Birds Queensland

A business of
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29 Sept 2023

Andrew Dyer
Australian Energy Infrastructure Commissioner

cereview@dcceew.gov.au

Dear Mr Dyer

RE: Community Engagement Review Discussion Paper – Renewable Energy Infrastructure

Birds Queensland welcomes the opportunity to comment on the *Community Engagement Review Discussion Paper* on renewable energy infrastructure. Birds Queensland (the Queensland Ornithological Society Inc.) is a non-profit organisation that aims to promote the scientific study and conservation of birds.

Birds Queensland supports the transition towards renewable energy. The development of clean energy helps to reduce greenhouse gas emissions and contributes to tackling climate change. The current extinction crisis as a consequence of climate change and habitat destruction is putting birds under immense pressure. Many species have already become extinct or are identified as vulnerable or threatened. A shift towards renewable energy will help to stem this extinction crisis.

Renewable energy development can co-exist with preserving Australia's environment. We need renewable energy, but it must be delivered in a way that avoids negative impacts and is not detrimental to nature. Solar and wind energy installations can negatively impact birds and must be planned and developed with mitigations derived from an Environmental Impact Assessment (EIA). Birds Queensland advocates that the development approval for solar and wind farms should require an EIA that considers the points raised below in order to minimise biodiversity impacts, specifically in relation to birds.

Solar Farm Development

Utility-scale solar energy installations can impact birds through the alteration of habitat and collision with the solar panels. Poorly designed installations can create hazards for birds. The extent of these impacts is not well understood and requires a greater understanding of the impacts and opportunities for mitigation. Solar installations must not occur in areas that provide habitat for endangered or vulnerable birds.

Large scale solar installations have the potential to destroy or degrade significant areas of natural habitat. Habitat destruction can occur during the construction of the solar infrastructure, power lines and associated roadways. Collision mortality is not well understand. Reflective surfaces on solar panels pose a risk of collision comparable with the high collision rates reported for glass in buildings. There is also the potential for waterbirds to mistake the large arrays of solar panels as open water.

The EIA for a proposed solar energy installation needs to consider the avifauna in the area, particularly for endangered and vulnerable species, as well as proximity to flyways and important habitats. The design must consider mitigations for the identified impacts with subsequent monitoring to assess the effectiveness of the mitigations. The solar energy installation should not

proceed if the EIA identifies risk to endangered and vulnerable bird species.

Wind Farm Development

Wind energy poses a hazard to birds through injury or death from collisions with the wind turbine blades. The construction can result in habitat destruction and the infrastructure can create a barrier to movement. Species likely to be most vulnerable are raptors, large terrestrial species and migrating birds.

The main mitigation will be to understand the bird movements in the area and to select a site that will avoid areas that have a high collision risk. The height of the turbine blades should also be designed to minimise collisions with bird species recorded in the area. Some birds such as raptors are still likely to be vulnerable. Attention needs to be paid during the construction phase to avoid destruction of habitat and wildlife corridors that provide important roosting and nesting sites for birds.

As discussed for solar energy, the EIA for a proposed wind energy installation needs to consider the avifauna in the area, particularly for endangered and vulnerable species, their flight paths and important habitats. Assessment of the proposed turbine site needs to identify the bird species at risk of collision with the turbine blades. The design must consider mitigations for the identified impacts with subsequent monitoring to assess the effectiveness of the mitigations. The wind energy installation should not proceed if the EIA identifies risk to endangered and vulnerable bird species. Wind turbines should only be built outside of important migratory routes and flight paths of birds.

Birds Queensland encourages further research into technology solutions that will minimise the likelihood of bird collisions with wind turbines. This may include turbine characteristics (shape, colour) and technical solutions that can temporarily shut down turbines if a collision risk is detected for high risk bird species.

Yours faithfully

Gary Morris

Conservation Officer, Birds Queensland

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