

Blog: Nature Positive solar - indicators and opportunities

Why Nature Positive solar matters

Nature Positive solar is about developing new approaches to the operation and management of solar energy projects that have benefits for nature and ecosystems, while also creating attractive opportunities for investors who want to do what's right for the planet and meet policy requirements.

The idea of nature-positive solar is generating increasing interest across the solar value chain. Ecologists and solar site managers want to know how they can manage solar assets in the best way for nature, perhaps enhancing grassland species or pollinator populations. Solar asset managers want to improve nature across a portfolio of different sites and know how to best present this for ESG reporting. Investment banking and management firms need to be able to show their clients that investing in nature can deliver good and reliable returns.

There are also powerful policy pressures at work in relation to nature-positive solar. The Kunming-Montreal Global Biodiversity Framework (GBF), which has been adopted by the UN Convention on Biological Diversity, aims to halt and reverse biodiversity loss by 2030 and achieve recovery by 2050. In this context, disclosures by business and industry on the impacts of their activities on nature are increasingly being incorporated into sustainability reporting frameworks. Nature-related disclosures are currently voluntary but are likely to become mandatory across the globe in the future.

Within the UK, there are also strong policy drivers for these changes. Alongside ambitions to increase the growth rate of the economy, there are targets of 1.5 million new homes by 2029, carbon net zero by 2050 and halting species decline by 2030. This means the UK faces difficult choices over how best to use its land, as discussed in the recent Defra Land Use Consultation for England. More complete recognition of the true value of nature through nature markets is viewed by government as a way of scaling up private investment in nature, whether through voluntary nature credit markets, regulations and compliance, or legislative means, such as Biodiversity Net Gain.



Piran White

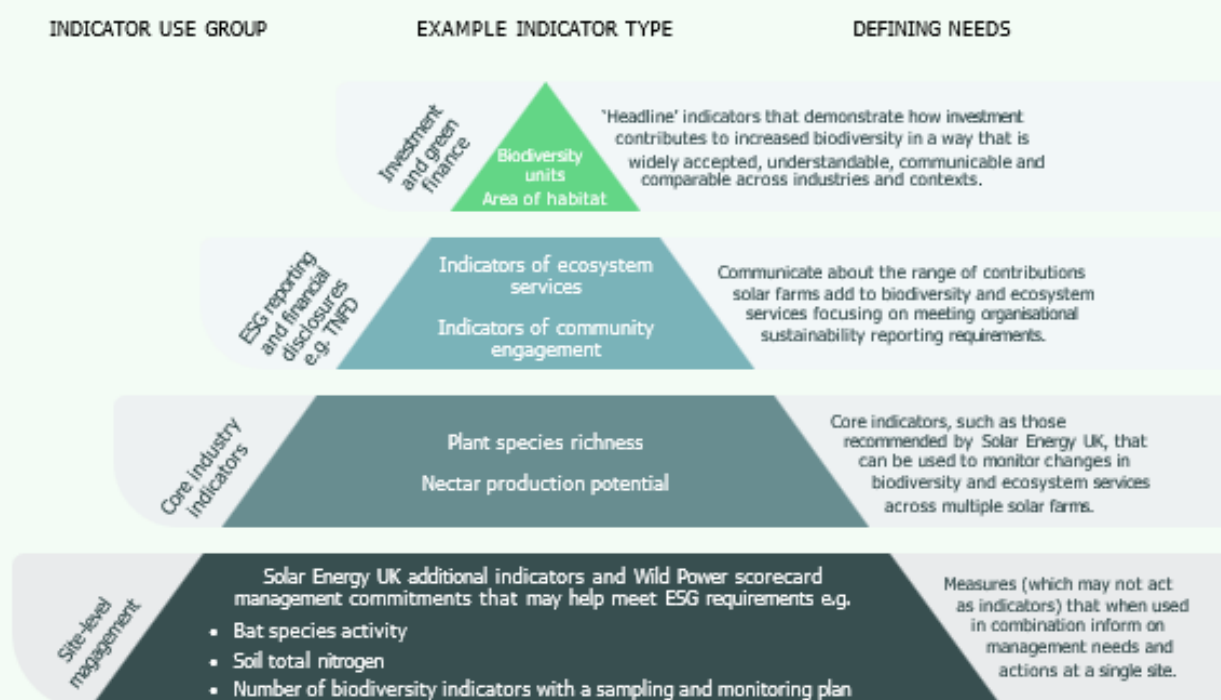
Professor of Environmental
Management at the University of York



The development of a Nature Positive solar approach

We have been working to develop a range of indicators and metrics that meet the needs of different parts of the solar value chain. The indicators best-suited to reporting on management outcomes at site-level are different from those needed for nature-related financial disclosures or strategic reporting to investors. But, however they are applied, all indicators and metrics need to meet standard criteria for good indicators. They need to be **standardised, representative, auditable and well-suited to showing trends over time**. In addition, indicators to be used in financial disclosures must be suitable for **scaling up over a portfolio of assets**.

We produced a hierarchy of potential indicators based on their use group and defining needs (see below diagram). The diagram includes indicators that are well suited to the monitoring and reporting of Nature Positive actions at individual solar farms, which map well onto existing disclosure frameworks and are also suitable for scaling up. These include area of habitat, habitat connectivity, number of biodiversity units, plant, bee, butterfly and bird species richness and soil carbon. Indicators which are still robust but are better suited to site-level reporting and monitoring include soil carbon and nitrogen, soil organic matter, and bat species activity. This helps us to match different stakeholders with indicators best suited to their needs:



The main ways that solar stakeholders use indicators for the monitoring and reporting of Nature Positive solar investments.

What's Next?

We are now working to build on this understanding. We need to know more about how indicators around biodiversity and ecosystem services are being used in the solar industry for nature-related disclosures. We need to find out whether the most appropriate indicators are being used, and whether there are any unforeseen tensions between indicators used for reporting and those that provide the best insights into real Nature Positive changes on the ground.

There are also bigger challenges. We need to explore how these and other indicators can best support decisions on biodiversity value and disclosures in the solar value chain. For example, can they help us to move from generic reporting to more useful regional or company-level reporting? And we also need to know whether the same approach to indicator development can be used across the life cycle of solar resources, from extraction, through manufacturing and use, to end-of-life. This will be key to helping us understand the real biodiversity impacts of the industry and develop more accurate ways of quantifying nature-related risks and Nature Positive opportunities from solar.



[Read more information in our report](#)

