Date: 03 January 2024

To:
(by email only)
Charlotte Watkins
Lead Ecology Officer
Cherwell District Council

Cherwell District Council Ecology Officer's response to Padbury Brook Solar Farm (ref 22/03873/F) received 28th December 2023.

Further to the above response to the Padbury Brook Solar Farm planning application (planning ref 22/03873/F), please find below responses to the comments raised. This covers two key themes:

1. Adoption of a District Level Licence (DLL) for Newts

2. Provision of the BIA Metric

Introduction

As the developer of this project, and a trained ecologist and member of the Chartered Institute of Ecology and Environmental Management (CIEEM), ecology is always at the forefront of every project I work on. Coming from a wildlife conservation background, preservation of the natural world and its protection is one of my primary goals when designing such sites.

The Padbury Brook Solar Farm has been designed to maximise wildlife opportunities, and create large areas of habitat on previously intensively farmed land, which is subject to ongoing pesticide use, in addition to nitrate and phosphate based fertilisers. The farm, should it be granted permission, would be converted from this, into a largely undisturbed habitat. Solar farms create this potential due to the limited need for ground disturbance (only around 1% of the site) resulting in minimal impact, the opportunity to create large areas of habitat within the panelled area, and the fully reversible nature of the development. Due to the considerable spacing between rows of panels implemented on the site (4-5m), shading is minimised, and allows a quality, habitat aid grassland (sown at 4g/m2) to form underneath, and in between the panelled areas.

Should the site be consented, over 10 acres of dedicated wildflower grassland (comprising EM2) would be created around the site, including adjacent to the Oldfields Copse where there is a 15m buffer to any development, and in the 5m field margins which are left clear of development across the wider site. This will serve as a crucial habitat for pollinators and insects, a key species that are at risk in the UK from pesticides, and key food species for bats using the site. Additionally, over 2.4km of new native hedgerow/tree planting would occur, with the protection of all trees on-site, and minimal hedge removal required. Additionally, the panelled area, comprising around 130 acres, would be planted with and preserved as grassland, with low intensity sheep grazing to maintain the grounds – a low impact, environmentally conscious form of grassland management. All of this would culminate in a biodiversity net gain of over 215%, more than 21x the statutory requirement set out in the Environment Act 2021. This considerable habitat creation would be a significant asset to local biodiversity and wildlife, and would only be brought about by the creation of the solar farm. Additionally, around 40 bird boxes would be strategically placed across the site, alongside hibernacula, insect hotels and bee hotels. The opportunity to create such a considerable asset to local

wildlife does not present often, and can only come to fruition should the site move ahead. This is supported by a number of studies undertaken in recent years[1][2][3].

Climate change poses the single biggest threat to the UK's nature and biodiversity, with the climate crisis the cause of a modern-day ecological crisis. Should it be consented, the Padbury Brook Solar Farm would have a considerable, positive environmental impact. It would save over 1.3 million tonnes of CO2 over its lifetime compared with generation from fossil fuels, equal to the carbon savings of planting over 21 million trees[4].

Newt District Licence

We can confirm that we have applied for a NatureSpace District Level Licence (DLL), and will forward on the applicable conditions to apply to any potential forthcoming planning permission as soon as they are made available to us.

Provision of BIA Metric

Please find this attached.

Other comments raised

Grass seed mix to be used

Following comments made by BBOWT over the type of grass mix to be used, we have opted to use a *Habitat Aid* grazing mix as opposed to a standard grazing mix. We welcome your comments acknowledging that a change of use from monocultural, intensively farmed arable land subject to chemical inputs, to preserved grassland would represent an improvement for local wildlife.

Provision of mammal gates

With any solar farm there is a need to secure the site to ensure its continued un-interrupted operation. Whilst older solar sites opted to use steel (or similar) palisade steel security fencing, as seen commonly in more urban settings, we have opted to use a wooden post deer fencing, commonly found in the countryside setting on farms and allotments alike. This, more aesthetically appropriate, form of fencing, would be equipped with mammal gates at regular intervals throughout the fence line to ensure continued, unimpeded access for small mammals to forage and nest within the grassland meadows of the solar farm. These gates would be checked by a trained professional alongside the wider ecological and landscape improvements across the site throughout the site's operational life to ensure they are in working order and not subject to malfunction.

Buffer from ancient woodland and lighting on site

A 15m buffer from any development from the Oldfields Copse ancient woodland will be implemented and planted with a diverse wildflower grassland mix (EM2). This will ensure that the development is not only in line with DEFRA guidelines with regard to offsets to development from ancient woodland, but will also offer potential benefit to foraging species living within the Copse, as opposed to the current low value arable land that is adjacent. Further to this, the creation of 2.4km of new native hedgerow/tree planting across the site, including adjacent to the Copse, in addition to the loss of no trees and the protection of all RPAs on-site, will result in the increased interconnectivity of linear habitats across the site, complimenting and improving those that exist already. There will be no

[1] H. Montag, G Parker & T. Clarkson. 2016. The Effects of Solar Farms on Local Biodiversity; A Comparative Study. Clarkson and Woods and Wychwood Biodiversity.

[2] Solar Trade Association (2019). The Natural Capital value of solar. Eds N. Gall and E. Rosewarne.

[3] Solar Energy UK (2022). Natural Capital Best Practice Guidance report.

[4] US Environmental Protection Agency (EPA) 'Greenhouse Gas Equivalency Calculator' 2023 https://www.epa.gov/energy/greenhouse-gas-equivalencies-calculator#results

deterioration or loss to any protected sites, with a considerable improvement expected with regards to habitat creation as a result of the proposals.

No permanent lighting is proposed on site during construction, nor operation.

Conclusion

Overall, as a result of a wildlife centric design being adopted, a formerly intensively managed monoculture arable holding will be converted into a preserved, high-quality habitat free from anthropogenic pressures, benefitting from the cessation of the use of pesticides and fertilisers across the site. This large grassland/wildflower meadow habitat (occupying over 95% of the site) will offer fantastic foraging opportunities for local bird and mammal species, result in considerable habitat creation for local pollinators, and result in no loss of any trees on-site (with the planting of over 2.4km of new native hedgerow/trees). The provision of bird boxes, insect hotels and reptile hibernacula across the site will further enhance the site's ability to benefit local wildlife. This will all culminate in a significant 215% biodiversity net gain, well in excess of Cherwell's previous no net loss policy and the 10% net gain target adopted in the Environment Act (2021). As such the site accords with policy ESD 10 of the Cherwell Local Development Plan, and conflicts with no national or local policy with regards to wildlife or biodiversity.

Yours sincerely,

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