

POSITION STATEMENT

The effect of Concentrated Solar Power (CSP) tower facilities on birds

PROBLEM STATEMENT

Concentrated Solar Power (CSP) tower facilities use an array of flat, movable mirrors (heliostats) to generate power by focusing the sun rays upon a collector tower. CSP facilities can produce reliable clean energy, and usually include energy storage which means power can be released to the grid when the sun is not shining. However, CSP tower facilities can pose potentially significant threats to birds, including injury or mortality through collision with heliostats; collision and electrocution by associated power lines; burning if birds fly through concentrated areas of solar energy (solar flux), and through destroying or degrading their habitats and displacing or disturbing sensitive species.

BIRDLIFE SOUTH AFRICA POSITION STATEMENT

BirdLife South Africa supports the responsible development of CSP facilities. We recognise the need to generate power that is clean and does not contribute to greenhouse gas emissions. At the same time, we acknowledge that CSP tower facilities could be hazardous to birds and their habitats.

BirdLife South Africa's position is aligned to resolutions and guidelines adopted Multilateral Environmental Agreements (e.g. Convention on the Conservation of Migratory Species of Wild Animals and the African-Eurasian Migratory Waterbird Agreement) which recognise the need to ensure that renewable energy developments are undertaken in harmony with nature.

Siting is key to reduce the potential negative impacts of CSP tower facilities on birds. BirdLife South Africa recommends that developers consult with bird specialists, conservation NGOs, and government officials in the early stages of planning, to help identify suitable areas for development. CSP tower facilities should be located outside Protected Areas, Important Bird and Biodiversity Areas and other important nesting, roosting and foraging sites of nationally threatened, endemic or near-endemic and migratory bird species.

If the large-scale development of CSP tower facilities becomes a priority for South Africa, BirdLife South Africa recommends that a Strategic Environmental Assessment (SEA) is undertaken to assess the opportunities and risks, including cumulative risks, for the region.

Site-specific Environmental Impact Assessment (EIA) is necessary to ensure potential impacts are understood and options for mitigation and monitoring are identified. EIAs for CSP tower facilities must include an avifaunal impact assessment that is conducted by a qualified and experienced avifaunal specialist, and informed by the latest international literature and guidelines, including BirdLife South Africa *Best Practice Guidelines for Assessing and Monitoring the Impact of Solar Power Generating Facilities on Birds in Southern Africa*. Surveys should be timed to ensure the full annual cycle is and must include the wet and dry season.

EIAs must consider the potential cumulative impacts within a biologically meaningful area. All projects that have environmental approval should be included in the assessment, with impacts considered over the lifespan of the facilities.

Applications to amend and/or renew of environmental authorisations for CSP tower facilities must include an assessment by a bird specialist to determine if the receiving environment has changed, and to revisit, and if necessary update, the mitigation strategy.

The impacts of operational CSP tower facilities on birds should be monitored according to BirdLife South Africa's Best Practice Guidelines, including for projects where this is not a condition of environmental authorisation. Operational phase monitoring should commence as soon as the facility becomes operational and continue for a minimum period of 2 years.

If significant impacts on birds are recorded, voluntarily mitigation (as required by the Duty of Care to the environment) should be implemented. The effectiveness of this mitigation must be monitored and if necessary, the Environmental Management Programme updated.

A culture of shared-learning is encouraged – monitoring reports should be widely available, results should be published in peer-reviewed scientific journals, raw data made available for further analysis, and data submitted to databases such as the Southern African Bird Atlas Project 2 (e.g. by logging sightings using the BirdLasser application).

For more information, and to download BirdLife South Africa's above-mentioned guidelines, visit www.birdlife.org.za or email energy@birdlife.org.za

See the Convention on the Conservation of Migratory Species of Wild Animals' (CMS) Energy Task Force (www.cms.int/en/taskforce/energy-task-force) for relevant international guidelines and resolutions adopted by the CMS and African-Eurasian Migratory Waterbird Agreement.