

INTERNAL MEMORANDUM

To: Gareth Davies
From: Matt Davies (Ecologist)
Ext: 5278

Memo number: 1

Date of previous memo: -

Date: 27/02/2025

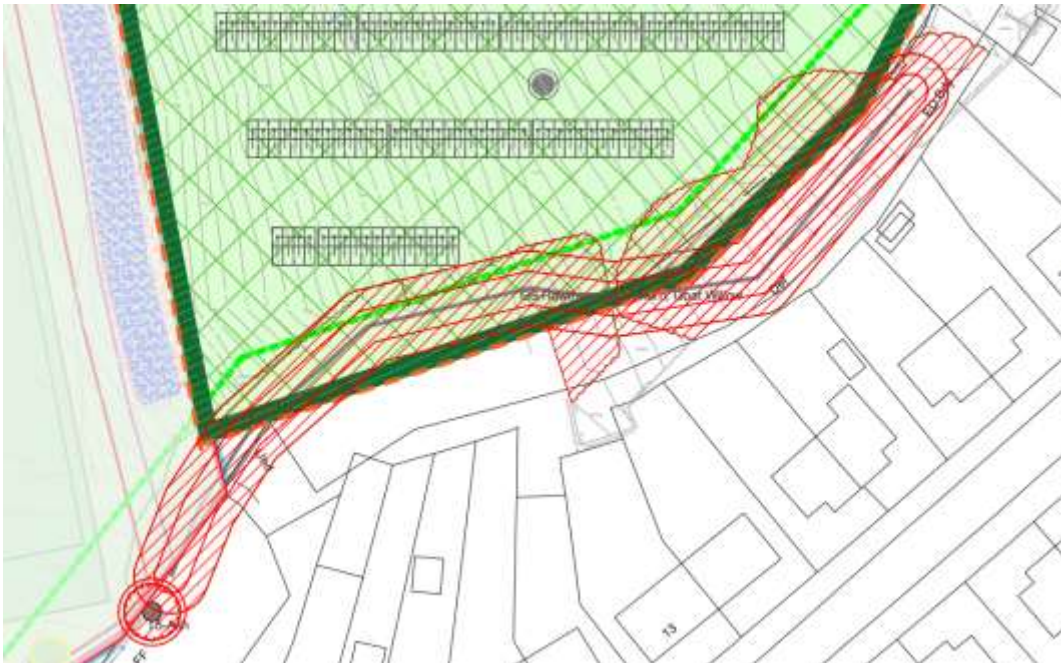
SUBJECT: P/25/0044 | Solar Farm and associated equipment and cabling | Pen Y Dre High School Goitre Lane Gurnos Merthyr Tydfil CF47 9BY

ECOLOGICALLY RELATED DOCUMENTS SUBMITTED

1. Proposed PV Array Development. Land off Goitre Lane, Gurnos, Merthyr Tydfil, CF47 9SA. Biodiversity Strategy. **Dated: 02nd August 2024.** *Prepared by Ecological Services Ltd.*
2. PV Array Site. Bats & Trees Survey Report. **Version V2.0. Dated: November 2024.** *Prepared by Ecological Services Ltd.*
3. Pen-y-Dre Solar Farm. Green Infrastructure Statement *prepared by Soltys Brewster.* **Dated: 19th November 2024.**
4. Goitre Field – Merthyr (SO05020829). Invertebrate Survey Report *prepared by Christian Owen Bio-Surveys commissioned by Ecological Services Ltd.* **Dated: October 2022.**
5. Goitre Field School, Merthyr Tydfil. Reptile Survey Report. **Version 3.0. Dated: 13th December 2023.** *Prepared by Ecological Services Ltd.*
6. Goetre Primary School. Arboricultural Report (including Tree Survey Data, Tree Constraints Plan and Arboicultural Impact Assessment, Tree Protection Plan and Arboricultural Method Statement). **Dated: 22nd November 2024.** *Prepared by ArbTS – Arboricultural Technician Services Ltd.*
7. Goitre Field School. Updated Preliminary Ecological Assessment. **Dated 13th December 2023.** *Prepared by Ecological Services Ltd.*
8. Pen Y Dre Solar Farm. Site Green Infrastructure Plan. Drawing number: 2488501 – SBC – 00 – XX – DR – L – 202. **Revision: P03. Dated: Nov 2024.** *Prepared by Soltys Brewster Ltd.*
9. Pen Y Dre Solar Farm. Strategic Landscape Plan. Drawing number: 2488501 – SBC – 00 – XX – DR – L – 401. **Revision: P03. Dated: Nov 2024.** *Prepared by Soltys Brewster Ltd.*
10. Pen Y Dre Solar Farm. Strategic Landscape Plan. Drawing number: 2488501 – SBC – 00 – XX – DR – L – 401. **Revision: P03. Dated: Nov 2024.** *Prepared by Soltys Brewster Ltd.*

COMMENTS

See table below – black text represents comments made at the Pre-Planning Application stage. New comments in green.

Comments	Response	
Trees		
Please can it be confirmed that Tree A (unknown species – please identify) and the tree within G8 (Goat Willow) will remain unaffected by the scheme?	G8 is shown in Document 1 – can Tree A also be highlighted?	
Hedge provision to compensate for the tree loss – this will need quantification in terms of number of trees provided in compensation (3:1 replacement ratio required as per Planning Policy Wales 12).	The Strategic Landscape Plan (dwg no. 2488501-SBC-00-XX-DR-L-401) indicates there will be 657m of proposed native hedgerow planting to the site perimeter. This will compensate for the loss of scrub habitat (to be quantified when the layout etc is fixed). The plan is also proposing 9 no trees to replace the loss of 3no existing trees.	The tables on page 10 of the GIS (Document 3) shows a net loss of scrub habitat of 4237m². The lost scrub habitat (5400m²) being partially compensated for by the addition of a hedgerow (1008m²) with trees (65m²). However, there are other onsite and offsite opportunities for scrub habitat compensation. For example, the area beyond the fence line to the south of the site where an area of scrub is earmarked for removal – see Document 8 – see excerpt below:  The area in red is earmarked for removal (apart from Tree A). This area could be re-instated with scrub. Additionally, the proposed hedgerow surrounding the solar array could be extended and continued offsite to connected up to other nearby areas of woodland/scrub. For example – see yellow lines below:



Another example for compensation would be the treeline along the road to the north – this could be connected up/infilled to form a hedge with trees – see blue line in the plan above.

There may also be other areas in and around the existing school site where offsite compensation in the form of hedgerow could be added and this should be explored.

Grassland

Document 1, page 3, 1.8) “The development proposals will result in the loss of high quality invertebrate habitat.”

Document 1, page 3, 2.3) “The remaining habitats within the site boundary will be retained but are likely to change in their compositions.”

Page 4, 2.5) “The neutral semi improved grassland habitat, which is currently on a slope and exposed to the sun, will remain but will be shaded due to the presence of the PV units.”

How is it anticipated that the PV units change the composition? What will be the likely outcome? How will the

Ecological Services Ltd are of the opinion that the grassland composition beneath the PV cells will change. It is anticipated that species poor semi-improved grassland will likely establish notwithstanding this cannot be 100% confirmed and the exact changes will not be known until operational. The change in species composition or the grassland and lack of sunshine reaching the ground will likely result in a negative impact to invertebrates and grassland diversity. Notwithstanding there will not be a permanent loss beneath the solar panels.

Thanks again to Ecological Services for the clarification. The loss of habitat (due to change in composition) will need to be compensated for. Details regarding how this will be achieved will be required later in the process.

It has been established at the Pre-App stage that “*The change in species composition or the grassland and lack of sunshine reaching the ground will likely result in a negative impact to invertebrates and grassland diversity.*” What is unknown is the level of this impact.

The long-term¹ habitat management, maintenance and monitoring plan [Landscaping, Habitat + Ecology Scheme (LHES)] will need to include monitoring of the retained grassland including monitoring of the invertebrate composition. This will over time reveal the extent of the impact. There will need to be a contingency plan to then compensate for the negative impact. How will this habitat be compensated for? Presumably this will be offsite?

¹ = at least for the lifetime of the development.

loss of habitat (due to change in composition) be compensated for without off-site compensation? What will be the impact on invertebrates?		
Page 3, 2.2) “The amount of permanent habitat loss within the PV array site will be limited to the building compound footprint, access track and parking area around the building compound.” “The amount of direct habitat loss attributed to the PV units is considered to be minimal.”	The permanent habitat loss will need to also include a working area around the building compound, access track, parking area as well as other infrastructure to be confirmed upon completion of overall design and will be included with the GI Statement for full planning application.	Thanks, this will be further evaluated when the GIS has been received.
What proportion of the 1.4ha will be permanently lost? What is the nature of the habitat that will be lost? How will this be compensated for?		This is adequately set out in the GIS.
Logistics/methodology		
Document 1, page 3, 1.8) “Each unit within the PV array will be mounted on a frame secured into the ground using ground screws. Whilst the PV array will not result in a significant amount of overall habitat loss ...”	As discussed likely the most effective way of responding to this comment is with a CEMP. CEMP to be provided ahead of full application.	OK – will review when the CEMP is received.
Although ground screws are to be used to install the PV units, the onsite grassland habitat will need to be disrupted during installation. Installation of the PV units and the perimeter fencing cannot be achieved with zero impact (e.g., how will the ground screws, the framework and the PV units be transported onto the site? What will be the access route?) and, presumably, trenches will be required for cabling/ducting for the PV units and proposed lighting columns.		Is the CEMP available (as discussed at the Pre-App stage)?
This must be a consideration regarding the impacts to ecology.		
Full details regarding the exact methodology needed to install the system must be provided to the commissioned ecologists to enable		

them to make meaningful comments and recommendations.		
Lighting		
Document 1, page 4, 2.8) “The PV array will require some level of artificial lighting for out of hours maintenance work and security. In order to reduce the potential visual and ecological impact of the lighting, any external lighting features proposed for use within the site will be motion activated low level lighting. Ideally no light fixture will be higher than 2m and all light fittings will be downward focused and recessed into a hood or cowl.” Lighting will therefore not be required to be active all the time, but only when out of hours maintenance is required. The lighting should therefore be switched on to undertake the maintenance and then switched off afterwards (rather than having a motion activated system). Only the minimum amount of lighting should be used for the likely tasks. Perhaps the system could be zoned so that only the area that needs to be illuminated is lit up. The boundaries of the site must remain in complete darkness (as per the criteria in the ILP/BCT guidance²) even when the lighting is in operation during maintenance. The proposed bat and bird boxes must not be illuminated and there must be associated dark access routes. A lighting plan will need to be submitted for approval and any proposed lighting will need to conform to the aforementioned guidelines.	Currently in discussion with a lighting manufacturer to arrange a base position survey for ambient light levels for the current situation. This will be available for full submission.	Will review further when the information on lighting is received. The lighting scheme is required for consideration. This must conform to: ○ https://theilp.org.uk/publication/guidance-note-8-bats-and-artificial-lighting/ ○ https://www.gov.wales/sites/default/files/publications/2025-02/dark-skies-guidance.pdf

A lighting professional will need to survey the site to produce onsite ambient light levels for use as a baseline. Illuminance plans for the proposed lighting will be required.		
Cable route		
Have surveys been undertaken along the cable routes? Ecology will need to be considered for these areas also.	The cable routes were subject a cursory walkover with representatives from Morgan Sindall, MTCBC and Ecological Services Ltd. The northern route has not been walked and the cable route for this area will be moved from a soft area to beneath a tarmac footpath. The majority of the cable routes will result in temporary disturbance of well managed semi-improved grassland. Where the route runs into the grounds of Prince Charles Hospital a small amount of hedgerow will need to be removed. Compensation for hedgerow impacts will be required to be agreed.	Further details are required. What mitigation will there be for the disruption to the semi-improved grassland. How will it be re-instated? Will turves and soils be removed and stored to allow rapid re-instatement following the works? Where is the hedgerow to be removed? What are the details of compensation?
Requirements:		
Green Infrastructure Statement (GIS)		
A full and detailed GIS will be required prior to planning determination. PPW 12 states that a GIS should be submitted with all planning applications that: o will describe how green infrastructure has been incorporated into planning proposals (the LHES, see below, should be cross referenced); o must be used for demonstrating how the step-wise approach has been applied; and o should highlight baseline data considered and surveys and assessments undertaken, sustainable drainage statements,	Landscape Architect to note wording and ensure the GIS covers all requirements. We will finalise the GI Statement in due course, when the layout is finalised for submission and we have an accurate indication of GI losses and gains. We understand that the LEMP will be conditioned, so we can reference this in the GI Statement, subject to its production/submission at a later in the process.	The detailed LHES must be provided for a full application. This will inform the GIS. As stated at the Pre-App stage the detailed LHES must be provided for a full application. This is required prior to determination.

landscape and ecological management plans etc. In addition, the policy indicates that the step wise approach is the means of demonstrating the steps taken towards securing a net benefit for biodiversity. The onus is on developers to bring forward proposals in a way that will achieve a net benefit for biodiversity demonstrating how they have used the step-wise approach. The DECCA framework must also be used to demonstrate ecosystem resilience post development. NB each stage of the step-wise approach must be accompanied by a long-term management plan (see below).		
Landscaping, Habitat + Ecology Scheme (LHES)		
No development shall take place (including ground works, vegetation clearance) until a detailed long term Landscaping, Habitat & Ecology Scheme (LHES) has been submitted to and approved in writing by the local planning authority. The LHES must include, but not be limited to, the following: - o Details of retained landscaping/habitat/green infrastructure - o Details of new landscaping/habitat/green infrastructure - o A planting plan - o Long term (at least 25 years) maintenance and management measures for all onsite landscaping/habitat/green infrastructure (both retained and new) - o Details of other ecological measures, e.g., bat boxes, bird boxes, hibernacula, gaps in boundaries for hedgehogs, reptiles etc - o Monitoring post-development for all onsite landscaping/habitat/green	This will be produced and agreed with MTCBC ahead of the formal planning submission based on the experience of other schemes recently submitted.	To re-iterate the comments above - the detailed LEHS must be provided for a full application. This will inform the GIS. See comment above.

infrastructure and other ecological measures o Details of how a net benefit for biodiversity will be achieved within as short a time as possible and be locally responsive and relevant to local circumstances. o Details of the funding mechanisms to meet the maintenance, management and monitoring objectives. o Details of the responsible person/company/body		
Ecological Enhancement		
Having provided evidence in the Green Infrastructure Statement that the step wise approach has been followed, a scheme of enhancements must also be provided to ensure a net benefit for biodiversity. This must include, but not be limited to the stated bat and bird boxes and gaps in the fencing as set out in Document 1. All enhancement measures must be clearly marked on relevant architect plans for the site.	GIS and ecology documents to provide summary of ecology enhancements.	OK, thanks. Again, to re-iterate: All enhancement measures must be clearly marked on relevant architect plans for the site. This must include a reference to wildlife box model numbers. The words “<i>or equivalent</i>” can be added to provide flexibility. The GIS (Document 3) page 8 states: <i>“Provision of bird and bat boxes, hibernacula, and insect houses will further bolster the ecological value of the proposed landscape.”</i> Full details are required, however. For example, numbers, model types, positions etc.
CEMP-B		
A Construction Environmental Management Plan - Biodiversity (CEMP-B) is required.	To be provided as part of the formal Pre-App process	OK, will review when received. Required for consideration prior to determination.
Lighting Scheme		
An internal and external Lighting Scheme is required, which must conform to the latest guidance for wildlife-friendly lighting ² .	Permanent lighting scheme to be provided after the ambient light survey to make an informed design. This will be available at a later part of the planning process.	OK, will review when received. Required for consideration prior to determination.
Precautionary Working Method Statement (PWMS)		
A Precautionary Working Method Statement (PWMS) for protected species is required.	To be provided as part of the formal Pre-App process	OK, will review when received. Required for consideration prior to determination.