# Advice Note – Post-development habitat creation and enhancement measures on solar farm sites for the purposes of Biodiversity Net Gain (BNG)

## South Yorkshire Councils (Barnsley, Doncaster, Rotherham and Sheffield) position

### Purpose of this advice note

This advice note aims to provide a consistent approach to realistically achievable habitat creation and enhancement measures proposed on solar farm sites across the county of South Yorkshire and how this is translated within Biodiversity Net Gain (BNG) calculations. This is in line with Principle 7 of the Biodiversity Metric used for BNG calculations, which states that habitat interventions need to be realistic and deliverable within a relevant project timeframe.

### Published guidance

Evidence used to inform this advice note is taken from the following sources:

- UKHab Briefing Note: Definition and Use of 83: Solar Panel Array (Consultation Draft), November 2025
- Solar Habitat 2025: Ecological trends on solar farms in the UK, Solar Energy UK

The UKHab Briefing Note states the following in relation to mapping solar panel arrays:

*When viewed from above, the impermeable photovoltaic panels in a solar array are best described as the UKHab habitat type u1b6 83 532: Other developed land, Solar panel array, Scattered grass. This combination of UKHab codes seems broadly appropriate for many baseline conditions observed in UK solar farms. UKHab's definition was written to ensure that the typically grassland habitats (UKHab g~) between rows within a photovoltaic array did not get "lost" through classifying all the land within a solar array as the urban ecosystem (u1b6: Other developed land); recognising that large areas of grassland remain intact under a typical solar array design in the UK.*

In line with the above, it is appreciated that vegetation can persist beneath solar panels; however, habitats proposed in these parts of a new solar farm need to be realistically achievable. Consideration must be given to the altered microclimate likely to be created through the installation of solar panels through shade, rain shadow, etc. and disturbance, through maintenance works, of habitats in proximity of solar panel arrays.

Solar UK Energy published the findings of ecological monitoring surveys carried out in 2024 at 124 existing solar farm sites, representing 11% of sites across the UK. Botanical surveys were undertaken of grassland habitats on these sites with data collected from 2146 quadrats. Quadrat information was collected from different areas of the solar

farms, including beneath solar panels, within the rows between solar panels, outside of the main footprint of the solar panels and in areas managed/enhanced for biodiversity.

Average plant species richness recorded beneath solar panels was < 4 species and ≤ 6 species recorded between panels, with species richness increasing at the margins and outside of the arrays and in areas where biodiversity enhancement works have been undertaken.

**South Yorkshire planning ecologist's stance**

On the basis of the above evidence, it is agreed that post-development habitats proposed beneath and between solar panels and input within the post-development tab of the biodiversity metric, be habitats of low distinctiveness, such as modified grassland, bare ground and ruderal/ephemeral vegetation. The data published by Solar UK Energy indicates that habitats beneath and between solar panels cannot be assigned a higher distinctiveness habitat, i.e. other neutral grassland. When referring to the UK Habitat Classification guide in relation to this habitat, criterion 2 is a neutral grassland with >8 species per m2. The Statutory Biodiversity Metric condition assessment sheet for grasslands of low distinctiveness also states that where 9 or more characteristic species per $m^2$ are recorded (excluding those listed in Footnote 1 of the sheet), grasslands can then be classed as a medium or higher distinctiveness habitat. The Solar Energy UK document indicates that the most frequently recorded plant type within the solar farms surveyed was grass species, while the most frequently recorded broadleaf species were creeping buttercup *Ranunculus repens*, creeping thistle *Cirsium arvense* and white clover *Trifolium repens*. These species are all listed within footnote 1 of the condition assessment sheet as sub-optimal species of medium and higher distinctiveness grasslands, providing further justification that higher-distinctiveness habitats beneath or between panels are not realistically achievable.

A condition of poor should be assigned to habitats below panels, with a higher condition potentially accepted for habitat between the panels depending on distance between panels, proposed management and predicted levels of disturbance through maintenance. Robust justification would have to be provided where a condition of moderate or higher is proposed.

Where there are blocks of solar arrays, 10% of the area beneath the panels should be input into the metric as built structure, allowing for supporting structures and footings.

It is encouraged that habitats proposed beyond blocks of solar panels include those more beneficial to biodiversity and aim for higher distinctiveness habitats of a higher condition. Again, consideration of principle 7 of the metric needs to be given and habitats should be realistically achievable, with justification for habitats proposed based on environmental conditions, habitat requirements and deliverability of future management.