

IUCN AND TBC GUIDELINES ON MITIGATING BIODIVERSITY IMPACTS ASSOCIATED WITH SOLAR AND WIND ENERGY DEVELOPMENT

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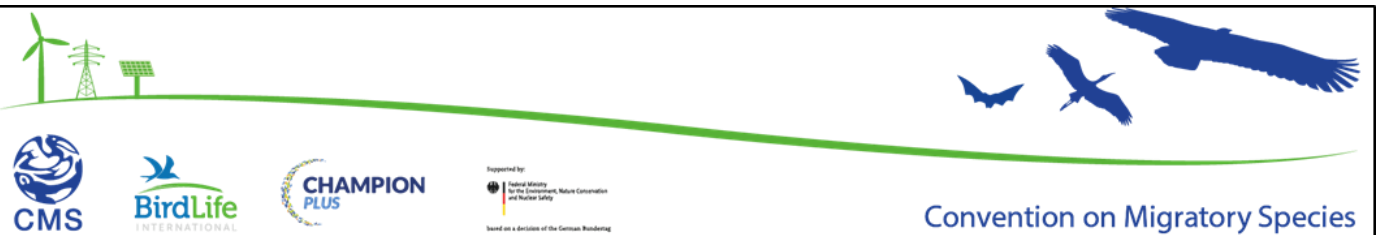


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IUCN has partnered with Électricité de France (EDF), Energias de Portugal (EDP) and Shell Group to promote the application of the mitigation hierarchy and best available measures to reduce biodiversity impacts associated with solar and wind power (on-shore and off-shore) projects. In collaboration with The Biodiversity Consultancy, industry guidelines are being developed that provide practical support for solar and wind energy developments on effectively managing risks, and improving overall outcomes, related to biodiversity and ecosystem services. The guidance is project-focused and looks across the whole project development life cycle, from early planning through to decommissioning and repowering. It uses the mitigation hierarchy (avoid, minimise, restore and – where necessary – offset impacts) to provide a clear framework for planning and implementation.

The objectives of the guidance are to:

1. Serve as an integrated and practical reference source that presents good practice approaches to manage impacts on biodiversity and ecosystem services;
2. Highlight the importance of avoiding impact through project siting, and the role of wider spatial planning in underpinning this;
3. Bring together knowledge derived from industry experience, experts in relevant fields and the current scientific literature, while recognising the knowledge gaps relating to both impacts and the effectiveness of mitigation measures; and
4. Consolidate information on existing resources relevant to good practice, where readers can find additional detailed information (in an Annex).

The structure of the guidelines comprises:

- An introduction to the importance of reconciling biodiversity, ecosystem services and renewable energy, and an outline of the scope, purpose and use of the guidelines.
- An introduction to the mitigation hierarchy, which provides the overall framework for presenting good practice approaches to managing the impacts of wind and solar developments on biodiversity and ecosystem services.
- An explanation of the importance of early planning, and the tools and approaches that can be used to inform the first step (avoidance) of the mitigation hierarchy. This applies to all solar and wind technologies.
- An Examination of the potential impacts and mitigation approaches for each of the technology types in turn: solar (both PV and CSP), onshore wind and offshore wind.
- A review of issues that are general to all the technology types, including the principles and practical considerations for designing and implementing offsets that compensate for residual project impacts.
- An explanation of the considerations and good practice approaches for assessment, monitoring and adaptive management, signposting more detailed guidance relevant to specific technologies.
- A review of the issue of supply chain stewardship, and how projects can reduce the embedded impacts of materials.
 - A summary of key project outputs required for aligning with good biodiversity management over the project lifecycle, including for ESIA, and key additional sources of guidance and information for each of these.

The guidance is primarily focused on the needs of businesses in the solar and wind energy sectors, including project developers, investors and operators. The material will also be relevant to government planners in the energy and power sector, other government agencies and non-government organisations working in nature conservation. For governments, incorporating the good practice approaches, outlined in the guidance, in national policy and practice, including appropriate spatial planning exercises, can help to support countries' national conservation targets and commitments under international agreements (for example, the Convention on Biological Diversity, Convention on Migratory Species and Convention on Wetlands).