access road, where it meets Wern Fawr Road, it will then travel west through an area of disused land to the north of Fabian Way. The private wire will then cross Fabian way utilising the existing railway overbridge, before traveling south east to the Swansea Bay Wastewater Treatment Works.
- 2.1.7. The solar PV farm site and private wire route are shown on Figure 2-1 below.

### Figure 2-1 - Site Location



### 2.2 SITE ANALYSIS

- 2.2.1. The Site comprises the solar PV array site, and the private wire connection route.
- 2.2.2. The array Site is located on a plateau at the summit of the capped landfill site, with the landform varying in height from approximately 19m Above Ordnance Datum (AOD) at the highest point in the centre of the site, to approximately 10m AOD to the south where the slope of the landfill falls away towards the Tir John Household Waste Recycling Centre. An attenuation lagoon is located within the centre of the Site that collects surface water which manages the risk of surface water.
- 2.2.3. A central access tracks runs across the Site (from south-east to north-west) and is used for operational maintenance purposes. The appearance of the Site is largely managed using a wildflower grass mix.
- 2.2.4. The private wire route travels south west from Tir John landfill along Wern Fawr Road, it then crosses the Tennant Canal and continues in an easterly direction between the Ashland's Playing Fields and A483 Fabien Way. The private wire route will cross underneath the A483 Fabien Way before continuing in an easterly direction towards the Swansea Bay Wastewater Treatment Works.
- 2.2.5. The photographs below show the existing topography, vegetation and access track within the array Site.

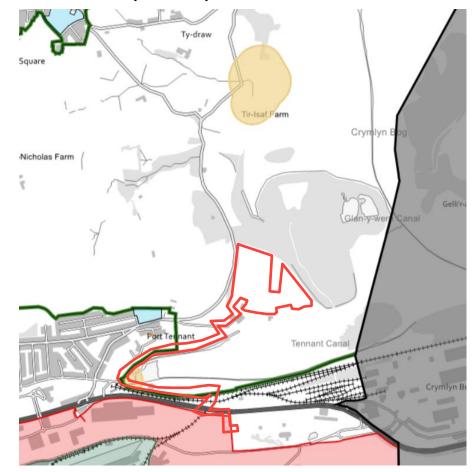
Figure 2-2 - Site Photographs



2.2.6. The below sections describe the Site surroundings and identified constraints.

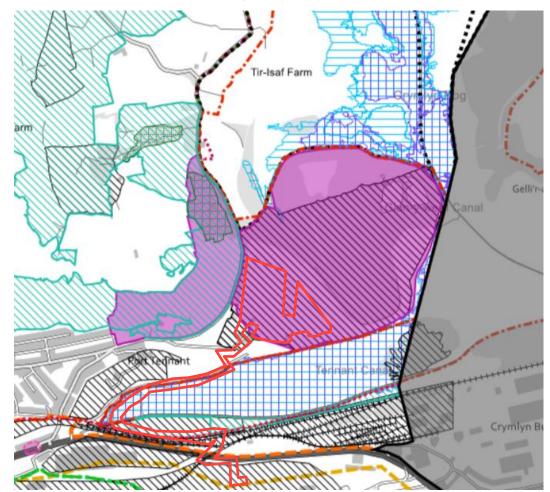
## SURROUNDING ENVIRONMENTAL DESIGNATIONS AND STRATEGIC PLANNING ALLOCATIONS

2.2.7. The Swansea Local Development Plan (LDP) 2010-2025 was adopted on the 28<sup>th</sup> February 2019 and sets out the SC's land use policies and proposals to control development in the City up to 2025 and gives a clear indication of where development will be encouraged and where it will be resisted. Figure 2-3 below shows an extract from the LDP Proposals Map, and Figure 2-4 shows an extract from the LDP constraints map.



#### Figure 2-3 - Swansea LDP Proposals Map

Swansea LDP Proposals Map Legend				
	The Site		Housing Commitments	
	Non-Strategic Housing Sites		Sand and Gravel Resource	
	Strategic Sites		Port and Docks	
	Development in the Countryside			



### Figure 2-4 - Swansea LDP Constraints Map

Swansea LDP Constraints Map Legend				
	The Site		Landfill Site	
	Historic Contaminated Land		Site of Importance for Nature Conservation	
	Site of Special Scientific Interest		Ramsar	
	Special Area of Conservation		National Nature Reserve	
	Flood zone 3		Flood Zone 2	
	National Cycle Network		High Frequency Cross City Bus routes	
	Shared Path		Wales Coastal Path	
	Noise Action Planning Priority Area			

2.2.8. Further details of the Site constraints are described below.

### BIODIVERSITY

- 2.2.9. The Site is located approximately 50m from Crymlyn Bog Special Area of Conservation (SAC), Ramsar, and Site of Special Scientific Interest (SSSI). Part of the Cymlyn Bog SAC, Ramsar and SSSI located adjacent north of the Site is also a designated National Nature Reserve (NNR) known as Crymlyn Bog and Pant-Y-Sais.
- 2.2.10. Crymlyn Burrows SSSI is located approximately 1.1km south east, and Pant-Y-Sais SAC, Ramsar, SSSI and Local Nature Reserve (LNR) is located approximately 1.7km east of the Site.
- 2.2.11. Kilvey Hill Site of Importance to Nature Conservation (SINC) is adjacent west of the Site, the Tennant Canal SINC is located approximately 250m south of the Site, and NPT Watercourse SINC is located approximately 250m east of the Site.
- 2.2.12. Two areas of ancient semi-natural woodland were identified approximately 50m north west and 450m north east. The Site is located within a lowland wetland priority area (designated by NRW) and within a B-line area (designated by the Buglife B-line project).
- 2.2.13. The majority of the Site comprises semi-improved neutral grassland, with scattered tall ruderal species in some areas, largely on the sloping areas at the edges of the Site. A small area of marshy grassland is present on the western edge of the Site and several small patched of scrub are also present on the Site, largely made up of bramble.
- 2.2.14. Further details of the ecological habitats present within the Site are within the Ecology Assessment submitted with this application.

### HERITAGE

- 2.2.15. There are no identified designated heritage assets such as world heritage sites, scheduled monuments, listed buildings, registered parks and gardens or registered battlefields located within 1km the Site. The closest designated heritage asset is the Grade II Listed War Memorial in Dan-y-graig Cemetery, located c.1.2km west of the Site.
- 2.2.16. There are two non-designated heritage assets adjacent to the Site's western boundary: Tir John North post medieval building and Crymlin Well, a post medieval well located near Tir John North.

### FLOOD RISK AND WATERCOURSES

- 2.2.17. The nearest watercourses to the site are two disused canals; the Tennant Canal lies approximately 250m to the south and the Glan-y-Wern canal lies approximately 600m to the east. The River Tawe lies 2.8km to the west and the River Neath 4.5km to the east. The Crymlyn Bog lies to the south of the main Site and surrounds the existing operational landfill.
- 2.2.18. Natural Resources Wales (NRW) Development Advice Map (DAM) shows areas at risk of flooding for the purposes of land-use planning. The site is shown to be located in Zone A on the DAM indicating that these areas are considered to be at little or no risk of fluvial or tidal flooding.
- 2.2.19. The site is also shown to be at very low risk of flooding on NRW's Risk of Flooding from Rivers Map. Very Low corresponds to an annual probability of flooding from the sea of less than 1 in 1,000 (<0.1% AEP).</p>
- 2.2.20. The Flood and Surface Drainage Report submitted with this application also identifies that there is a low risk of tidal/coastal flooding, surface water flooding, groundwater flooding, and sewer flooding.

### AIR QUALITY AND NOISE

2.2.21. The Site is not located within or adjacent to a Noise Planning Priority Area (NAPPA) or an Air Quality Management Area (AQMA).

### **GROUND CONTAMINATION**

- 2.2.22. The bedrock geology underlying the Site and forming the valley sides consists of Carboniferous South Wales Coal Measures comprising beds of mudstone, siltstone, sandstone with bands of coal. The bedrock is overlain by superficial alluvial deposits comprising clay, silt, and sand, overlain by peat (forming Crymlyn Bog).
- 2.2.23. Based on the historical and current use of the main Site, the potential for contaminant sources to be present is high. The Tir John coal-fired power station was constructed between 1932 1935 which would have required a significant foundation platform. During the Site's use layers of PFA and crushed concrete were spread out across the Site from the power station and into the bog. In the 1960's the power station was converted to oil-fired before being decommissioned in 1976. The landfill was constructed by levelling off the PFA layer, a GCL installed across the site, overlain by a 300mm thick drainage blanket of stone and scalping. Controlled waste was then deposited on Site. The capping works commenced in 2016 and were completed in 2018. The works included a 300mm stabilisation layer, overlain by a geocomposite clay liner, with 300mm protection layer and 700mm layer of restoration soils which were vegetated.
- 2.2.24. The surrounding area, including the proposed Private Wire Route is expected to be underlain with Made Ground based on the former industrial use for the, comprising disused railway sidings on Site and surrounded by historical works including chemical, arsenic, gas and tar works.
- 2.2.25. From readily available records, the Site is in a potentially high-risk area for Unexploded Ordnance (UXO) due to the high bombing density during WWII. Further details of the ground conditions at the Site are within the Preliminary Risk Assessment which has been submitted with this application.

### LANDSCAPE AND VISUAL

- 2.2.26. The Site falls within National Landscape Character Area (NLCA) 38 Swansea Bay which is a narrow coastal plain that forms the setting of steeply rising hills and is dominated by a mix of settlements, heavy industry and transport.
- 2.2.27. The Site is also within 2km of National Marine Character Area (NMCA) 26 Swansea Bay and Porthcawl.
- 2.2.28. There are no nationally designated landscapes (AONB's or National Parks) in the Study Area.
- 2.2.29. Further details of the landscape and visual receptors surrounding the Site are within the Landscape and Visual Assessment (LVIA) submitted with this application.

### **PEOPLE AND COMMUNITIES**

- 2.2.30. PRoW Footpath BO484 is located within the area of woodland and scrub west of Dinam Road, approximately 50m from the Site. PRoW Footpath BO477 is also located west of the Site, at approximately 500m.
- 2.2.31. The Wales Coastal Path is located approximately 300m from the Tir John landfill site.

- 2.2.32. Tir John Household Waste Recycling Centre is located adjacent to the southern boundary of the Site.
- 2.2.33. The nearest residential dwellings are located on Marcroft Road, Port Tennant, approximately 20m north-west of the Site boundary.

### 2.3 PLANNING HISTORY

2.3.1. A review of SC's planning register has taken place, and relevant planning applications are listed in **Table 2-1** below.

Application Reference	Location	Proposal	Submitted	Decision
2020/0173/FUL	Carn Nicholas Farm Track From Brokesby Road Bonymaen Swansea SA1 7BL	Construction of solar farm to include the installation of solar panels to generate up to 9.99MW of electricity with substations, transformers, security cameras, fencing, grid connection and associated development	29 <sup>th</sup> January 2020	Approved
2015/2491	Land At Carn Nicholas Farm Bonymaen Swansea SA1 7BL	Laying of electricity cable between the DNO substation of the Carn Nicholas Solar Farm and the point of connection to the electricity transmission network	16 <sup>th</sup> December 2015	Approved
2015/0391	Burrows Yard, North Of Fabian Way, Swansea	Change of use from railway sidings to student residential accommodation (pre application)	N/A	N/A
EN010049	Swansea Bay Swansea	Proposed Swansea Tidal Lagoon (Nationally Significant Infrastructure Project)	9 <sup>th</sup> June 2015	DCO granted
2013/1033	Land At Swansea Bay Waste Water Treatment Works, Fabian Way, Swansea	Erection of a 79m high wind turbine, detached control building and associated works.	25 <sup>th</sup> October 2013 (refusal) 15 <sup>th</sup> October 2014 (appeal decision)	Appeal Allowed

### Table 2-1 – Relevant Planning History

There have been no recent planning applications within the Site. However, a recent application for a solar farm (reference 2020/0173/FUL) located approximately 900m west of the Site was approved in June 2020.

A pre-application enquiry was submitted in February 2015 for the change of use of the railway sidings located south of the railway line and the Wales Coast Path, north of Fabian Way. The planning officer at SC advised that such an application would not be compliant with local planning policy. No further applications were submitted for this site.

The land south of Fabian Way where a small section of the private wire route is proposed was included within the boundary of the Swansea Bay Tidal Lagoon project which was granted consent by the Secretary of State in 2015, however was not constructed. Whilst there still remains an aspiration to construct a tidal lagoon in Swansea Bay, no further applications have been made.

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## 3 CONSULTATION

### 3.1 PRE-APPLICATION DIALOGUE

- 3.1.1. A pre-application request was submitted to SC planning department on 16<sup>th</sup> August 2019, and a response received on 1<sup>st</sup> November 2019. The response is within **Appendix A**.
- 3.1.2. The pre-application response noted the relevant policies to the Proposed Development, these are discussed further in Section 5.3. This included Policy SD K which is a Strategic Development Area adjacent to the Site, and is allocated for mixed commercial mixed commercial, residential (525 dwellings) and employment development with 12 hectares of potential development areas that could accommodate appropriate B1, B2 and B8 uses. The pre-applications response states that any development in this location would need to be designed in such a way that that would not impact on the future development of the strategic site area and the countryside within which it resides.
- 3.1.3. The pre-application response concluded that the principle of development in its location may be acceptable, however a robust justification of the use of the site will need to be provided within the planning application.
- 3.1.4. The response also recommended that the following documents are submitted with the planning application:
  - Habitats Regulations Assessment;
  - Ecological Assessment;
  - Transport Assessment;
  - Glint and Glare Assessment;
  - Landscape and Visual Assessment;
  - Tree Survey (should any trees be impacted by the development);
  - Soil Hydrology Assessment; and
  - Decommissioning Plan.
- 3.1.5. In addition, the response noted that SAB approval, and an EIA screening opinion will need to be submitted to SC.
- 3.1.6. Since the pre-application response was received, the design of the development has progressed, it has become apparent that no trees will be impacted, and therefore a tree survey was not considered necessary to support the application.
- 3.1.7. The response advised that NRW must be consulted in order to assess the feasibility of developing a solar farm on the site, the potential dangers to public health and whether they can be mitigated. NRW were consulted in November 2020, and their response is within **Appendix B.** NRW advised that the following environmental topics need to be considered: groundwater protection and land contamination; protected sites (included SACs and SSSIs); protected species; and landscape.

### 3.2 ENVIRONMENTAL IMPACT ASSESSMENT

3.2.1. The Proposed Development has been reviewed against the Town and Country Planning (Environmental Impact Assessment) (Wales) Regulations 2017 and provisions set out in Circular 11/99 to determine whether an Environmental Impact Assessment (EIA) is required to accompany the planning application.

- 3.2.2. An EIA Screening Opinion request was submitted to SC Planning Department on 30 November 2021 seeking to confirm whether the Proposed Development is EIA Development. The request was formally required as the Proposed Development falls into Category 3 of Schedule 2 (Infrastructure projects (a) 'Industrial installations for the production of electricity, steam and hot water' and exceeds the 0.5ha threshold for Schedule 2, 3(a).
- 3.2.3. The submitted request concluded that the Proposed Development would be unlikely to lead to significant environmental effects and, as such, does not represent EIA development.
- 3.2.4. An EIA Screening Response was received by SC on 7 January 2022 (reference 2021/3044/SCR) which confirmed that the Proposed Development does not constitute EIA development as it is unlikely to have any significant effects on the environment. The EIA Screening Response is within **Appendix C**.

### 3.3 PRE-APPLICATION CONSULTATION (PAC)

3.3.1. In accordance with Part 1A of the Town and Country Planning (Development Management Procedures) (Wales) Order 2016, all major developments (over 1 hectare) are required to carry out pre-application consultation, prior to submission to the Local Planning Authority. Therefore, this planning application will be accompanied by a Pre-Application Consultation Report which will demonstrate compliance with section 61Z of the Town and Country Planning Act 1990, and detail how consultation responses have been received and considered. **Table 3-1** below provides a summary of the Pre-Application Consultation actions undertaken to date.

Pre-Application Consultation Actions	Date Requirement Actioned	Requirement Satisfied
Display a site notice	21/03/2022	$\checkmark$
Write to "any owner or occupier of any land adjoining the land to which the proposed application relates"	21/03/2022	~
Consult "community" and "specialist" consultees	121/03/2022	~
Make the draft application available publicly	21/03/2022	~

#### Table 3-1 – Pre-Application Consultation Summary

3.3.2. Full details of all pre-application consultation undertaken in connection with the Proposed Development will be set out in the Pre-Application Consultation Report which will accompany the final planning application.

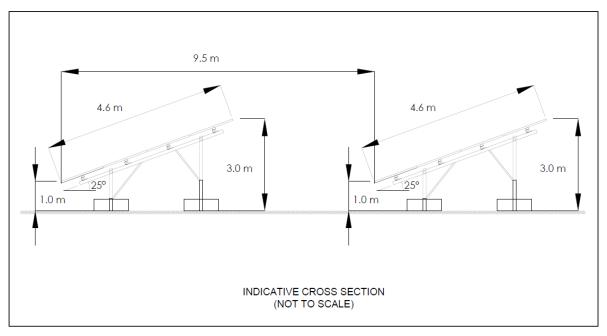
## 4 THE PROPOSED DEVELOPMENT

### 4.1 PROPOSED DEVELOPMENT

4.1.1. The Proposed Development involves the construction, operation, and decommissioning of a groundmounted solar photovoltaic (PV) farm with an installed generating capacity of 3 Mega-Watt (MW), including ancillary equipment, associated infrastructure and private wire connection on land within Tir John Landfill in Swansea.

### SOLAR PHOTOVOLTAIC PANELS AND SUPPORTING STRUCTURES

- 4.1.2. The solar PV farm will comprise approximately 5,500 solar PV panels, which will each be fixed and mounted onto a metal frame. The solar PV panels would be laid out in straight arrays set at an angle of between 10 to 35 degrees from east to west across the Site. This is shown in the submitted Site Layout Plan.
- 4.1.3. The distance between the arrays would respond to topography but would typically be between 3-4m. The top northern edges of the panels would be between 2-3m above ground level (AGL) and the south lower edges of the panels would be between 0.5-1m AGL. The arrays would be static.
- 4.1.4. The metal framework that houses the solar PV panels will be supported by mounted posts approximately 5m apart, depending on the orientation/configuration of the panels. The mounted system will be fixed to a non-intrusive ballast system. CCTV will also be installed across the Site **Please refer to Figure 4-2.**



### Figure 4-1 - Indicative Cross-Section of Solar Panels

### **PRIVATE WIRE ROUTE**

4.1.5. The Proposed Development includes a private wire connection which would export the electricity generated by the Proposed Development to a nearby user, located to the south of Fabian Way.

- 4.1.6. The private wire route travels south west from Tir John landfill along Wern Fawr Road, it then crosses the Tennant Canal and continues in an easterly direction between the Ashland's Playing Fields and A483 Fabien Way. The private wire route would cross underneath the A483 Fabien Way before continuing in an easterly direction towards the Swansea Bay Wastewater Treatment Works.
- 4.1.7. The private wire connection would largely consist of a high-voltage (HV) cable for a length of approximately 1.6km, and will largely be underground for its entire length except for works associated with crossing the Tennant Canal and Fabien Way underpass.
- 4.1.8. The permanent cabling easement required will be approximately 450mm in width, with the cable located approximately 520mm below ground to allow room for appropriate cable protection. A construction working width of approximately 5m will be required along the length of the route.

### SUBSTATION BUILDINGS

- 4.1.9. There will be two substation buildings, one located at the Tir John landfill site and one located at the end of the Private Wire Connection, at Swansea Bay Wastewater Treatment Works owned by DCWW. The substation buildings will consist of a glass-fibre reinforced polyester enclosure housing switchgear, transformer, and auxiliary electrical equipment, including communication and control systems.
- 4.1.10. The substation buildings will measure approximately 3m in height and will be positioned on a raised concrete plinth.

### 4.2 ACCESS AND MOVEMENT

- 4.2.1. Access to the proposed solar PV farm would be taken from Wern Fawr Road via the existing access arrangements. There are frequent passing places along the access road from Wern Fawr Road into the site ensuring safe passing of vehicles. These access arrangements are expected to be utilised during construction and for future access to the site for security, maintenance, and operational purposes.
- 4.2.2. Emergency vehicles will use the same access arrangements as other vehicles via Wern Fawr Road.
- 4.2.3. The site would have infrequent trips for servicing due to the nature of the site. Any servicing of the site would occur via the existing access arrangements via Wern Fawr Road.
- 4.2.4. The car parking provision will be provided on site and would be sufficient to accommodate the infrequent demand for parking due to security, maintenance, and operational visits.
- 4.2.5. There is a network of existing access tracks throughout the Tir John landfill site which will be integrated and used as part of the Proposed Development, where possible.
- 4.2.6. The proposed substation building at the end of the private wire connection will be accessed via Baldwins Crescent before joining a private road which leads to the Swansea Bay Wastewater Treatment Works.

### 4.3 LANDSCAPING

4.3.1. A Landscape and Ecological Mitigation Plan (LEMP) will be produced for the operational phase of the development, this will include measures such as the management of the habitat mosaic around the periphery of the Solar PV farm and a habitat monitoring scheme to be agreed with the Local Planning Authority (LPA) and site operator.

4.3.2. The measures within the LEMP will ensure that there is ongoing structural and species diversity, which will in turn ensure improvements to invertebrate diversity as well as better foraging opportunities for birds and bats. As a result, other species such as amphibians and reptiles are also likely to benefit. Such measures would likely therefore provide some net benefit within the development.

### 4.4 DESIGN RATIONALE

- 4.4.1. The proposed layout of the Site has been designed to maximise electricity production, however several site constraints have also influenced the layout of the solar PV panels and proposed design as described below.
- 4.4.2. As the project is sited on a capped landfill, careful consideration has been given to the location of the plant and all equipment is required to be above ground. This means that the mounting structure is required to be a ballasted system, and no cables are to be buried.
- 4.4.3. An active gas management system has been installed at the Site to prevent the migration of landfill gas beyond the site boundary, and to minimise uncontrolled emissions of landfill gas to the atmosphere. The location of the above ground gas monitoring infrastructure has therefore been considered within the proposed site layout.
- 4.4.4. Given the topography of the Site, as described in Section 2.1, the location of the solar panels is restricted to the plateau, and therefore no panels are proposed on the embankments surrounding the Site, sloping towards the attenuation lagoon and the recycling centre. The layout also avoids the existing access tracks through the Site so that these can continue to be used for maintenance and operational purposes
- 4.4.5. Other design constraints include the presence of overhead lines, for which a 10m buffer has been implemented in the design and the presence of trees on the outskirts of the Site for which a 20m buffer has been implemented in the design.

### 4.5 DECOMMISSIONING

- 4.5.1. A Decommissioning Plan has been submitted as part of this application. All solar PV array infrastructure would be removed from the Site and recycled or disposed of in accordance with good practice and market conditions at that time. The future of the substation buildings and permanent access would be discussed with network operators and agreed with the landowner and SC prior to the commencement of decommissioning.
- 4.5.2. The Site will be restored to a state similar to its pre- construction condition. and the soil shall be reseeded with suitable native species, in liaison with the landowner, in order to integrate the newly restored soil into the future land-use.
- 4.5.3. Decommissioning activities could result in environmental impacts similar to those of the construction phase, therefore best practice construction management measures including mitigation requirements and measures to manage risks associated with the decommissioning of the Proposed Development, similar to those employed during the construction phase of the solar PV farm will be implemented.

## 5 PLANNING POLICY CONTEXT

## 5.1 INTRODUCTION

- 5.1.1. Section 38 (6) of the Planning and Compulsory Purchase Act (2004) requires that proposals are determined in accordance with the development plan unless material considerations indicated otherwise. The development plan comprises of local planning documents which have been the subject of examination in public or testing through public inquiry and are adopted having been through due process.
- 5.1.2. This section of the PDAS sets out the planning policy context for the Proposed Development in the context of the relevant planning policy and guidance at both the national and local level.

### 5.2 NATIONAL PLANNING POLICY

### PLANNING POLICY WALES (EDITION 11, FEBRUARY 2021)

5.2.1. Planning Policy Wales (PPW) 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, as required by the Planning (Wales) Act 2015, the Well-being of Future Generations (Wales) Act 2015, and other key legislation. The table below sets out the policies which are relevant to the Site and Proposed Development.

Paragraph number	Policy text
1.18	Legislation secures a presumption in favour of sustainable development in accordance with the development plan unless material considerations indicate otherwise to ensure that social, economic, cultural and environmental issues are balanced and integrated.
2.8	Planning policies, proposals and decisions must seek to promote sustainable development and support the well-being of people and communities across Wales.
2.15 and Figure 5	<ul> <li>The national sustainable placemaking outcomes should be used to inform the assessment of development proposals:</li> <li>Creating and Sustaining Communities</li> <li>Growing Our Economy in a Sustainable Manner</li> <li>Making Best Use of Resources</li> <li>Maximising Environmental Protection and Limiting Environmental Impact</li> <li>Facilitating Accessible and Healthy Environments</li> </ul>
3.43	Planning authorities must prioritise the use of suitable and sustainable previously developed land and/or underutilised sites for all types of development.
3.55	Previously developed land should, wherever possible, be used in preference to greenfield sites where it is suitable for development.

### Table 5-1 - Planning Policy Wales (Edition 11, February 2021)

## ۸SD

Paragraph number	Policy text	
5.9.1	Planning authorities should seek to ensure their area's full potential for renewable and low carbon energy generation is maximised and renewable energy targets are achieved.	
5.9.10	Planning authorities should ensure development plan policies are supportive of renewable and low carbon energy development in all parts of Wales, direct developments to the right locations and set out clearly the local criteria against which proposals will be evaluated.	
6.4.3	Development proposals must consider the need to:	
	<ul> <li>support the conservation of biodiversity, in particular the conservation of wildlife and habitats;</li> </ul>	
	<ul> <li>ensure action in Wales contributes to meeting international responsibilities and obligations for biodiversity and habitats;</li> </ul>	
	<ul> <li>ensure statutorily and non-statutorily designated sites are properly protected and managed;</li> </ul>	
	- safeguard protected and priority species and existing biodiversity assets from impacts which directly affect their nature conservation interests and compromise the resilience of ecological networks and the components which underpin them, such as water and soil, including peat; and	
	- secure enhancement of and improvements to ecosystem resilience by improving diversity, condition, extent and connectivity of ecological networks.	
6.4.5	Planning authorities must seek to maintain and enhance biodiversity in the exercise of their functions. This means development should not cause any significant loss of habitats or populations of species, locally or nationally and must provide a net benefit for biodiversity.	

### **FUTURE WALES (FEBRUARY 2021)**

- 5.2.2. Future Wales is the National Development Framework for Wales, setting the direction for development in Wales to 2040. Future Wales is a spatial plan with a strategy for addressing key national priorities through the planning system, including sustaining and developing a vibrant economy, achieving decarbonisation and climate-resilience, developing strong ecosystems and improving the health and well-being of communities.
- 5.2.3. Future Wales identifies that Wales can become a world leader in renewable energy technologies, in part because of the potential for solar generation, and also because of the commitment to ensuring the planning system provides a strong lead for renewable energy development.
- 5.2.4. Policy 17 states that the Welsh Government strongly supports renewable energy development in principle, and decision makers must give significant weight to the need to meet Wales' international commitments and targets set for the consumption of renewable energy. All development proposals however must demonstrate that they will not have an unacceptable adverse impact on the environment.

### **TECHNICAL ADVICE NOTES**

- 5.2.5. Each Technical Advice Note (TAN) provides detailed planning advice on a different subject. They should be read along with the Planning Policy Wales document which sets out the land use planning policies. The relevant TANs to this application have been set out below:
  - TAN 5, Nature Conservation and Planning (September 2009); and
  - TAN 12, Design (March 2016).

### TAN 5, NATURE CONSERVATION AND PLANNING (SEPTEMBER 2009)

- 5.2.6. This TAN provides advice about how the land use planning system should contribute to protecting and enhancing biodiversity and geological conservation, including protected species and habitats.
- 5.2.7. A Preliminary Ecological Appraisal (PEA) for the Site has been undertaken and has been submitted to support this application. Following the result of this a bird survey and reptile survey were also carried out.
- 5.2.8. The Site is a caped landfill site which has limited ecological value, however the results of the ecological survey state that during the construction phase the Proposed Development has the potential to result in adverse effects on habitats and protected species. Mitigation measures such as the presence of an Ecological Clerk of Works (ECoW) and appropriate working methods, will be implemented to avoid, mitigate and compensate for any potential effects of the Proposed Development.
- 5.2.9. A Habitats Regulation Assessment for the Site has also been undertaken to assess any potential effects to the below International Designated Sites:
  - Crymlyn Bog SAC
  - Crymlyn Bog Ramsar
- 5.2.10. No impacts on the SAC and Ramsar are considered likely from the Proposed Development. The solar development will not result in changes to surface water flows in amount or quality and no impacts on air quality or nutrient enrichment.
- 5.2.11. A LEMP will be produced for the operational phase of the development, this will include managing the habitats around the periphery of the solar PV farm, and a habitat monitoring scheme as agreed with the LPA and site operator. Further biodiversity enhancements are also recommended in section 6.3 of the Ecological Assessment.

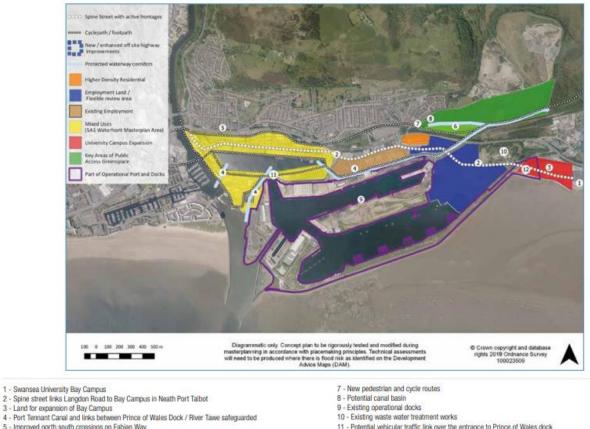
### TAN 12, DESIGN (MARCH 2016)

- 5.2.12. This TAN provides guidance on how good design should be achieved through the planning process. Paragraph 2.6 of TAN 12 states that "design which is inappropriate in its context, or which fails to grasp opportunities to enhance the character, quality and function of an area, should not be accepted, as these have detrimental effects on existing communities".
- 5.2.13. The design of the Proposed Development is generally recessive in nature, hugging the landform and comprising built form of a uniform height above ground level. In addition, the Proposed Development does not incorporate any lighting and requires little in the way of personnel and vehicles on site during its operation.
- 5.2.14. A Landscape and Visual Impact Assessment (LVIA) for the Proposed Development has been undertaken which concludes that:

- The Proposed Development would not result in any long-term significant landscape or visual effects.
- No significant effects on Landscape Character are anticipated.

## 5.3 LOCAL PLANNING POLICY

- 5.3.1. The Swansea Local Development Plan (LDP) 2010-2025 was adopted on the 28<sup>th</sup> February 2019.
- 5.3.2. The LDP sets out the SC's land use policies and proposals to control development in the City up to 2025 and gives a clear indication of where development will be encouraged and where it will be resisted. The Site is located within an area allocated under Policy CV 2 Development in the Countryside. Policy CV 2 aims to ensure that the integrity of the countryside is conserved and enhanced, and there is a presumption against development in the countryside unless it meets the below criteria:
  - The purposes of agriculture, forestry or other rural enterprise.
  - The expansion of an existing rural business.
  - Affordable housing to meet local need at acceptable and sustainable locations within, or infilling, or adjoining settlements, or as minor extensions to small groups of dwellings in the countryside.
  - A rural exception site for employment in or adjoining a settlement.
  - Development to allow a small business to operate from home.
  - One Planet Development.
  - Necessary infrastructure provision and enhancement of infrastructure networks.
  - Recreational equine activities.
- 5.3.3. Whist the Proposed Development does not fit directly into the criteria listed above, the Site is located on an existing landfill site, and will therefore not use a greenfield site, or encroach on the countryside, it is also unlikely that this land can be restored for agricultural use. In addition, a Landscape and Visual Impact Assessment has been undertaken for the Proposed Development and concludes that there would be no significant effects.
- 5.3.4. Adjacent south of the Site is an area allocated as Strategic Development Area K (Policy SD K Fabian Way Corridor). SD K is allocated for mixed commercial, residential (525 dwellings) and employment development with 12 hectares of potential development areas that could accommodate appropriate B1, B2 and B8, the concept plan for SD K is in Figure 5-1. The area of land directly south of the Site is allocated for public access greenspace, and the area of land south of Fabian way is allocated for employment development.
- 5.3.5. The Proposed Development does not incorporate any lighting and requires little in the way of personnel and vehicles on site during its operation. Given the nature of the Proposed Development no impacts to air quality or noise are anticipated, and the Landscape and Visual Impact Assessment concludes no significant effects. Therefore, the Proposed Development will not have any significant impacts on the amenity of existing and future residents of the surrounding area, and will not be prejudicial to the future development of SD K.
- 5.3.6. The installation of the cable within these areas will not prevent any future development within SD K as it will be installed underground for the most part.



### Figure 5-1 - Concept Plan for SD K (extract from Swansea LDP)

- 5 Improved north south crossings on Fabian Way 6 - Sports and pitch improvement at Ashlands

- 11 Potential vehicular traffic link over the entrance to Prince of Wales dock 12 Area subject to review depending on changes to flood risk and University expansion proposals
- 5.3.7. As detailed in Section 2.2, there are environmental constraints/designations which are present within and adjacent to the Site. The Site has been identified as a landfill site, and as historic contaminated land. Adjacent to the Site are several ecological designations, and land within Flood Zone 2 and Flood Zone 3 surround the Site on the north, east and south boundaries. In addition, the cable route will cross the Tennant Canal Site of Importance to Nature Conservation (SINC), National Cycle Route 4, and the Wales Coast Path. These constraints are discussed further in Section 6 Planning Considerations.

5.3.8. Table 5-2 below sets out the other relevant policies from the SC LDP which support the development of the Site:

#### Table 5-2 – Relevant LDP Policies

Policy	Policy text	Relevance to the Proposed Development
PS 1: Sustainable Places	In order to deliver sustainable places and strategically manage the spatial growth of the County, the delivery of new homes, jobs, infrastructure and community facilities must comply with the Plan's sustainable settlement strategy that requires:	The Site is located within the countryside (See above Policy CV 2), however it is located on a capped landfill site not a greenfield site. An LVIA has been undertaken and concludes there are no likely significant effects on Landscape Character.
	<ul> <li>i. Development to be directed to the most sustainable locations within the defined settlement boundaries of the urban area and Key Villages;</li> <li>iv. Inappropriate development in the countryside to be resisted.</li> </ul>	The Site is considered suitable for a solar farm development as due to its previous use as a landfill site only developments that would not be particularly vulnerable to the presence of contamination would be permitted, and therefore it is unlikely that the Site would be returned to agricultural use. The Proposed development has been designed to be surface mounted so that limited earthworks are required, and requires little in the way of personnel during operation, reducing contamination risk.
PS 2: Placemaking ad Place Management	Development should enhance the quality of places and spaces, and respond positively to aspects of local context	I – The LVIA undertaken concludes that there would be no significant landscape or visual effects.
r labe Management	and character that contribute towards a sense of place.	IV - A LEMP will be produced, and biodiversity
	All proposals should ensure that no significant adverse impacts would be caused to people's amenity.	enhancements will be implemented as recommended in th Ecology Assessment.
	Depending on the nature, scale and siting of the proposal, development should also:	XI – The Proposed Development will contribute towards increased renewable energy generation.
	i. Have regard to important elements of local heritage, culture, landscape, townscape, views and vistas;	XII – the Proposed Development is on a former landfill site, and therefore does not need to be retained for its existing
	<ul> <li>iv. Integrate effectively with the County's network of multifunctional open spaces and enhance the County's Green Infrastructure network;</li> <li>xi. Maximise opportunities for sustainable construction,</li> </ul>	use XII – no conflicts are anticipated, the development will not have effect on existing and future residential uses in the surrounding area.
	resource efficiency and contributions towards increased renewable or low carbon energy generation;	Xiv - The identified heritage assets are well separated from the site by greenfield land and intervening urban

Policy	Policy text	Relevance to the Proposed Development
	<ul> <li>xii. Avoid the loss of land and/or premises that should be retained for its existing use or as an area of open space;</li> <li>xiii. Avoid unacceptable juxtaposition and/or conflict between residential and non-residential uses;</li> <li>xiv. Ensure no significant adverse impact on natural heritage and built heritage assets;</li> <li>xv. Ensure resilience is not undermined and does not result in significant risk to human health, well-being or quality of life;</li> </ul>	development. As a result, it is considered unlikely that the proposals will give rise to significant effects. XV – The Site is a former landfill. The Preliminary Risk Assessment undertaken concludes that there would be no significant effects on human health from ground or water contamination. There are also no anticipated effects to air quality or noise given the nature of the Proposed Development.
SD 1: Strategic Development Areas	Strategic Development Areas (SDAs) are allocated at 12 locations to provide new homes and opportunities for job creation and commercial investment at a strategic scale.	The Site is located adjacent north of SD K Fabian Way. How the development accords with this policy is described in paragraphs 5.3.5 to 5.3.7 above
ER 1: Climate Change	<ul> <li>To mitigate against the effects of climate change, adapt to its impacts and ensure resilience, development proposals should take into account:</li> <li>i. Reducing carbon emissions;</li> <li>ii. Protecting and increasing carbon sinks;</li> <li>iii. Adapting to the implications of climate change at both a strategic and detailed design level;</li> <li>iv. Promoting energy and resource efficiency and increasing the supply of renewable and low carbon energy;</li> <li>v. Avoiding unnecessary flood risk by assessing the implications of development proposals within areas susceptible to flooding and preventing development that unacceptably increases flood risk; and</li> <li>vi. Maintaining ecological resilience</li> </ul>	The Proposed Development will increase the supply of renewable energy. There will be no emissions to the air from the Proposed Development. Emissions to air would be limited to maintenance activities including regular inspections of the Site by technicians and the use of machinery for maintenance purposes, if required. The Proposed Development is anticipated to have a long- term beneficial impact on climate.

Policy	Policy text	Relevance to the Proposed Development
ER 2: Strategic Green Infrastructure Network	<ul> <li>Green Infrastructure will be provided through the protection and enhancement of existing green spaces that afford valuable ecosystem services.</li> <li>Development that compromises the integrity of such green spaces, and therefore that of the overall Green Infrastructure network, will not be permitted.</li> <li>Development will be required to take opportunities to maintain and enhance the extent, quality and connectivity of the County's multi-functional Green Infrastructure network, and where appropriate: <ul> <li>i. Create new interconnected areas of Green Infrastructure between the proposed site and the existing strategic network;</li> <li>ii. Fill gaps in the existing network to improve connectivity; and</li> <li>iii. In instances where loss of Green Infrastructure is unavoidable, provide mitigation and compensation for the lost assets.</li> </ul> </li> </ul>	The Proposed Development will be contained to the former landfill site, and no significant impacts to air quality, noise, amenity, landscape and visual, or ecology are anticipated, therefore the Proposed Development will not compromise the integrity of any existing or future green spaces in the surrounding area. A LEMP will be produced and biodiversity enhancements will be implemented as recommended in the Ecology Assessment.
ER 6: Designated Sites of Ecological Importance	Development will not be permitted that would result in a likely significant adverse effect on the integrity of sites of international or national nature conservation importance. Development that would adversely affect locally designated sites of nature conservation importance should maintain and enhance the nature conservation interest of the site. Where this cannot be achieved development will only be permitted where it can be demonstrated that: i. The need for the development outweighs the need to protect the site for nature conservation purposes; ii. There is no satisfactory alternative location for the development that avoids nature conservation impacts; and	An Ecology Assessment has been undertaken for the Proposed Development which concludes that there will be no impacts to designated sites. Additionally A Habitats Regulation Screening Assessment has been undertaken and concludes that no impacts on the Crymlyn Bog SAC/Ramsar are considered likely from the Proposed Development. The solar development will not result in changes to surface water flows in amount or quality and no impacts on air quality or nutrient enrichment.

Policy	Policy text	Relevance to the Proposed Development
	iii. Any unacceptable harm is kept to a minimum by effective avoidance measures and mitigation, or where this is not feasible, compensatory measures must be put in place to ensure that there is no overall reduction in the nature conservation value of the area.	
ER 8: Habitats and Species	<ul> <li>Development proposals that would have a significant adverse effect on the resilience of protected habitats and species will only be permitted where:</li> <li>i. The need for development outweighs the nature conservation importance of the site;</li> <li>ii. The developer demonstrates that there is no satisfactory alternative location for the development which avoids nature conservation impacts; and</li> <li>iii. Any unavoidable harm is minimised by effective mitigation to ensure that there is no reduction in the overall nature conservation measures designed to conserve, enhance, manage and, where appropriate, restore natural habitats and species must be provided.</li> </ul>	The Site is a capped landfill site which has limited ecological value. However, where possible, habitats of value will be avoided. The Proposed Development has the potential to result in adverse effects on badgers, bats, otter, water vole, birds, reptiles and amphibians. Therefore, mitigation measures will be introduced to avoid, mitigate and compensate for any potential effects of the Proposed Development. A LEMP will be implemented once the Proposed Development is Operational, this will likely increase the botanical and invertebrate diversity of the Site, and therefore provide some net benefit within the development.
ER 9: Ecological Networks and Features of Importance for Biodiversity	<ul> <li>Development proposals will be expected to maintain, protect and enhance ecological networks and features of importance for biodiversity. Particular importance will be given to maintaining and enhancing the connectivity of ecological networks which enable the dispersal and functioning of protected and priority species.</li> <li>Development proposals that could result in an adverse effect on the connectivity of ecological networks and features of importance for biodiversity will only be permitted where:</li> <li>i. The need for the development outweighs the nature conservation value of the site;</li> </ul>	The Site is a capped landfill site which has limited ecological value. However, where possible, habitats of value will be avoided. A LEMP will be implemented once the Proposed Development is Operational, this will likely increase the botanical and invertebrate diversity of the Site, and therefore provide some net benefit within the development.

Policy	Policy text	Relevance to the Proposed Development
	ii. It can be demonstrated that there is no satisfactory alternative location for the development;	
	iii. A functional connected element of the natural resource is retained as part of the design of the development; and	
	iv. Compensatory provision will be made of comparable or greater ecological value to that lost as a result of the development.	
ER 11: Trees, Hedgerows and Development	Development that would adversely affect trees, woodlands and hedgerows of public amenity or natural/cultural heritage value, or that provide important ecosystem services, will not normally be permitted.	There is very limited arboricultural receptors across the Site. The Proposed Development will avoid areas of vegetation, in particular treelines and hedgerows to avoid any shadow risk, including along the private wire route
EU 1: Renewable and Low Carbon Energy Proposals	Proposals for renewable or low carbon energy development will be permitted subject compliance with specific criteria set out in Policy EU 1.	The Site is not within an LSA, therefore a Glint and Glare study, and an LVIA has been undertaken, including consideration of cumulative impacts.
	ii. Local Search Areas (LSAs) - Within the LSAs, proposals for solar PV between $5-50$ MW will be permitted subject to criteria iii to v. All other proposals for renewable and low	The Glint and Glare study concludes that no significant impact upon surrounding road users and dwellings is predicted, and mitigation is not required.
	carbon energy development will only be permitted where they can demonstrate they would not prejudice the purpose of the LSA.	The LVIA concludes that the Proposed Development would not result in any long-term significant landscape or visual effects.
	iii. Proposals for all types of renewable and low carbon energy development and associated infrastructure, either on their own, cumulatively or in combination with existing, approved or proposed development, should comply with all other relevant policies in the Plan and should not have a significant adverse effect on:	
	a. The characteristics and features of the proposed location as a result of the siting, design, layout, type of installation and materials used;	
	b. Public amenity or public accessibility to the area;	

Policy	Policy text	Relevance to the Proposed Development
	<ul> <li>c. Radar, Aircraft Operations or Telecommunications;</li> <li>d. Carbon sinks, unless it can be demonstrated that on-site loss can be adequately mitigated;</li> <li>iv. Satisfactory mitigation should be in place to reduce the impact of the proposal and its associated infrastructure; and in the case of solar proposals must mitigate against any impacts of glint and glare. Proposals shall make provision for the restoration and after-care of the land for its beneficial re-use. This will be agreed with the LPA prior to the development being carried out.</li> <li>v. Where necessary, additional compensatory benefits will be sought in accordance with Policy IO 1 Supporting Infrastructure and Planning Obligations.</li> </ul>	
RP 1: Safeguarding Public Health and Natural Resources	Development will not be permitted that would result in significant risk to: life; human health and wellbeing; property; controlled waters; or the natural and historic environment, particularly in respect of: i. Air, noise or light pollution; ii. Flood risk; iii. The quality or quantity of water resources; iv. Land contamination; v. Land instability or subsidence; vi. Sustainable development of mineral resources; and vii. Sustainable waste management. Development will not be permitted if judged to have a significant adverse effect on the integrity of any European Designated Sites, either alone or in combination with other plans or projects.	<ul> <li>The following assessments have been undertaken</li> <li>Ecological Assessment</li> <li>Landscape and Visual Impact Assessment</li> <li>Habitats Regulations Assessment</li> <li>Land Contamination Preliminary Risk Assessment</li> <li>Transport Statement</li> <li>Flood and Surface Drainage Report</li> <li>Glint and Glare Study</li> <li>No significant effects as a result of the Proposed Development have been identified.</li> </ul>

Policy	Policy text	Relevance to the Proposed Development
RP 4: Water Pollution and the Protection of Water Resources	Development that compromises the quality of the water environment, or does not comply with good water resource management, will not be permitted. Development proposals must make efficient use of water resources and, where appropriate, contribute towards improvements to water quality. SuDS must be implemented wherever they would be effective and practicable. Watercourses will be safeguarded through green corridors/ riparian buffers: to protect water quality and water habitats and species; and to provide for flood plain capacity.	A Flood and Surface Drainage Report has been produced to accompany the planning application. A surface water drainage collection system currently manages the risk of surface water flooding at the site. Surface water is collected in an attenuation lagoon before it is pumped out via a distributed system into the Crymlyn Bog to the south of the site, in line with the existing environmental permit. It is proposed that the same surface water drainage collection system will remain operational once the solar farm has been constructed. There would therefore be no significant change to the existing drainage regime and any impact on off-site receptors would be negligible. The proposals to utilise the existing drainage system are in line with the standard SUDS principles and Standards S1 to S6.
RP 6: Land Contamination	Development proposals on land where there is a risk from actual or potential contamination or landfill gas will not be permitted unless it can be demonstrated that measures can be taken to satisfactorily overcome any significant risk to life, human health, property, controlled waters, or the natural and historic environment.	A land contamination Preliminary Risk Assessment has been undertaken, it concludes that the potential risk to human health and controlled waters is considered low. An active gas management system has been installed at the site to prevent the migration of landfill gas beyond the site boundary, and to minimise uncontrolled emissions of landfill gas to the atmosphere.
RP 10: Sustainable Waste Management	Development will be required to incorporate, as appropriate, adequate and effective provision for the storage, recycling and other sustainable management of waste, and allow for appropriate access arrangements for recycling and refuse collection vehicles and personnel.	During construction a Site Waste Management Plan (SWMP) which will monitor the levels of waste produced, set goals to limit waste generation and provide details on how generated waste will be disposed. The generation of waste during the operation phase is expected to be minimal and limited to maintenance including the replacement of redundant equipment where required.

### SUPPLEMENTARY PLANNING GUIDANCE NOTES

#### **Biodiversity and Development**

This Supplementary Planning Guidance Note (SPG) sets out how SC will seek to ensure development within Swansea maintains and enhances the County's biodiversity and delivers long term ecosystem resilience.

The Site is a capped landfill site which has limited ecological value. However, where possible, habitats of value will be avoided during construction.

The Proposed Development has the potential to result in adverse effects on habitats and protected species. Therefore, mitigation measures will be introduced to avoid, mitigate and compensate for any potential effects of the Proposed Development, these are detailed within the Preliminary Ecological Appraisal which accompanies this application.

- 5.3.9. A LEMP will be produced for the operational phase of the development. The measures to be included in the LEMP are within section 6.2 of the Ecology Assessment and are to be agreed with the LPA and the site operator.
- 5.3.10. Creating a mosaic of habitats around the edge of the Solar PV farm will ensure that there is ongoing structural and species diversity within the vegetation, which will in turn ensure improvements to invertebrate diversity as well as better foraging opportunities for birds and bats. As a result, other species such as amphibians and reptiles are also likely to benefit. Such measures would likely therefore provide some net benefit within the development
- 5.3.11. Further biodiversity enhancements are also recommended in section 6.3 of the Ecology Assessment.

### 5.4 MATERIAL CONSIDERATIONS

5.4.1. The following national and local policy and legislation have been identified as material considerations which are key drivers for the need for renewable energy developments and support the Proposed Development.

### **CLIMATE CHANGE ACT 2008**

5.4.2. The Climate Change Act 2008 sets out emission reduction targets for the UK that must be legally complied with. When passed the Act committed the UK Government to reduce its greenhouse gas emissions by 80% by 2050. In 2019 this target was increased, committing the UK Government to net zero emissions by 2050.

#### **ENVIRONMENT (WALES) ACT 2016**

5.4.3. The Environment (Wales) Act 2019 set a target for an 80% reduction in emissions by 2050, and a duty to set interim targets for 2020, 2030, and 2040. In March 2021, following advice from the Committee on Climate Change, the 2050 target was amended to net zero.

### **RENEWABLE ENERGY TARGETS**

5.4.4. In 2017 the Welsh Government set a target of generating 70% of consumed electricity by renewable means by 2030, and in 2019 it was estimated that this figure was 51%. The Proposed Development will provide an additional source of renewable energy and will therefore help the Welsh Government reach the 70% renewable energy target.

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### **CLIMATE EMERGENCY**

- 5.4.5. In 2019 SC declared a Climate Emergency, recognising that climate change is not only a global but local problem within significant local impacts particularly for the most vulnerable members of the community.
- 5.4.6. SC has set a goal to reach a net zero carbon position by 2030, and to reduce the carbon footprint for the whole of Swansea, aiming for a net zero carbon Swansea by 2050.
- 5.4.7. To reach the net zero carbon position by 2030 SC has set 10 actions to reduce or offset their current emissions. One of these actions is for the development of new solar farms and other renewable projects, the Proposed Development will contribute to this action by providing renewable energy into the grid network.

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### 6 PLANNING ASSESSMENT

### 6.1 PRINCIPLE OF THE DEVELOPMENT

- 6.1.1. The Proposed Development would generate up to 3MW capacity from a renewable source of energy. The benefits of using solar farms to generate renewable energy are well documented however the main benefits of the Proposed Development is that it would reduce reliance on fossil fuels for electricity generation in Wales by introducing a low carbon energy source. This is in accordance with the national and local material considerations identified in Section 5.4, including the targets Welsh Government have set of generating 70% of consumed electricity by renewable means by 2030, and would contribute to achieving net zero in accordance with the legal obligation to reduce greenhouse gas emissions by 100% by 2050 under the Environment (Wales) Act 2016. In addition, the Proposed Development would contribute SC's response to the Climate Emergency by providing an additional renewable energy source and contributing to their net zero aspirations.
- 6.1.2. Future Wales Policy 17 supports renewable energy development in principle, provided development proposals must demonstrate that they will not have an unacceptable adverse impact on the environment, and states that decision makers must give significant weight to the need to meet Wales' international commitments and targets set for the consumption of renewable energy.
- 6.1.3. Policy EU 1 of the Swansea LDP states that low carbon energy development would be permitted subject to the criteria set out, which includes not having a significant adverse effect on public amenity or public accessibility, and suitable mitigation measures are proposed to reduce impact of any glint and glare. As discussed above in Table 5-2 both a glint and glare assessment, as well as a landscape and visual impact assessment have been completed and conclude that there would be no significant adverse effect, the Proposed Development therefore complies with the criteria set out in policy EU 1. In addition, Policy ER 1 of the Swansea LDP encourages development that reduce carbon emissions and increase the supply of renewable energy.
- 6.1.4. Taking into account the applicable policy for renewable energy proposals from Swansea LDP Policy 17 of Future Wales the Proposed Development would be acceptable in Principle, subject to addressing any adverse environmental impacts.
- 6.1.5. The following sections address the potential environmental impacts of the Proposed Development and provides details of the environmental assessments which have been undertaken and accompany this application.

### 6.2 **BIODIVERSITY**

- 6.2.1. An Ecological Assessment for the Site has been undertaken and has been submitted to support this application. Following the result of this a bird survey and reptile survey were also carried out.
- 6.2.2. The Site is a caped landfill site which has limited ecological value, however the results of the ecological survey state that during the construction phase the Proposed Development has the potential to result in adverse effects on habitats, badgers, bats, otter, water vole, birds, reptiles and amphibians. Therefore, measures will be introduced to avoid, mitigate and compensate for any potential effects of the Proposed Development during the construction phase which will be included within the Construction Environmental Management Plan (CEMP).

- 6.2.3. A LEMP will be produced for the operational phase of the development, this will include measures such as the management of the habitat mosaic around the periphery of the Solar PV farm and a habitat monitoring scheme as agreed with the LPA and the site operator.
- 6.2.4. The measures within the LEMP will ensure that there is ongoing structural and species diversity, which will in turn ensure improvements to invertebrate diversity as well as better foraging opportunities for birds and bats. As a result, other species such as amphibians and reptiles are also likely to benefit. Such measures would likely therefore provide some net benefit within the development
- 6.2.5. Further biodiversity enhancements are also recommended in section 6.3 of the Ecological Assessment which accompanies this application.
- 6.2.6. It is therefore considered that the Proposed Development is in accordance with Policies ER 6, ER 8, ER 9, and ER 11 of the Swansea LDP.

### 6.3 GROUND CONTAMINATION

- 6.3.1. A Preliminary Risk Assessment has been carried out and submitted with this application.
- 6.3.2. The PRA identified sources of contamination at the Site include Made Ground and historic refuse waste, and potential contamination from historic railway sidings, nearby historic fuel and chemical works, coal levels, electrical substations and current and historic adjacent industrial land uses, including canals and docks.
- 6.3.3. Based on the understanding of the historical and environmental site setting the potential for contaminant sources to be present is high and potential contaminant linkages have been identified within the CSM. However, based on the Proposed Development comprising a surface mounted solar PV farm, the presence of a capping layer and limited earthworks expected (associated with shallow utility trenches for cabling), the potential risk to human health are considered low.
- 6.3.4. The risk to controlled waters including Crymlyn Bog and Swansea coast are currently considered to be moderate based on the sensitivity of the receptors and the potential for leaching and migration of contaminants and surface run off towards these receptors. However, risk to Rivers, The River Neath, River Tawe, is considered low owing to its distance (>1.5km) and direction from the Site. The risk to groundwater is currently considered to be moderate until the efficacy of the leachate system can be confirmed.
- 6.3.5. The risk to controlled waters is currently considered to be low based on the sensitivity of the adjacent surface water bodies and the potential for leaching and migration of contaminants and surface run off towards these receptors.
- 6.3.6. Based on the Proposed Development, the risk to controlled waters is considered low due to the earthworks being limited to shallow utility trenches, within the restoration soils.
- 6.3.7. The UXB risk is classed as high across the Site, therefore a detailed UXO desk study and risk assessment should be conducted prior to any intrusive works on Site. However, due to the limited shallow excavation works (utility trenches), which will be limited to within the imported restoration soils this is not considered required. This assessment could be limited to the proposed private wire route area, or a tool box talk by a specialist may suffice,

- 6.3.8. Chemical testing of material likely to be disturbed as part of any earthworks (assumed limited to utility trenches) should be undertaken to confirm its suitability for reuse (as backfill following trench excavation).
- 6.3.9. It is therefore considered that the Proposed Development is in accordance with Policy RP 1 in respect of land contamination and water resources, and Policy RP 6.

### 6.4 FLOOD RISK AND DRAINAGE

- 6.4.1. A Flood Risk and Drainage Report has been submitted as part of this application.
- 6.4.2. Flood risk and drainage at the site have been assessed by reviewing publicly available information, Natural Resource Wales Online Flood Maps, and historic planning documents for the site. No watercourses are located within the boundary of the site; however a surface water attenuation lagoon is adjacent to the site boundary.
- 6.4.3. Based on NRW's online flood mapping, the site is at very low risk of fluvial and tidal/coastal flooding, with the site located in DAM Zone A.
- 6.4.4. The present day risk of flooding from surface water to the majority of the site is shown to be very low based on NRW's Risk of Flooding from Surface Water and Small Watercourses mapping.
- 6.4.5. The site is at low risk of flooding from groundwater and low risk from artificial sources.
- 6.4.6. A surface water drainage collection system currently manages the risk of surface water flooding at the site. Surface water is collected in an attenuation lagoon before it is pumped out via a distributed system into the Crymlyn Bog to the south of the site, in line with the existing environmental permit.
- 6.4.7. It is proposed that the same surface water drainage collection system will remain operational once the solar PV farm has been constructed. There would therefore be no significant change to the existing drainage regime and any impact on off-site receptors would be negligible.
- 6.4.8. The proposals to utilise the existing drainage system are in line with the standard SUDS principles and Standards S1 to S6.
- 6.4.9. It is therefore considered that the Proposed Development is in accordance with Policy RP 1 in respect of water resources, and Policy RP 4.

### 6.5 LANDSCAPE AND VISUAL

- 6.5.1. A LVIA has been completed and submitted with this planning application.
- 6.5.2. The LVIA concluded that effects on Landscape and Seascape Character at National and Regional scales would be negligible and not significant, and they were therefore scoped out of the assessment.
- 6.5.3. The design of the Proposed Development is generally recessive in nature, hugging the landform and comprising built form of a uniform height above ground level. Whilst there are limited opportunities to mitigate the impact of the Proposed Development with vegetation due to its location at the crest of the capped landfill mound and the requirement for adequate insolation (i.e. not shaded) to maximise the performance of the PV array, close views of the Proposed Development are generally limited by existing vegetation, and established vegetation across the wider Study Area serves to partially obscure more distant views.

- 6.5.4. The Proposed Development does not incorporate any lighting and requires little in the way of personnel and vehicles on site during its operation which further reduces its visual impact.
- 6.5.5. Within the Study Area, there would be limited visibility from a number of visual receptors (residential, recreational, transport and commercial). The Proposed Development would not significantly affect any residential receptors.
- 6.5.6. The LVIA therefore concludes that the Proposed Development would not result in any long-term significant landscape or visual effects.
- 6.5.7. It is therefore considered that the Proposed Development is in accordance with Policy PS2 in respect to landscape, townscape, views and vistas, and Policy CV 2.

### 6.6 GLINT AND GLARE

- 6.6.1. A Glint and Glare Study has been completed and submitted as part of this application. The study looked at impacts to road users and dwellings.
- 6.6.2. The results of the assessment indicate that solar reflections are not geometrically possible towards all 20 assessed road receptors along a 1.9km section of the A483. The assessment therefore concluded that no impact is predicted to road users and no mitigation is required. Any solar reflections from the proposed development that are experienced by a road user along a local road would be considered low impact in the worst case.
- 6.6.3. The results of the assessment indicate that solar reflections are geometrically possible towards 53 out of the 88 assessed dwelling receptors. For 52 dwellings, screening in the form of existing vegetation, dwellings, and/or terrain will significantly obstruct the views of the reflecting panels. This means that observers located at these dwellings will not experience solar reflections in practice. No impact is predicted, and mitigation is not required.
- 6.6.4. Partial views of the reflecting panels are considered possible for one dwelling. The duration of effects is not significant. A low impact is predicted, and mitigation is not required.
- 6.6.5. Overall, no significant impact upon surrounding road users and dwellings is predicted, and mitigation is not required.

### 6.7 TRAFFIC AND TRANSPORT

6.7.1. A Transport Statement has been completed and submitted as part of this application.

### ACCESS AND PARKING

- 6.7.2. Access to the proposed solar PV farm would be taken from Wern Fawr Road via the existing access arrangements. There are frequent passing places along the access road from Wern Fawr Road into the site ensuring safe passing of vehicles. These access arrangements are expected to be utilised during construction and for future access to the site for security, maintenance, and operational purposes.
- 6.7.3. Emergency vehicles will use the same access arrangements as other vehicles via Wern Fawr Road.
- 6.7.4. The site would have infrequent trips for servicing due to the nature of the site. Any servicing of the site would occur via the existing access arrangements via Wern Fawr Road.
- 6.7.5. The car parking provision will be provided on site and would be sufficient to accommodate the infrequent demand for parking due to security, maintenance, and operational visits.

- 6.7.6. Swept path assessments have not been undertaken. This is due to the access route for the site already being used by HGVs. No large changes to the highway infrastructure within the site or surrounding areas are planned, therefore HGVs and other large vehicles will be able to continue to access the site safely.
- 6.7.7. Construction traffic would access the development directly off an A-road, and therefore would not route through any residential neighbourhoods to access the site, avoiding unnecessary disruption to the surrounding community.

### TRAFFIC IMPACTS

- 6.7.8. During operation the site will be managed, monitored and controlled remotely. On this basis, it is considered that the solar farm would have only a small number of employees accessing the site for security checks, maintenance and repairs. It is expected that, at most, one to two daily two-way trips would occur for security purposes. However, general maintenance and/or cleaning of equipment would be occur less frequently, and deliveries to the site during its operation are not expected to be frequent and would only occur where there are failures in equipment, requiring replacement.
- 6.7.9. Therefore, it is considered that Trip generation associated with the daily operations of a solar farm would be negligible. On this basis, it is considered that there would be a betterment to the existing situation as frequent Heavy Goods Vehicles (HGV) trips would be removed from the highway.
- 6.7.10. The Transport Statement concludes that:
  - The proposals fully comply with national, regional and local policy objectives, in that they are sustainable from a transport and highways perspective.
  - The site benefits from good accessibility by public transport.
  - Trips to the site are likely to be infrequent and have a minimal impact on the local highway network. Compared to the current site operations, it is considered that the proposals would be a betterment to the local highway network operations and safety.
  - As HGVs are frequently accessing the site at present, it is considered that construction traffic would have a minimal impact on the residents in the surrounding residential area and that appropriate construction traffic management can be undertaken to ensure that construction traffic does not travel via residential access roads.
  - •
- 6.7.11. The proposals meet requirements set out within NPPF, in that they provide safe and enhanced access for all users and do not negatively impact on the operation of the local highway network.
- 6.7.12. It is therefore concluded that there are no valid transportation reasons, which should prevent the development of this Site as a solar PV farm.

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### 7 CONCLUSION

- 7.1.1. A review of national and local planning policy has been undertaken within this report. The Proposed Development is supported by Planning Policy Wales, Future Wales, and the Swansea LDP, and is not deemed prejudicial to any national or local polices.
- 7.1.2. The Welsh Government has identified within Future Wales that Wales has the potential to become a world leader in renewable energy technologies, and Policy 17 of Future Wales states that the Welsh Government strongly supports renewable energy development in principle, and decision makers must give significant weight to the need to meet Wales' international commitments and targets set for the consumption of renewable energy provided proposals demonstrate that they will not have an unacceptable adverse impact on the environment.
- 7.1.3. The Swansea Local Development Plan is also supportive of renewable energy projects provided they are not prejudicial to the polices set out. In 2019 SC declared a climate emergency and set a goal to reach a net zero carbon position by 2030. One of the actions SC has put forward to reach this goal is the development of new solar farms and other renewable projects.
- 7.1.4. The Proposed Development will provide comprehensive benefits from an environmental, social and economic perspective, including introducing a low carbon energy source, and increasing security and reliability of energy supply. The Proposed Development will result in more diverse sources of energy supply.
- 7.1.5. The existing Site is a former landfill which has been capped, and so would not be suitable for a use that is vulnerable to contamination, which includes being returned to agricultural land. It is therefore considered that the Site is suitable for the development of a solar PV farm as the design comprises surface mounted PV panels, and limited earthworks are expected. In addition, the Site will not need to be manned, only maintenance and operational visits will be required.
- 7.1.6. The key environmental material considerations have been discussed in this report, this includes biodiversity, ground contamination, flood risk and drainage, landscape and visual effects, glint and glare, and traffic impacts. Assessments have been undertaken and are included in the submission, no unacceptable adverse impacts to the environment are likely as a result of the Proposed Development.
- 7.1.7. Overall, the Proposed Development will provide significant benefits, and will contribute to national and local carbon reduction targets. Taking the above into consideration, this report demonstrates how the proposals are consistent with both national and local planning policies. Accordingly, we would respectfully suggest that the application be approved.

# **Appendix A**

### **PRE-APPLICATION RESPONSE**

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CIVIC CENTRE, OYSTERMOUTH ROAD, SWANSEA, SA1 3SN Y GANOLFAN DDINESIG, HEOL YSTUMLLWYNARTH, ABERTAWE, SA1 3SN (01792) 635701 (01792) 635719 (01792) 635708 planning@swansea.gov.uk / http://www.swansea.gov.uk

Mr Alex O'Brien	Please ask for:	Catherine Pelleymounter
Swansea Council Property Services	Direct Line:	07970680595
Civic Centre Oystermouth Road	E-mail:	catherine.pelleymounter@swans ea.gov.uk
Swansea	Date:	-
SA1 3SN		01/11/2019

Dear Mr O'Brien

### The Town and Country Planning Act 1990 (As amended) The Town and Country Planning (Pre-Application Services)(Wales) Regulations 2016

Application No:	2019/1925/PRE
Site Location:	Tir John Civic Amenity Site Danygraig Road St Thomas Swansea SA1 8NS
Proposal:	PRE-APP CONFIDENTIAL Development of a 3 MW ground mounted solar PV farm

I refer to the above pre-application received on 16 August 2019 seeking advice under the statutory pre-application services provided for under the above Regulations.

### The Proposal

It is proposed to erect a 3MW ground mounted solar PV farm.

### **Relevant planning history**

There does not appear to be any relevant planning history in association with the application site.

### **Development Plan and Relevant Policies**

The Development Plan for the area is the Swansea Local Development Plan (Adopted February 2019) and within which the following policies are considered to be relevant to your proposal:

Policy PS 1 Sustainable Places - In order to deliver sustainable places and strategically manage the spatial growth of the County, the delivery of new homes, jobs, infrastructure and community facilities must comply with the Plan's sustainable settlement strategy, which requires that development is directed to the most sustainable locations within the defined settlement boundaries of the urban area and Key Villages and inappropriate development in the countryside is resisted.

Policy PS 2 Placemaking and Place Management - Development should enhance the quality of places and spaces, and respond positively to aspects of local context and character that

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contribute towards a sense of place. The design, layout and orientation of proposed buildings, and the spaces between them, should provide for an attractive, legible, healthy, accessible and safe environment. All proposals should ensure that no significant adverse impacts would be caused to people's amenity.

Policy SD 1 Strategic Development Areas – the Plan allocates 12 locations to provide new homes and opportunities for job creation and commercial investment at a strategic scale. Residential led SDA's are capable of accommodating a minimum of 400 homes. Mixed use SDA's will provide new homes as part of wider mixed-use proposals to also deliver significant investment and economic benefit from commercial, community and/or cultural regeneration projects. The SDA's are capable of delivering a greater number of homes beyond the Plan period.

Policy SD K Site K is allocated for mixed commercial, residential (525 dwellings) and employment development with 12 hectares of potential development areas that could accommodate appropriate B1, B2 and B8 uses to complement the role of the Swansea Central Area as the City Region economic driver, facilitating an Innovation Corridor to support University expansion.

Policy IO 1 Supporting Infrastructure - Development must be supported by appropriate infrastructure, facilities and other requirements considered necessary as part of the proposal. Where necessary, Planning Obligations will be sought to ensure that the effects of developments are fully addressed in order to make the development acceptable, which will include addressing any identified deficiencies in provision or capacity directly related to the proposal.

Policy ER 1 Climate Change - To mitigate against the effects of climate change, adapt to its impact and ensure resilience, development proposals should take into account: reducing carbon emissions; protecting and increasing carbon sinks; adapting to the implications of climate change at both a strategic and detailed design level; promoting energy and resource efficiency and increasing the supply of renewable and low carbon energy; avoiding unnecessary flood risk by assessing the implications of development proposals within areas susceptible to flooding and preventing development that unacceptably increases risk, and maintaining ecological resilience.

Policy ER 2 Strategic Green infrastructure Network - Green infrastructure will be provided through the protection and enhancement of existing green spaces that afford valuable ecosystem services. Development that compromises the integrity of such green spaces, and therefore that of the overall green infrastructure network, will not be permitted. Development will be required to take opportunities to maintain and enhance the extent, quality and connectivity of the County's multifunctional green infrastructure network, and where appropriate: create new interconnected areas of green infrastructure between the proposed site and the existing strategic network; fill gaps in the existing network to improve connectivity; and/or in instances where loss of green infrastructure is unavoidable, provide mitigation and compensation for the lost assets.

Policy ER 6 Development will not be permitted that would result in a likely significant adverse effect on the integrity of sites of international or national nature conservation importance, except in the circumstances specified in relevant legislation. Development that would adversely affect locally designated sites of nature conservation importance should maintain and enhance the

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Y GANOLFAN DDINESIG, HEOL YSTUMLLWYNARTH, ABERTAWE, SA1 3SN ☎ (01792) 635701 
ⓐ (01792) 635719 
ⓐ (01792) 635708 ☑ planning@swansea.gov.uk / http://www.swansea.gov.uk

nature conservation interest of the site. Where this cannot be achieved development will only be permitted where it can be demonstrated that: i. The need for the development outweighs the need to protect the site for nature conservation purposes; ii. There is no satisfactory alternative location for the development that avoids nature conservation impacts; and iii. Any unacceptable harm is kept to a minimum by effective avoidance measures and mitigation, or where this is not feasible, compensatory measures must be put in place to ensure that there is no overall reduction in the nature conservation value of the area.

Policy ER 8 Habitats and species - Development proposals that would have a significant adverse effect on the resilience of protected habitats and species will only be permitted where the need for development outweighs the nature conservation importance of the site; the developer demonstrates that there is no satisfactory alternative location for the development which avoids nature conservation impacts; any unavoidable harm is minimised by effective mitigation to ensure that there is no reduction in the overall nature conservation value of the area. Where this is not feasible, compensation measures designed to conserve, enhance, manage and, where appropriate, restore natural habitats and species must be provided.

Policy ER 9 Ecological Networks and Features of Importance for Biodiversity – Development proposals will be expected to maintain, protect and enhance ecological networks and features of importance for biodiversity. Particular importance will be given to maintaining and enhancing the connectivity of the ecological network. Development that could have an adverse effect on such networks and features will only be permitted where specific criteria are met.

Policy ER 11 Trees, Hedgerows and Development - Development that would adversely affect trees, woodlands and hedgerows of public amenity, natural/cultural heritage value, or that provide important ecosystem services will not normally be permitted. Ancient Woodland, Ancient Woodland Sites, Ancient and Veteran trees merit specific protection and development that would result in specified outcomes will not normally be permitted. Where necessary a tree survey; arboricultural impact assessment; an arboricultural method statement; tree protection plan and/or scheme for tree replacement, including details of planting and aftercare will be required in support of a planning application.

Policy EU 1 Renewable and Low Carbon Energy Proposals - Renewable and Local Carbon Energy Developments – proposals for renewable or low carbon energy development will be permitted subject to compliance with specific criteria.

Policy RP 1 Safeguarding Public Health and Natural Resources - Development that would result in significant risk to: life; human health and well-being; property; controlled waters; or the natural and historic environment, will not be permitted, particularly in respect of: air, noise or light pollution; flood risk; quality or quantity of water resources; land contamination; land instability or subsidence; sustainable development of mineral resources and sustainable waste management. Development judged to have a significant adverse effect on the integrity of any European Designated Sites will not be permitted.

Policy RP 4 Water pollution and protection of water resources - Development that compromises the quality of the water environment, or does not comply with good water resource management, will not be permitted. Development proposals must make efficient use of water resources and, where appropriate, contribute towards improvements to water quality. Sustainable drainage systems (SuDS) must be implemented wherever they would be effective and practicable. Watercourses will be safeguarded through green corridors/riparian buffers: to protect water habitats and species; water quality and to provide for floodplain capacity. Development proposals that would have a significant adverse impact on biodiversity, fisheries, public access or water related recreation use of water resources, will not be permitted.

Policy RP 10: Sustainable Waste Management for New Development - development will be required to incorporate, as appropriate, adequate and effective provision for the storage, recycling and other sustainable management of waste, and allow for appropriate access arrangements for recycling and refuse collection vehicles and personnel.

Policy CV 2 Development in the Countryside. Outside defined settlement boundaries development will be required to ensure that the integrity of the countryside is conserved and enhanced.

As well as the policies and supporting evidence of the LDP, material considerations include relevant matters set out in national guidance, particularly Planning Policy Wales (PPW) edition 10. The following guidance in Planning Policy Wales is therefore of relevance:

Sustainable location (para 3.39 and 3.51) – PPW states that in terms of the search sequence for identifying sites for development LPAs should consider allocating previously developed land and/or underutilised sites located within existing settlements in the first instance with sites on the edge of settlements considered at the next stage.

Placemaking - The concept of placemaking is central to PPW and delivering on the aspirations of the Well-being of Future Generations Act and achieving well-being through plan making and development management decisions. It defines placemaking as: a holistic approach to the planning and design of development and spaces, focused on positive outcomes. It draws upon an area's potential to create high quality development and public spaces that promote people's prosperity, health, happiness, and well being in the widest sense. Placemaking considers the context, function and relationships between a development site and its wider surroundings. This will be true for major developments creating new places as well as small developments created within a wider place. Placemaking should not add additional cost to a development, but will require smart, multi-dimensional and innovative thinking to implement and should be considered at the earliest possible stage. PPW makes clear that placemaking and sustainable development principles are essential to development at all scales, and they are therefore pertinent to PBSA proposals. Placemaking adds social, economic, environmental and cultural value to development proposals resulting in benefits which go beyond a physical development boundary and embed wider resilience into planning decisions. Good design is fundamental to creating sustainable places where people want to live, work and socialise. Design is not just about the architecture of a building but the relationship between all elements of the natural and built environment and

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between people and places. To achieve sustainable development, design must go beyond aesthetics and include the social, economic, environmental, cultural aspects of the development, including how space is used, how buildings and the public realm support this use, as well as its construction, operation, management, and its relationship with the surrounding area.

Renewable and Low Carbon Energy (5.9.4) - Planning authorities should ensure development plan policies are supportive of renewable and low carbon energy development in all parts of Wales, direct developments to the right locations and set out clearly the local criteria against which proposals will be evaluated.

Biodiversity and Resilience of Ecosystems (S6 Duty) (paras 6.4.1 to 6.4.8) - In accordance with s6 of the Environment Act 2016, the Council has a duty to maintain and enhance biodiversity. [NB: In Swansea, the section 6 duty is embedded as one of the 4 Well Being Objectives in the Public Service Board's Well Being Plan – "Working With Nature". It is also included as Objective 6 of the Council's Corporate Plan "maintaining and enhancing Swansea's Natural Resources.] The s6 duty means that development should not cause any significant loss of habitats or populations of species, locally or nationally and must provide a net benefit for biodiversity. In doing so, the LPA must take account of and promote the resilience of ecosystems, in particular the following aspects: diversity, connectivity, scale, condition and adaptability. In fulfilling this duty the LPA must have regard to S.7 list of habitats and species important for Wales and the SoNaRR and any up to date ecological survey information provided.

### Supplementary Planning Guidance (SPG):

SPG relevant to the proposed development, which are available to download in full from our website at <u>www.swansea.gov.uk</u> are as follows:

SPG for the Tir John Tip site was adopted in 1982 (The Crymlyn Action Plan). The SPG set out the restoration and aftercare of the Tir John Tip site, particularly community and ecological uses to benefit the St Thomas ward and the adjacent internationally important ecological site. However, since that time the working operations of the Tip changed significantly and the contents of the SPG are no longer deliverable.

### **Consultation Responses received:**

### Strategic Planning Team

The proposal is to develop a 3 MW ground mounted solar PV farm on Council owned land located at Tir John Tip, Port Tennant. A screening report accompanies the pre-application and sets out national planning policy and some (but not all) relevant LDP policies. The proposal would accord with the principles of LDP Policy ER 1 which seeks to promote energy and resource efficiency and increase the supply of renewable and low carbon energy.

The site lies in the countryside and any proposal must accord with LDP Policy CV 2. The southern part of the site lies immediately adjacent to the northern part of Strategic Development Area K, as

CIVIC CENTRE, OYSTERMOUTH ROAD, SWANSEA, SA1 3SN Y GANOLFAN DDINESIG, HEOL YSTUMLLWYNARTH, ABERTAWE, SA1 3SN (01792) 635701 🗟 (01792) 635719 🖹 (01792) 635708 Dlanning@swansea.gov.uk / http://www.swansea.gov.uk

allocated in the adopted Swansea Local Development Plan, 2019 (Policy SD K). The concept plan for the site shows that the proposed site lies immediately adjacent to a proposed for an area of public open space. Policy SD K states that development proposals should accord with Placemaking Principles and Development Requirements, with developments at the City's eastern gateway responding to the gateway location, include active frontages, and make strong architectural statements with enhanced public realm which creates a sense of urban approach. Given the raised level of the Tip, any application will have to be accompanied by a Visual Impact Assessment to assess whether the visual impact of the proposal on the approach into the City is considered acceptable.

LDP Policy SD 2: Masterplanning Principles, states that 'on all sites where there is capacity for 100 homes or more, development must deliver a comprehensively planned, sustainable neighbourhood that is founded on a comprehensive and coherent Placemaking approach that relates to a masterplan for the entire site.' It is important that any scheme adjacent to SD K does not prejudice the development within it.

The site is adjacent to the highly protected Crymlyn Bog, which is designated a Ramsar Site, SAC, National Nature Reserve (NNR) and a Site of Special Scientific Interest (SSSI). Development in this location will need to demonstrate compliance with Policy ER 6 Designated Sites of Ecological Importance. A Habitat Regulations Assessment (HRA) will be required to fully assess the potential impact of the development on the European Site. Only development which demonstrates compliance with the Habitat Regulations will be permitted. Where nature conservation interests of locally important sites are likely to be disturbed or harmed by proposed development, developers will be expected to provide an ecological survey that includes an assessment of the likely impact of the proposal on the protected site and, where necessary, make appropriate provision for its safeguarding. In assessing the potential harm the Council will consider: the individual and cumulative effects which will include impacts during construction; the role of the site in the ecological connectivity network; and whether effective mitigation and/or compensation measures have been provided. Any future planning application would have to be accompanied by an ecological assessment, incorporating relevant mitigation measures, in accordance with LDP Policy ER 8.

LDP Policy ER 9: Ecological Networks and Features of Importance for Biodiversity Development ensures that development proposals are expected to maintain, protect and enhance ecological networks and features of importance for biodiversity. Proposals that could result in an adverse effect on the connectivity of ecological networks and features of importance for biodiversity will only be permitted where: i. The need for the development outweighs the nature conservation value of the site; ii. It can be demonstrated that there is no satisfactory alternative location for the development; iii. A functional connected element of the natural resource is retained as part of the design of the development; and iv. Compensatory provision will be made of comparable or greater ecological value to that lost as a result of the development. Any subsequent planning application must demonstrate that the proposal accords with the policy criteria, particularly that there is no satisfactory alternative location for the development (ii).

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The nature reserve is a wetland habitat and therefore LDP Policy RP 4 is also relevant. The Policy is consistent with national planning policy and seeks to ensure that development does not compromise the quality of the water environment, or comprise good water resource management. Development proposals must make efficient use of water resources and, where appropriate, contribute towards improvements to water quality. Watercourses will be safeguarded through green corridors/ riparian buffers: to protect water quality and water habitats and species; and to provide for flood plain capacity. Therefore, the impact on soil hydrology caused by any development in the Tir John tip area must be assessed to ensure no adverse impact upon the water environment.

In accordance with national planning policy, Placemaking principles are embedded throughout the Plan and the Plan is committed to a Place Management approach. LDP Policy PS 2 Placemaking and Place Management sets out key principles when considering the nature, scale and siting of development. Placemaking is considered essential in delivering the Plan's Vision of creating sustainable, distinct communities that are supported by good quality infrastructure, community facilities and opportunities for recreation. All proposals should ensure that no significant adverse impacts would be caused to people's amenity.

Depending on the nature, scale and siting of the proposal, Policy PS 2 states that development should also: i. Have regard to important elements of local heritage, culture, landscape, townscape, views and vistas; iv. Integrate effectively with the County's network of multifunctional open spaces and enhance the County's Green Infrastructure network; xi. Maximise opportunities for sustainable construction, resource efficiency and contributions towards increased renewable or low carbon energy generation; xii. Avoid the loss of land and/or premises that should be retained for its existing use or as an area of open space; xiii. Avoid unacceptable juxtaposition and/or conflict between residential and non-residential uses; xiv. Ensure no significant adverse impact on natural heritage and built heritage assets; xv. Ensure resilience is not undermined and does not result in significant risk to human health, well-being or quality of life.

LDP Policy EU 1 sets out criteria against which all proposals for renewable and low carbon energy development will be assessed. The policy supports solar PV developments of 5-50MW within designated Local Search Areas (LSAs), as defined on the Proposals Map, subject to a number of criteria. The LSA's identify the least constrained areas within Swansea following the methodology utilised by the Renewable Energy Assessment (REA). The site falls outside designated search areas. Any subsequent planning application must assess the potential impacts of Glint and Glare on surrounding land uses. Furthermore, a Landscape and Visual Impact Assessment should be submitted which considers the visual impacts of the proposal, including cumulative impact. The cumulative landscape impacts are the effects of a proposed development on the fabric, character and quality of local features and characteristics, and the degree to which a proposed renewable energy development will become a significant or defining characteristic of the locality.

The site is a capped landfill. I understand that leachate gas is collected from the site and pipework to collect the gas runs across the site. RP 1: Safeguarding Public Health and Natural Resources sates that development will not be permitted that would result in significant risk to: life; human health and wellbeing; property; controlled waters; or the natural and historic environment,

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particularly in respect of: i. Air, noise or light pollution; ii. Flood risk; iii. The quality or quantity of water resources; iv. Land contamination; v. Land instability or subsidence; vi. Sustainable development of mineral resources; and vii. Sustainable waste management. Development will not be permitted if judged to have a significant adverse effect on the integrity of any European Designated Sites, either alone or in combination with other plans or projects.

The policy seeks to ensure that potential risks to human health associated with development in flood risk areas and the redevelopment or remediation of contaminated/unstable land, or development within the statutory consultation zones stipulated by HSE for hazardous installations, are fully identified and assessed.

The acceptability of adverse effects will depend on the nature of the development and the location, with the most sensitive sites, such as residential areas, being more vulnerable. In some circumstances adverse effects can be mitigated to make the development acceptable.

Given the nature of the site, NRW must be consulted in order to assess the actual feasibility of developing a solar farm on the site, the potential dangers to public health and whether they can be mitigated.

The site is capped and I understand is still settling. LDP Policy RP 7: Land Instability states that development which would create, affect or might be affected by unstable or potentially unstable land will not be permitted where there would be a significant direct risk to life, human health, property, buildings and structures, or the natural heritage on the site or in its vicinity. Development will only be permitted on unstable or potentially unstable land where: • It can be satisfactorily demonstrated that proposals to make the land capable of supporting the development are adequate; and • The necessary mitigation measures will be in place before development commences or are an integral part of the construction works. Within the defined Slip Area of Graig Trewyddfa, development will not be permitted.

This policy aims to steer development away from areas of unstable land. The responsibility for determining the extent and effects of such constraints upon a site remain with the developer. Developers may be required to provide engineering assessments in support of planning applications where there is concern that proposed development may create, affect or be affected by unstable land. It will need to be demonstrated that a site is stable or that any actual or potential instability can reasonably be overcome before planning permission may be granted.

### NRW, waste management colleagues and pollution control colleagues should be consulted in order to assess the suitability and feasibility of such a site for a solar farm development.

### Summary

The proposal seeks to develop a solar farm on a capped landfill site, adjacent to internationally designated ecological wetland site.

No regard has been made in accompanying Scoping Report to the restoration and aftercare conditions agreed within the planning permission and PPC permit for the site. An explanation provided as to how the proposal accords with the restoration and aftercare scheme must be submitted.

The site is surrounded by designated ecological sites and a planning application must be accompanied by an ecological survey and report which examines not only the site, but impacts on surrounding wetlands and proposed mitigation measures, in accordance with Policies ER 6 and ER 8. Furthermore, the developer must demonstrate that there are no alternative suitable sites, in accordance with ER9.

Given the existing use of the site, discussions must be held with NRW, waste management colleagues and pollution control colleagues in order to clarify that the proposal would have no adverse impact on public health or the environment, in accordance with Policies RP1 and RP7.

The site falls outside designated LSA's. The amount of material submitted in support of the preapplication, fails to justify how the proposed development accords with Policy EU1 and the need for the development overrides adopted plan policy.

Finally, in relation to Placemaking principles and considering the most appropriate site for the proposed development, I suggest that Property Services consult with Strategic Planning regarding potential suitable sites which would not conflict with the adopted development plan.

### Pollution Control Team

The Pollution Control Team responded with the following comments:

I would have no objection to the application but would want the following information/conditions considered:

- An EIA would be applicable under Sch2 of the Town & Country Planning (EIA) Regulations 2017 as the potential Solar PV development accommodates an area greater than 0.5ha;
- The development should be constructed so as to ensure that a pathway is not created that allows the release of contaminant from within the capped area of the landfill site;
- A decommissioning plan will be required
- The following informative should be attached to the application

Informatives:

1. Construction Noise – The following restrictions should be applied to all works of demolition/construction carried out on the development site. All works and ancillary operations which are audible at the site boundary shall be carried out only between the hours of 08.00 and 18.00 hours on Mondays to Fridays and between the hours of 08.00

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and 13.00 hours on Saturdays and at no time on Sundays and Public Holidays and Bank Holidays.

The Local Authority has the power to impose the specified hours by service of an enforcement notice under Control of Pollution Act 1974, section 60.

Any breaches of the conditions attached to such a notice will lead to formal action against the person(s) named on said noice.

- 2. Smoke/burning of materials no burning of any materials to be undertaken on site. The Local Authority has the power to enforce this requirement by service of an abatement notice. Any breaches of the conditions attached to such a notice will lead to formal action against the person(s) named on said notice.
- 3. Dust control During construction work the developer shall operate all best practice to minimise dust arising or dust nuisance from the site. This includes dust and debris from vehicles leaving the site. The Local Authority has the power to enforce this requirement by service of an abatement notice. Any breaches of the conditions attached to such a notice will lead to formal action against the person(s) named on said notice.
- 4. Lighting During construction work the developer shall operate all best practice to minimise nuisance to local residences from on-site lighting. Due consideration should be taken of the Institute of Lighting (<u>www.ile.org.uk</u>) recommendations.

### Tree/Landscaping Officer

The Council's Tree Officer was consulted and responded with the following comments:

None of the trees on or adjacent to the site are protected by tree preservation order. Tree planting has taken place to provide screening.

Solar farms can be shaded by trees and the proximity of the arrays needs careful planning to prevent tree loss. Existing trees can provide necessary screening. In addition to shading cabling and fencing can impact on the trees.

An application would need to be accompanied by a tree survey and if there are potential impacts an arboricultural impact assessment in accordance with BS5837:2012.

### **Highways Authority**

The Head of Transportation and Engineering was consulted and responded with the following comments:

A full Transport Assessment will be required to support any future planning application the scope and extend of which will need to be agreed with Highways officers.

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From the brief details supplied it is not clear how vehicular access is intended to be gained, the red line of the site boundary will thus need to be extended to link with the Strategic Highway Network.

No further comments can be made at this point in the absence of the required supporting information.

### The Coal Authority

The Coal Authority was consulted and responded with the following comments:

Our records indicate that there is a mine entry (adit) on the edge of the site and there are also parts of the site which may have been subject to past coal mining activity at shallow depth.

We would not necessarily expect the submission of a Coal Mining Risk Assessment, or equivalent report, to support the installation of solar panels as they generally require minimal groundworks. However, where mine entries are present on a site we would expect the location of the mine entry, and its zone of influence, to be avoided in any solar array layout proposed in order to ensure it does not pose a risk to public safety. Often these areas around mine entries and their zones of influence are maintained devoid of solar panels and associated infrastructure and are frequently fenced to avoid unauthorised access.

### **Drainage Officer**

The Council's Drainage Officer was consulted on this application and responded with the following comments:

### Schedule 3, Flood and Water Management Act 2010.

### Your development proposal has been identified as requiring SuDS Approval Body consent irrespective of any other permissions given.

From 7 January 2019, all new developments more than 100m2 will require sustainable drainage to manage on-site surface water. Surface water drainage systems must be designed and built in accordance with mandatory standards for sustainable drainage published by Welsh ministers.

These systems must be approved by the local authority acting in its SuDS Approving Body (SAB) role before construction work begins. The SAB will have a duty to adopt compliant systems so long as it is built and functions in accordance with the approved proposals, including any SAB conditions of approval.

### Which legislation are we referring to?

Schedule 3 of the Flood and Water Management Act (FWMA) 2010 requires surface water drainage for new developments to comply with mandatory National Standards for sustainable drainage (SuDS). Schedule 3 to the FWMA 2010 also places a duty on local authorities as SuDS

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approving body to approve, adopt and maintain systems compliant with section 17 of the schedule.

### What exactly is a SAB?

The SAB is a statutory function delivered by the local authority to ensure that drainage proposals for all new developments of more than 1 house or where the construction area is 100m2 are designed and built in accordance with the national standards for sustainable drainage published by Welsh Ministers.

The SAB is established to:

- Evaluate and approve drainage applications for new developments where construction work has drainage implications, and
- Adopt and maintain sustainable surface water drainage systems according to Section 17 of Schedule 3 (FWMA).
- The SAB also has powers of inspection and enforcement
- And uses discretionary powers to offer non-statutory pre-application advice

### What does it mean for my development?

Whether you are a developer, an agent or an individual seeking planning permission for a development, if your development is of more than 1 house or of 100m2 or more of construction area you must also seek SAB approval alongside planning approval. You will not be allowed to start construction until the 2 permissions are granted.

Further details on how to apply and guidance can be obtained from the website <u>https://www.swansea.gov.uk/sustainabledrainage</u> and by contacting the SuDS Approval Body via email <u>Sab@swansea.gov.uk</u>

### Initial assessment of the proposed development and consideration of planning merits

As limited information has been submitted as part of this pre-application, a detailed consideration of the proposal cannot be given. Therefore the proposal will be assessed in overall principle terms with regards to the aforementioned Policies.

Policy EU1 sets out the criteria for renewable energy development. Criteria iii, iv and v of this policy are relevant and state that proposals for renewable development should not have a significant adverse effect on the characteristics of the proposed location, public amenity or accessibility, radar, Aircraft Operation or Telecommunications. It also states that satisfactory mitigation should be in place to reduce the impact of the proposal and its association infrastructure and where necessary additional compensatory benefits will be sought in accordance with Policy IO1. Therefore if an application were to be submitted, the application would need to be suitably justified with reference to the above mentioned policies.

The development of this site as a solar farm would be adjacent to strategic site SD K which allocates the site for mixed commercial, residential (525 dwellings) and employment development with 12 hectares of potential development areas that could accommodate appropriate B1, B2 and B8 uses to complement the role of the Swansea Central Area as the City Region economic driver,

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facilitating an Innovation Corridor to support University expansion. Therefore any development in this location would need to be designed in such a way that that would not impact on the future development of the strategic site area and the countryside within which it resides.

The site is capped and it is understood that it is still settling. Policy RP7 states that development which would create, affect or might be affected by unstable or potentially unstable land will not be permitted where there would be a significant direct risk to life, human health, property, buildings and structures, or the natural heritage on the site or in its vicinity This policy aims to steer development away from areas of unstable land. The responsibility for determining the extent and effects of such constraints upon a site remain with the developer. Developers may be required to provide engineering assessments in support of planning applications where there is concern that proposed development may create, affect or be affected by unstable land. It will need to be demonstrated that a site is stable or that any actual or potential instability can reasonably be overcome before planning permission may be granted. Therefore it would have to be demonstrated that the site is suitable for development with reference to site stability.

If you are intending to pursue this form of development I would suggest that you request that a Screening Opinion be undertaken by the Local Planning Authority when further details associated with the development are available in order to establish whether or not an Environmental Impact Assessment would be required.

I would also suggest that you utilise the pre-application service provided by Natural Resources Wales (NRW) in order to assess the feasibility of developing a solar farm on the site, the potential dangers to public health and whether they can be mitigated.

### Details of any documents required for a subsequent application

If an application were to be submitted I would expect to see the following:

- Robust justification of the use of the site
- Landscape and Visual Impact Assessment
- Ecological Assessment
- Tree Survey
- Transport Statement
- Glint and glare assessment
- Decommissioning Plan

### Conclusion

In conclusion, it is considered that the principle of development in this location may be acceptable, however a robust justification of the use of the site should be provided at the full planning application stage, in line with the guidance given in the earlier paragraphs of this letter. A range of additional information will be required in order to pursue development of the site.

Please note that this guidance is given on the basis of the information submitted, and that full consultation with Statutory Undertakers or interested parties, such as neighbours has not been undertaken, and that it is only through the submission of a planning application that full consideration can be given to a proposal.

Additionally, the views expressed are those of an officer of the Authority, which cannot prejudice any final decision the Council may make if an application for planning permission is submitted.

I trust that the above advice is satisfactory for your current purposes. However should you require clarification of any of the above matters, please do not hesitate to contact Catherine Pelleymounter on the above number.

Should you wish to obtain further discussion and advice in relation to this pre-application, as part of our pre-application services the Council offers follow-up meetings to pre-application letters.

Yours sincerely

Líam Jones

LIAM JONES TEAM LEADER – BAY AREA

# **Appendix B**

### NRW PRE-APPLICATION RESPONSE

11.



City and County of Swansea, Civic Centre, Oystermouth road, Swansea, SA1 3SN Ein cyf/Our ref: CAS-131036-P4L9 Eich cyf/Your ref: Free Pre-app

Maes Newydd, Llandarcy, Neath Port Talbot, SA10 6JQ

ebost/email: swplanning@cyfoethnaturiolcymru.gov.uk

24/11/2020

Annwyl Syr/Madam / Dear Sir/Madam,

### BWRIAD/PROPOSAL: CURRENT USE OF THE SITE: GASSING, CAPPED LANDFILL, WASTE LANDFILL; RECYCLING CENTRE. TO DEVELOP A CIRCA 3 MW SOLAR FARM ON TOP OF THE CAPPED LANDFILL SITE TO ENABLE GENERATION OF RENEWABLE ENERGY AT THE SITE

### LLEOLIAD / LOCATION: TIR JOHN WASTE RECYCLING CENTRE, PORT TENNANT, SWANSEA, SA1 8NS.

Thank you for consulting Cyfoeth Naturiol Cymru / Natural Resources Wales about the above pre-application enquiry, which we received on 18<sup>th</sup> November 2020.

Discretionary Pre-application Advice (DPA)

NRW has changed the way in which we provide advice on pre-applications. We will continue to meet our duties as an adviser, and we offer a free initial opinion on your proposal.

The preliminary opinion will consist of the following:

- An indicative view on which environmental considerations need to be taken into account as part of the application.
- An outline of the assessments that may be required to support the application.

However, in cases where you would like to access any extra advice that falls outside of our statutory duties, we can only offer this as part of our charged Discretionary Planning Advice Service (DPA Service).

If you would like any advice which is in addition to that which is provided as part of the preliminary opinion, or our statutory advice, you can request this through our Discretionary Planning Advice (DPA) Service. There is a fee associated with the use of this service.

The DPA service is currently limited to the following advice topics:

- Land contamination
- Ground water protection
- Flood consequence assessments
- Advice in relation to NSIPs
- Advice in relation to DNSs
- Advice in relation to marine developments

Discretionary planning advice is provided at a cost of £125 per hour plus VAT (based on the full recovery of our costs). We will provide an estimate of the work and cost before you decide if you wish to proceed.

### Apply for discretionary planning advice

### Preliminary Pre-Application Advice

We have considered your enquiry in relation to our Development Planning <u>Consultations</u> <u>Topics</u> document (September 2018). We advise that the following matters are relevant to your site / proposed development and suggest you consider these further prior to the submission of any planning application:

### Groundwater protection and land contamination

Advice on environmental considerations and the assessments needed to support your planning application can be found on our external website.

- For advice on how to deal with possible land contamination on your development visit: <u>http://naturalresources.wales/guidance-and-advice/business-sectors/planning-and-development/advice-for-developers/land-contamination/?lang=en</u>
- For advice on how to protect groundwater at your development visit: <u>http://naturalresources.wales/guidance-and-advice/business-sectors/planning-and-development/advice-for-developers/protecting-groundwater/?lang=en</u>

### Protected Sites

The site lies within 20m of Crymlyn Bog / Cors Crymlyn Special Area of Conservation (SAC)

### Special Area of Conservation (SAC)

The Local Planning Authority is a Competent Authority for the purposes of the *Conservation of Habitats and Species 2017 Regulations*. As such, they must not agree to any plan or project unless they are certain that it will not adversely affect the integrity of a Special Area of Conservation (SAC).

The Local Planning Authority should carry out a test of likely significant effects (TLSE) for the SAC, which is required under Regulation 63 of the *Conservation of Habitats and Species Regulations 2017*. This test applies to impacts on the SACs from the proposed works, either alone or in combination with other plans and projects.

If the test concludes there is likely to be a significant effect then an appropriate assessment of the impacts on the SAC from the proposed works, either alone or in combination with other plans and projects, will be required. We would be able to assist with that assessment in our role as the statutory nature conservation body under the above Regulations.

### Site of Special Scientific Interest (SSSI)

The Wildlife and Countryside Act 1981 (as amended) places a duty on public authorities in exercising their functions, so far as this is likely to affect the flora, fauna, geological or physiographical features of a SSSI, to take reasonable steps consistent with the proper exercise of their functions to further the conservation and enhancement of those features.

By satisfying the requirements regarding the SACs, as indicated above, it is likely the requirements for the SSSIs will also be met.

We refer you to our website for further advice.

### Protected Species

Our records show there may be fully protected species on / in the vicinity of the site. With regard to undertaking any relevant surveys we refer you to our <u>website</u> for further advice. Please ensure that any surveys undertaken are carried out in accordance with best practice guidance and by suitably licenced and experienced ecologists.

In addition to the above, we also advise liaison with the Local Authority's Ecologist as they may have additional requirements.

### Landscape

The site is located near the Gower AONB. You are advised to consult with the Local Planning Authority and consider the need for Landscape Assessments in accordance with published best practice guidance.

We refer you to our website for further advice.

### **Other Matters**

Please note the view expressed in this letter is a response to a pre-planning enquiry only. We trust these comments will prove helpful, but they should not set a precedent for any

future Natural Resources Wales' response to any formal application for planning permission or other legal consent. Such applications shall be assessed on the information submitted and regulations of relevance at that time. The details contained in this letter are based on the information available to date.

As part of our discretionary advice service we can provide further advice relating to land contamination, groundwater and flood risk prior to your planning application being submitted. There is a charge for this service. Further details are available on our website.

If you have any queries on the above, please do not hesitate to contact us.

Yn gywir / Yours faithfully

### **Giles Cuthbert**

Cynghorydd - Cynllunio Datblygu / Advisor - Development Planning Cyfoeth Naturiol Cymru / Natural Resources Wales

# **Appendix C**

### **EIA SCREENING RESPONSE**

11



WSP

City & County of Swansea / Dinas a Sir Abertawe Directorate of Place / Cyfarwyddiaeth Lleoedd Planning and City Regeneration / Cynllunio ac Adfywio'r Ddinas Civic Centre, Oystermouth Road, Swansea, SA1 3SN Y Ganolfan Ddinesig, Heol Ystumllwynarth, Abertawe, SA1 3SN (01792) 635701 6 (01792) 635708 planning@swansea.gov.uk / http://www.swansea.gov.uk

**Daniel Patterson** Please ask for: David Owen Direct Line: 07970680587 1 Capital Quarter Tyndall Street E-mail: david.owen@swansea.gov.uk Cardiff **CF10 4BZ** Date: 7 January 2022

Dear Sir/Madam

### TOWN AND COUNTRY PLANNING (ENVIRONMENTAL IMPACT ASSESSMENT) (WALES) **REGULATIONS 2017**

**Application No:** 2021/3044/SCR Site Location: Tir John Solar Farm Port Tennant Swansea **Proposal:** Environmental Impact Assessment Screening Opinion request in relation to a photovoltaic solar farm with a maximum export capacity of 3MW

I refer to your submission to the Local Planning Authority to adopt the EIA Screening Opinion request for the above development.

In accordance with the above Regulations, please find enclosed a copy of the screening opinion of the Local Planning Authority, which is that an Environmental Impact Assessment is not required.

Yours sincerely

Ian Davies

Ian Davies **Development Manager** 



### TOWN AND COUNTRY PLANNING (ENVIRONMENTAL IMPACT ASSESSMENT) (WALES) REGULATIONS 2017

APPLICATION NO: FOR:	2021/3044/SCR Environmental Impact Assessment Screening Opinion request in
	relation to a photovoltaic solar farm with a maximum export capacity of 3MW
AT:	Tir John Solar Farm Port Tennant Swansea

Screening of proposed development for requirement for an Environmental Impact Assessment to accompany the application in accordance with Regulation 8 of the above Regulations.

**Identified category of development:** The development proposed, falls within the description in Column 1, paragraph 3(a), Energy Industry of the table in Schedule 2 to the 2017 regulations – 'Industrial installations for the production of electricity, steam and hot water (unless included in Schedule 1)' and exceeds the applicable threshold and criteria of the area of the development exceeding 0.5ha for Schedule 2, 3(a), of the Regulations.

- Assessment: Having taken into account the criteria in Schedule 3 to the above Regulations it is not considered that the proposed development will not require an EIA as it does not represent major development of more than local importance, would not adversely affect the environmentally sensitive area, and will not have complex and potentially hazardous environmental effects. Accordingly, it is considered that the proposed development will not have significant environmental effects such that EIA is necessary.
- **Decision:** Environmental Impact Assessment is not required.

Town and Country Planning (Environmental Impact Assessment) (Wales) Regulations 2017 – Screening Opinion for Tir John Solar Farm

Proposal: Environmental Impact Assessment Screening Opinion request in relation to a photovoltaic solar farm with a maximum export capacity of 3MW Location: Tir John Solar Farm, Port Tennant, Swansea Planning Ref: 2021/3044/SCR

In accordance with paragraph 4 of Part II of the Town and Country Planning (Environmental Impact Assessment) (Wales) Regulations 2017, the Local Planning Authority must screen proposals for Schedule 2 Developments, in order to determine whether or not an Environmental Impact Assessment (EIA) is required.

### **Proposed Development**

It is indicated that Swansea Council's Energy Team (as the Applicant) intends to submit an application for planning permission for the construction, operation, maintenance, and decommissioning of a solar farm with a maximum export capacity of 3MW and associated Private Wire Connection.

The Proposed Development will be located on land adjacent to, and south of, the Tir John Household Waste Recycling Centre at Wern Fawr Road, approximately 450m east of the settlement edge of Port Tennant, Swansea. The Site is approximately 7ha in area and includes part of the Tir John Landfill Site. The application site location and layout is provided in Figure 1 which accompanies the Screening request.

### **EIA Assessment**

The submitted EIA Screening Opinion Request (SOR) identifies the proposed development within Schedule 2, (3a) for 'Industrial installations for the production of electricity, steam and hot water (unless included in Schedule 1)' and exceeds the applicable threshold and criteria of the area of the development exceeding 0.5ha for Schedule 2, 3(a). Therefore, the Proposed Development must be screened to determine whether an EIA is required.

The selection criteria for screening Schedule 2 development to determine whether Schedule 2 development is EIA development, is set out in Schedule 3 and relevant considerations include:

- The 'characteristics of development' (the size and design of the development; cumulative effects, use of natural resources, production of wastes, pollution and nuisances, risk of major accidents and risks to human health).
- The 'location of development' (including the existing land use, regenerative capacity of natural resources, capacity of local natural resources, and absorption capacity of the surrounding natural environment).
- The 'characteristics of the potential impact'. Having regard in particular to extent, magnitude/complexity, nature, transboundary, intensity and complexity, probability of the impact; expected onset, duration, frequency, and reversibility of the impact; and cumulation of the impact with other developments and also the possibility of effectively reducing the impact.

In general, EIA will be needed for Schedule 2 developments for three main types of case:

a) For major developments which are of more than local importance;

b) For developments which are proposed for particularly environmentally sensitive or vulnerable locations; and

c) For developments with unusually complex and potentially hazardous environmental effects.

The basic test is whether the particular development is likely to have significant effects on the environment.

Annex A of the EIA Circular provides indicative thresholds and criteria for identification of Schedule 2 Development requiring EIA, However, it should not be presumed that developments falling below these thresholds could never give rise to significant effects, especially where the development is in an environmentally sensitive location. Equally, developments which exceed the thresholds will not in every case require assessment.

### In the case of Energy Industry / Power Stations

A11: EIA will normally be required for power stations which generate more than 50MW. EIA is unlikely to be required for smaller generation schemes. The main considerations are likely to be the level of emissions to air, arrangements for the transport of fuel and any visual impact.

The Screening Opinion request (SOR) indicates that the application site will measure 7 hectares and the solar farm would have a maximum export capacity of 3MW.

### Schedule 3 Assessment

### **1.** Characteristics of the development

### a) Size and design of the development -

Solar Photovoltaic Panels - The 3 MW solar farm will comprise of approximately 5,500 (PV) panels, which will each be fixed and mounted onto a metal frame. The solar PV panels would be laid out in straight arrays set at an angle of between 10 to 35 degrees from east to west across the Site. The distance between the arrays would respond to topography but would typically be between 3-4m. The top northern edges of the panels would be between 2-3m above ground level (AGL) and the south lower edges of the panels would be between 0.5-1m AGL.

The metal framework that houses the solar PV panels will be supported by mounted posts approximately 5m apart, depending on the orientation/configuration of the panels. The mounted system will be fixed to a non-intrusive ballast system.

The SOR assumes that any cabling between the panels would be undergrounded. However, given the sensitivities of the site, there may be a requirement to consider a non-intrusive ballast system for the cabling as well as the mounted system for the panels.

Private Wire Connection – the application may incorporate a private wire connection which would export the electricity generated by the proposed development to a nearby user, located to the south of Fabian Way (which appears to be DCWW sewage treatment works). The private wire connection would largely consist of an underground high-voltage (HV) cable for a length of approximately 1.6km. The private wire connection will be included as part of the planning application.

Substation Buildings - there will be two substation buildings, one located at the Tir John landfill site and one located at the end of the Private Wire Connection, on land which is managed by Dŵr Cymru. The substation buildings will consist of a glass-fibre reinforced polyester enclosure housing switchgear, transformer, and auxiliary electrical equipment, including communication and control systems. The substation buildings will measure approximately 3m in height and will be positioned on a raised concrete plinth.

Permanent Access - The proposed solar development (including the substation building) at the Tir John landfill site will be permanently accessed via Wern Fawr Road. There is a network of existing access tracks throughout the Tir John landfill site which will be integrated and used as part of the proposed development, where possible. The proposed substation building at the end of the Private Wire Connection will be accessed via Baldwins Crescent before joining a private road which leads to the Swansea Bay Wastewater Treatment Works (WwTW).

### Construction

The construction phase of the proposed development is anticipated to commence in 2022 and will take approximately six months. Construction activities are likely to include preparation of the site prior to works; construction and commissioning of the solar PV panels and associated infrastructure; and reinstatement of the Site following construction. Works associated with the proposed development will be managed from a construction compound, the location of which is still to be confirmed.

During construction, it is expected that construction traffic will access the Site via Wern Fawr Road. The exact site access arrangements during construction will be agreed with the Council as part of a Construction Traffic Management Plan (CTMP).

The private wire connection will largely be underground for its entire length except for works associated with crossing the Tennant Canal and Fabien Way underpass. Further detail on the key constructions considerations for the cabling route are as follows:

- The permanent cabling easement required will be approximately 450mm in width, with the cable located approximately 520mm below ground to allow room for appropriate cable protection.
- A construction working width of approximately 5m will be required along the length of the route.
- From the substation building located at the Tir John landfill site, the cable will be trenched within the northern verge of Wern Fawr Road, so much as is practicable. Potential constraints in the road width (to avoid closing the road) and existing services will need further consideration, however, early site work has indicated that adequate space is available.
- Opposite the access to the Ashland's Playing Fields, an open-trenched crossing of Wern Fawr Road will be required.
- There are several options for crossing the Tennant Canal. However, given the sensitivities of the Tennant Canal as a designated Site of Importance for Nature Conservation (SINC) and its connectivity to Crymlyn Bog (designated as a Special Area of Conservation (SAC), Site of Special Scientific Interest (SSSI), and Ramsar site), the preferred construction method would avoid any intrusive construction works in close proximity to the canal. There is an existing culvert crossing the canal located west of the Ashland's Playing Fields access which currently presented the preferred crossing opportunity, potentially using cable ducting.
- The cable route continues in an easterly direction between the Ashland's Playing Fields and A483 Fabien Way. Much of this land was previously used as part of an old railway line therefore, the construction works will need to consider any risk of contaminated soils during the works.
- The cable route would cross underneath the A483 Fabian Way before continuing in an easterly direction towards the Swansea Bay WwTW site and connecting into the substation building.

### Mitigation

The SOR has considered the following embedded mitigation as part of the proposed development:

- The siting of the solar array and associated infrastructure will be sited to avoid existing pollution prevention and control measures on Tir John landfill site, including drainage and monitoring infrastructure which has been implemented as part of the Site Environmental Management Systems (EMS).
- Non-intrusive construction methods (for example, ballast mounted solar panels) will be employed to avoid the risk of penetrating the capped layer of the Tir John landfill site.
- Access routes during construction and operation will make use of the existing tracks already present throughout the Site to avoid further habitat loss.
- Marshy grassland on the western edge of the Site will be retained and appropriately protected using Heras fencing (or similar) during the construction phase.
- Any trenches/excavations on the Tir John landfill site will not exceed a depth of 500mm to avoid any impacts on the capped layer.
- Any trenches/excavations created during the construction works will be covered over at night to prevent animals such as badgers, hedgehogs, and other species from falling in and becoming trapped.
- As far as possible, construction works will not take place during the hours of darkness, due to the requirement for keeping impacts on foraging/commuting bats to a minimum. Where that is not possible, details of how and when such night-working would take place, together with details of lighting used, will be submitted to the local authority for approval as part of the development proposals and will demonstrate minimal impact on bats.
- Any areas of scrub removed as part of the proposed development will be timed to avoid the bird nesting season.
- A two-stage direction grass/vegetation cut across the site will encourage reptiles to move away from the construction area into adjacent grassland.
- A non-licensed method statement will be produced which considers the potential for low numbers of great crested newts to be found on the Site during the works and should include tasks such as a) retention of any lose rubble areas where possible, b) watching brief by an appropriately competent ecologist where that is not possible and such areas need to be removed/relocated, and c) details of what will happen in the unlikely event that great crested newts are found.
- A Japanese knotweed and Himalayan Balsam management plan will be implemented prior to works proceeding on the Site. Any management practices will follow current and appropriate relevant guidance and will generally require repeat herbicide applications over several years. If construction works start prior to this plant being treated, any areas that may potentially be impacted on by the works should be fenced before works begin, in order to reduce the chances of spread.

### General Mitigation

A Construction and Environmental Management Plan (CEMP) will be implemented during the construction of the proposed development. This will include best practice construction management measures including mitigation requirements and measures to manage risks associated with construction of the proposed development to the environment and human health, including those associated with pollution and resource use.

A Habitat Management Plan (HMP) will be implemented for both the construction and operation phases of the proposed development. This will include measures set out to protect important

species and habitats identified on the Site and how the landscape will be managed and maintained throughout the operation of the proposed development.

Where possible, the resources required to construct the proposed development will be locally sourced. Recycled material would be used where available and if it is of the necessary specification.

### b) Culmination with other existing / approved development

The SOR has identified committed developments, of sufficient scale and size, within 2km of the Proposed Development and have been considered as part of an initial cumulative appraisal.

Planning Permission for the construction of a solar farm, including the installation of solar panels to generate up to 9.99MW of electricity with substations, transformers, security cameras, fencing, grid connection and associated development was approved in June 2020 (Application Reference: 2020/0173/FUL). The approved scheme is located at Carn Nicholas Farm, approximately 805m north west of the site. The potential operation impacts of the solar farm alongside the proposed development will be assessed where relevant in the accompanying planning application documents, however, the SCR concludes that significant effects are not anticipated.

No other committed developments likely to result in significant cumulative effects alongside the proposed developed have been identified within 2km of the site.

### c) The use of Natural Resources

The existing land use on the site and the surrounding area comprises restored grassland. The proposed development is low in natural resource usage and would produce a limited amount of waste products or pollution.

The use and management of materials and resources during the construction phase will be managed through the use of a CEMP. The CEMP will include a Site Waste Management Plan (SWMP) which will monitor the levels of waste produced, set goals to limit waste generation and provide details on how generated waste will be disposed. Materials for construction will be locally sourced and be from recycled sources where possible.

### (d) The Production of Waste

The use of materials and generation of waste during the operation phase is expected to be minimal and limited to maintenance including the replacement of redundant equipment where required. No significant effects are expected to arise for material assets and waste during both the construction and operation phases of the Proposed Development.

### (e) Pollution and Nuisances

It is expected that there will be some temporary nuisance during construction, however, it is anticipated that such impacts would be temporary and could be mitigated through measures under a CEMP. Best practice measures will be in place throughout the construction phase to minimise noise impacts. The potential impacts on noise, air quality and traffic impacts would look to be mitigated as part of the development. These issues are addressed in more detail below.

### (f) Risk of Major Accidents and Disasters

During construction there is the potential risk of pollution and disturbance to surrounding receptors due to construction activities. However, the site is located on land previously used as a landfill, and the proposed development will be of a relatively low height. Regulations and

practices to manage construction on-site, including implementation of a CEMP and response plans to potential accidents will be applied during the construction phase. Therefore, no significant environmental effects as a result of major accidents and disasters are expected during construction of the proposed development.

The Site is at a very low risk of flooding as the site lies in Flood Zone 1 and therefore a Flood Consequences Assessment is not required. This falls in line with guidance provided within Technical Advice Note 15 (TAN15). Any risk from surface-water runoff will be assessed during the SAB approval process. However due to the nature of the proposed development, it is anticipated that the proposed development would not increase flood risk on the Site or the surrounding area.

The electrical installation nature of the proposed development does carry some risk of fire. However, this risk is anticipated to be low, and equipment will be regularly checked and maintained during operation of the proposed development to prevent malfunctioning of equipment and further lower this risk.

### (g) Human Health

The impacts on human health are considered below. The SOR predicts that impacts on the local population are expected to be minimal and short-term during construction, and once operational, the proposed development is not expected to have any significant effects on the local population and human health.

### 2. Location of development

The Site is located on land adjacent to the Tir John Household Waste Recycling Centre between the city of Swansea (to the west and south) and the settlement of Neath (to the east). The Site is approximately 7ha in area and includes part of the Tir John Landfill Site as well as land required for the construction and operation of the private wire cable. The part of the Tir John Landfill site included within the Site Boundary stopped operating as a landfill site in 2015 and was capped between 2016 and 2018.

The Tir John Landfill Site, which covers a total area of approximately 36ha, was constructed within an area which was originally part of the Crymlyn Bog, believed to have been used for seasonal grazing prior to the 18th century. The Site is located within the footprint of a former power station which was constructed between 1932 and 1935. The power station was originally a coal fired station and then converted to oil during the 1960s until closure in the 1970s. The landfill at the Site was built on top of a platform which was constructed to support the original power station, and comprises:

- Pulverised fuel ash A by-product of the operational power station.
- A permeable geosynthetic clay liner.
- 300mm thick basal leachate drainage blanket of stone dust and scalpings.
- Controlled (inert and mixed) waste.
- The capping layers, which include: A 300mm stabilisation layer; A permeable geosynthetic clay liner; A 300mm protection layer and a 700mm layer of restoration soils which have been vegetated.

A sub-terranean leachate collection system consisting of a number of wells collects leachate and transfers it into a leachate holding lagoon immediately north of the Site, and from there, discharged to the foul sewer system. Surface water from the Site is also collected via a number of perimeter interception channels and pipes and discharge into a surface-water attenuation lagoon. Once settled, the water from the lagoon is pumped via a discharge pipe into the Crymlyn Bog.

Monitoring and maintaining the environmental condition of the Site is the responsibility of Swansea Council. An integrated EMS ensures that all appropriate pollution prevention and control techniques are properly managed and delivered across the Site in order to maintain compliance with regulatory requirements. The EMS includes:

- Leachate management.
- Groundwater management.
- Surface water management.
- Landfill gas management.
- Monitoring the stability of the capped landfill site.

A central access tracks runs across the Site (from south-east to north-west) and is used for operational maintenance purposes. The appearance of the Site is largely managed using a wildflower grass mix.

### Site Surroundings

The Site is located approximately 10m from Crymlyn Bog which is designated as a Special Area of Conservation (SAC), Site of Special Scientific Interest (SSSI), and Ramsar site:

- Crymlyn Bog SAC is designated due to the presence of a) transition mires and quaking bogs, and b) calcareous fens with Cladium mariscus and species of the Caricion davallianae. Both of these are primary reasons for selection of this site. In addition, the presence of alluvial forests with Alnus glutinosa and Fraxinus excelsior is a qualifying feature.
- Crymlyn Bog Ramsar site is designated based on three criteria, including a) it is the largest example of valley floodplain topogenous mire in South Wales and one of the largest surviving fens in the west of Britain, b) it supports a substantial population of the nationally rare slender cotton-grass Eriophorum gracile, and a rich invertebrate fauna, and c) it supports around 200 vascular plant species including 17 regionally uncommon and one nationally rare species.
- Crymlyn Bog SSSI is of special interest for its fen (topogenous mire) communities, wet woodland, associated invertebrate assemblages, a substantial population of the nationally rare slender cotton grass Eriophorum gracile and a population of the nationally scarce hornet robberfly Asilus crabroniformis. It is the most extensive area of lowland fen in South Wales and is situated 3.5 km east of central Swansea within a landscape heavily influenced by past and present industrial activities.

The Crymlyn Bog and Pant y Sais National Nature Reserve (NNR) is also located approximately 10m from the edge of the Site. Crymlyn Bog and Pant y Sais NNR is designated due to it being the largest lowland fen in Wales, with its extensive reed and sedge beds being home to a wide variety of wetland plants, birds, and insects.

There would be limited elevated or long-distance views towards the Site due to the dense vegetation and trees west of Dinam Road. The nearest residential dwellings are located on Marcroft Road, Port Tennant, approximately 20m north-west of the Site boundary. There are no Public Rights of Way (PRoW) that cross the Site. PRoW Footpath BO484 is located within the area of woodland and scrub west of Dinam Road, approximately 50m from the Site. PRoW Footpath BO477 is also located west of the Site, at approximately 500m.

The Wales Coastal Path is located approximately 300m from the Tir John landfill site. However, the proposed route for the Private Wire Connection would cross the Wales Coastal Path (as it crosses Wern Fawr Road), therefore any potential short-term impacts on the Wales Coastal Path during construction of the Private Wire Connection will need to be considered.

There are no designated heritage assets within 1km of the Site. The closest designated heritage asset is the Grade II Listed War Memorial in Dan-y-graig Cemetery, located approximately 1.2km west of the Site. Additionally, there are no Registered Parks or Gardens, Conservation Areas or Registered Battlefields within 1km of the Site.

The Glamorgan-Gwent Archaeological Trust Historic Environment Record (HER)1 identifies two non-designated heritage assets adjacent to the Site's western boundary: Tir John North post medieval building and Crymlin Well, a post medieval well located near Tir John North.

The local hydrogeology is controlled by springs to the west of the Site which discharge into the Crymlyn Bog with an easterly and south-easterly gradient towards the coast. Other nearby surface water features include the disused Glan-y-Wern canal, running north to south approximately 600m east of the Site, and the disused Tennant Canal, which crosses the Site. The Tennant Canal is designated as a SINC.

### 3. Types and Characteristics of the Potential Impact

The SOR has identified the types and characteristics of the potential impact within Table 1 which accompanies the request.

### Agriculture and land use –

The Site comprises an area of land which was formerly used as a landfill which accepted a range of municipal, commercial, and industrial wastes. The Site has since been capped and is subject to a restoration scheme which involved sowing a wildflower grass mix. The Site comprises Grade 5 agricultural land as a result of its previous use as a landfill. Grade 5 is considered very poor agricultural land with severe limitations that restrict use to permanent pasture or rough grazing.

To minimise potential impacts on the land during construction, the existing access tracks would be used where possible and construction practices would be managed through the use of the CEMP. In terms of operation, maintenance and aftercare as part of the restoration scheme for the landfill site can continue during the operational phase of the proposed development. It is not considered that the proposed development would result in a significant permanent loss of agricultural land or constrain any existing land uses.

Cultural Heritage and Archaeology - There are no identified designated heritage assets such as world heritage sites, scheduled monuments, listed buildings, registered parks and gardens or registered battlefields located within 1km the Site. The closest designated heritage asset is the Grade II Listed War Memorial in Dan-y-graig Cemetery, located c.1.2km west of the Site. There are two non-designated heritage assets adjacent to the Site's western boundary: Tir John North post medieval building and Crymlin Well, a post medieval well located near Tir John North.

Given the Site's previous use as a landfill, direct impacts on archaeological remains during construction are predicted to be negligible. Given the short-term nature of the construction activities and distance between the Site and the surrounding heritage assets (for example, over 1km), any potential indirect impacts on the setting of these heritage assets are predicted to be limited and not significant. As indicated, the identified heritage assets are well separated from

the Site by greenfield land and intervening urban development. As a result, it is considered unlikely that the proposals will give rise to any significant effects on the setting of these heritage assets.

### Ecology and Nature Conservation -

There are no statutory or non-statutory nature conservation designations within the site, however there are several designations located within 5km of the Site, The Site is located approximately 50m from Crymlyn Bog, which is designated as a SAC, SSSI, and Ramsar site.

A preliminary ecological appraisal (PEA) has been undertaken to identify potential protected species and habitats on Site and the need for additional surveys. The majority of the Site comprises semi-improved neutral grassland, with scattered tall ruderal species in some areas, largely on the sloping areas at the edges of the Site. A small area of marshy grassland is present on the western edge of the Site and several small patched of scrub are also present on the Site, largely made up of bramble.

The habitats present within the Site have the potential to support the following protected and notable species: Badger Meles meles; Bats; Otter Lutra lutra; Water vole Arvicola amphibius; Birds; Hedgehog; Invertebrates; Reptiles; and Amphibians (including great crested newt Triturus cristatus).

Therefore, whilst the site has limited ecological value, where possible, habitats of value will be avoided. The proposed development will make use of existing access tracks and hardstanding areas for construction activities (including any temporary construction compounds/equipment).

Any potential impacts on Crymlyn Bog (SAC, SSSI, and Ramsar) are predicted to be low. The main site is functionally/hydrologically linked to Crymlyn Bog, however, existing management systems (including drainage) implemented at the landfill site will not be affected. In addition, the mitigation measures will be introduced as part of a CEMP to avoid, mitigate, and compensate for any potential effects of the proposed development during the construction phase.

The Proposed Development has the potential to result in adverse effects on badgers, bats, otter, water vole, birds, reptiles, and amphibians. The implementation of a CEMP will reduce any potential direct and indirect impacts on ecological receptors such that any effects will not be significant. The content and delivery of the CEMP would be agreed with the Council and Natural Resources Wales (NRW).

Given the nature of the proposed development, operational impacts on ecological receptors are predicted to be limited. The SCR acknowledges that National and local policy is aiming for developments to include biodiversity enhancement measures to provide an overall net benefit for biodiversity. With this in mind, a HMP will be implemented during the operational phase of the Proposed Development which are predicted to increase the botanical and invertebrate diversity of the site, and therefore provide some net benefit as part of the proposed development.

### Hydrology and Hydrogeology -

The SCR identifies the site lies within Flood Zone 1 on the NRW Flood Map for Planning, however, this has yet to be implemented as part of the replacement TAN15, and therefore Flood Zone A on the NRW Development Advice Map, still applies which indicates the site to be at "little or no risk of fluvial or coastal / tidal flooding."

The nearest watercourses to the site are two disused canals; the Tennant Canal lies some 250m to the south and the Glan-y-Wern canal lies some 600m to the east. The Crymlyn Bog lies to the south of the main Site and surrounds the existing operational landfill. Although the canals are not expected to be in hydraulic connectivity with the main Site, the Crymlyn Bog is expected to be. There is a line of springs to the west of the main Site which discharge to the Crymlyn Bog and recharge the groundwater of the valley. Groundwater flow is in an easterly and south-easterly direction.

The geology of the area consists of the Carboniferous South Wales Lower Coal Measures Formation (which underlies the site and also forms the valley sides), overlain by superficial alluvial deposits (interbedded peat, clay, slit and gravel).

The surface of the Site is planted with wild-flower grasses. Access tracks are semi-permeable. Rain falling on the main Site runs off the surface or via the shallow soil layer above the impermeable capping, and into the surface water drainage collection system. This consists of berm-and-swale drainage ditches, sub-soil trenches and pipes, which collect water at the base of the slopes around the landfill and discharge it to an attenuation lagoon. From there, water is pumped and discharged in a distributed manner to the Crymlyn Bog.

There is a network of leachate collection wells that collect contaminated groundwater from a series of cells within which the waste is stored and discharge it to a leachate storage reservoir (separate to the surface water attenuation pond). From there it is pumped to the public foul sewer network.

During construction, existing access tracks would be used where possible and construction practices would be managed through the use of the CEMP. If, for any reason, silt or soil were to enter the existing site surface water drainage collection system, this would be collected and settled in the surface water attenuation lagoon prior to discharge of water off-site, resulting in no significant impact to surface water receptors. Given the construction methods proposed and the extent/temporary nature of the works at the Tir John landfill site and along the cable route, the impact on groundwater receptors are predicted to be negligible.

### Operation

The Proposed Development will include solar panels mounted on individual ballast blocks. As such, any rain falling on the panels / blocks wound run off onto the surrounding grass, and from there into the existing surface water drainage system, as in the baseline situation. The existing access tracks would be re-used. Any increase in width or permeability of the tracks would result in rain running off onto the adjacent grassland which would then eventually discharge to the surface water system, again as in the baseline case. There would therefore be no significant change to the existing hydrological situation and any impact on receptors would be negligible. The proposed development would be situated around the existing leachate collection system, and there would be no significant change to the existing hydrogeological situation and any impact on receptors would be negligible.

### Contaminated Land and Soils -

The bedrock geology underlying the Site and forming the valley sides consists of Carboniferous South Wales Coal Measures comprising beds of mudstone, siltstone, sandstone with bands of coal. The bedrock is overlain by superficial alluvial deposits comprising clay, silt, and sand, overlain by peat (forming Crymlyn Bog).

Based on the historical and current use of the main Site, the potential for contaminant sources to be present is high. The Tir John coal-fired power station was constructed between 1932 –

To receive this information in alternative format, please contact the above. I dderbyn yr wybodaeth hon mewn fformatt arall, cysylltwch a'r person uchod. 1935 which would have required a significant foundation platform. During the Site's use layers of PFA and crushed concrete were spread out across the Site from the power station and into the bog. In the 1960's the power station was converted to oil-fired before being decommissioned in 1976. The landfill was constructed by levelling off the PFA layer, a GCL installed across the site, overlain by a 300mm thick drainage blanket of stone and scalping. Controlled waste was then deposited on Site. The capping works commenced in 2016 and were completed in 2018. The works included a 300mm stabilisation layer, overlain by a geocomposite clay liner, with 300mm protection layer and 700mm layer of restoration soils which were vegetated.

The surrounding area, including the proposed Private Wire Route is expected to be underlain with Made Ground based on the former industrial use for the, comprising disused railway sidings on Site and surrounded by historical works including chemical, arsenic, gas and tar works.

From readily available records, the Site is in a potentially high-risk area for Unexploded Ordnance (UXO) due to the high bombing density during WWII.

Construction earthworks will be limited to shallow trenches to lay underground cabling infrastructure. All other construction is to be at ground level. Therefore, at the main Site, intrusive construction works will be limited to within the restoration layer (top 700mm) and will not penetrate any deeper protection layers. This material will then be reused to backfill the trenches. Any construction works would need to be around the current landfill infrastructure present which must be protected for ongoing monitoring activities.

The proposed private wire route will also be limited to shallow trenches, mostly following existing tracks/roadways. Chemical testing will be required to confirm suitability for reuse of this excavated material as backfill material. The potential impact on human health and controlled water receptors is considered negligible with construction works following the CEMP, best practice health and safety legislation and guidance, and limited earthworks in the shallow soils.

Due to the limitations of intrusive works on the main Site and limited extent of any works associated with the Private Wire Connection, the potential for any impacts on UXO are considered negligible.

Given the limited earthworks and reinstatement during the construction period there are predicted to be no changes during the operational period of the proposed development. Therefore, there is considered to be no significant effects to land and soil with no change to potential human health and controlled water receptors.

CCS Pollution have been consulted on the proposal and would be likely to request contaminated land conditions and formatives for construction on the submitted planning application.

### Landscape Character and Visual Impact -

The proposed development does not lie within a Designated Landscape, nor are there any within a 2km radius of the site. There are no Historic Parks and Gardens or Conservation Areas within 2km of the proposed development.

The Visual/Sensory aspect of the LANDMAP assessment indicates that the Proposed Development lies within area SWNSVS955 – Crymlyn which is assessed as being of high value. The wider study area comprises a mixture of values ranging from low to high.

To receive this information in alternative format, please contact the above. I dderbyn yr wybodaeth hon mewn fformatt arall, cysylltwch a'r person uchod. There are a number of PRoW within 2km of the proposed development including the Welsh Coastal Path (National Trail). There are also a number of undesignated publicly accessible boardwalks running through Crymlyn Bog which surrounds the Site to the north, east and south. Sustrans National Route 4 (The Celtic Trail) is located approximately 450m to the south of the Proposed Development and there are also a number of unnamed local cycle routes within 2km of the proposed development.

There are a number of highways within 2km of the proposed development including A483 Fabian Way 450m to the south. The residential areas of Port Tennant and Bonymaen are located within 2km of the proposed development. Additionally, there a number of potential commercial receptors within 2km of the site including Swansea University and businesses at Crymlyn Burrows.

The construction of the proposed development would require a temporary change in land use and short-distance visual amenity to facilitate access routes and deliveries, the construction compound and equipment. The SR concludes that these impacts are likely to be minor, and not out of character due to the former use of the site as a landfill, with associated plant and vehicle movements. In any case, these impacts will be temporary in nature. The area of works during construction will be set out to mitigate any potential effects on landscape or visual amenity and this will be managed through the CEMP.

The SCR concludes that given the former use of the site, it is predicted that there are unlikely to be any significant changes to landscape character and seascape character during the operation of the proposed development. As indicated there are several sensitive receptors within 2km of the site, however, they will have limited visibility of the proposals, and are set in the context of the degraded landscape of the former landfill site. Views from the Welsh Coastal Path to the south are limited to a short section and are at least partially obscured. Views from local PRoW's are all at least partially obscured and limited. There are likely to be some partially obscured views from local Residential Receptors, mainly distant views from those located on the hills to the north of the site. Businesses are largely located to the south of the site at Crymlyn Burrows, where views of the site are obscured by intervening vegetation.

### Traffic and Transport -

The A483 Fabian Way runs to the south of the site. Access to the site is available at Wern Fawr Road, which is directly connected to the A483. There is a network of existing access tracks throughout the Site which will be integrated and used as part of the proposed development.

The proposed development would primarily generate traffic during the construction period; however, the impact is considered to be low subject to the implementation of an approved CTMP. A CTMP will be produced which will contain measures to mitigate against the temporary increase in construction vehicles, including information on construction traffic routing, traffic volumes, construction programme and the potential for any impacts on the surrounding road network.

Operational traffic would likely be limited to that required for maintenance operations and therefore would be of low volume. There is not considered to be potential for significant environmental effects during operation.

Population and Human Health - PRoW Footpath BO484 is located within the area of woodland and scrub west of Dinam Road, approximately 50m from the Site. PRoW Footpath BO477 is *To receive this information in alternative format, please contact the above.* 

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also located west of the Site, at approximately 500m. The Wales Coastal Path is located approximately 300m from the Tir John landfill site.

Tir John Household Waste Recycling Centre is located adjacent to the southern boundary of the Site, and the nearest residential dwellings are located on Marcroft Road, Port Tennant, approximately 20m north-west of the Site boundary.

The SOR predicts that impacts on users of the PRoW network and the local population are expected to be minimal and short-term during construction, limited to an increase in traffic on local roads and a minor, localised change to air quality and noise associated with construction traffic and works, largely along Waun Fawr Road. Measures to reduce air quality and noise impacts during construction will be set out within the CEMP. During construction, it is considered unlikely that the Proposed Development would result in a significant change in population as

workers are unlikely to relocate to the area on a permanent basis. The construction would have a temporary effect on employment provision through the creation of construction jobs. Once operational, the proposed development is not expected to have any significant effects on population and health.

### Air and Climate –

The nearest Air Quality Management Area is located approximately 2.2km west of the Tir John landfill site. The nearest residential dwellings are located on Marcroft Road, Port Tennant, approximately 20m north-west of the Site boundary.

Emissions to air during construction, including dust generation, would be limited to construction vehicles transporting materials and machinery, and members of workforce arriving and leaving the Site. There may be potential for minimal and short-term impacts due to Site traffic and the generation of dust. These will be managed through an approved CEMP and CTMP.

No effects on climate are anticipated during the construction of the Proposed Development.

The SOR states that unlike other electricity generating technologies, there are no emissions to the air which would arise from the operation of the proposed development. Emissions to air would be limited to maintenance activities including regular inspections of the site by technicians and the use of machinery for maintenance purposes, if required.

### Conclusion

The SOR concludes that there are potential environmental impacts which could arise from the proposed development, however, having regard to the indicative Screening criteria and thresholds set out in Schedule 3 of the EIA Regulations, it is considered that these impacts would not be 'significant' such as to warrant the submission of a statutory EIA.

The forthcoming planning application would however be accompanied by the following appropriate reports in respect of technical matters to demonstrate that the localised environmental effects of the proposed development will be acceptable:

- Preliminary Ecological Appraisal.
- Ecological Survey Reports (including a Reptile Survey Report and Breeding and Wintering Bird Survey Report).
- Landscape and Visual Assessment (and supporting Landscape and Ecological mitigation Plan).

- Land Contamination Preliminary Risk Assessment (PRA).
- Sustainable Drainage Strategy for SuDS Approving Body (SAB) approval.
- Glint and Glare Study.
- Decommissioning Report.
- Habitats Regulations Assessment (HRA) Screening Report.
- Transport Statement.
- Planning, Design and Access Statement.

The Environmental Impact Assessment Circular (02/99) provides advice and indicative thresholds and criteria for identification of Schedule 2 development requiring an EIA. In respect of Energy Industry / Power Stations (A11) it advises that EIA will normally be required for power stations which generate more than 50MW. EIA is unlikely to be required for smaller generation schemes. The main considerations are likely to be the level of emissions to air, arrangements for the transport of fuel and any visual impact.

The Screening Opinion request (SOR) indicates that the application site will measure 7 hectares and the solar farm would have a maximum export capacity of 3MW.

Additionally, in respect of the need for EIA for Schedule 2 development Paragraph 33 of Circular 02/99 'Environmental Impact Assessment' identifies three main types of case where EIA will be needed:

- (a) Major developments, which are more than local importance;
- (b) Development proposed for particularly environmentally sensitive or vulnerable locations;
- (c) For development with unusually complex and potentially hazardous environmental effects.

### Major development of more than local importance

Paragraph 35 of Circular 02/99 states that "in some cases the scale of a development can be sufficient for it to have wide ranging environmental effects that would justify EIA". As indicated above, the Circular also provides thresholds and criteria for identification of Schedule 2 development requiring EIA. As indicated the application site will measure 7 hectares and the solar farm would have a maximum export capacity of 3MW, the site is considered to be only of no more than local importance and that the development would not have a significant environmental impact.

### Development proposed for particularly environmentally sensitive or vulnerable locations

The site is located within close proximity of the Crymlyn Bog which is designated as a Special Area of Conservation (SAC), Site of Special Scientific Interest (SSSI), and Ramsar site. The site is also within close proximity to the Crymlyn Bog and Pant y Sais National Nature Reserve (NNR). The proposed development therefore has potential for the works to affect a 'sensitive area' as defined by Regulation 2(1) of the 2017 Regulations. Circular 02/99 indicates that for any Schedule 2 development, EIA is more likely to be required if it would be likely to have significant effects on the special character of the 'sensitive area'. However, it does not fall that every Schedule 2 development in those areas will automatically require EIA. In each case, it will be necessary to judge whether the likely effects on the environment of that particular development will be significant in that particular location.

The site itself has limited ecological value and any potential impacts on Crymlyn Bog (SAC, SSSI, and Ramsar) are predicted to be low. Whilst the wider landfill site is functionally/hydrologically linked to Crymlyn Bog, it is stated that the existing management systems (including drainage) implemented at the landfill site will not be affected. Additionally,

the mitigation measures to be implemented as part of a CEMP to avoid, mitigate, and compensate for any potential effects of the proposed development during the construction

phase. Additionally, the implementation of the HMP to enhance biodiversity will provide an overall net benefit for biodiversity.

The CCS Ecologist has agreed that an EIA would not be required in respect of the impact on ecological interests, but also requires that the planning application is accompanied by the Preliminary Ecological Appraisal and further Ecological Survey Reports (including a Reptile

Survey Report and Breeding and Wintering Bird Survey Report), together with HRA, Construction and Environmental Management Plan (CEMP) & Habitat Management Plan (HMP). Therefore, it can be concluded that the proposed development would not adversely affect the environmentally sensitive area.

#### Complex and potentially hazardous environmental effects

The development, by virtue of the proposed land uses, is not considered to present a complex or hazardous effect on the environment as defined by the Regulations (including para.41-42 circular 02/99). Accordingly, this test is not considered to warrant further consideration.

### Need for EIA

In light of the above, it is considered that the proposed development will not require an EIA – as it does not represent major development of more than local importance, would not adversely affect the environmentally sensitive area, and will not have complex and potentially hazardous environmental effects. Accordingly, it is considered that the proposed development will not have significant environmental effects such that EIA is necessary.

1 Capital Quarter Tyndall Street Cardiff CF10 4BZ

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