IMPORTANT – THIS COMMUNICATION AFFECTS YOUR PROPERTY



COUNCIL OF THE ISLES OF SCILLY

Old Wesleyan Chapel, Garrison Lane, St Mary's TR21 0JD Telephone: 01720 424455 – Email: planning@scilly.gov.uk

Town and Country Planning Act 1990 Town and Country Planning (Development Management Procedure) Order 2015

PERMISSION FOR DEVELOPMENT

Registered:

Application P/24/026/FUL Date Application 28th March 2024

No:

Applicant: Ms Nicola Stinson Agent: Mr Keith Grossett

Town Hall Porthmellon Enterprise Centre
The Parade Porthmellon Industrial Estate

St Mary's
Isles of Scilly
TR21 0LW
St Mary's
Isles of Scilly
TR21 0JY

Site address: Swimming Pool Normandy St Mary's Isles of Scilly TR21 0NY

Proposal: Installation of 11kw solar PV array on land adj to Normandy swimming pool.

In pursuance of their powers under the above Act, the Council hereby **PERMIT** the above development to be carried out in accordance with the following Conditions:

C1 The development hereby permitted shall be begun before the expiration of three years from the date of this permission.

Reason: In accordance with the requirements of Section 91 of the Town and Country Planning Act 1990 (as amended by Section 51 of the Planning and Compulsory Purchase Act 2004).

- C2 The development hereby permitted shall be carried out in accordance with the approved details only including:
 - Plan 1 Existing Site Location Plan, Drawing Number: PL4101565_NP_00_01
 - Plan 2 Proposed Site Plan, Drawing Number: PL4101565_NP_01_01 Rev A
 - Plan 3 Design and Access Statement,
 - Plan 4 Preliminary Ecological Assessment, Dated 19th March 2024
 - Plan 5 Site Waste Management Plan
 - Plan 6 Glint and Glare Report

These are stamped as APPROVED

Reason: For the clarity and avoidance of doubt and in the interests of the character and appearance of the Conservation Area, Area of Outstanding Natural Beauty and Heritage Coast in accordance with Policies OE1 and OE7 of the Isles of Scilly Local Plan (2015-2030).

C3 The development hereby approved shall be carried out in strict accordance with the recommendations set out in the submitted 'Preliminary Ecological Assessment' by IOS Ecology dated 14/03/2024.

Reason: To safeguard protected species and their habitats, in accordance with Policy SS2(g) and Policy OE2 of the new Isles of Scilly Local Plan (2015-2030).

C4 Notwithstanding the provisions of the Town and Country Planning (General Permitted Development) Order 2015 (As Amended), (or any order revoking or re-enacting that Order) prior to installation, details of any external lighting shall be submitted to and approved, in

writing, by the Local Planning Authority. The lighting shall thereafter be installed in accordance with the agreed details.

Reason: To protect the amenities of the locality, including the amenities of neighbouring residential properties and to protect the amenities of this rural area and preserve the dark night skies of the Isles of Scilly and the Garrison Dark Sky Discovery Site (Milky Way Class) in accordance with Policy OE4 of the Submission Draft Isles of Scilly Local Plan (2015-2030).

No construction plant and/or machinery shall be operated on the premises, as part of the implementation of this permission, before 0800 hours on Mondays through to Saturdays nor after 1800 hours. There shall be no works involving construction plant and/or machinery on a Sunday or Public or Bank Holiday.

Reason: In the interests of protecting the residential amenities of the islands.

PRE-USE CONDITION: Submission of landscaping

The development hereby permitted shall not be brought into use until a detailed scheme of planting has been submitted to and approved in writing by the Local Planning Authority. Planting should consist of native species appropriate to this location. The scheme design shall include a layout of planting to show plant species, planting sizes, locations, densities and numbers. All such work as may be approved shall then be fully implemented in the first planting season following completion of the development, in strict accordance with the approved details. Any plants or species which within a period of 5 years from the time of planting, die, are removed, or become seriously damaged or diseased shall be replaced in the next planting season with others of similar size and species.

Reason: To ensure a satisfactory development and in the interests of amenity and landscape character in accordance with Policy OE2 of the Isles of Scilly Local Plan 2015-2030.

Further Information

- 1. In dealing with this application, the Council of the Isles of Scilly has actively sought to work with the applicants in a positive and proactive manner, in accordance with paragraph 38 of the National Planning Policy Framework 2023.
- 2. In accordance with the Town and Country Planning (fees for Application and Deemed Applications, Requests and Site Visits) (England) (Amendment) Regulations 2017 a fee is payable to discharge any condition(s) on this planning permission. The fee is current £145 for each request to discharge condition(s) where the planning permission relates to any other type of development other than a householder application. The fee is payable for each individual request made to the Local Planning Authority. You are advised to check the latest fee schedule at the time of making an application as any adjustments including increases will be applied:

 https://ecab.planningportal.co.uk/uploads/english_application_fees.pdf
- 3. It should be noted that some of the conditions attached to this consent are required to be complied with prior to the commencement of the development hereby approved, if those conditions are not fully adhered to, then the consent cannot lawfully be implemented, therefore a new application will be requested and consideration will be given to the expedience of enforcement action.
- 4. The Applicant is reminded of the provisions of the Wildlife and Countryside Act 1981 and the E.C. Conservation (Natural Habitats) Regulations Act 1994, the Habitat and Species Regulations 2012 and our Natural and Environment and Rural Communities biodiversity duty. This planning permission does not absolve the applicant from complying with the relevant law protecting species, including obtaining and complying with the terms and conditions of any licences required, as described in part IV B of Circular 06/2005. Care should be taken during the work and if bats are discovered, they should not be handled, work must stop immediately and a bat warden contacted. Extra care should be taken during the work, especially when alterations are carried out to buildings if fascia boards are removed as roosting bats could be found in these areas. If bats are found to be present during work, they must not be handled. Work must stop immediately and advice sought from licensed bat wardens. Call The Bat Conservation Trust's National Bat Helpline on 0845 1300 228 or Natural England (01872 245045) for advice.

Chief Planning Officer

Signed:

Duly Authorised Officer of the Council to make and issue Planning Decisions on behalf of the Council of the Isles of Scilly.

DATE OF ISSUE: 19th June 2024



COUNCIL OF THE ISLES OF SCILLY

Planning Department
Old Wesleyan Chapel, Garrison Lane, St Mary's TR21 OJD
20300 1234 105
2planning@scilly.gov.uk

Dear Ms Nicola Stinson

Please sign and complete this certificate.

This is to certify that decision notice: P/24/026/FUL and the accompanying conditions have been read and understood by the applicant: Ms Nicola Stinson.

- 1. **I/we intend to commence the development as approved:** Installation of 11kw solar PV array on land adj to Normandy swimming pool at: Swimming Pool Normandy St Mary's Isles Of Scilly TR21 0NY **on**:
- 2. I am/we are aware of any conditions that need to be discharged before works commence.
- 3. I/we will notify the Planning Department in advance of commencement in order that any pre-commencement conditions can be discharged.

You are advised to note that Officers of the Local Planning Authority may inspect the project both during construction, on a spot-check basis, and once completed, to ensure that the proposal has complied with the approved plans and conditions. In the event that the site is found to be inaccessible then you are asked to provide contact details of the applicant/agent/contractor (delete as appropriate):

name:	And/Or Email:
Print Name:	
Signed:	
D (
Date:	

Please sign and return to the **above address** as soon as possible.

For the avoidance of doubt you are reminded to address the following condition(s) as part of the implementation of this permission. Although we will aim to deal with any application to discharge conditions as expeditiously as possible, you are reminded to allow up **to 8 weeks** for the discharge of conditions process.

PRE-USE CONDITION(S)

The development hereby permitted shall not be brought into use until a detailed scheme of planting has been submitted and approved in writing by the Local Planning Authority. Planting should consist of native species appropriate to this location. The scheme design shall include a layout of planting to show plant species,

planting sizes, locations, densities and numbers. All such work as may be approved shall then be fully implemented in the first planting season following completion of the development, in strict accordance with the approved details. Any plants or species which within a period of 5 years from the time of planting, die, are removed, or become seriously damaged or diseased shall be replaced in the next planting season with others of similar size and species.



COUNCIL OF THE ISLES OF SCILLY

THIS LETTER CONTAINS IMPORTANT INFORMATION REGARDING YOUR PERMISSION – PLEASE READ IF YOU ARE AN AGENT DEALING WITH IS ON BEHALF OF THE APPLICANT IT IS IMPORTANT TO LET THE APPLICANT KNOW OF ANY PRE-COMMENCMENT CONDITIONS

Dear Applicant,

This letter is intended to help you advance your project through the development process. Now that you have been granted permission, there may be further tasks you need to complete. Some aspects may not apply to your development; however, your attention is drawn to the following paragraphs, which provide advice on a range of matters including how to carry out your development and how to appeal against the decision made by the Local Planning Authority (LPA).

Carrying out the Development in Accordance with the Approved Plans
You must carry out your development in accordance with the stamped plans
enclosed with this letter. Failure to do so may result in enforcement action being
taken by the LPA and any un-authorised work carried out may have to be amended
or removed from the site.

Discharging Conditions

Some conditions on the attached decision notice will need to be formally discharged by the LPA. In particular, any condition that needs to be carried out prior to development taking place, such as a 'source and disposal of materials' condition, an 'archaeological' condition or 'landscaping' condition must be formally discharged prior to the implementation of the planning permission. In the case of an archaeological condition, please contact the Planning Department for advice on the steps required. Whilst you do not need to formally discharge every condition on the decision notice, it is important you inform the Planning Department when the condition advises you to do so before you commence the implementation of this permission. Although we will aim to deal with any application to discharge conditions as expeditiously as possible, you are reminded to allow up **to 8 weeks** for the discharge of conditions process.

Please inform the Planning Department when your development or works will be commencing. This will enable the Council to monitor the discharge and compliance with conditions and provide guidance as necessary. We will not be able to provide you with any written confirmation on the discharge of precommencement conditions if you do not formally apply to discharge the conditions before you start works.

As with the rest of the planning application fees, central Government sets a fee within the same set of regulations for the formal discharge of conditions attached to planning permissions. Conditions are necessary to control approved works and development. Requests for confirmation that one or more planning conditions have been complied with are as follows (VAT is not payable on fees set by central government). More information can be found on the Council's website:

- Householder permissions £43per application
- Other permissions £145 per application

Amendments

If you require a change to the development, contact the LPA to see if you can make a 'non material amendment' (NMA). NMA can only be made to planning permissions and not a listed building consent. They were introduced by the Government to reflect the fact that some schemes may need to change during the construction phase. The process involves a short application form and a 14 day consultation period. There is a fee of £43 for householder type applications and £293 in all other cases. The NMA should be determined within 28 days. If the change to your proposal is not considered to be non-material or minor, then you would need to submit a new planning application to reflect those changes. Please contact the Planning Department for more information on what level of amendment would be considered non-material if necessary.

Appealing Against the Decision

If you are aggrieved by any of the planning conditions attached to your decision notice, you can appeal to have specific conditions lifted or modified by the Secretary of State. All appeal decisions are considered by the Planning Inspectorate – a government department aimed at providing an unbiased judgement on a planning application. From the date of the decision notice attached you must lodge an appeal within the following time periods:

- Householder Application 12 weeks
- Planning Application 6 months
- Listed Building Consent 6 months
- Advertisement Consent 8 weeks
- Minor Commercial Application 12 weeks
- Lawful Development Certificate None (unless for LBC 6 months)
- Other Types 6 months

Note that these periods can change so you should check with the Planning Inspectorate for the most up to date list. You can apply to the Secretary of State to extend this period, although this will only be allowed in exceptional circumstances.

You find more information on appeal types including how to submit an appeal to the Planning Inspectorate by visiting https://www.gov.uk/topic/planning-development/planning-permission-appeals or you can obtain hard copy appeal forms by calling 0303 444 5000. Current appeal handling times can be found at: Appeals:

How long they take page.

Building Regulations

With all building work, the owner of the property is responsible for meeting the relevant Planning and Building Regulations. Building Regulations apply to most building work so it is important to find out if you need permission. This consent is to ensure the safety of people

in and around buildings in relation to structure, access, fire safety, infrastructure and appropriate insulation.

The Building Control function is carried out on behalf of the Council of the Isles of Scilly by Cornwall Council. All enquiries and Building Control applications should be made direct to Cornwall Council, via the following link Cornwall Council. This link also contains comprehensive information to assist you with all of your Building Control needs.

Building Control can be contacted via telephone by calling 01872 224792 (Option 1), via email <u>buildingcontrol@cornwall.gov.uk</u> or by post at:

Building Control Cornwall Council Pydar House Pydar Street Truro Cornwall TR1 1XU

Inspection Requests can also be made online:

https://www.cornwall.gov.uk/planning-and- building-control/building-control/book-an-inspection/

Registering/Altering Addresses

If you are building a new dwelling, sub dividing a dwelling into flats or need to change your address, please contact the Planning Department who will be able to make alterations to local and national databases and ensure postcodes are allocated.

Connections to Utilities

If you require a connection to utilities such as water and sewerage, you will need to contact South West Water on 08000831821. Electricity connections are made by Western Power Distribution who can be contacted on 08456012989.

Should you require any further advice regarding any part of your development, please contact the Planning Department and we will be happy to help you.

RECEIVED

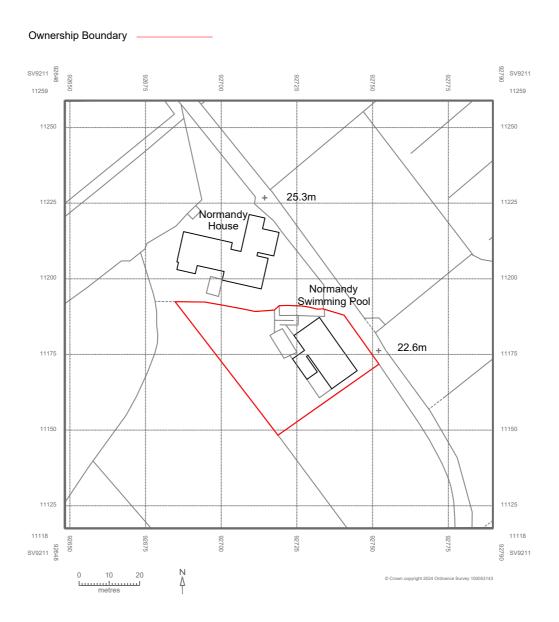
By Liv Rickman at 3:05 pm, Mar 22, 2024

This drawing is the copyright of Currie & Brown Ltd.

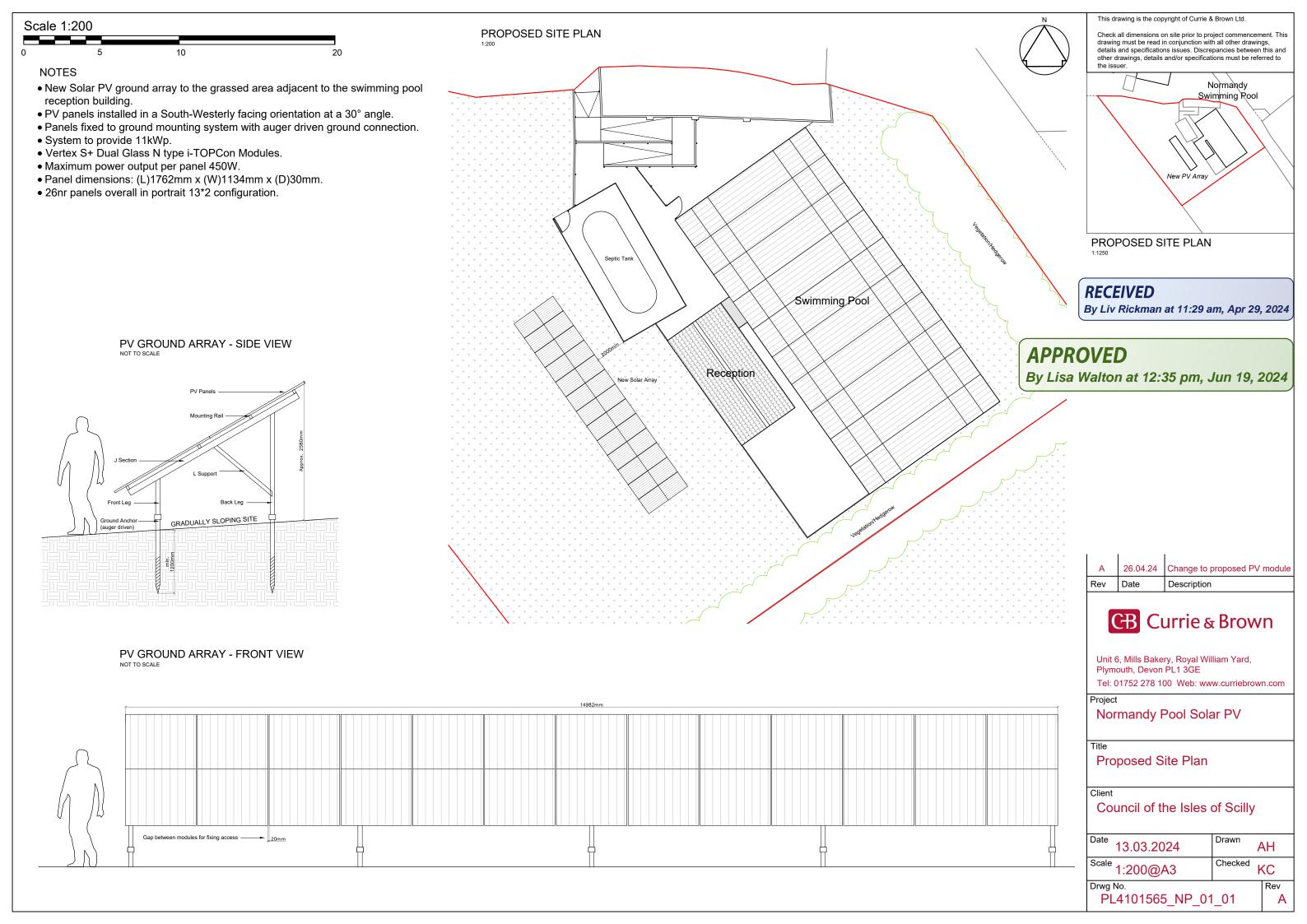
Check all dimensions on site prior to project commencement. This drawing must be read in conjunction with all other drawings, details and specifications issues. Discrepancies between this and other drawings, details and/or specifications must be referred to the issuer.

APPROVED

By Lisa Walton at 12:37 pm, Jun 19, 2024







APPROVED

By Lisa Walton at 12:37 pm, Jun 19, 2024

Proposed Installation of a Ground Mounted Solar Array at Normandy Pool, St. Mary's, Isles of Scilly

Design and Access Statement

March 2024 (update June 2024)

I. Executive Summary

Installation of a 11.0 kW grid connected ground mounted photovoltaic (PV) panel array could provide a lifetime equivalent of 51.8t (tCO₂LTE) and an annual saving of 2300 kgCO₂. Installation of PV panels in a meadow adjacent Normandy Pool is being proposed in line with the local authority's response to declaring a Climate Emergency in 2019 and its ambition to be carbon neutral by 2030. Additionally the works will be funded via the Sport England Swimming Pool Support Fund (SPSF) created in response to the cost-of-living crisis arising from Russia's invasion of Ukraine in 2022.

The meadow adjacent Normandy Pool is shielded by natural vegetation and hedging and has a good southerly aspect particularly suited to the installation of a photovoltaic array.

II. Introduction

This report provides am written description and justification for the installation of a proposed ground mounted photo-voltaic array on land adjacent to Normandy Pool, St. Mary's.

III. The Proposal

It is proposed to erect an 11kWhp grid connected, ground mounted solar array on meadow land adjacent to Normand Pool. The energy generated by the array will contribute to reducing the running costs of the pool climate control system. It is anticipated that the array will reduce carbon emissions by 2.3t CO₂ per year.

Surplus energy generated will either be exported to the grid or directed to an optional battery storage unit for use during low-light periods.

IV. Site location and description

It is proposed to mount the array on a ground mounted galvanised steel framework in the meadow adjacent to the pool, facing in a South Westerly direction at an angle of 30°.

The PV array will face towards the natural hedging surrounding the meadow.

V. Planning Context

Installation of a ground mounted photovoltaic panel adjacent Normandy Pool is being proposed as a small-scale project in line with the IOS Planning Authority's sustainable energy strategy that will demonstrate how a sustainable energy project may be appropriate within a landscape area recognised of special environmental value.

In addition the proposals are in accord with the Isles of Scilly Local Plan, Section 2 which seeks to outline the steps necessary to "Promote a Sustainable Scilly".

For small scale proposals such as this PPS22 specifically states "small-scale renewable energy schemes utilising technologies such as solar panels, biomass heating, small-scale

Council of the Isles of Scilly Proposed Photo-Voltaic Panels Normandy Pool Design and Access Statement

wind turbines, photovoltaic cells and combined heat and power schemes can be incorporated in new developments as well as existing buildings. Local Planning Authorities should specifically encourage such schemes through positively expressed policies in local development documents."

VI. Design

Use

The purpose of the proposed PV array is to generate electricity and to: -

- Reduce the Isles of Scilly's energy consumption and carbon emissions.
- Reduce potential risks from future climate change particularly rising sea-levels.
- Contribute to Council's targets to increase renewable electricity capacity, which in turn assists the UK's obligation to reduce its greenhouse gas emissions.
- Assist in lowering dependence on the mainland link and the power station on St Mary's for back-up.

Amount

A single ground mounted array comprising 26 450W panels each 1762mm L x 1134mm W

Layout

The accompanying drawings indicate the proposed layout of the array and the site location.

Scale

The physical dimension of the proposed array is:

14982mm W x 2580mm

Installed in two rows 13x2 portrait alignment at 30° to the horizon.

Landscaping

No landscaping is proposed.

Appearance / Visual Impact

The PV array proposed is of a standard design and will be located in the meadow adjacent to the pool ancillary buildings. It will be visible from various aspects; however, it is felt that there are no significant visual impact issues.

VII. Access

It is not envisaged that the scale and nature of the traffic in the area will change as a result of installing the array.

Access by the general public will only be required if the pool emergency exit route is used.

Access to the meadow for maintenance will be required for occasional panel maintenance and regular mowing to enhance the wildflower mix and biodiversity of the site.



Ancillary building and pool viewed from the meadow.

PRELIMINARY ECOLOGICAL ASSESSMENT

SOLAR ARRAY, NORMANDY, ISLES OF SCILLY



Client: Council of the Isles of Scilly

Our reference: 24-3-3

Planning reference: Report produced in advance of submission

Report date: 19th March 2024

Revision: -

Author: James Faulconbridge BSc (Hons), MRes, MCIEEM

Contact: ios.ecology@gmail.com

Executive Summary

Overview

The proposed Normandy Solar site was subject to a Preliminary Ecological Assessment (PEA) in March 2024.

This report outlines the results of the PEA as well as recommendations and proposed mitigation measures arising from the ecological baseline.

Proposals

The proposals relate to the installation of a ground-mounted solar array with associated ground anchors / concrete pads; support structures; cabling routes and access requirements.

Ecological Assessment

The existing site is an area of rough grassland located to the south-west of the existing Normandy Swimming Pool.

Proposals would result in the following impacts:

- De minimis removal of existing grassland sward to install ground anchors/concrete pads to support the panels;
- Short-term disturbance of the ground for trenching of cables no long-term impacts in this location;
- Long-term alteration in sward characteristics below the panels through shading;
- Likely cutting back of overhanging windbreak hedge to ensure effective generation;
- Potential impact of short-term disturbance or damage to nesting birds in the absence of appropriate working methodology no long-term impact on these species;
- Risk of killing/injuring small mammals during initial site clearance, in the absence of an appropriate working methodology no long-term impact to these species;
- No impacts identified to bats or other protected species.

Recommendations

Recommendations provided in this PEA report will ensure that impacts to protected species are avoided and ecological impacts mitigated or compensated where appropriate. These include:

- Measures to protect nesting birds including timing of works;
- Enhancement of the existing sward through cutting/over-sowing followed by long-term management to enhance the sward;
- Installation of solitary bee and hedgehog boxes within the final development;
- Measures to control or minimise the risk of non-native invasive species spreading within or outside of the site.

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1. Introduction

1.1. Project Overview

The site comprises an area of rough grassland within the grounds of Normandy Swimming Pool on St Mary's, Isles of Scilly

The proposals relate to the installation of a ground-mounted solar array with associated ground anchors / concrete pads; support structures and cabling route.



Map 01 – Site location indicated by the red circle. Reproduced in accordance with Google's Fair Use Policy.

2. Site Location and Description

2.1. Site Location

The Site comprises a rough grassland field to the immediate south-west of the Normandy Swimming Pool on Carn Friars Lane in the north-east of St Mary's, Isles of Scilly. The National Grid Reference for the centre of the site is SV 92720 11168 (see Map 01).

2.2. Site Description

The Normandy Swimming Pool site is approximately 0.14 hectares (ha) in size – the area to be impacted by the proposed solar array is 0.04ha. These are illustrated with the blueline and redline boundaries respectively in Map 02.

The broader site contains the swimming pool enclosure; a single-storey reception building; access infrastructure; and an area of rough grassland to the south-west. There are evergreen windbreak hedges on the south-eastern boundary as well as a portion of the north-eastern boundary. Scattered shrubs exist along the south-western boundary.

The footprint of the proposed solar array is entirely within the rough grassland to the south-west of the swimming pool reception.

2.3. Local Landscape Setting

The site is situated to the north-east of St Mary's; the largest inhabited island on the Isles of Scilly.

The location is within one of the more intensively farmed areas of land within the islands – small arable and flower-growing fields delimited by evergreen windbreak hedgerows dominate the immediate environs. There are scattered farmhouses and other dwellings within the vicinity of the site.

Situated close by to the east is the coastline of St Mary's with more semi-natural habitats including heathland, coastal grassland and rocky foreshores.



Map 02 – Showing the landscape and habitats immediately surrounding the site. The blueline shows site ownership; the redline shows the area to be impacted by the proposed solar array. Reproduced in accordance with Google's Fair Use Policy.

2.4. Relevant Designations

The Site itself is not subject to any statutory or non-statutory designations of relevance to the consideration of ecological value or impacts.

There are four statutory designated sites of conservation importance situated within a 1km radius of the site. Details of these designations are provided below:

- Isles of Scilly SAC Complex Encompassing the coastline around St Mary's and situated 350m to the east-north-east at its closest point, the SAC is designated for its nationally important numbers of Grey Seal and the nationally rare Shore Dock. Annex 1 habitats that are the primary reason for site selection include mudflats; inter-tidal sandflats; reefs and sub-tidal sandbanks.
- Isles of Scilly SPA Complex Encompassing the coastline around St Mary's and situated 330m to the east-north-east at its closest point, the SPA designated for its internationally important seabird assemblage of 13 species including internationally important numbers of lesser blackbacked gull and nationally important numbers of European storm petrel and European shag.
- **Higher Moors and Porth Hellick Pool SSSI** Situated 340m south-west of the proposed development lies Higher Moors SSSI a topogenous mire designated for several rare and notable plant species including bog pimpernel, star sedge and marsh St John's-wort.

• **Watermill Cove SSSI** – Situated 930m to the north, Watermill Cover is designated for predominantly geological rather than ecological interest - its cliff exposures of Quaternary sediments, that show the sequence of changes in the climate and environment during the Quarternary period.

2.5. Planning Context

2.5.1. National Planning Context

The National Planning Policy Framework (NPPF)¹ sets out the Government's policies on conserving and enhancing habitats and biodiversity through the planning system in paragraphs 174 to 182. Whilst these policies are primarily expected to be incorporated into development planning documents at regional and local scales, they are also of material consideration for individual planning applications.

Paragraph 174 states that:

Planning policies and decisions should contribute to and enhance the natural and local environment by:

- a) protecting and enhancing valued landscapes, sites of biodiversity or geological value and soils (in a manner commensurate with their statutory status or identified quality in the development plan);
- b) recognising the intrinsic character and beauty of the countryside, and the wider benefits from natural capital and ecosystem services including the economic and other benefits of the best and most versatile agricultural land, and of trees and woodland;
- c) maintaining the character of the undeveloped coast, while improving public access to it where appropriate;
- d) minimising impacts on and providing net gains for biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures.'

Paragraph 180 states that:

When determining planning applications, local planning authorities should apply the following principles:

- a) if significant harm to biodiversity resulting from a development cannot be avoided (through locating on an alternative site with less harmful impacts), adequately mitigated, or, as a last resort, compensated for, then planning permission should be refused;
- b) development on land within or outside a Site of Special Scientific Interest, and which is likely to have an adverse effect on it (either individually or in combination with other developments), should not normally be permitted.

-

¹ National Planning Policy Framework (Crown Copyright, 2023)

The only exception is where the benefits of the development in the location proposed clearly outweigh both its likely impact on the features of the site that make it of special scientific interest, and any broader impacts on the national network of Sites of Special Scientific Interest;

- c) development resulting in the loss or deterioration of irreplaceable habitats (such as ancient woodland and ancient or veteran trees) should be refused, unless there are wholly exceptional reasons and a suitable compensation strategy exists; and
- d) development whose primary objective is to conserve or enhance biodiversity should be supported; while opportunities to improve biodiversity in and around developments should be integrated as part of their design, especially where this can secure measurable net gains for biodiversity or enhance public access to nature where this is appropriate

In addition to the NPPF, the **Office of the Deputy Prime Minister (ODPM) circular 06/0511**² provides guidance on the application of law relating to planning and nature conservation. Paragraph 98 states "the presence of a protected species is a material consideration when a planning authority is considering a development proposal, that if carried out, would be likely to result in harm to the species or its habitat." Whilst Paragraph 99 states "it is essential that the presence or otherwise of a protected species, and the extent that they may be affected by the proposed development, is established before planning permission is granted."

2.5.2. Local Planning Context

The following policies are most relevant to this assessment:

- **Core Policy 1** Environmental Protection;
- **Policy OE2** Biodiversity and Geodiversity.

The following planning guidance documents are also of relevance:

• The Isles of Scilly Local Development Framework Supplementary Planning Document: Biodiversity and Geological Conservation³.

² Office of the Deputy Prime Minister. (2005). Biodiversity and Geological Conservation – Statutory Obligations and their Impact within the Planning System. ODPM Circular 06/2005

³ https://www.scilly.gov.uk/sites/default/files/IslesofScillyBiodiversity&GeodiversitySPD.pdf

3. Survey Methodology

3.1. Desktop Survey

A full desktop study was undertaken for the presence of bats based on the list of roosts and other records held by the Isles of Scilly Bat Group.

The desk study included accessing the Multi-Agency Geographic Information for the Countryside (MAGIC)⁴ database in order to establish the presence of statutory designated sites, including all internationally and nationally designated sites such as Special Protection Areas (SPAs), Special Areas of Conservation (SACs), RAMSAR sites and Sites of Special Scientific Interest (SSSIs) within 1km of the site.

Other resources used include aerial photography to identify the presence of habitats in close proximity to the site. This assists in the assessment of the potential of the site and its surrounding habitat to support protected species.

A full background data search from Environmental Records Centre for Cornwall and the Isles of Scilly (ERCCIS) was not considered proportionate to the small scale and low potential impacts of the proposed development. St Mary's does not support many of the terrestrial protected species found in mainland UK for which a data search would ordinarily be vital, including great crested newts; badgers; reptiles; dormouse; white-clawed crayfish; otter or watervole.

3.2. Vegetation and Habitat Assessment

An assessment was made of all areas of vegetation based on the standardised Phase 1 survey methodology⁵. This involved a walkover survey to identify broad vegetation types, which were then classified against Phase 1 habitat types, where appropriate.

A list of characteristic plant species for each vegetation type was compiled and any invasive species encountered as an incidental result of the survey are noted.

3.3. Bats

The site does not include any features with potential to support roosting bats which might be either directly or indirectly impacted by the proposals. A full PRA methodology was not therefore employed as this was scoped out.

An assessment of the potential use of the site by foraging and commuting bats was made based on the suitability of habitat present and the distribution of linear vegetated features within the site and the immediate site environs.

⁴ http://defra.magic.gov.uk

⁵ JNCC (2010). Handbook for Phase 1 Habitat Survey: A technique for environmental audit – Field manual

3.4. Birds

The assessment of breeding and wintering birds on the site was based on the suitability of habitat present, evidence of nesting such as old or currently active nests and the presence of bird species that may potentially nest within the available habitat.

3.5. Other Protected Species

An assessment of potential and suitability for other protected species was made based on the habitats present; the local status of these species; and the background records.

No further protected species survey methodologies were required to support a comprehensive Ecological Assessment at this site.

3.6. Surveyor Competence

The PEA survey was undertaken by James Faulconbridge MRes MCIEEM trading as IOS Ecology. James is a full member of the Chartered Institute of Ecology and Environmental Management (CIEEM); he is a Licensed Bat Worker (Class Licence Level 2) and has over 15 years' experience undertaking a range of ecological surveys and assessing the factors that affect ecology in relation to construction and the built environment.

3.7. Survey Dates

The PEA survey was undertaken on 14th March 2024.

3.8. Zone of Influence

The Zone of Influence (ZOI) is the area within which the ecological impacts arising from a proposed development are likely to be significant. Due to the nature of the proposed development the ZOI is identified as the site and the habitats which immediately bound it.

The sensitivity and value of offsite statutory and non-statutory sites mean that the potential for impacts arising from the proposed development should be considered within a wider ZOI. Therefore, scoping for direct and indirect impacts to designated sites is conducted within a ZOI of 1km of the Survey Site.

3.9. Assessment of Ecological Value

The ecological values provided within this report are based around both the professional judgement of the author and current published relevant guidance, including "Guidelines for Ecological Impact Assessment in the United Kingdom."

⁶ CIEEM (2016). Guidelines for Ecological Impact Assessment in the UK and Ireland. 2nd Edition. Chartered Institute of Ecology and Environmental Management. Winchester.

4. Results

4.1. Habitats

The habitats present onsite are illustrated in Map 03 and described below.

Other habitats which would not be impacted either directly or indirectly are not mapped or assessed further for clarity and brevity.



 ${f Map~03}$ – Showing the broad habitats identified within the site. Reproduced in accordance with Google's Fair Use Policy.

4.1.1. Semi-improved Grassland

The site of the proposed solar array is entirely covered by a tussocky, undermanaged grassland. The sward is grass-dominated but with a high herbaceous content – many of these are larger perennials as well as invasive species as listed below.

Grass species include locally dominant red fescue (Festuca rubra), cock's foot (Dactylis glomerata) and Yorkshire fog (Holcus lanatus) along with a range of typical grassland herbaceous species including dandelion (Taraxacum officinale agg.), ribwort plantain (Plantago lanceolata), creeping buttercup (Ranunculus repens), sticky mouse-ear (Cerastium glomeratum) and common vetch (Vicia sativa).

There are abundant larger ruderal/herbaceous species within the sward also including wild radish (*Raphanus raphanistrum*), fennel (*Foeniculum vulgare*),

broadleaf dock (*Rumex obtusifolium*), nipplewort (*Lapsana communis*) and common nettle (*Urtica dioica*). Bracken (*Pteridium aquilifolium*) is present towards the south-western boundary of the habitat and bramble (*Rubus fruticosus agg.*) is occasional within the sward.

A range of invasive or non-native species – ubiquitous across Scilly – were also recorded within the sward including three-cornered leek (*Allium triquetrum*), Spanish bluebell (*Hyacinthoides hispanica*), daffodil (*Narcissus sp.*), alexanders (*Allium triquetrum*) Bermuda buttercup (*Oxalis pes-caprae*), nasturtium (*Tropaeolum majus*) and montbretia (*Crocosmia × crocosmiiflora*).

4.1.2. Introduced Shrubs

There is an evergreen windbreak hedge on the south-eastern boundary of the site – this is dominated by karo (*Pittosporum crassifolium*) but there are individual escallonia (*Escallonia macrantha*) shrubs within the stand. Typical shade-tolerant species are found below including bramble, common nettle, cleavers (*Galium aparine*) and bracken.

Individual karo seedlings are beginning to germinate in the grassland sward in closest proximity to the windbreak hedge.



Photo 01 – Showing a view of the site looking south-west towards the arable field beyond the site boundary.



Photo 02 – Showing the evergreen windbreak hedge on the south-eastern boundary of the site. The proposed location of the solar array is visible in the foreground.



Photo 03 – Showing the proposed location of the solar array (foreground) with the evergreen windbreak hedge visible in the background.



Photo 04 – Showing the detail of the sward – the number of larger, often non-native herbaceous species can be seen.

4.2. Bats

4.2.1. Roosting Habitat

The desk study of records held by the Isles of Scilly Bat Group does not identify any records of bats previously roosting within the site or within 700m of the site.

The proposals would not directly or indirectly impact on any buildings or trees suitable for use by roosting bats.

4.2.2. Foraging Habitat

The site is likely to provide a foraging resource for local common pipistrelle populations as part of a wider landscape. However the change in land use is considered de minimis in terms of impacts on potential foraging habitat and the potential for enhanced grassland habitats post-development would offset any impacts.

4.2.3. Commuting Habitat

The windbreak hedge on the south-eastern boundary and, to a lesser extent, the broken line of shrubs on the south-western boundary are likely to be used by commuting bats to navigate between roosts and foraging habitat in the wider landscape..

4.3. Birds

4.3.1. Nesting Habitat

The following onsite habitats are likely to support nesting birds during the breeding season:

- The shrubs associated with the evergreen windbreak hedge on the southeastern perimeter of the site and the broken line of shrubs present on the south-western boundary;
- There is a risk of ground-nesting species or those which favour tussocky grassland and scrub habitats finding nesting habitat within the grassland itself – this is considered to be unlikely given the management at the time of surveys but should be considered in accordance with the precautionary principle.

Any nesting opportunities within or in close proximity to the site are likely to support common farmland and peri-urban bird species.

4.3.2. Foraging Habitat

All habitats on site are likely to provide foraging habitat for common bird species as part of a wider resource landscape.

4.4. Other Ecological Receptors

The habitats onsite are likely to support a wide range of **invertebrates**, as well as common small mammal species such as **white-toothed shrew**.

No further species would require consideration in order to support the current planning application.

5. Evaluation

5.1. Proposals

The proposed works were identified by the client and illustrated in Currie & Brown drawing PL4101565_NP_01_01.

The proposals include the installation of an 11kWp solar array on a footprint of 0.04ha of rough grassland. These would be mounted on metal support frames – there is an aspiration to use ground-anchors to secure these but a worst-case assumption of concrete pads is made for the purposes of this assessment.

Short-term impacts over a small linear area would arise from cable trenching to connect the array in with existing onsite infrastructure.

The efficient function of the panels may necessitate a reduction in the overhang of the evergreen windbreak hedgerow to the south-east in order to reduce shadowing of the panels.

5.2. Assessment of Ecological Impacts

5.2.1. Statutory and non-statutory Sites

The proposed development would not impact directly or indirectly upon any offsite statutory sites.

5.2.2. Habitats

The proposals would lead to an alteration in the character of the grassland through a level of shading from the solar panels. There would be a negligible reduction in overall extent of the habitat at the location of the ground anchors or concrete pads.

A minor reduction in the overhanging evergreen windbreak hedge may be required to ensure efficient operation of the panels and this would translate into long-term management to maintain the feature within a smaller form.

Short-term disturbance to the sward through trenching to install the cable route is unlikely to represent significant damage and would quickly restore from the existing seed bank.

5.2.3. Bats

The proposals would not impact directly or indirectly on features suitable for use by roosting bats.

Any minor reduction in the suitability of the grassland to support foraging resources for local bat populations (through shading by the panels) could be

offset through enhanced management of the surrounding grassland within the site to encourage a diverse pollinator population.

No impacts to commuting routes are identified – reductions in the overhang of the evergreen windbreak hedge would modify this feature but not in such a way as to affect its presence as a tall, vegetated structure within the local landscape.

5.2.4. Nesting Birds

The installation works have the potential to disturb breeding birds if they are using the footprint of the proposed solar array location for nesting at the time of construction, or during the cutting back of the evergreen windbreak hedge. These could be controlled through standard avoidance methods.

As in the case of bats - any minor reduction in the suitability of the grassland to support foraging resources (through shading by the panels) could be offset through enhanced management of the surrounding grassland within the site.

5.2.5. Other Species

Ground works and clearance could impact upon small mammals such as lesser white-toothed shrew if they are present in the footprint of the site at the time of construction. This could lead to killing or injuring in the absence of an appropriate working methodology.

The assessment did not identify the presence of, or suitable habitat for, other protected species. No further impact assessment is therefore provided.

6. Recommendations

6.1. Further Survey Requirements

The ecological baseline presented in this report is considered to be sufficient to assess the impact of the proposals upon ecological receptors. No further surveys are therefore recommended to support the application.

6.2. Timing of Works - Nesting Birds

The onsite vegetation – including both the grassland sward and the boundary windbreak hedgerow – offers suitable nesting habitat for breeding birds as detailed in Section 4.3. In order to ensure legislative compliance, the contractors undertaking the works must ensure that nesting birds are not disturbed in accordance with requirements under the Wildlife and Countryside Act (1981)⁷.

The most reliable means of ensuring nesting birds are not impacted by the works is for clearance works affecting relevant areas to be conducted outside the bird breeding season of March to September inclusive. Works can be undertaken outside of the breeding season without constraints relating to breeding birds.

If works are scheduled to commence during the breeding season, a nesting bird survey would need to be carried out by a suitably qualified person prior to commencement. Careful observation of any potential nesting sites would be required to ensure that the parent birds are not visiting a nest and provisioning the young. Nests are only protected if they are active (i.e. being used to rear young) or in the process of being built.

- Where active nests are identified, works affecting these areas must be delayed until the chicks have fledged the nest.
- Once it is confirmed that nests are absent or no longer active, the relevant features should be dismantled carefully and by hand as a precaution.

Measures to protect retained habitats which might support nesting birds may include barriers where required, and signs identifying areas which contractors should avoid.

6.3. Biodiversity Net gain

The project should secure a Biodiversity Net Gain through appropriate landscaping and habitat creation within the redline of the development where possible. This is to ensure compliance with Local Plan policy OE2(2d) which requires that projects "ensure proportionate and appropriate biodiversity net-gain is secured".

 $^{^{7}}$ HMSO (1981). Wildlife and Countryside Act 1981 (as amended). HMSO, London.

The scale of the development, and the very minimal direct impacts (which are restricted to the footings for the new solar array) would suggest that completion of the detailed BNG Metric would not be proportionate to this site if submission of the application is targeted before the 2nd April 2024 when the statutory BNG assessment becomes mandatory.

BNG allows quantification of habitat conversion between types with reference to condition, distinctiveness and local relevance which is very subjective outside of this framework. In the case of the site under consideration, loss of habitat will be de minimis and there is no change in habitat type (eg. from grassland to woodland). A management plan to enhance the retained sward can achieve a net gain with a high degree of confidence.

The requirement to demonstrate measurable net gain could therefore be met to ensure compliance with OE2 without the formality of the BNG metric, at the discretion of the LPA. However the Small Sites Metric can be completed using the data gathered on site to quantify this enhancement if required and submitted during the determination period.

6.4. Site Clearance

This recommendation relates to the core area where the panels will be installed and the cable route. The habitat enhancement recommendations outlined in Section 6.5 would be seasonally constrained to autumn to ensure successful establishment of wildflowers, and this may not be compatible with the programme for panel installation.

If the timeframes outlined in Section 6.5 would coincide with construction, then it can be enacted within a single operation. If panels are to be installed at a different time of year, then the prescription for clearance outlined in Section 6.5.2 could be followed as a stand-alone methodology without the seasonal constraint (though see notes in 6.2 regarding timing of works).

6.5. Habitat Enhancement

6.5.1. Overview

The existing sward is typical of many grassland habitats on Scilly with regards its significant representation of non-native and invasive species. The underlying sward is grass-dominated and shows signs of historical nutrient enrichment both in terms of the density and character of the grass sward; and the composition of herbaceous species.

Enhancement of the retained habitat could therefore focus on two aspects:

- an initial intervention to introduce new native species; and
- ongoing management to reduce nutrient status, reduce vigour of nonnative species, and encourage the development of a biodiverse native sward.

The extent of this enhancement should be across the entire grassland sward (as illustrated in Map 03) if possible, or within a smaller area focussed around the location of the panels.

6.5.2. Initial Intervention

There are no practical approaches to fully remove the range of invasive species within the sward without recourse to repeated herbicide applications which are not considered appropriate in a conservation context.

Initial intervention could therefore represent incremental mowing – first with a high bar and lowering after several days to finish with a low cutting height to remove the existing sward to ground level. This initial cut would encourage small mammals and other species to leave the area through disturbance to prevent killing or injuring. Arisings must be removed.

6.5.3. Species Introduction

The density of the existing grassland sward is likely to confer a high proportion of bare ground beneath the vegetation and provide an excellent seed base for introduction of new species.

The sward should be over-sown with a species-rich native grassland mix. It would be optimal to use island-collected seeds potentially involving a green hay mix from another species-rich grassland within the islands. Discussions with the Wildlife Trust may allow a suitable source to be identified. If this is not appropriate, seed mixes should be tailored to the species native on the islands.

This initial intervention for grassland enhancement should be timed during the autumn period in order to maximise the chances of germination.

6.5.4. Ongoing Management

The grassland should be managed by cutting up to x2 per year and all arisings removed off site.

The grass should be first cut in March to a height of approximately 5cm – this is to replicate the impacts of traditional winter grazing in a hay meadow context and would serve to ensure the sward is low enough to avoid interference with the panels at the beginning of the key generation season. It would also reduce the vigour of non-native species, especially three-cornered leek and Bermuda buttercup, which are at their peak in early spring and could be significantly diminished by this action.

A further 'hay cut' can be undertaken in August/September and all arisings should be removed from the site. Recommended cutting machinery for this operation would be a reciprocating blade mower (such as an Allen scythe), which

can cut tall grassland at a single point near to ground level, thus facilitating removal of arisings.

Further management of the sward directly around the panels could be undertaken responsively using hand tools such as a strimmer throughout the year as required in order to ensure that the sward is not interfering with the operation of the panels. This should be restricted to those areas necessary to ensure optimal performance.

6.5.5. Monitoring and Review

The management strategy should be reviewed in order to ensure it is achieving the desired habitat enhancement. This could be undertaken by the contractors completing the work, if confident to assess the changes in the sward characteristics. Alternatively, ecological input can be sought.

The key aims against which success should be measured are:

- A reduction in the prevalence of non-native species such as three-cornered leek and Bermuda buttercup;
- An increase in the number of desirable herbaceous species, defined by establishment of those included within the seed mix or source;
- An increase in herbaceous composition of the sward with a lower density of grass, especially the locally dominant fescue.

The management of the sward should be amended as required to achieve these aims.

6.6. Habitat Boxes

6.6.1. Solitary Bee Boxes

The proposed management of the sward would represent a significant increase in pollinator resource; therefore incorporation of solitary bee nest boxes would have a high probability of occupation if correctly sited. It is recommended that **2 solitary bee boxes** are installed in association with the array.

Box designs should be selected with regards to ecological function, rather than aesthetic, and positioned close to areas of foraging resource such as pollinator-friendly planting, and facing either east or south in a sunny location at a height of between 1 – 4m above ground level. Further information can be found at the Bumblebee Conservation Trust website⁸.

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⁸ https://www.bumblebeeconservation.org/bee-nest-boxes/

6.6.2. Hedgehog Boxes

A hedgehog box could be installed within the new landscaping in order to provide a habitat resource for this species.

A specific box can be purchased for the purpose, and should be sited in a quiet area of the site away from routine disturbance by users of the site. The box should be positioned under shrubs and in a shady, sheltered location. Adding logs or brash retained from the site clearance works would improve the appeal of this feature for hedgehogs, but care must be taken to ensure that any branches are stable and do not block the entrance.

6.7. Invasive Species

Under the Wildlife and Countryside Act, 1981⁹, a number of alien plant species are listed in Schedule 9 Part II. These are species which have become naturalised in Britain, usually as garden escapes. Section 14 (2) of the Act states that an offence is committed "if any person plants or otherwise causes to grow in the wild any plant" in Schedule 9.

Three-cornered leek and montbretia are listed on Schedule 9; however these species are ubiquitous across the islands and their low-level presence on the site is commonplace. Other invasive species as listed in Section 4.1.1 are not listed under Schedule 9, but their spread should be avoided in line with Local Plan Policy OE2(1d) and (2c).

It is incumbent on a landowner to ensure that any actions of land management or development do not result in the plant being spread either within the existing site or elsewhere. This should be a consideration when determining where arisings from management should be disposed of in order to avoid the risk of viable plant material contaminating other sites.

6.8. Survey Validity and Update

The surveys were completed in March 2024. Many species are transient in their use of habitats, and apparently minor changes in condition or use of the site can affect suitability. However in the absence of significant changes in condition or use of the site, the nature and character of the site suggest that:

• The PEA assessment can be considered valid for a period of 18 months after the survey was completed, until September 2025.

If Planning Permission is not applied for by this date, the ecology surveys should be updated as required.

⁹ HMSO (1981, as amended). Wildlife and Countryside Act 1981. HMSO, London.

Appendix 1 – Relevant Legislation

The Habitat Regulations 2017 (as amended)

The Conservation of Habitats and Species Regulations 2017 (as amended) or the 'Habitat Regulations 2017 (as amended)', ensures wild animals of a European Protected Species and their breeding sites or resting places are protected under Regulation 43. Such wild animals of a European Protected Species include great crested newts, otters, dormice and all species of bat. It is an offence to deliberately capture, injure or kill any such wild animal and in the case of great crested newts, deliberately take or destroy their eggs. It is also an offence to deliberately damage or destroy a breeding site or resting place of any such wild animal.

Wild animals of a European Protected Species are also protected from disturbance under Regulation 43. Disturbance of such wild animals includes in particular any disturbance which is likely:

- (a) To impair their ability -
- to survive, to breed or reproduce, or to rear or nurture their young; or
- in the case of animals of a hibernating or migratory species, to hibernate or migrate; or
- (b) To affect significantly the local distribution or abundance of the species to which they belong.

The Wildlife and Countryside Act (as amended) and Countryside and Right of Way Act (CRoW) Act 2000 (as amended)

The Wildlife and Countryside Act 1981 (as amended) and the CRoW Act 2000 (as amended) afford protection to wild birds in England and Wales under Part 1. It is an offence to intentionally kill, injure or take any wild bird. It is also an offence to intentionally take, damage or destroy the nest of any wild bird whilst it is in use or being built, or intentionally take or destroy their eggs. If the wild bird is included on the Schedule 1 of the Wildlife and Countryside Act 1981 (as amended), it is additionally an offence to intentionally or recklessly disturb the wild bird whilst on the nest during the breeding season.

Certain species of animal, such as the water vole, are offered 'full protection' under the Wildlife and Countryside Act 1981 (as amended) and the CRoW Act 2000 (as amended) by being included in Schedule 5 in respect of certain offences under Section 9. Such offences include:

- 9(1) Intentional killing, injuring or taking of a Schedule 5 animal;
- 9(4a) Intentional or reckless damage to, destruction of or obstruction of any structure or place used by a Schedule 5 animal for shelter or protection;

9(4b) Intentional or reckless disturbance of a Schedule 5 animal occupying such a structure or place.

Widespread species of native reptiles occurring within England and Wales such as the adder or common lizard are protected against intentional killing and injuring under the Wildlife and Countryside Act 1981 (as amended) only. Animals of a European Protected Species are now only protected under offences 9(4a) and 9(4b) of Section 9, the main legislative tool covering such animals is under the 'Habitats Directive 2010 (as amended)'.

The Hedgerow Regulations 1997

Under the Hedgerow Regulations 1997, it is an offence to remove most hedgerows without the issuing of a Hedgerow Removal Notice from the Local Planning Authority. 'Important hedgerows' are those protected under the 1997 Regulations if they are over 30 years old and satisfy one of the criteria under Part II, Schedule 1, based on archaeology and history or wildlife and landscape.

In the case of 'Important' hedgerows, the Local Planning Authority will only issue a Hedgerow Removal Notice if there are sufficient circumstances to justify its removal. If sufficient circumstances do not exist then the Local Planning Authority will issue a Hedgerow Retention Notice and the 'Important' hedgerow will be protected under the 1997 Regulations. Unauthorised removal of the 'Important' hedgerow may result in a fine and/or a requirement for the hedgerow to be replaced.

Natural Environment and Rural Communities Act 2006

The Natural Environment and Rural Communities (NERC) Act came into force on 1st Oct 2006. Section 41 (S41) of the Act requires the Secretary of State to publish a list of habitats and species which are of principal importance for the conservation of biodiversity in England.

The S41 list is used to guide decision-makers such as public bodies, including local and regional authorities, in implementing their duty under Section 41 of the Natural Environment and Rural Communities Act 2006, to have regard to the conservation of biodiversity in England, when carrying out their normal functions.

Fifty-six habitats of principal importance and 943 species of principal importance are included on the S41 list. The habitats and species on the S41 list are included within the UK Biodiversity Action Plan (UK BAP) as requiring conservation action. The requirement for action continues to be regarded as a conservation priority in the subsequent UK Post 2010 Biodiversity Framework. At a local level the actions and targets are still referred to as BAPs.





APPROVED

By Lisa Walton at 12:39 pm, Jun 19, 2024

Normandy Pool Solar photo-voltaic array construction waste management plan June 2024

Works outline: Construction of a ground based 11kW, 26 panel solar photo-voltaic array on land adjacent to Normandy pool, St. Mary's Isles of Scilly

Contractor: ZLC Ltd.,

Waste types and quantity:

- 1. Arisings from auger installation of ground mounted array framework (< 1m3): re-distribute under array.
- 2. Spoil arising from underground connection of array to switch board (<1m3); re-distribute under array.
- 3. Metal off-cuts from ground mounted array (<0.5m3) Recycle via Moorwell Waste and recycling centre.
- 4. Plastic cable and trunking arising from connection of array to switch board: Black bag waste via Moorwell Waste and recycling centre.
- 5. Polystyrene and plastic packaging from 26 solar panels: Black bag waste via Moorwell Waste and recycling centre.
- 6. Cardboard packaging from 26 solar panels: Keep dry and re-cycle via Moorwell Waste and recycling centre.

RECEIVED

By Liv Rickman at 12:37 pm, May 30, 2024

APPROVED

By Lisa Walton at 12:39 pm, Jun 19, 2024



GLINT AND GLARE ASSESSMENT NORMANDY POOL

VERSION 1.0

May 2024

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1 INTRODUCTION

Metrica Environmental Consulting Ltd ('Metrica') has been commissioned by Council of the Isles of Scilly ('the Client'), to undertake a glint and glare assessment in relation to the proposed ground mounted solar installation at the Normandy Swimming Pool, ('the Development'), located on Carn Friars Lane, St Mary's, Isles of Scilly ('the Site').

2 GLINT AND GLARE DEFINITION

'Glint' and 'Glare' are the effects caused by the reflection of sunlight from reflective surfaces such as glazing or solar photovoltaic (PV) panels. The UK Government's National Policy Statement for Renewable Energy Infrastructure (EN-3)¹ defines these terms as follows:

- Glint: "a momentary flash of light that may be produced as a direct reflection of the sun in the solar panel"; and
- Glare: "a continuous source of excessive brightness experienced by a stationary observer located in the path of reflected sunlight from the face of the panel".

It goes on to say that... " Most commercially available solar panels are designed with antireflective glass or are produced with anti-reflective coating and have a reflective capacity that is generally equal to or less hazardous than other objects typically found in the outdoor environment, such as bodies of water or glass buildings".

Further details on the guidance in EN-3 is provided in Section 4.1.2 of this report.

3 DEVELOPMENT OVERVIEW

The Development consists of a 11 kWp Solar PV array situated adjacent to the swimming pool building. Saint Mary's Airport is located 1.2 km southwest of the Development and as such the east, west, northwest and southeastern approach paths, as well as the Air Traffic Control Tower (ATCT) have been included in this assessment.

The Development's proposed solar array consists of 26 ground mounted, fixed-tilt PV panels, with a tilt angle of 30 degrees. The arrays consist of both southwest facing panels (azimuth of 225 degrees). A layout drawing showing the development is provided in Appendix 1 for reference.

¹ UK Government (November 2023). National Policy Statement for Renewable Energy Infrastructure.

4 GUIDANCE

4.1 PLANNING GUIDANCE

The following guidance and standards are pertinent to this assessment:

- ♦ The National Planning Policy Framework (NPPF)²; and
- National Policy Statement for Renewable Energy Infrastructure (EN-3)

4.1.1 The National Planning Policy Framework

The NPPF sets out the Government's planning policies for England, providing a framework within which local policies can be developed. The key principle of the NPPF is a presumption in favour of sustainable development, although no specific references to solar PV development or glint and glare effects are made.

4.1.2 National Policy Statement for Renewable Energy Infrastructure

EN-3 notes that solar PV panels are specifically designed to absorb, rather than reflect light, however, they may nevertheless reflect the sun's rays at certain times / angles, potentially causing glint and glare effects.

EN-3 recommends a two-stage approach to determining the potential for glint and glare impacts. As a first stage, receptors should be mapped qualitatively to identify any potential glint and glare issues and determine whether a detailed glint and glare assessment is necessary as part of the application.

When a quantitative glint and glare assessment is found to be necessary, the geometric possibility of glint and glare affecting nearby receptors should be investigated through modelling, and an assessment of potential impact provided, based on the angle and duration of incidence and the intensity of the reflection.

With specific reference to aviation, EN3-notes that..."there is no evidence that glint and glare from solar farms results in significant impairment on aircraft safety. Therefore, unless a significant impairment can be demonstrated, the Secretary of State is unlikely to give any more than limited weight to claims of aviation interference because of glint and glare from solar farms".

Notwithstanding the above, EN-3 does not provide specific assessment criteria, or give guidance on what is considered to be an acceptable level of impact.

4.2 TECHNICAL GUIDANCE

UK planning guidance does not provide a specific methodology for assessing the impact of glint and glare. However, the following guidance is regularly applied to assessments in the UK and together is considered to provide a reasonable and robust approach:

Measurement and Assessment of Light Immissions³;

² UK Government (2012). National Planning Policy Framework (last updated 5th September 2023).

³ Ministry for the Environment, Health and Consumer Protection (2014). Light Guidelines (Leitlinie des Ministeriums für Umwelt, Gesundheit und Verbraucherschutz zur Messung und Beurteilung vonm Lichtimmissionen,

- ♦ Rail Industry Standard (RIS) RIS-0737-CCS⁴
- ♦ Renewable Energy Developments: Solar Photovoltaic Developments⁵; and
- Review of Solar Energy System Projects on Federally-Obligated Airports⁶.

4.2.1 Measurement and Assessment of Light Immissions

The German Ministry for Environment, Health and Consumer Protection published the *Measurement and Assessment of Light Immissions* in 1993, which was most recently updated in 2014. Paragraph 8 of the most recent version of the guidelines is dedicated to the assessment of reflections from solar PV panels.

The guidelines state that... [translated from German] "experience has shown that immission locations that are more than approximately 100 m away from a photovoltaic system only experience short-term glare effects. Only in the case of extensive photovoltaic parks could more distant emission locations still be relevant."

In addition, the guidelines note that where a reflection source is located in the same direction (+/- 10 degrees) as the sun itself, the direct glare from the sun masks any reflections, and can therefore be scoped out of further assessment.

For those receptors⁷ within the study area described above, the guidelines state that effects are acceptable providing that glare is experienced for no more than 30 minutes on any given day, or more than 30 hours per year.

4.2.2 RIS-0737-CCS

Network Rail guidance does not provide a specific methodology for the assessment of glint and glare effects on rail infrastructure. However, Rail Industry Standard (RIS) RIS-0737-CCS states that... "a planned change external to the railway could affect signal sighting, for example changes that affect the built environment (for example, a new structure causing obscuration, a solar farm causing reflection)."

4.2.3 Renewable Energy Developments: Solar Photovoltaic Developments

The UK Civil Aviation Authority (CAA) issued a guidance note in July 2023. This guidance note was prepared by the Combined Aerodrome Safeguarding Team (CAST), supported by the CAA, and aims to provide safeguarding advice in relation to solar photovoltaic developments on a range of matters, including glint and glare.

With specific reference to glint and glare effects, the guidance note states that:

"In most cases, an assessment should be undertaken for a solar PV development which is being proposed within a specific distance (indicated by the aerodrome authority) from an aerodrome. For many aerodromes, 5km is the distance of choice but it could be considered out to 10 km. In exceptional circumstances, assessments may be required beyond 10km."

⁴ Rail Industry Standard (RIS) RIS-0737-CCS 'Signal Sighting Assessment Requirements'

 $^{^{5}}$ CAA (2023). Solar photovoltaic Developments CAST Aerodrome Safeguarding Guidance Note

⁶ Federal Aviation Administration (2021) Review of Solar Energy System Projects on Federally-Obligated Airports.

⁷ In this context, 'receptors' are primarily residential dwellings, but where relevant, can also include hotels, hospitals, schools and offices.

No specific methodology or assessment criteria are defined for assessing the impact of glint and glare on aviation infrastructure.

4.2.4 Review of Solar Energy System Projects on Federally-Obligated Airports

The United States' Federal Aviation Administration (FAA) guidance states that for a solar PV development to obtain FAA approval or to receive no objection, there should be no more than a "low potential for after-image" along the final 2-mile approach path for any existing or proposed runway. This criterion was originally defined to relate to Sandia Laboratories' Solar Glare Hazard Analysis Tool (SGHAT). However, the FAA has since withdrawn this requirement as the SGHAT software is no longer available. Metrica therefore uses modelling software developed by Forge Solar, which applies the same methodology as SGHAT.

SGHAT, categorises glint / glare into three tiers of severity (ocular hazards) that are shown by different colours in the model output. It should be noted that these categories are a function of the intensity of the reflection and the viewing angle, rather than being duration-dependant:

- Red glare: Glare predicted with a potential for permanent eye damage (retinal burn);
- ♦ Yellow glare: Glare predicted with a potential for temporary after-image; and
- Green glare: Glare predicted with a low potential for temporary after-image.

It also notes that no significant impacts are possible for reflections located more than 50 degrees either side of the direction of travel.

In the absence of specific guidance on the assessment of glint and glare impacts on road and rail infrastructure, it is generally accepted in the UK and elsewhere that in addition to aircraft, the FAA guidance is also appropriate for drivers of other vehicles (i.e., road and rail traffic).

5 STUDY AREAS

5.1 RESIDENTIAL RECEPTORS

As stated in Section 4.2.1, glint and glare effects are unlikely to be an issue for receptors more than approximately 100 m from PV panels, due to the reduced intensity and short duration of effects beyond this distance. However, as this distance is approximate and dependent upon the extent of the Development, the residential receptor study area for this assessment has been based upon a 200 m buffer distance in order to ensure a robust approach.

5.2 ROAD AND RAIL INFRASTRUCTURE

As the assessment criteria for road and rail infrastructure relate purely to glare intensity, rather than duration of effects, it is considered that a study area of 500 m is appropriate as a conservative approach. It should be noted that in line with generally accepted best practice, local roads within the 500 m study area are not typically assessed; this is due to local roads having the reduced traffic densities and speeds, meaning the potential impact due to a temporary reflection is low.

5.3 AERODROMES AND AVIATION INFRASTRUCTURE

The study area for aerodromes recommended in CAA guidance (See section 4.2.3), is as follows:

- ♦ 10 km for safeguarded civil or military aerodromes⁸; and
- 5 km for other / non-safeguarded aerodromes.

Notwithstanding the above, the UK Government requires Local Planning Authorities to consult with safeguarded aerodromes within 13 km of a proposed development. In line with this, and as a conservative approach, an initial study area of 13 km has been applied in this assessment.

Figure 1 in Appendix 2 presents the study areas applicable to this assessment, derived in accordance with the above criteria. It should be noted that in order to present Figure 1 at a readable scale, the 13 km safeguarded aerodrome buffer has been included in the inset map.

5.4 EXCLUSION AREAS

No visible reflections can occur at receptors located 'behind' the proposed PV panels. For southwest-facing panels, this covers a sector between 315 and 135 degrees, from the westernmost panel.

6 ASSESSMENT CRITERIA

6.1 RESIDENTIAL RECEPTORS

The assessment criteria for residential receptors are those described in Section 4.2.1, i.e., that the glint and glare effects are acceptable providing such effects occur for no more than 30 minutes per day, or 30 hours (equivalent to 1,800 minutes) per year.

6.2 ROAD, RAIL AND AVIATION RECEPTORS

The assessment criteria for road, rail and aviation receptors are those described in Section 4.2.4, i.e., that the glint and glare effects are acceptable providing there is found to be no more than a low potential for after-image (i.e., 'green glare') when assessing in accordance with the SGHAT methodology. As previously stated, the SGHAT methodology is based purely upon the intensity of the reflection and the viewing angle and is not duration-dependent.

7 METHODOLOGY

As discussed in Section 4.2.4, modelling and assessment of glint and glare effects has been conducted using software implementing the SGHAT methodology, which accounts for the following site-specific parameters:

- ♦ Reflection Source:
 - ♦ Latitude, longitude and elevation of the Development;
 - ♦ Panel tilt, height, and azimuth (orientation relative to north); and
 - ♦ Panel technology (fixed / tracking, and presence of anti-reflective coatings);
- ♦ Propagation path:
 - ♦ Local terrain; and
 - ♦ Existing or proposed obstructions (e.g., forestry, non-sensitive buildings, etc.)

⁸ CAA (2023). Solar photovoltaic Developments CAST Aerodrome Safeguarding Guidance Note

⁹ UK Government (2002). The town and country (safeguarded aerodromes, technical sites and military explosives storage areas) direction 2002 (last updated 22nd December 2016).

♦ Receptor:

- ♦ Receptor type e.g. (dwelling, road, rail, flight path, ground-based aviation assets);
- ♦ Receptor location;
- ♦ Height above ground level (typically taken as 1.5 m for terrestrial receptors, except for rail where a height of 2.75 m is applied, or structures such as Air Traffic Control Towers (ATCT) which are modelled on a case-by case basis); and
- ♦ Viewing angle and direction of travel (mobile receptors only).

7.1 IDENTIFICATION OF RECEPTORS

Figure 1 in Appendix 1 details the Development boundary and the study areas applicable to this assessment. Each receptor within the respective study area has then been analysed using online mapping and aerial imagery to exclude those which clearly have no line of sight to the Development, either through screening from local terrain, vegetation or other buildings/infrastructure. Where the extent of the screening is unclear / uncertain, the receptor has not been excluded, to ensure a robust assessment.

Each receptor identified within the respective study area has been analysed using online mapping and aerial imagery to exclude those which clearly have no line of sight to the Development, either through screening from local terrain, vegetation or other buildings / infrastructure. Where the extent of the screening is unclear / uncertain, the receptor has not been excluded, to ensure a robust assessment.

Following the above filtering process, all remaining receptors within the respective study areas have been assessed.

The figure in Appendix 2 shows the Development in relation to St Mary's Airport.

7.1.1 Site-specific Aerodrome Parameters

As outlined in Section 3, St Mary's Airport is located approximately 1.2 km southwest of the closest Development panel array. As such, both the Runway 09/27 and Runway 32/14 flight paths, as well as location of the Air Traffic Control Tower (ATCT) have been included in this assessment.

Effects have been predicted for both runway approaches, using the standard 2-mile approach with a 3-degree glide slope as recommended in FAA guidance (see Section 4.2.4). The airport's ATCT is located in the main terminal building, which for the purposes of this assessment is assumed to be 11 m above ground level (AGL).

8 RESULTS AND ASSESSMENT OF IMPACT

Modelling has been undertaken, and it has been found that no glint/glare effects are predicted at any of the identified receptors. The flight paths and ATCT at St Mary's Airport are also not predicted to have any glare.

As no glare is predicted to occur at any receptor. The Development is therefore compliant with the respective assessment criteria.

9 CONCLUSION

Metrica was commissioned to undertake a Glint and Glare impact assessment in relation to the proposed Solar PV Development at Normandy Swimming Pool.

The assessment has been undertaken in accordance with best practice guidance, and effects have been found to be acceptable at all receptors.

The Development is therefore acceptable in terms of glint and glare.

10 GLOSSARY OF TERMS

After-Image: An image that continues to appear in the eyes after exposure to the original image has ceased.

Axis Tracking: Motorised PV array modules which are able change their tilt and / or azimuth angle in order to face the sun as it tracks across the sky.

Azimuth: A direction or bearing defined a horizontal angle between 0° and 359° measured clockwise from North.

Elevation: height above mean sea level.

Elevation Angle: An angle that is formed between the horizontal line (0°) and the line of interest.

Glare: A continuous source of bright light typically received by static receptors or from large reflective surfaces.

Glint: A momentary flash of bright light typically received by moving receptors or from moving reflectors.

Green Glare: glare predicted with a low potential for temporary after-image.

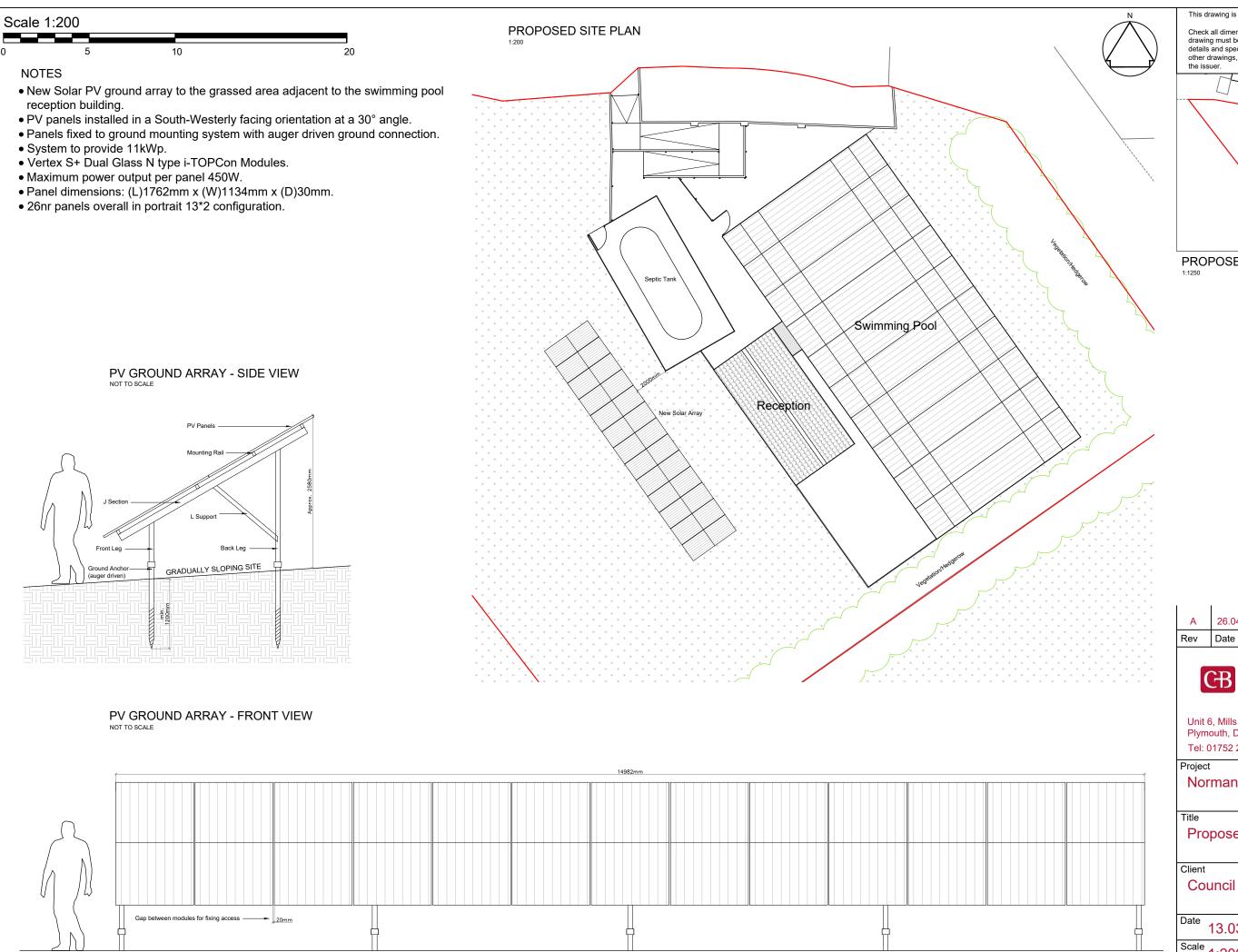
Receptor: In this context, a receptor is a potential viewer of glint and glare effects.

Red Glare: glare predicted with a potential for permanent eye damage (retinal burn),

Tile Angle: See Elevation Angle

Yellow Glare: glare predicted with a potential for temporary after-image.

APPENDIX 1: DEVELOPMENT LAYOUT



This drawing is the copyright of Currie & Brown Ltd.

Check all dimensions on site prior to project commencement. This drawing must be read in conjunction with all other drawings, details and specifications issues. Discrepancies between this and other drawings, details and/or specifications must be referred to the issuer.



PROPOSED SITE PLAN

A 26.04.24 Change to proposed PV module



Description

Unit 6, Mills Bakery, Royal William Yard, Plymouth, Devon PL1 3GE

Tel: 01752 278 100 Web: www.curriebrown.com

Normandy Pool Solar PV

Proposed Site Plan

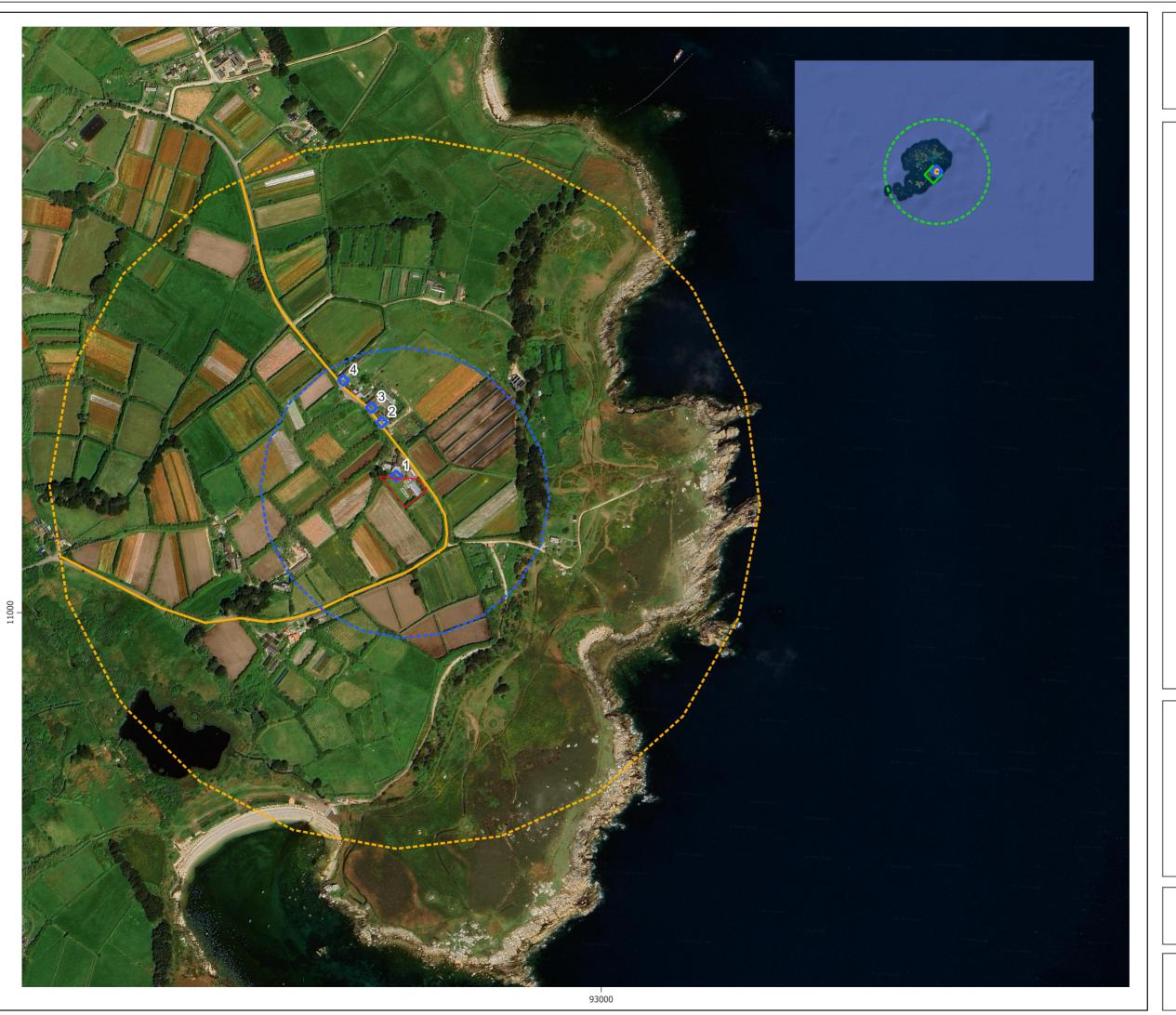
Council of the Isles of Scilly

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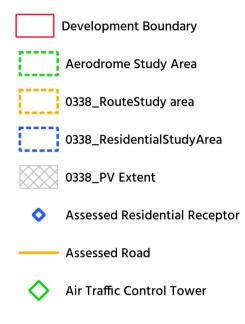
Drwg No. PL4101565_NP_01_01

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APPENDIX 2: STUDY AREAS AND RECEPTORS







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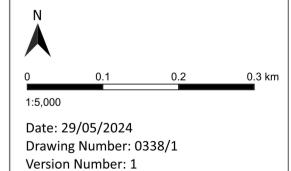


Figure 1 Glint and Glare Study Areas

Normandy Pool
Glint and Glare Assessment