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Long Term Ecological Monitoring of Large Scale Solar Parks in the UK

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There is currently a total of 750 large scale solar parks (>5MW) in the UK, with an installed capacity of approximately 7.3GW; this is likely to cover an area of land of around 14,500 ha. While the planning process for such developments is currently geared towards increasing biodiversity gain, there remains a large discrepancy between the way that solar farms are managed and the actual ecological enhancement achieved. With large scale solar parks being a critical part of meeting the targets within the Paris Agreement, it becomes increasingly important to understand how the construction of solar parks impacts local wildlife, where biodiversity net gain can be achieved and the obstacles in the way of maximising this biodiversity net gain.

This talk offers a perspective from a practitioner's point of view; Clarkson & Woods have carried out ecological monitoring of over 100 operational solar farms since 2016, and have collated an extensive database of botanical data from operational solar arrays. We will present this botanical data based on over 2,000 recorded botanical quadrats and look at how various factors affect botanical diversity including land management approach, age of array and location of quadrat. A discussion of some of the obstacles and potential solutions to maximising biodiversity net gain will be presented based on our knowledge of solar farms in the UK.