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Biodiversity Strategy

PROJECT TITLE: Proposed PV Array Development
SITE ADDRESS : Land off Goitre Lane, Gurnos, Merthyr Tydfil CF47 9SA

DATE: 2nd August 2024

1.1) Planning Consent is being sought for the development of a parcel of land off Goetre Lane, Gurnos, Merthyr Tydfil CF47 9SA. The development proposals seek to create a PV array school within a parcel of land centred at SO 05149 08284. The boundary of the development site is not defined when on site but a site boundary map is provided within Appendix 1 of this report. Cabling will be laid to allow the electricity the PV array generates to be sent to Pen Y Dre High School, a new primary school to be built to the south west of the array and to Prince Charles Hospital.

1.2) Habitats within the site boundary include worn footpaths, neutral semi improved grassland, scattered trees, stand of Japanese Knotweed and marshy grassland.

1.3) A Preliminary Ecological Assessment of the PV Array compound was completed by Ecological Services Ltd in September 2021, July 2022 and July 2023. Data searches, via Aderyn, were undertaken in 2021, 2022 and 2024. The site does not lie within or adjacent to any statutory protected sites. The whole of the proposed development site lies within a B-Line, a local non-statutory protected site.

1.4) Reptile surveys were undertaken by Ecological Services Ltd during August/ September 2022 and August/September 2023, No reptiles were found to be present within the site during either survey period. A negative survey result does not guarantee absence of reptile species, therefore a precautionary approach in respect of reptiles must be undertaken.

1.5) An Arboricultural Report was completed by ArbTS in November 2024. Three trees and six tree groups are present within or adjacent to the PV array site. These trees are T6, T7, T8, G6, G7, G8, G9, G10, G11. An additional tree, referred to as Tree A was also noted during the bat tree survey work as being potentially affected. Additional Tree A has an approximate grid reference of SO 05141 08193 and is located on the eastern boundary of the site, further east than the G6 scrub line.

1.6) Each tree within the development site and wider boundary was subject to a Ground Level Tree Assessment (GLTA) for their potential to be used by roosting bats. Trees T6, T7, T8 and tree groups G6, G7, G9, G10 and G11 were classified as having **NONE** bat roost suitability. Additional tree A and a tree within G8 were assessed as having PRF-i bat roost suitability. Both trees will be retained during the proposed development works and therefore no further work has been recommended.

1.7) An Invertebrate survey was also undertaken by Christian Owen Bio-Surveys in August 2022. The results of the invertebrate surveys indicate that the development site and surrounding land are important for a number of scarce and local invertebrate species and clearly provides suitable habitats for a wide range of invertebrates. The survey found that the conservation value to invertebrates is not evenly distributed across the site, with the areas considered to be of greatest conservation value to invertebrates identified in the map below, taken from Invertebrate Survey Report, dated October 2022, v1, prepared by Christian Owen Bio-Surveys.

Map 4: An aerial view showing key habitats and areas considered to be of greatest conservation value to invertebrates at Goitre Field (outlined in black). Image © Google 2022.

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, the ground beneath each unit will be shaded and the habitat composition is likely to change from the currently present. A single compound building and area of hardstanding to access the building will be required as part of the development proposals. The development proposals will result in the loss of high quality invertebrate habitat.

1.9) The PV array will require the removal of G6 and T6 and an amount of woody scrub habitat around T6. This work has already been undertaken following a method statement and under ecological supervision during February 2024 to take account of bat, reptile and bird nesting considerations within the site. The majority of habitat within the proposed PV array location is considered to be neutral semi improved grassland.

2. Biodiversity Strategy

2.1) The proposed development area is understood to be approximately 1.4ha in size. The development proposals seek to create a PV array, building compound, access road and parking area around the building compound, security lighting and a 3m high weld mesh fence around the permitter for security.

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. Each PV unit will be mounted on a frame and fixed to the ground using ground screws. The amount of direct habitat loss attributed to the PV units is considered to be minimal.

2.3) The remaining habitats within the site boundary will be retained but are likely to change in their compositions. A detailed landscape plan is not available at present, however an indicative landscaping proposal has been provided. It is not anti-acted that any access track around the site for machinery will be required.

2.4) G6, T6, G7, T8 and an expanse of woody scrub have been removed to facilitate the PV array construction and security fencing. This habitat loss will be compensated via the

creation of a native species hedgerow around the perimeter of the site and the provision of 14-16 trees along the north eastern boundary of the site..

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. Long term management of the grassland habitat will be secured via a site management plan and it is anticipated that Merthyr Tydfil County Borough Council (MTCBC) will undertake all on site habitat management work.

2.6) Design team discussions have been undertaken on how the grassland habitat should be managed in the long term. Grazing will not be practical for the site due to issues with grazier access and maintenance access and potential damage of PV units. The most practical way to manage the grassland on site is considered to be via low intensity annual mowing with all cuttings collected and moved to an agreed compost location with the site boundary or offsite.

2.7) The PV array will require maximum sun exposure therefore tree planting within the site boundary is not considered viable. Instead a native species hedgerow will be planted and managed at a maximum height of 2m. The aim will be to create a dense ‘A’ shaped hedgerow approximately 2m wide at the base with sufficient space to allow management access for cutting. The hedgerow will be cut during the winter months of November to February inclusive once established.

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

3.Biodiversity Enhancements

3.1) It maybe possible to provide bat and bird boxes within the new building compound. The exact design of the compound has not been finalised but effort will be made to include

at least one bat box and bird box within the building. The exact location and specification of each box will be agreed and added to architectural drawings.

3.2) All fencing on site will provide mammal gaps. Close board, post and wire and metal mesh fencing will either provide a continuous gap of 20cm between the ground and base of fencing or will cut 20cm x 20cm gaps every 3m along the fencing.

Best Wishes

Ash Harris
Director
Ecological Services Ltd

Signed: *Ash Harris* ***Date: November 2024***

Reference List

- Ecological Services Ltd (dated 13th December 2023) *'Updated Preliminary Ecological Assessment: Goetre Field School) V3.0*

- Ecological Services Ltd (dated 13th December 2023) *'Reptile Survey Report; Goitre Field School, Merthyr Tydfil)* V3.0

- Ecological Services Ltd (dated November 2024) *'Bats & Trees Survey Report; PV Array Site)* V2.0

- Christian Owen Bio-Surveys (dated October 2022) *'Invertebrate Survey Report; Goetre Field - Merthyr)*

- ArbTS (22nd Novemebr 2024) ' Arboricultural Report including: Tree Survey Data & Tree Constraints Plan, Arboricultural Impact Assessment, Tree Protec8on Plan and Method Statement'

Appendix 1 - Development Site Boundary

Proposed Site Layout - PV Array
1 : 500