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Javier Canon
Senior Environmental Assessment Officer
Planning and Assessment Group
Javier.Canon@planning.nsw.gov.au

Dear Javier

Birriwa Solar and Battery Project – Environmental Impact Statement

Thank you for your e-mail dated 12 October 2022 to the Biodiversity, Conservation and Science Directorate (BCS) of the Department of Planning and Environment (DPE) inviting comments on the Environmental Impact Statement (EIS) for the Birriwa Solar Farm.

BCS has reviewed the Biodiversity Development Assessment Report and Environmental Impact Statement and provides biodiversity recommendations in **Attachment A** and detailed comments are provided in **Attachment B**. Bilateral Assessment and Data Requirements have also been attached to this response in **Attachment C**.

If you require any further information regarding this matter, please do not hesitate to contact Ben Ellis, Principal Project Officer, via ben.ellis@environment.nsw.gov.au or (02) 8275 1838.

Yours sincerely



Liz Mazzer
A/Senior Team Leader Planning North West
Biodiversity, Conservation and Science Directorate

31 October 2022

Attachment A – BCS's Recommendations

Attachment B – BCS's Detailed Comments

Attachment C - Bilateral Assessment Information and Data Requirements

BCS's recommendations

Birriwa Solar Farm – Environmental Impact Statement

Recommendations

- 1.1 Clarify that all development components, which will result in loss of biodiversity values, have been included within the development footprint and are reflected in the BDAR, including asset protection zones and firefighting access requirements. 2.1 Justify the reasoning behind excluding lower quality habitat within the site as potential habitat for disturbance resilient threatened flora species. Alternatively, conduct further targeted survey within unsurveyed habitat or obtain an expert report.
- 3.1 The BDAR should describe and justify how non-native vegetation has been determined in the subject site.
- 4.1 When determining credit staging for the project, either:
 - a submit two separate BAM-C cases which align with each of the proposed credit retirement stages, or
 - b Split the vegetation zones into separate vegetation zones i.e., PCT 281_Pasture_Stage 1 and PCT_281_Pasture_Stage 2
- 4.2 If approved, the consent for the project should include a condition specifying the plant community types, zone and biodiversity credits to be retired for each stage of the development.
- 5.1 Note that additional information may be required if the project is determined to be a controlled action under the EPBC Act, and refer to the guidance document provided in Attachment C.

BCS's detailed comments

Birriwa Solar Farm – Environmental Impact Statement

1. The inclusion of bushfire protection considerations should be clarified in the BDAR

BCS notes that asset protection zones (APZs) have not been included within the key components detailed within Section 1.2 of the BDAR. The Bushfire Risk Assessment prepared for the proposal identifies that a minimum ten-metre APZ will be required for all infrastructure associated with the project. It also states that access roads, internal roads and alternative egress should provide unobstructed access for a Cat 1 firefighting vehicle. It is unclear if these requirements have been accounted for in the BDAR.

Clearing for the APZ may include:

- A fuel free area to be comprised of sand, gravel etc
- Grass to be kept short and mown / maintained to a height of < 10 cm
- Removal of trees, pruning of trees, and thinning of the tree canopy

All development components which will result in loss of biodiversity values, must be accounted for in the development footprint and calculated in the total direct impact required for the project.

Recommendation:

1.1 Clarify that all development components, which will result in loss of biodiversity values, have been included within the development footprint and are reflected in the BDAR, including asset protection zones and firefighting access requirements.

2. Further justification should be provided for disturbance resilient flora species

From review of Table 5.2 of the BDAR all vegetation within the subject site has been included as potential habitat for *Dichanthium setosum*. This species' profile (EHG 2022¹) state, in general terms, that it can occur within grassland habitat of varying disturbance.

Potential habitat for *Diuris tricolor* has been limited to “*derived native grassland and woodland areas with a predominantly native groundcover of PCT 80 and 281*”. The species profile (EGH 2022¹) states that its disturbance regimes are not known, although the species is usually recorded from disturbed habitats.

Section 5.3.3 of the BDAR states that “*Targeted flora searches were conducted in accordance with Surveying threatened plants and their habitats- NSW survey guide for the Biodiversity Assessment Method (DPIE 2020). The flora surveys were conducted in areas of high condition woodland*”.

Further explanation and justification on the reasoning behind the exclusion of habitat for the species above should be provided. Alternatively, further targeted survey within unsurveyed habitat should be conducted or an expert report should be obtained.

¹ Threatened Biodiversity Profile Search (Environment and Heritage Group 2022) - *Dichanthium setosum* (Blue Grass) and *Diuris tricolor* (Pine Donkey Orchid).

Recommendation:

2.1 Justify the reasoning behind excluding lower quality habitat within the site as potential habitat for disturbance resilient threatened flora species. Alternatively, conduct further targeted survey within unsurveyed habitat or obtain an expert report.

3. The presence and extent of exotic vegetation should be further described and justified within the BDAR

Section 4.3.2 of the BDAR states that up to 776.66 ha of exotic grassland and 4.73 hectares of exotic trees would be impacted by the project. The method utilised to justify the presence and determine the extent of exotic vegetation has not been provided in the BDAR.

The BDAR should outline the method used to determine non-native vegetation, which may include (but not be limited to) the results from rapid assessments, photos of cultivated paddocks or aerial photography. This could be included as an additional description Table in Section 4.3.2 of the BDAR similar to that provided for the PCT identified within the subject site.

Recommendation:

3.1 The BDAR should describe and justify how non-native vegetation has been determined in the subject site.

4. Preparation of two separate BAM-C cases should be considered if the project is proposed to be staged

Section 6.7 of the BDAR states that credit retirement for the project will be staged. However, a singular BAM-C case and BAM credit report has been prepared for the project and credits have been manually prorated across the subject site.

It is BCS preference that two separate BAM-C cases are prepared which align with each of the proposed credit retirement stages, as the like-for-like credit report(s) will define the credit retirement options for each stage. In addition to this, preparing two separate BAM-C cases may assist in avoiding complexities when seeking to retire credits for the project, including:

- The credit report provides an auditable and traceable log of the credit requirements for both proponent, consent authority and assessor. As such, it would be less complex for the credit retirement process if staged offsets are mirrored by the credit reports.
- If there is the need to later modify any stages of credit retirement, only a singular stage would require modification, rather than the BAM-C for the entire subject site.
- If the proponent wishes to pay into the Biodiversity Conservation Fund for some or all of the credits required for a stage, a credit report reflecting the specific stage may be required for a credit pricing quote to be generated by the BCT.

As an alternative to the above, if the proponent wishes to keep the single BAM-C case for the project, the vegetation zones which extend across separate stages could be split into separate vegetation zones i.e., PCT 281_Pasture_Stage 1 and PCT_281_Pasture_Stage 2. This will allow the differentiation of credit obligations between proposed stages to be captured in credit reports.

The proponent should note that reopening and editing BAM-C cases has the potential to change the intrinsic credit generation for specific biodiversity values and/or capture additional candidate species credit species required to be surveyed for, if the data informing the BAM-C has been

updated in the interim. For further information the latest release notes for the BAM-C should be reviewed.

BCS also recommends that if approved, the consent includes a condition specifying the plant community types, zone and biodiversity credits to be retired for each stage of the development.

Recommendations:

- 4.1 When determining credit staging for the project, either:
 - a submit two separate BAM-C cases which align with each of the proposed credit retirement stages, or
 - b Split the vegetation zones into separate vegetation zones i.e., PCT 281_Pasture_Stage 1 and PCT_281_Pasture_Stage 2
- 4.2 If approved, the consent for the project should include a condition specifying the plant community types, zone and biodiversity credits to be retired for each stage of the development.
5. Information regarding bilateral assessment requirements has been provided for convenience

Section 7.1.2 of the BDAR states that the proponent expects to submit a referral under the EPBC Act to the Department of Climate Change, Energy the Environment and Water (DCCEEW) prior to commencing construction of the project.

If the assessment will require assessment the EPBC Act Assessment Bilateral Policy additional information may be required to inform DCCEEW that all relevant MNES have been addressed within the bilateral assessment.

The North West BCS Branch has prepared a guidance document to assist with undertaking bilateral assessments according to the BAM; this guidance document has been provided in **Attachment C**. BCS recommend this guidance document be reviewed and referenced to maximise efficiency of review by DCCEEW.

Recommendation:

- 5.1 Note that additional information may be required if the project is determined to be a controlled action under the EPBC Act, and refer to the guidance document provided in Attachment C.

Bilateral Assessment Information and Data Requirements

Assessment of EPBC Act-listed threatened species and communities for projects *Suggested information for inclusion in the advice to DPIE*

1. Background & Description of Action

The Environmental Impact Statement (EIS)/ Biodiversity Development Assessment Report (BDAR) should include:

1. Descriptions and maps of the operational and construction footprints of the project with regards to Matters of National Environmental Significance (MNES).
2. Descriptions and maps of staging and timing of the action that may impact on MNES.
3. Maps of the subject land boundary showing the final proposal and disturbance footprint with regards to MNES.

Submit GIS shapefiles of all maps that relate to MNES.

2. Landscape Context of the MNES

Ensure that the 'Landscape Context' of BAM 2017 (Section 4) or 'Establishing the site context' of BAM 2020 (Section 3) have been fully met in the BDAR in relation to MNES.

3. EPBC Act Listed Threatened Species & Communities

The EIS should include the following:

1. Demonstration that field-based survey effort meets BCD survey guidelines and, where available, Commonwealth survey guideline.
2. Demonstration of access and use of supporting databases (e.g. NSW BioNet Vegetation Classification, NSW BioNet Threatened Biodiversity Data Collection, NSW BioNet Atlas, Commonwealth Species Profile and Threats Database search results)
3. Demonstration of access and use of published peer-reviewed literature
4. Demonstration of access and use of local data (if relevant)
5. Demonstration of appropriate mapping of all EPBC Act-listed threatened species and communities in accordance with the relevant Commonwealth listing advice.
6. Demonstration of consideration of important populations and critical habitat as defined in Approved Listing Advice, Approved Conservation Advice and Recovery Action Plans.
7. A list of all EPBC Act listed threatened species and communities that occur on the subject land, or in the vicinity (including species that are 'ecosystem credits' in BAM)
8. A discussion, with data and analysis where any species and communities identified by the Department of Climate Change, Energy, the Environment and Water (DCCEEW) referral documents have been ruled out as occurring on or near the subject site.

4. Avoidance, Minimisation, Mitigation & Management

The BDAR should include:

1. The demonstration of all feasible alternatives and efforts to avoid and minimise impacts on EPBC Act listed threatened species and communities (including direct, indirect and prescribed impacts) including an analysis of alternative:

- a. designs and engineering solutions
 - b. modes or technologies
 - c. routes and locations of facilities
 - d. sites within the subject site
 - e. the identification of any other site constraints in determining the location and design of the proposal (such as bushfire protection requirements, flood planning levels, servicing constraints, etc).
2. A discussion and justification of all feasible impact avoidance, minimisation, and management all feasible alternatives and efforts to avoid and manage impacts (including adaptive management) Provide feasible measures to mitigate and/or manage impacts on EPBC Act listed threatened species and communities (including direct, indirect and prescribed impacts) including:
- a. techniques, timing, frequency and responsibility
 - b. identify measures for which there is risk of failure
 - c. evaluate the risk and consequence of any residual impacts
 - d. any adaptive management strategy proposed to monitor and respond to impacts.

5. Impact Assessment

The EIS / BDAR should include the following:

1. Identification of the residual adverse impacts likely to occur to each EPBC Act listed threatened species and/or community after the proposed avoidance and mitigation measures are taken into account.
2. Justification and evidence for the predicted level of impact, with reference to the Commonwealth’s Significant Impact Guideline and DPIE’s ‘Guidance to Assist a Decision-Maker to Determine a Serious and Irreversible Impact (SAIL)’
3. Provide a summary table with the following information:

Name of EPBC Act listed entity	Nature & consequence of impact (direct & indirect)	Duration of impact (e.g. construction, operation, life of project)	Quantum of impact	Consequence of impact (local, state & national scales)	Impact requires offsetting? (significant or not)

4. Provide data and justification where any EPBC Act-listed threatened species or communities to be considered in the BDAR are considered to be at low risk of impact during the assessment.
5. For projects that DCCEEW considers that MNES have been significantly impacted by the 2019-2020 bushfires additional assessment is required. Those MNES will be identified in DCCEEW’s ‘Decision on referral’. The proponent must discuss in the EIS whether any

additional bushfire impacts to those MNES were significant, and also whether any other local MNES were significantly impacted by those fires.

6. Offsets

The EIS / BDAR should include the following:

1. The identification of any MNES that haven't been offset using the BAM
2. Details of how impacts requiring offset correlate to the MNES impacts
3. Details of the Plant Community Types that require offsetting and the number and type of ecosystem credits required for impacts to MNES
4. Details of threatened species requiring offset and the number of species credits required for impacts to MNES
5. A demonstration of the correct uses the BAM (and BAM calculator) to identify the number and class of biodiversity credits that need to be offset to achieve a standard of 'no net loss' of biodiversity
6. Any details of ecological rehabilitation and/or biodiversity conservation actions proposed for offsetting
7. The identification of any other offsetting approach proposed, such as land-based offsets, retiring credits by payment into the Biodiversity Conservation Fund and/or through supplementary measures

Provide a summary table with the following information:

Threatened Species / Community listed under EPBC Act	PCTs associated with the ecosystem credit species / ecological community (if applicable)	Area of Impact (ha)	Credits Required	Offsetting Approach	Reference (EIS/BDAR)
TOTAL					

7. Other considerations

The EIS / BDAR should include the following:

1. Consideration of all relevant Commonwealth guidelines and policy statements that are applicable to the action and listed threatened species and/or communities, including but not limited to:
 - a. International environmental obligations
 - b. Recovery Plans
 - c. Approved Conservation Advice
 - d. Threat Abatement Plans
2. An assessment for each EPBC Act listed threatened species and/or community, that has been adequately informed by applicable Commonwealth guidelines and/or policy statements. For example, the interaction between the proposed action and important

populations or critical habitat identified in policy documents and/or the interaction between the proposed action and threatening processes or recommended conservation actions outlined in Commonwealth policies and plans