Electoral Division:
Cockett

Report of the Head of Economic Regeneration and Planning

Planning Committee – 11 August 2015

Planning Application Ref: 2014/1837

Construction of a 4MW solar farm comprising c14790 individual panels and associated structures and works

Land at Cockett Valley, Waunarlwydd Road, Swansea. SA5 4RQ

1.0 Background

1.1 This application was reported to Planning Committee on 14th July 2015 with the recommendation that planning permission be approved subject to conditions. Members did not accept the recommendation but resolved that the application be deferred under the two stage voting process so that further advice could be provided on reasons for refusal. The application will not be deemed to be refused unless and until reasons for refusal have been recorded and approved by members

1.2 A copy of the report to Planning Committee on 14th July 2014 is attached as Appendix A.

2.0 Main Issues

2.1 Members identified the following areas as possible grounds for refusal of the application: residential amenity, highway safety, the visual impact on the Cockett Valley Green Wedge and the efficiency of the solar panels in meeting renewable energy targets.

2.2 In terms of residential amenity, the site in general is well screened from surrounding residential properties due to the landform and intervening vegetation. The siting and height of the panels would ensure that the structures would not be overbearing nor have an overshadowing impact on the occupiers of nearby residential properties and the nature of the use is such that there would be no overlooking from the site. With regards to noise and disturbance, it is accepted that there will be some during the construction process but these impacts would be temporary and short in duration. Good site management during the construction process would ensure that the impact of noise and disturbance is limited. It is not considered therefore that a reason for refusal based on an unacceptable impact on the residential amenity of the occupiers of nearby residential properties could be sustained.

2.3 With regards to highway safety, the main impacts from traffic movements would be during the construction phase. It is predicted that during this phase, there would be up to 34 daily movements by light vehicles (e.g. staff cars), and 8 – 10 HGV movements per day. Following completion of the construction phase, traffic movements will be minimal and relate to occasional maintenance visits only.

The Head of Highways and Transportation has raised no objection to the proposal subject to conditions and it is considered that should the application be refused on highway grounds, it would be difficult to produce evidence at appeal demonstrating that the proposal would have an unacceptable impact on highway safety. In the absence of such evidence, the Local Planning Authority could be the subject of a successful costs application in the event of an appeal.

2.4 As Members will be aware, the application site is situated within the Cockett Valley Green Wedge as identified in Policy EV23 of the UDP. The amplification to this policy states that green wedges are areas of countryside that are under pressure for development and which are important for containing and shaping the surrounding settlements. They also protect the environmental and wildlife interests in these areas and are intended to prevent any development that would contribute to coalescence of settlements. The amplification goes on to say it is important to retain their open character. The UDP describes the Cockett Valley Green Wedge as follows:

*'**Cockett Valley**: This area of lowland rolling farmland with mosaic field pattern and scattered woodland cuts into the urban area, utilising strong landscape and topographical features to contain and shape the urban form. Land between Dunvant, Three Crosses and Gowerton is under development pressure that could lead to a coalescence of these villages, whilst the urban influence is strong towards the eastern part of the green wedge, where the urban edge encircles the rural area.'*

2.5 Policy EV23 states:

Within these areas, development will only be permitted if it maintains the openness and character of the green wedge and does not contribute to the coalescence of settlements or adversely affect the setting of the area. Appropriate development within the green wedge comprises the following:

(i) Justified development in association with agriculture or forestry
(ii) Essential facilities for outdoor sport and recreation or cemetery use
(iii) Limited extension, alteration or replacement of existing dwellings
(iv) Small scale farm diversification
(v) The re-use of existing permanent/substantial buildings
(vi) Affordable housing for local needs under Policy EV18
(vii) Other uses of land or forms of development that maintain the openness of the green wedge and do not conflict with the purpose of including land within it.

2.6 As the report to Committee on 14th July indicated, it is the view of officers that the existing landform and vegetation, together with the proposed additional planting would prevent the solar farm having an unacceptable impact on the openness and character of the green wedge. It is further considered that when viewed from the south, the solar farm would be viewed against the background of urban areas Waunarlwydd and the industrial land beyond. There have been no objections raised by consultees in relation to environmental and wildlife issues. It is not considered that the proposal would lead to the coalescence of settlements around this green wedge.

2.7 Due regard has to be given to Local and National Planning Policy which seeks to achieve a national target of achieving 20% of electricity needs being met from renewable energy by 2020. At Committee, one of the reasons for refusal suggested by Members was that the solar panels are not efficient.

As the report at Appendix A outlines, correspondence from Welsh Government has indicated that based on data for 2013, an output of roughly 10% of capacity for all types of solar panels in Wales was produced. The scheme assessment and decision outcome is essentially a balance between the national and international will for a future with renewable energy, against the impact of the scheme on the landscape and environment of the Cockett Valley Green Wedge.

2.8 Members will be aware from my original report to Committee that I consider the visual impact from the development is not sufficient to warrant refusal of the application and as a result the recommendation was for approval.

3.0 Recommendation

3.1 It is recommended that:

(i) If Committee considers that the need to produce renewable energy and the contribution of this proposal to meet renewable energy targets set by Welsh Government is insufficient to outweigh the visual impact of the development on the Cockett Valley Green Wedge, the application should be refused for the following reason:

1. The proposal is considered to constitute inappropriate development which would neither conserve nor enhance the character of the countryside or the openness of the Cockett Valley Green Wedge. The need to produce renewable energy and the contribution of this proposal to meet renewable energy targets set in National Planning Policy is insufficient to outweigh the visual harm that would be caused by the proposal. The proposed development is therefore contrary to Policies EV1, EV23 and R11 of the City and County of Swansea Unitary Development Plan (2008).

(ii) If, however, Committee does not consider that the application should be refused for the reason given above, the application should be APPROVED subject to conditions as outlined in my report to Committee on 14th July 2015 and set out in Appendix A.

BACKGROUND PAPERS

Local Government Act 1972 (Section 100) (As Amended)

The following documents were used in the preparation of this report:
Application file, together with the files and documents referred to in the background information section of the appended Development Control committee report.

Contact Officer:	*Ian Davies*	***Extension No:***	*5714*
Date of Production:	*23rd July 2015*	***Document Name:***	*Cockett Valley Solar Farm*

APPENDIX A

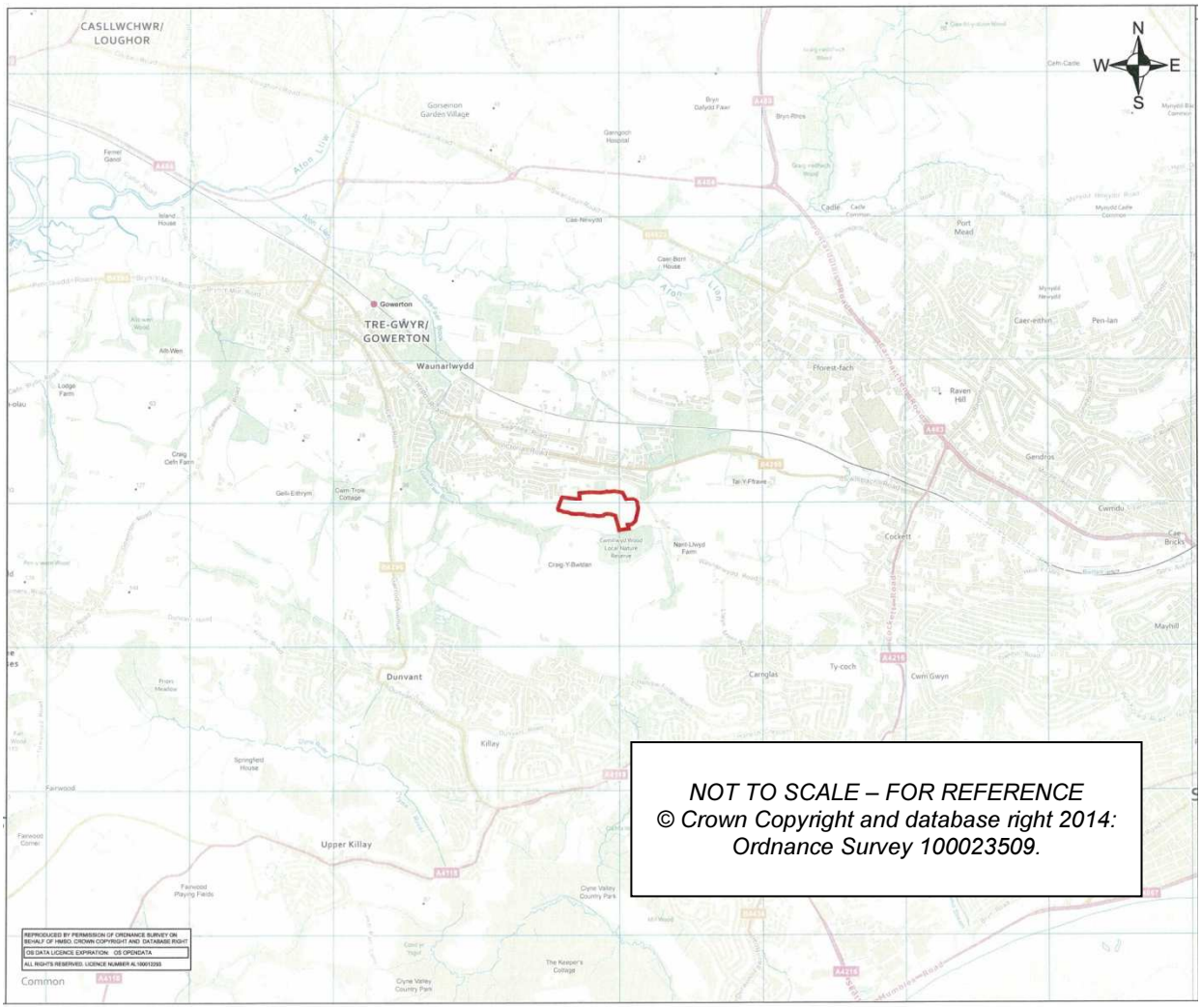
ITEM 2 APPLICATION NO. 2014/1837

WARD: Cockett

Location: **Land at Cockett Valley Waunarlywydd Road Swansea SA5 4RQ**

Proposal: **Construction of a 4MW solar farm comprising c. 14,790 individual panels and associated structures and works.**

Applicant: **Renewable Developments Wales**



BACKGROUND INFORMATION

POLICIES

Policy	Policy Description
Policy EV21	In the countryside non-residential development will only be permitted where it can be demonstrated that it is beneficial for the rural economy, or it meets overriding social or economic local needs, or it is appropriate development associated with farm diversification, sustainable tourism or nature conservation, or it provides an acceptable economic use for brown field land or existing buildings, or it is essential for communications, other utility services, minerals or renewable energy generation. (City & County of Swansea Unitary Development Plan 2008)
Policy R11	Proposals for the provision of renewable energy resources, including ancillary infrastructure and buildings, will be permitted provided: (i) The social, economic or environmental benefits of the scheme in meeting local, and national energy targets outweigh any adverse impacts, (ii) The scale, form, design, appearance and cumulative impacts of proposals can be satisfactorily incorporated into the landscape, seascape or built environment and would not significantly adversely affect the visual amenity, local environment or recreational/tourist use of these areas, (iii) There would be no significant adverse effect on local amenity, highways, aircraft operations or telecommunications, (iv) There would be no significant adverse effect on natural heritage and the historic environment, (v) The development would preserve or enhance any conservation areas and not adversely affect listed buildings or their settings, (vi) The development is accompanied by adequate information to indicate the extent of possible environmental effects and how they can be satisfactorily contained and/or mitigated, (vii) The development includes measures to secure the satisfactory removal of structures/related infrastructure and an acceptable after use which brings about a net gain where practically feasible for biodiversity following cessation of operation of the installation. Proposals for large-scale (over 25MW) onshore wind developments shall be directed to within the Strategic Search Area defined on the Proposals Map subject to consideration of the above criteria. (City & County of Swansea Unitary Development Plan 2008)

Policy EV30 Protection and improved management of woodlands, trees and hedgerows which are important for their visual amenity, historic environment, natural heritage, and/or recreation value will be encouraged. (City & County of Swansea Unitary Development Plan 2008)

Policy EV35 Development that would have an adverse impact on the water environment due to:

i) Additional surface water run off leading to a significant risk of flooding on site or an increase in flood risk elsewhere; and/or,

ii) A reduction in the quality of surface water run-off.

Will only be permitted where it can be demonstrated that appropriate alleviating measures can be implemented. (City & County of Swansea Unitary Development Plan 2008)

Policy EV1 New development shall accord with a defined set of criteria of good design. (City & County of Swansea Unitary Development Plan 2008).

Policy EV2 The siting of new development shall give preference to the use of previously developed land and have regard to the physical character and topography of the site and its surroundings. (City & County of Swansea Unitary Development Plan 2008).

Policy EV23 Within green wedges development will only be permitted if it maintains the openness and character of the green wedge and does not contribute to the coalescence of settlements or adversely affect the setting of the urban area. (City & County of Swansea Unitary Development Plan 2008)

SITE HISTORY

None

RESPONSE TO CONSULTATIONS

The application was advertised on site and in the press as a Departure from the Unitary Development Plan. No representations have been received to date.

The Gower Society – Comment as follows:

1. We have grave concerns about the location of this solar power station within the land currently designated as EV23 Green Wedge. The contents of EV23 and the Amplification on page 37 of the UDP would lead us to assume that this proposal would not be allowed. However we accept that it is less damaging than being in the AONB but that is covered in turn by much stronger legislation.
2. By any stretch of imagination this is a large industrial complex covering in all about 9 hectares of agricultural land within land set aside as a buffer zone.
3. The site is adjacent to both the housing site in Waunarlwydd to the North and Cwmllwyd Wood Nature Reserve to the South. It will impact on these properties and the nature reserve.

4. We are minded to point out that Green Wedges are for the very purposes that the name implies i.e. to separate urban areas. If this application is allowed the implications of future 'copycat' applications in the area must not be ignored. We are greatly concerned about the concentration of such industrialisation that is happening to the North of the M4 in Mawr. It is essential that an overall policy for such applications is prepared for the LDP in order to produce consistent planning responses.
5. Without any question this development will be conspicuous from many areas as indicated by the applicants own plans.
6. The impact upon the ecology of the area will be significant and we query the quality of the environmental study, particularly that on birds.
7. In our opinion these solar panels could have been placed almost invisibly on the roofs of the large industrial complexes like Alcoa to the North of this site and many of the vast areas of retail park roofs such as Llansamlet, Swansea Vale, Cwmbwrla and Fforestfach.

Glamorgan Gwent Archaeological Trust – We identified a possible archaeological issue for this planning application.

A Heritage statement prepared by SLR Consulting Ltd (report ref: 404.0027.000002), identified a number of historic environment features within the application associated with the post-medieval agricultural landscape in this area; including field boundaries, industrial features and ridge and furrow. The heritage statement noted the importance of these features and that they should be preserved in situ by the development, though this will not be possible for the ridge and furrow as these are in an area where it is proposed panels will be erected.

As these features are significant to the historic environments of Cockett Valley a record should be made of them prior to their alteration and in some cases loss. As such we recommend that a condition be attached to any consent granted requiring the applicant to commission a photographic survey of the historic features identified in the SLR report.

Natural Resources Wales - We would offer no objection to the above application, providing appropriately worded conditions are attached to any planning permission your authority is minded to grant.

Flood Risk
The site is located within zone A, as defined by the development advice maps referred to under TAN 15 Development and Flood Risk (July 2004). Our Flood Map information, which is updated on a quarterly basis, indicated the site to be outside of the flood zones.

We note that the site is approximately 9.14 hectares in size and as a solar farm it can be classed as less vulnerable development according to TAN 15.

Surface Water Disposal
We note that SUDS and soakaways are listed as the methods of surface water disposal in the application forms whilst the Planning Statement mentions the use of swales on the southern boundary of the site.

We would advise that any swales are installed at the start of the construction phase in order to protect the nearby Gors Fawr Brook from any construction related run-off from entering the watercourse. The swales would also need to be created and established (i.e. vegetated), before any construction work begins on site, in order to provide the best protection for the brook.

We would be supportive of this approach, along with the provision and implementation of a site specific Surface Water Management Plan, which should provide details as to where and how any water that is generated/collected on site during the various phases of the development will go and will be managed, particularly during the construction phase.

This is important as the Gors Fawr brook (which is a tributary of the Afon Llan, a waterbody classified as of "Moderate" ecological status under the Water Framework Directive), is located close to the boundary of the site.

Ultimately the drainage system design and future maintenance is a matter for your Authority's engineers. Therefore would advise that they are consulted. We would also recommended that any surface water drainage system must be designed to ensure no increased run-off from the site during and post development in all events up to the 1:100 year storm with an allowance for climate change.

We acknowledge that the panels will allow rainwater to runoff and infiltrate into the ground. However, this run off will concentrate infiltration to a smaller area and depending upon the topography of the site this may led to the creation of rivets or small channels which could speed up the flow to the runoff down the slope. Therefore consideration for this possibility, along with suitable measures to prevent and/or minimise this from occurring should be implemented as part of any proposal, should your Authority be minded to grant planning permission.

Ecology and Protected Species

We welcome the submission of the document entitled "Proposed Solar Farm – Cockett Valley, Swansea: Extended Phase 1 Ecological Report (Ref:404.05027.00002)", dated November 2014 by SLR.

The application site is located within the Dunvant Brickworks Site of Importance for Nature Conservation (SINC). Although, this is a non-statutory designation, it does include habitats and features of ecological interest. Therefore, we advise that you discuss the proposal with your Authority's Planning Ecologist.

We note that a site walkover was undertaken on the 4th June 2014, with an initial Phase 1 survey on 14th July 2014 and follow up tree and badger surveys on the 8th August 2014. The report states that the fields within the application boundary can be classified as semi-improved grasslands with species typical of acid soils. Parcels of scrub land are also present across the site, which is subject to varying levels of grazing.

The report confirms that there are no built structures within the site, although a group of trees (G1) and six individual trees (ref. Number; 7,9,10,12,15 and 19) were identified as having features which could support roosting bats. Section5.2.1 of the report states that these trees will be retained and will not be subject to any indirect impacts. We support this proposal, but advise that should these trees require any future maintenance then a further assessment would be required, prior to any work taking place.

We support the Habitat Management and Creation proposals laid down in Sections 6.1.1 to 6.2.5 of the document entitled "Proposed Solar Farm – Cockett Valley, Swansea: Extended Phase 1 Ecological Report (Ref:404.05027.00002)", dated November 2014 by SLR.

We also advise that any "wildflower mix" should wherever possible, be of local provenance. We support a structured mowing or grazing regime in order to manage the sward height during the operation phase of the proposal, but wish to highlight the importance of the removal of cuttings from the site (in order to prevent smoothing and/or enrichment), should grazing not be an option. We also advise that measures for bracken control should be considered within the Habitat Management, if it is found that grazing and /or moving do not prevent the further encroachment of bracken. We are also supportive of the proposal to plant approximately 360m of new hedgerows, although it is unclear if this will be accompanied by fencing. If grazing is to form a part of the management of this site, then there should be suitable fencing in place to protect the new planting. In addition, any hedging plants which fail should be replaced.

We recommend that the proposals laid down in Section s6.1.1 to 6.2.5 are discussed and agreed with your Authority's Planning Ecologist and should be implemented through suitable Landscape and Habitat Management Plan and delivered by an enforceable planning condition should your Authority be minded to grant planning permission.

Landscape

We consider that the proposal is not likely to have a significant landscape or visual effect on the LANDMAP outstanding historic aspect area (SWNSHL726 Gower Subboscus Agricultural) or on the Gower AONB, which lies approximately 2.75km away.

We note that a new length of hedgerow planting is proposed along the northern edge of the site and are supportive of this mitigation measure to strengthen the field boundary. The management of the grassland, hedgerows and trees on the site should be subject to a suitable Management Plan and implemented via an enforceable planning condition, should you be minded to grant planning permission.

The historic landscape aspect area is identified as outstanding by LANDMAP, mainly because of the historic field pattern, boundary treatment and historic monuments. The proposal is not considered likely to have more than local effects on the historic landscape. The field pattern and boundary features would remain intact. There would be an adverse effect on the character of the landscape locally, considered of moderate significance in the LVIA. We consider the effect on the character of the site to be significant, however in the context of the historic landscape aspect area, this is localised.

Visual effects are identified as of minor in the LVIA, with the exception of viewpoints C and D where effects on viewers are considered of moderate significance. The LVIA states that the AONB falls outside the ZTV. No photographs have been produced to demonstrate whether the development would be visible from the AONB (e.g. from Fairwood Common, approximately 4km away). However, we consider it unlikely that there would be significant effects on the AONB from this distance.

The visual effects from areas of Access land (e.g. to the east of Waunarlwydd) and near Penllergaer do not appear to have been considered in the LVIA, but are unlikely to increase the effect on the historic landscape to significant.

Pollution Prevention
Should your Authority be minded to grant planning permission, we advise that a site specific Pollution Prevention Plan needs to be provided.

As your Authority will be aware there can be no deterioration of water bodies under the Walter Framework Directive. It is therefore vital that all appropriate pollution control measures are adopted on site to ensure that the integrity of controlled waters (surface and ground) is assured.

As best practice, we would advise the developer to produce a site specific construction management/pollution prevention plan with particular reference given to the protection of the surrounding land and water environments. If planning permission is granted we would ask that the following conditions are included:

Condition: No development approved by this permission shall be commenced until a pollution prevention management plan detailing all necessary pollution prevention measures for the construction phase of the development is submitted to and approved in writing by the Local Planning Authority. The details of the plan shall be implemented as approved and must be efficiently communicated to all contractors and sub-contractors (for example, via toolbox talks) and any deficiencies rectified immediately

Reason: Prevent pollution of controlled waters and the wider environment.
As a minimum we would recommend that the plan include the following points:

- Identification of surrounding watercourses and potential pollution pathways from the construction site to those watercourses.
- How each of those watercourses and pathways will be protected from site run off during construction.
- How the water quality of the watercourses will be monitored and recorded. How surface water runoff from the site during construction will be managed/discharged. Please note that it is not acceptable for ANY pollution (e.g. sediment/silt/oils/chemicals/cement etc.) to enter the surrounding watercourses.
- storage facilities for all fuels, oils and chemicals.
- construction compounds, car parks, offices, etc.
- details of the nature, type and quantity of materials to be imported on to the site.
- measures for dealing with any contaminated material (demolition waste or excavated waste).
- identification of any buried services, such as foul sewers, so that they are protected.
- details of emergency contacts, for example Natural Resources Wales (NRW) hotline 0800 807 060.

Pollution prevention guidance is available from the Environment Agency's website.

Waste Management
We note that an "Outline Site Waste Management Plan can be found within Appendix B of the Planning Statement document (submitted with the application), dated November 2014, by SLR (ref:404.5027.0002). Given the nature and location of this development, we would recommend that a site waste management plan (SWMP) for the project is produced. Guidance for SWMPs are available from the DEFRA website (www.defra.gov.uk).

We acknowledge that a SWMP may be something best undertaken by the contractor employed to undertake the project. Furthermore, we note that these documents are often 'live' and as such may be best undertaken post permission. The following condition is suggested, but could be amended as you see fit.

Condition: No development approved by this permission shall be commenced until a Site Waste Management Plan has been produced and submitted in writing for approval by the Local Planning Authority.

Reason: To ensure waste at the site is managed in line with the Waste Hierarchy in a priority order of prevention, re-use, recycling before considering other recovery or disposal option.

Any waste materials that are generated on site as a result of construction must be stored and treated in line with relevant environmental legislation. If it is proposed to treat waste on site, a relevant waste permit/exemption must be registered with NRW. More information on relevant waste exemptions can be found on our website: www.naturalresourceswales.gov.uk.

In addition to the above, we would ask that the attached planning advice note is provided to the applicant/developer. This provides further information and advice on matters such as SUDS, pollution prevention and waste management.

Should your Authority be minded to grant planning permission NRW recommend that appropriately worded conditions are attached to any planning permission you are minded to grant.

Dwr Cymru Welsh Water – No objection

The Coal Authority - The Coal Authority has raised no objection to the proposed development, subject to the imposition of a standard potential hazards informative and concludes that a Coal Mining Risk Assessment is not required.

Council's Drainage Section - We have reviewed the application and while we have no objection to the proposals we would recommend that the Site Layout – Figure 1 is amended to show a SUDs swale on the northern edge to intercept any additional surface water run-off that is created given the proximity to residential properties.

Council's Pollution Control Division - No comments on the application.

Council's Planning Ecologist - The site has been subject to an extended phase 1 ecological survey, this has provided sufficient information to assess the impact of the development of the proposals on the ecology of the site. The site falls within the Dunvant Brickworks SINC. There will be some negative impact on the ecology of the site although if the mitigation and management recommendations described in section 6 of the Extended Phase 1 Survey dated November 2014 are followed there will be an overall ecological enhancement of the site. The recommendations listed in section 6 of the survey should be made a condition of any permission we give.

Highways Observations - This proposal is for a solar farm on land at Cockett Valley. The site is accessed from Waunarlwydd Road and details submitted with the application indicate that the construction phase is estimated to last for 3 months. Traffic movements during this phase are predicted to be up to 34 daily movements by light vehicles (staff by car etc.) and 8 - 10 daily HGV movements. Overall, the predicted movements are not considered to be of a high volume.

The indicated route for traffic accessing the site is J47, Fforestfach cross, Cockett, Cwmbach Road and finally Waunarlwydd Road leading to the site access. Following completion of the construction phase, traffic movements will be minimal and relate to occasional maintenance visits only.

I recommend no highway objection, subject to the submission of a Construction Traffic Management Plan prior to commencement of any work at the site. All works shall be completed in accordance with the approved management plan.

APPRAISAL

Description

Full planning permission is sought for the installation of a solar photovoltaic (PV) array on land at Cockett Valley off Waunarlwydd Road, Swansea.. The array would comprise approximately 14,790 individual panels and associated works and structures over a site area of approximately 9 hectares and will have a total installed capacity of 4MW. Ancillary development would include a small number of inverters and a transformer station placed amongst the solar panels, a small substation building, security fencing up to 2.4 m in height and associated security features (including CCTV cameras), and a temporary construction compound.

Site Location and Use

The application site sits in the Cockett Valley, which lies to the immediate south of the settlement of Waunarlwydd. The site lies within the Cockett Valley Green Wedge. The valley is U- shaped in character with the north and south ridges of the valley largely screening the application site from wider public views. No water courses cross the application site, although the Gors Fawr Brook runs within 15 metres of its southern boundary. The brook runs in an east to west direction, feeding into the Afon Llan river approximately 3 km downstream.

The topography of the application site is undulating in character ranging from a maximum elevation of 100m, which occurs in the north central part of the site, to a low point of 70m, which occurs to the south eastern corner of the site. This low point occurs at the foot of the Cockett Valley near to the aforementioned brook.

The application site comprises a series of fields currently subject to varying levels of grazing, although no formal or structured management regime is currently in place. Field boundaries are typically marked by low earth and stone banks, some of which support defunct hedgerows with occasional semi-mature trees. Other field boundaries remain more open in character with tall ruderal vegetation defining the features from the surrounding grassland.

The grassland swards are semi-improved with a species assemblage typical of acidic soils. Specific habitat features within the site are described in the Extended Phase 1 Ecological Survey Report, which accompanies this planning application.

The site suffers from unauthorised motorcycle/quad bike use, and there is evidence of fly tipped waste throughout. Numerous informal footpaths and vehicles track markings cross the site, none of which are designated as public rights of way.

Immediately to the north of the application site the predominantly residential settlements of Waunarlwydd and Gowerton merge to form an elongated belt of development that sits parallel to the Swansea to Llanelli railway line. Some of the housing in Waunarlwydd sits directly to the north and north-west of the application site. On the northern side of the railway line there are a series of industrial estates. The north-western edge of Swansea is approximately 1km to the south of the application site on the opposite side of the aforementioned ridge feature. Cockett village lies approximately 1.5 km to the east of the application site again marking the outer extent of the Swansea's urban area.

Access to the site will be gained off Waunarlwydd Road and they existing farm access track leading form Waunarlwydd Road will be upgraded and used for all construction and maintenance traffic.

The wider surrounding area is predominantly rural in character and lies within the Clyne Valley/Cockett Valley Green Wedge. The layout of the site has taken this infrastructure constraint into consideration.

The site is located entirely within the Dunvant Brickworks SINC, which extends to 124.09 ha in total. This SINC contains a mosaic of habitats, with the largest SINC area (57.19 ha) being assigned to 'Woodland containing an Assemblage of Ancient Woodland Indicator species', with additional habitats including 'Structurally diverse and species-rich scrub', lowland meadow, species rich purple moor-grass and rush pasture, and species-rich bracken communities. The Dunvant Brickworks SINC has associated faunal interest, with species such as small pearl-bordered fritillary (*Boloria selene*), brown banded carder bee (*Bombus humilis*), willow tit (*Poecile montana*) and song thrush (*Turdus philomelos*)

The nearest residential properties to the site include properties in Barnabus Close which are within 30m of the nearest solar panel array and within 13m of the edge of the site. The other properties in Caergynydd Road would be within 80m of the northern boundary of the site.

Screening Opinion

In February 2014, prior to the submission of the application, the local planning authority was approached for a Screening Opinion for a 10M capacity solar farm at the site over 22ha. Following the submission and having regard to the provisions of the Town and Country Planning Act (Environmental Impact Assessment) (England and Wales) (Amendment) Regulations 1999 the Local Planning Authority determined that an Environmental Impact Assessment (EIA) was required for this proposed development. The current application differs from the screening opinion submission in that the site area has been reduced and as such this has resulted in the generation capacity of the scheme being lower than envisaged at the screening stage (4MW and 9ha).

The Authority has undertaken a further screening opinion on the submitted scheme and it has been determined that an EIA is not required for the proposal.

Supporting Documents

The planning application is accompanied by a number of supporting documents.

A Landscape and Visual Impact Assessment (LVIA) has been submitted with the application including several photomontages of views of the site from a number of locations in the surrounding area, both nearby and from distance. Overall it concludes that the characteristics of the landscape mean that the proposed development would have a moderate localised effect and the effects on Landscape Character would be minimal when taking into account the scale of the proposed development relative to the wider context of the landscape.

There are few notable recreational receptors identified within the study area other than the Gower Way; which based on the ZTV study is only likely to have views from distinct sections.

The application site is located entirely within the Dunvant Brickworks Site of Interest for Nature Conservation (SINC), which extends to 124.09 ha in total. This SINC contains a mosaic of habitats, with the majority of SINC area (57.19 ha) being assigned to 'Woodland containing an Assemblage of Ancient Woodland Indicator species', with additional habitats including 'structurally diverse and species-rich scrub', lowland meadow, species-rich purple moor-grass and rush pasture, and species-rich bracken communities, although there is little evidence of these habitats within the application site. An Extended Phase I Habitat Survey and Protected Species Survey Report has been submitted which assesses the ecological value of the site, recording any protected or otherwise important habitats and any evidence for notable or protected species within and adjacent to the survey area and provides recommendations on mitigation and enhancement where appropriate.

An outline Construction Traffic Management Plan has been submitted which sets out details of the anticipated construction programme, anticipated activity and site parking and manoeuvring arrangements and the proposed access route. Construction works will involve the delivery of equipment and material to and from the site, an indicative timetable for which is:

Site preparation/mobilisation - 2 weeks,
Construction - 8 weeks,
Commissioning - 2 weeks.

During the construction phases it is anticipated there will be up to 34 daily two-way light vehicle movements associated with construction works and supervisors. HGVs will be used to deliver all equipment and materials to and from the application site. The potential number of HGVs in any one day will vary between the phases. It is expected that deliveries of materials to the site during the construction phase will be limited to 8-10 two-way movements per day, based on a 5 day working week.

A Glint and Glare Assessment has been included in the Planning Statement and covers the potential effects on potential visual receptors within the vicinity of the site. It states that any possible glint and glare arising from the proposed development would occur from the south only owing to the orientation of the solar panels. Receptors in this area comprise the Craig-y-bwldan farmstead only. However, owing to the location of the farmstead within a valley running south / north views into the site would be restricted. The non-reflective nature of the proposed panels together with their static nature and the restricted nature of views means that there will be no significant nuisance impact on nearby properties or recreational users of the area.

A Coal Mining Risk Assessment has been submitted. This establishes that the application site has been subjected to previous underground coal mining. However, the seams that have been extracted beneath the site are at depths which will not impact the proposed development which will have limited or shallow foundations, with only shallow piling used on the site. The Coal Authority has considered the report and is satisfied that the application site is, or can be made, safe and stable for the proposed development.

Surface water will be managed through a number of swales located across the southern section of the site.

Issues

The main issues for consideration are the impacts of the proposed solar farm on the visual amenity of the area, upon residential amenity, highway safety, ecology & habitats with regard to policies EV1, EV2, EV21, EV23, EV30 and R11 of the City & County of Swansea Unitary Development Plan 2008. There are no overriding issues with regard to the Human Rights Act.

Policy EV1 is a general design policy and states that new development shall accord with the objectives of good design, including, inter alia:

(i) Be appropriate to its local context in terms of scale, height, massing, elevational treatment, materials and detailing, layout, form, mix and density;
(iii) Not result in a significant detrimental impact on local amenity in terms of visual impact, loss of light or privacy, disturbance and traffic movements;
(iv) Incorporate a good standard of landscape design;
(v) Sensitively relate to existing development patterns and seek to protect natural heritage, the historic and cultural environment not only on-site, but in terms of potential impact on neighbouring areas of importance;
(xi) Having regard to the desirability of preserving the setting of any listed building.

Policy R11 supports the provision of renewable energy resources including ancillary buildings and infrastructure subject to:

(i) The social, economic or environmental benefits of the scheme in meeting local, and national energy targets outweigh any adverse impacts;
(ii) The scale, form, design, appearance and cumulative impacts of proposals can be satisfactorily incorporated into the landscape, seascape or built environment and would not significantly adversely affect the visual amenity, local environment or recreational/tourist use of these areas;

(iii) There would be no significant adverse effect on local amenity, highways, aircraft operations or telecommunications;
(iv) There would be no significant adverse effect on natural heritage and the historic environment;
(v) The development would preserve or enhance any conservation areas and not adversely affect listed buildings or their settings;
(vi) The development is accompanied by adequate information to indicate the extent of possible environmental effects and how they can be satisfactorily contained and/or mitigated;
(vii) The development includes measures to secure the satisfactory removal of structures/related infrastructure and an acceptable after use which brings about a net gain where practically feasible for biodiversity following cessation of operation of the installation.

Policy EV2 states that the siting of new development should give preference to the use of previously developed land over greenfield sites and must have regard to the physical character and topography of the site and its surroundings. Policy EV21 refers to criteria for non-residential development in the countryside being permitted where it can be demonstrated that (v) it is essential for communications, telecommunications or renewable energy generation.

Policy EV23 refers to developments within Green Wedges and states that within these areas development will only be permitted if it maintains the openness and character of the green wedge and does not contribute to the coalescence of settlements or adversely affect the setting of the urban area. EV30 states that protection and improved management of woodlands, trees and hedgerows which are important for their visual amenity, historic environment, natural heritage and/or recreation value will be encouraged. Policy EV35 relates specifically to considerations of surface water run-off.

Amount, Scale and Layout

The proposed development comprises the construction of photovoltaic (PV) solar panels in a series of arrays running west-east across the application site. The panels will be angled so as to maximise the capture of solar energy, facing south, with the top edge up to a maximum of 2.5m above ground. The rows will be placed approximately 5-7m apart.

The solar panels will be bolt anchored to a metal frame (table) mounted on steel posts drive or screwed into the ground, to a depth of 1-2m depending on the ground conditions. No substantial areas of concrete construction will be required, with the possible exception of foundations for the inverter and transformer station to be located in the north eastern corner of the site. The panels will be connected by cable via inverters to a small on-site substation, that will subsequently connect with the electricity grid.

The application site will be secured using a 2.4m stock-proof fence (deer fence) that will protect the equipment from theft, vandalism or damage. To the north of the site annotated as Area 1 and Area 2 on the Additional Landscape Mitigation Detail plan, the amount of panels has been reduced to pull back from the site edge and a woodland copse will be planted to further mitigate against any potential visual impact from surrounding areas and to provide an additional screening band for the nearest residential properties in Barnabus Close.

The ground surface below the PV panels will remain vegetated. Any bare areas of ground left after construction works will be planted with a species rich mix of grass seed in order to improve the biodiversity of the application site.

The operational life of the solar farm will be approximately 25 years.

Construction Phase & Access

The anticipated construction period for the proposed solar farm will be approximately three months and will consist of the following operations, listed here in the approximate order of implementation:

• Upgrading of the existing site access onto Waunarlwydd Road and erection of construction routeing signage;
• Installation of sustainable drainage system (SuDS), comprising swales along the southern boundary of the application site;
• preparation of the construction compound;
• laying of construction phase access tracks;
• digging of cable trenches;
• erection of fence and gates to define the site boundaries;
• delivery of panels, frames, inverters and substation, concrete for building foundations if required;
• installation of frames and panels;
• cable laying;
• commissioning of the panels and installation of inverter and substation enclosures and connection to grid; and
• reinstatement works primarily to the construction compound..

SuDS will be installed in the form of shallow swales along the southern (downward) boundary of the application site. The SuDS will be designed to accommodate surplus run off which may arise in the future, although it should be noted that no there would be no material increase in surface water runoff, when compared to existing (pre-development) conditions and no specific measures need to be taken.

The swales will be installed at the start of the construction phase to protect the nearby Gors-Fawr Brook from any construction related run-off entering the watercourse. During construction works hedgerows and ditches will be avoided. A new hedgerow will be planted along the northern boundary of the application site to provide further screening of the proposed apparatus, with particular reference to views from the north. Details are described in the Landscape and Visual Impact Statement and shown on the additional Landscape mitigation details plan.

During the construction phase there is anticipated to be up to 34 daily two-way light vehicle movements associated with construction workers and supervisors.

SuDS will be installed in the form of shallow swales along key sections of the application site prior to construction works commencing. The SuDS will be designed to accommodate surplus run off which may arise in the future (although it should be noted that there would be no material increase in surface water runoff, when compared to existing pre-development conditions).

During construction works hedgerows and ditches will be avoided and hedgerows will be allowed to reach a height of 2.5m to increase their screening function. New hedgerows will be planted within parts of the site to provide further screening of the proposed apparatus.

HGV's will be used to deliver all equipment and materials to and from the site. The potential number of HGVs in any one day will vary between the phases of the construction works. It is anticipated that deliveries of materials to the site during the construction phase will be between 8-10 two-way movements per day.

Deliveries to the site will be programmed by agreement with the suppliers and / or hauliers to minimise the risk of queuing on site and conflicts on the approach road. A formal 'just in time' delivery protocol would be provided to minimise the requirements for on-site storage; and a banksman will be employed to co-ordinate arrival and departure where necessary.

All contractors, hauliers and suppliers will be informed of the approved Construction Traffic Management Plan and required to conform to the relevant restrictions, mitigation actions and contractor obligations contained therein.

Decommissioning

When the panels reach the end of their lifetime (approximately 25 years), the solar farm would be decommissioned, all equipment would be dismantled and removed from the site and the site restored to its previous use.

Visual Amenity

Turing to visual amenity, the site lies within the Cockett Valley Green Wedge which was designated to prevent coalescing of villages and retaining the openness and character of the area. It is considered that as this proposal is for a specific time period i.e. 25 years and that the land could be reinstated after this time, the requirements of this Policy will be met in the long term.

In terms of the impact of the scheme upon the character and appearance of the open countryside, the LVIA has investigated a number of viewpoints to analyse the existing baseline conditions and assess the likelihood for potential visual effects caused by the proposed development. These are considered in turn.

The viewpoint analysis shows that the nature of visual effects varies across the study area; this is principally due to the topography, with views generally being channelled east to west up the Cockett Valley. Views from the south are restricted by the ridge on the opposite side of the valley which is c.70m higher than the level of the application site. Views of the proposed development from the north would be restricted by the existing hedgerow and trees that follow the boundary of the application site, these being supplemented by additional planting as per the landscape mitigation scheme.

The potential visual impacts have been described in the viewpoint analyses provided in the previous sub-section; these focus on local residents and users of recreational facilities including footpaths, bridleways and long distance routes as these are likely to be the most 'sensitive' receptors in terms of visual effects.

Viewpoints A, B, C and D represent views from the immediate vicinity of the application site focusing on these receptors, with Viewpoint A demonstrating that housing immediately to the north of the application site would have very restricted views of the proposed development, particularly when taking into account the additional screening that would be provided by proposed planting; as such only minor visual effects were recorded at this location.

Viewpoint B is also taken in close proximity to the application site and again illustrates the views from the adjacent properties; intervening vegetation also acts as a screen from this location with only negligible visual impacts being predicted. Viewpoint C represents what would be the clearest and most open view of the proposed development as it is taken from the opposite side of the Cockett Valley. A moderate visual impact is predicted from this location. This conclusion is principally derived from the fact that the access track at this point and none of the surrounding area is designated as a Public Right of Way at this point.

Viewpoint D is taken from the edge of the application site, representing both adjacent properties and users of the footpath at the end of the Bridleway. Access to the application site would be fenced off at this point. In this regard it would not be seen as an important local route. Views from the adjacent properties are more restricted than that shown on the viewpoint photograph with upper floor views looking over the proposed development rather than it blocking out their view. Taking this into account, only moderate visual impacts are predicted at this location despite its close proximity. Overall visual impacts on local residents and users of nearby footpaths and roads are unlikely to experience any significant effects. A hedgerow would be planted along this boundary which in the medium to long term would reduce the magnitude of impact from this viewpoint, reducing the significance of effects in the medium to long term.

Viewpoints E, F, G, H and I all represent more distant views, again focusing on local residents whilst also picking up on key recreational features such as the Gower Way. Viewpoint E represents the northerly extent from which the proposed development is theoretically visible; however as described in relation to Viewpoint A peripheral screening coupled with additional planting along the northern boundary of the application site would screen views from this direction with negligible or no visual impacts occurring. Viewpoints F and G are both taken from residential areas to the east of the application site and the proposed development would theoretically be visible but it would only represent a very small scale change to the view; it has also been factored in that the industrial fringes of Swansea feature heavily in views when moving around these areas, so it is unlikely that a smaller scale distant change within the view will be notable; as a result negligible and minor visual impacts have been recorded for viewpoints F and G respectively. Viewpoint H represents one of the most southerly views of the proposed development and has principally been included to represent local residents; albeit from upper floors or the road / adjacent areas as garden vegetation will most likely limit views from ground floors. At this location a gateway allows views out over the wider landscape with the application site being down slope (and mostly hidden by) intervening vegetation it is therefore unlikely to be the focus of the view, as such only minor visual impacts are assessed at this location.
While Viewpoint I is representative of residential receptors, the principal reason for its inclusion is that it represents one of the few views of the application site from the Gower Way.

Fieldwork identified that views are very restricted from the section of the Gower Way which heads north from the northern edge of Dunvant to the point it crosses the B4296; while the ZTV indicates that inter-visibility is possible from this area it does not take into account the presence of the mature woodland which covers these lower slopes. Further to the north of this location the Gower Way enters Gowerton / the western edge of Waunarlwydd, again limiting views of the wider landscape; on crossing the railway and heading further north to Gorseinon distant views are again theoretically possible but intervening built form means that no views of the proposed development are likely. When taking this into account the only section of the Gower Way likely to be impacted upon is that represented by Viewpoint I; overall impacts to recreational receptors using this long distance route would not be significant, with only localised minor effects.

As revealed within the baseline other designated landscapes within the study area, such as the Gower AONB, Special Areas of Conservation and RAMSAR sites would remain physically unchanged by the proposed development, with the ZTV illustrating that visual connectivity is very unlikely. As such receptors at these locations are very unlikely to be affected by the proposed development.

Residential Amenity

Turning now to residential amenity, in general the site is well screened from the surrounding villages and residential properties due to intervening vegetation and landform. There are residential properties close to the north western corner boundary of the site, and the solar farm will be legible from private views from these properties at a distance of approximately 30m. The LVIA considers the visual impact of the proposed development from the surrounding residential properties and concludes that whilst it will be visible from these properties, existing screening provided by hedgerows and proposed planting will mitigate these impacts. The impact of the proposed development on a localised level is therefore not considered to be of such significance that would warrant a refusal in this instance. Furthermore the retention and addition of hedgerows and woodland copses within the site is considered to minimise the extent of the perceived change to the site when viewed from both private and public vantage points. The planting of additional vegetation would serve to enhance the landscape character which would also provide greater value for wildlife

In terms of the potential for glint and glare, particularly from private amenity spaces in properties in the wider surrounding area, a glint and glare assessment has been submitted and it has been concluded that this would not result in any undue impact upon the nearest residential properties.

With regards to potential noise and disturbance, again there are significant distances involved in terms of the application site and neighbouring residential properties. Whilst it is accepted that there would be a certain level of noise and disturbance during construction, particularly from deliveries and site works, given that the construction period is anticipated to be completed within three months and is not a continuous construction process, these impacts would be temporary. It is therefore considered that the proposed development would not create significant levels of noise and dust and any noise/dust created during operation would be short in duration. It should also be noted that no adverse comments have been received from neighbours in response to this application.

Public Right Of Way

There are no public rights of way across the application site.

Hedgerow Planting and Management

The proposed hedgerows would use a variety of typical species including Hawthorn, Blackthorn, Field maple and Hazel; these would be planted into a 500mm wide cultivated trench as a double staggered row at 300mm intervals. The plant would be introduced as bare rooted and would be 60-80cm tall. Whilst it is acknowledged this planting will need several seasons of growth to establish what would be recognised as a hedge, the taller, bushier form will provide a degree of structure and height from an early stage.

It is not expected that any significant hedgerow maintenance would be required in the first 5 years, as the trees and shrubs will need time to establish. In the longer term the sensitive management of hedgerows would be compatible with the safeguarding of wildlife.

The seed mix for re-establishing grassland would be chosen to reflect the type of vegetation seen locally within woodland edges and along hedgerows. A wildflower seed mix would be sow, with the exact mix (to include a minimum of 20% wildflower species) would be agreed via consultation with the Council's Ecologist and via the imposition of a planning condition.

The woodland copses would comprise of a range of native species including Oak, Silver Birch and Mountain Ash with holly and Field maple being included. These would be introduced using slightly larger feathered stock with their branches providing a more instant effect. The species will be planted in groups of 5-12 number at 1 – 1.15m intervals between the groups.

All planting stock would be sourced locally whenever possible and pit panted between the end of November and the start of March. All newly planted copses and hedgerow would be protected using transparent rabbit spirals or shrub shelters, supported by 450mm stout bamboo canes.

To maximise the potential screen value of the landscape features it is proposed that the easterly section of hedgerow is planted on earth bunding created using arisings generated by the formation of the new access track. The bunding will be seeded with a mixture of grasses and native flora. The vegetation structure in the area will be developed and the proposed hedgerows south of the field access route being used to connect up proposed woodland copses within the site and to existing mature vegetation on the periphery of the site. The earth bunding would be constructed under dry conditions and placed with minimal compaction in order to provide suitable conditions for the hedgerow to grow. Some grading of the surface may be required to create a seed bed and the area of tree planting may require some cross ripping to reliance surface contraction to the root zone.

Access and Highway Safety

The Head of Transportation and Engineering raises no highway objection subject to the submission of a Construction Traffic Management Plan prior to commencement of any work at the site.

It is noted that the site is accessed from Waunarlwydd Road and details submitted with the application indicate that the construction phase is estimated to last for 3 months. Traffic movements during this phase are predicted to be up to 34 daily movements by light vehicles (staff by car etc.) and 8 - 10 daily HGV movements. Overall, the predicted movements are not considered to be of a high volume. The indicated route for traffic accessing the site is J47, Fforestfach Cross, Cockett, Cwmbach Road and finally Waunarlwydd Road leading to the site access. Following completion of the construction phase, traffic movements will be minimal and relate to occasional maintenance visits only.
The aforementioned condition requiring the applicant to provide a construction management plan is recommended.

Other Issues

The ecological assessment found evidence of a protected species within the study area. A more detailed study was undertaken of this species and mitigation measures are included in this scheme. Notwithstanding this it is proposed to include an informative advising the developer to contact NRW to confirm if a 'licence to disturb' application is required. The Council's Planning Ecologist has advised there will be some negative impact on the ecology of the site although if the mitigation and management recommendations described in section 6 of the Extended Phase 1 Survey dated November 2014 are followed there will be an overall ecological enhancement of the site. He also comments that the recommendations listed in section 6 of the survey should be appended to any planning permission to ensure the mitigation recommendations proposed in the survey report are followed and implemented.

The Council's Drainage Officer recommends that a SUDS swale is located on the northern edge of the site to intercept any additional surface water run-off that is created given the proximity to residential properties. An appropriate condition is therefore recommended.

The Coal Authority raises no objections to the proposal following consideration of the Coal Mining Risk Assessment. The Glamorgan Gwent Archaeological Trust have reviewed the Heritage Assessment and have requested a condition regarding a historical photographic record is undertaken prior to development. Natural Resources Wales have requested conditions regarding a Site Waste Management Plan and pollution prevention measures and these would be attached to any grant of consent.

Response to consultations

Concerns have been raised that this is quasi-industrial development in the countryside and the site is not designated for such use by EV23, however, renewable energy development in the countryside is supported in TAN6 and UDP Policy EV21, subject to environmental safeguards.

Concerns have been raised about the impact upon visual amenity, the nature reserve, neighbouring properties and the ecology of the site, and these issues have been addressed in the main body of the report.

The Gower Society have also commented that the solar panels could have been placed on the roofs of other large industrial complexes, and whilst this may be the case, that is not the proposal that is currently under consideration and would not be a reason for refusal of this application.

Conclusion

Solar Farms present an opportunity for the provision of renewable energy in the UK and are encouraged by the Government's feed-in tariffs for schemes producing 5MW or more. There is wide scale commitment to expand the deployment of renewable energy to secure the future energy demand within the UK and protect the end users of the sector from the instability of fossil fuels. Such schemes also provide investment, jobs and contribute to the UK's drive towards carbon reduction. UK Government Policy on renewable energy is set out in the Energy White Paper 'Our Energy Future - Creating a low carbon economy (2003) and this document establishes a national target of achieving 20% of electricity needs from renewable energy by 2020. This target is broadly reflected in Welsh Assembly document TAN 8. This compulsion drives the financial mechanism for Government incentives for the development of large scale renewable energy generation. Certain Areas of the UK have been identified as being optimum areas for solar energy generation. The South West and South Wales are classed as optimum areas (uksolarenergy.co.uk).

In essence, the scheme assessment and decision outcome is essentially a balance between the national and international will for a future with renewable energy, supported by regional and local policy in principle, against the impact of such schemes on the landscape and environment in which they are sited. Correspondence from Welsh Government has indicated that based on data for 2013, an output of roughly 10% of capacity for all types of solar panel in Wales was produced. This contribution to renewable energy targets has to be assessed against the impact of such schemes.

On balance, this application is considered appropriate in terms of its scale and design and would not cause unacceptable loss of amenity to neighbouring properties or surrounding land. There would not be significantly adverse visual impact on landscapes and the general locality from the site, and there would be no significantly adverse or detrimental impact on the ecology, habitats, highway safety or land drainage in the area. On balance therefore the scheme is considered acceptable and is in accordance with the criteria laid out in Policies EV1, EV2, EV21, EV23, EV30, EV35 and R11 of the City and County of Swansea Unitary Development Plan 2008. Approval is recommended.

RECOMMENDATION

APPROVE, subject to the following conditions:

1 The development hereby permitted shall begin not later than five years from the date of this decision.

Reason: To comply with the provisions of Section 91 of the Town and Country Planning Act, 1990.

2 The development shall be carried out in accordance with the following approved plans and documents: Site location plan received 28th November 2014, KV substation, client substation, met mast, cctv, site fence and maintenance, solar panel configuration, topography, zone of theoretical visibility, received 5th December 2015, amended landscape scheme plan received 4th March 2015, additional landscape mitigation plan received 15th May 2015, site layout plan received 1st July 2015.

Reason: To define the extent of the permission granted.

3 Development shall not begin until an appropriate photographic survey of the historic environment features on the site has been carried out in accordance with details to be submitted to, and approved in writing by, the Local Planning Authority.

The resulting photographs should be deposited with the Historic Environment Record, curated by the Glamorgan Gwent Archaeological Trust (Heathfield House, Heathfield Swansea SA1 6EL. Tel: 01792 655208).

Reason: As the historic environment features are of significance the specified records are required to mitigate the impact of the alterations.

4 Prior to the commencement of works on site, a Landscape and Habitat Management plan shall be submitted to and approved in writing by the Local Planning Authority. The plan shall include the exact seed mix to re-establish the grassland and include the specific mix of wildflower species to be used. Once approved the scheme shall be implemented in accordance with the approved details for the lifetime of the development.

Reason: In the interests of biodiversity and habitat management.

5 Prior to the commencement of works on site, a Construction Traffic Management plan shall be submitted to and approved in writing by the Local Planning Authority. Once, approved the scheme shall be implemented in accordance with the approved details.

Reason: In the interests of highway safety.

6 Prior to the commencement of works on site, a Site Waste Management Plan shall be submitted to and approved in writing by the Local Planning Authority. Once, approved the scheme shall be implemented in accordance with the approved details.

Reason: To ensure waste at the site is managed in line with the Waste Hierarchy in a priority order of prevention, re-use, recycling before considering other recovery or disposal option.

7 Prior to the commencement of works on site, a site specific Surface Water Management Plan, which shall also include a SUDS swale in the northern edge of the site, shall be submitted to and approved in writing by the Local Planning Authority. The Plan should provide details as to where and how any water that is generated/collected on site during the various phases of the development will go and will be managed, particularly during the construction phase. Once, approved the scheme shall be implemented in accordance with the approved details. The swales will need to be created and established prior to the construction work on site commencing.

Reason: To prevent the increased risk of flooding by ensuring the provision of a satisfactory means of surface water disposal.

8 The mitigation and management recommendations described in section 6 of the Extended Phase 1 Survey received 5th December 2014 (REF: 404.05027.00002) should be implemented as stated.

Reason: In the interest of visual amenity and biodiversity

9 No later than 12 months from the first generation of electricity, the following schemes shall be submitted in writing for the written approval of the Local Planning Authority:

(i) A scheme detailing the removal of all surface elements of the photo voltaic solar farm and any foundations or anchor systems to a depth of 300mm below ground level;

(ii) A scheme detailing the restoration and aftercare, following consultation with such other parties as the Local Planning Authority considers appropriate.

(iii) A timetable for completion of the works

These schemes shall be implemented within 12 months from the date of the last electricity generated, should the site no longer be utilised for the permission hereby granted, and completed in accordance with the approved timetable for completion of the works.

Reason: In the interest of visual amenity and to ensure the land is restored in an acceptable manner

10 No development approved by this permission shall take place until details of the implementation, maintenance and management of a sustainable drainage system (SUDS) for surface water drainage has been submitted to and approved in writing by the Local Planning Authority. Such a scheme shall be implemented prior to the construction of any impermeable surfaces draining to this system. The surface water drainage system must be designed to ensure no increased run-off from the site during and post development in all events up to the 1:100 year storm with an allowance for climate change.

Reason: To prevent the increased risk of flooding by ensuring the provision of a satisfactory means of surface water disposal.

11 No development approved by this permission shall take place until a Construction Environmental Management Plan (CEMP), which sets out all pollution prevention measures and environmental management requirements for the construction phase, has been submitted to and approved in writing by the Local Planning Authority. The plan shall make particular reference to the protection of surrounding land and water environments. The details of the plan shall be implemented as approved and must be efficiently communicated to all contractors and sub-contractors (for example, via toolbox talks) and any deficiencies rectified immediately.

Reason: In the interests of biodiversity and to prevent pollution of controlled waters and the wider environment.

INFORMATIVES

1 Bats may be present. All British bat species are protected under Schedule 5 of the Wildlife & Countryside Act 1981 (as amended) and are listed in Schedule 2 of the Conservation of Habitats and Species Regulations 2010. This legislation implements the EC Habitats & Species Directive in the UK making it an offence to capture, kill or disturb a European Protected Species or to damage or destroy the breeding site or resting place of such an animal. It is also an offence to recklessly / intentionally to disturb such an animal.
If evidence of bats is encountered during site clearance e.g. live or dead animals or droppings, work should cease immediately and the advice of the Natural Resources Wales sought before continuing with any work (01792 634960).

2 Birds may be present. please note it is an offence under the Wildlife & Countryside Act 1981 (as amended) to intentionally (intentionally or recklessly for Schedule 1 birds) to:
- Kill, injure or take any wild bird
- Take, damage or destroy the nest of any wild bird while that nest in use or being built
- Take or destroy an egg of any wild bird
It is recommended that the proposed development work (and any pollarding work) is not undertaken during the bird breeding season (March-August inclusive). Should this not be possible further survey work for breeding birds should be undertaken and the results submitted to the Local Planning Authority.

3 The development plan covering the City and County of Swansea is the City and County of Swansea Unitary Development Plan. The following policies were relevant to the consideration of the application: EV1, EV2, EV21, EV23, EV30, EV35, R11

4 Care should be taken during development, and should anything be uncovered likely to be associated with mining, this should be reported to the Coal Authority.

5 The proposed development lies within an area that has been defined by The Coal Authority as containing potential hazards arising from former coal mining activity. These hazards can include: mine entries (shafts and adits); shallow coal workings; geological features (fissures and break lines); mine gas and previous surface mining sites. Although such hazards are seldom readily visible, they can often be present and problems can occur in the future, particularly as a result of development taking place.

It is recommended that information outlining how the former mining activities affect the proposed development, along with any mitigation measures required (for example the need for gas protection measures within the foundations), be submitted alongside any subsequent application for Building Regulations approval (if relevant). Your attention is drawn to The Coal Authority Policy in relation to new development and mine entries available at:
https://www.gov.uk/government/publications/building-on-or-within-the-influencing-distance-of-mine-entries

- Continued -

Any intrusive activities which disturb or enter any coal seams, coal mine workings or coal mine entries (shafts and adits) requires a Coal Authority Permit. Such activities could include site investigation boreholes, digging of foundations, piling activities, other ground works and any subsequent treatment of coal mine workings and coal mine entries for ground stability purposes. Failure to obtain a Coal Authority Permit for such activities is trespass, with the potential for court action.

Property specific summary information on past, current and future coal mining activity can be obtained from: www.groundstability.com

If any of the coal mining features are unexpectedly encountered during development, this should be reported immediately to The Coal Authority on 0345 762 6848. Further information is available on The Coal Authority website at: www.gov.uk/government/organisations/the-coal-authority .

6 Prior to the commencement of any work on site, the developer is advised to contact NRW to clarify if a 'licence to disturb' application is required due to the presence of protected species within the vicinity of the application site.

7 The Construction Environment Management Plan identified in Condition 12 shall include the following:
- Identification of surrounding watercourses and potential pollution pathways from the construction site to those watercourses.
- How each of those watercourses and pathways will be protected from site run off during construction.
- How the water quality of the watercourses will be monitored and recorded.
- How surface water runoff from the site during construction will be managed/discharged. Please note that it is not acceptable for ANY pollution (e.g. sediment/silt/oils/chemicals/cement etc.) to enter the surrounding watercourses.
- storage facilities for all fuels, oils and chemicals.
- construction compounds, car parks, offices, etc.
- details of the nature, type and quantity of materials to be imported on to the site.
- measures for dealing with any contaminated material (demolition waste or excavated waste).
- identification of any buried services, such as foul sewers, so that they are protected.
- details of emergency contacts, for example Natural Resources Wales hotline 0800 807 060.
The Plan shall make specific reference to ensure that the water quality of the ditch running into the SSSI (north to south) is protected from any significant effects through appropriate pollution prevention measures.

It should also include:
a) Demolition/Construction programme and timetable;
b) Detailed site plans to include indications of temporary site offices/ compounds, materials storage areas, proposed compounds, delivery and parking areas etc;

- Continued -

c) Traffic scheme (access and egress) in respect of all demolition/construction related vehicles;
d) An assessment of construction traffic generation and management in so far as public roads are affected, including provisions to keep all public roads free from mud and silt;
e) Proposed working hours;
f) Principal Contractor details, which will include a nominated contact for