Department of Climate Change, Energy, the Environment and Water

Your ref: SSD-72430958
Our ref: DOC25/434631

Samantha Wynn
Principal Planning Officer
Department of Planning, Housing and Infrastructure- NSW Planning Group

Via Major Projects Portal: PAE-85142960

Dear Samantha

Subject: **Finley Battery Energy Storage System (BESS) (SSD-72430958)**

Thank you for your email dated 29 May 2025 seeking advice from the Regional Delivery Division (RD) of the NSW Department of Climate Change, Energy, the Environment and Water about the Environmental Impact Statement (EIS).

We have reviewed the exhibited EIS against the Secretary's Environmental Assessment Requirements (SEARs) issued to the proponent on 18 July 2024.

RD considers that the EIS does not meet the SEARs for biodiversity or flood risk management.

The EIS is supported by a Water Impact Assessment (WIA). The WIA quantitatively assesses the impact of the 1% annual exceedance probability (AEP) flood event on the existing and proposed site conditions. However, the WIA fails to specifically address the flood risk management SEARs issued in our advice dated 5 July 2024. To fully address the SEARs for flood risk management, the proponent should conduct additional modelling and assessment to inform a revised WIA.

RD considers that further work is required on the Biodiversity Development Assessment Report (BDAR) to meet the SEARs for biodiversity. Until the assessment is complete, the credit liability is not reliable.

In summary, our key issues are:

- The EIS does not quantitatively assess the impact of flood events nor demonstrate the impact of the proposed development on flood behaviour.
- Construction footprint indicating clearing associated with temporary/ancillary facilities has not been provided.
- Plant Community Type selection has not been adequately justified.
- Impacts to threatened ecological communities have not been avoided and associated threatened ecological communities require further consideration.
- There is limited justification and supporting evidence for exclusion of some ecosystem credit species.
- Additional evidence for exclusion is required or targeted surveys need to be completed for candidate species.

A summary of our assessment, advice and, where appropriate, recommended conditions of approval is provided in **Attachment A.** Detailed advice in **Attachment B**.

All plans required as a Condition of Approval that relate to flood risk management or biodiversity should be developed in consultation with RD, so our issues are adequately addressed.

If you have any questions about this advice, please contact Giorginna Xu, Senior Conservation Planning Officer, via planning.southwest@environment.nsw.gov.au or (02) 4927 3185.

Yours sincerely

Adam Vey
1 July 2025
Director South West
Regional Delivery
Conservation Programs, Heritage and Regulation Group
NSW Department of Climate Change, Energy, the Environment and Water

ATTACHMENT A – RD Assessment Summary for Finley Battery Energy Storage System (SSD-72430958)
ATTACHMENT B – Detailed advice for Finley Battery Energy Storage System (SSD-72430958)

ATTACHMENT A RD Assessment Summary for Finley Battery Energy Storage System (SSD-72430958)

Key Issues

The following issues and recommendations are to be resolved prior to determination.

Flood Risk Management

1. The WIA needs to assess the 5%, 0.5%, 0.2% AEP and Probable Maximum Flood (PMF) events
    1.1. Complete additional modelling to assess the impact of the 5%, 0.5%, 0.2% AEP and PMF flood events on the site, and the impact of the proposed site conditions on flood behaviour.
    1.2. Utilise the 0.5% and 0.2% AEP events as proxies for assessing the impact of climate change.
2. The WIA needs to assess whether there will be detrimental increases in flood affectation of other properties and/or assets off-site
    2.1. Conduct further assessment to adequately define any detrimental increases in flood affectation of off-site properties and/or assets.
    2.2. Where detrimental increases in flood affectation are identified the proponent should describe how the risk will be mitigated.
3. The description of the hydrologic analysis and hydraulic modelling provided in the WIA requires review
    3.1. Review, for accuracy, the data presented in the WIA used to inform the hydrologic analysis and clearly define the final IL and CL values adopted.
    3.2. Incorporate the detailed design of the project into the hydraulic model to accurately investigate the impact of the proposed site conditions on flood behaviour OR provide additional detail to describe the representation of the proposed site conditions in the post-development scenario.
4. The WIA needs to map the hydraulic (flood function) categories
    4.1. Define and map the flood function categories for both the existing and post-development scenarios.
    4.2. Demonstrate the compatibility of the proposed site conditions with the flood function of the land.
5. The WIA needs to demonstrate how emergency management matters have been discussed with the Berrigan Shire Council and NSW State Emergency Services (SES)
    5.1. Actively engage with the Berrigan Shire Council and NSW SES to demonstrate that emergency management matters have been discussed and, where applicable, supported.

Biodiversity

6. Construction footprint indicating clearing associated with temporary/ancillary facilities needs to be provided

   6.1. Revise Section 1.1.3 to include all construction impacts as described in the EIS Section 3.2. Provide a map clearly differentiating existing and proposed infrastructure.

   6.2. Provide a map showing the location of construction compounds (and security fencing), laydown areas, light and heavy vehicle parking and site office.

7. Avoidance and minimisation of impacts on native vegetation need to be clearly demonstrated

   7.1. Demonstrate that impacts to threatened ecological communities have been avoided by revising the development layout to locate the development footprint, including ancillary facilities, in areas lacking biodiversity values. Update the BDAR and BAM-C accordingly.

8. Justify Plant Community Types (PCTs) selection using dominant native species recorded in BAM plots and their relative abundance

   8.1. Revise section 4.2.2 of the BDAR to consider other possible PCTs present on the subject land, such as grassland PCTs 44, 45 and 46. Justify final PCT selection from this list using dominant native species recorded in BAM plots and their relative abundance as per BAM Section 4.2.1(3). Describe how the subject land matches PCTs as described in the BioNet Vegetation Classification.

   8.2. Provide any additional evidence relied upon for PCT selection for derived vegetation zones, such as observations of remnant canopy species from adjoining areas with similar geophysical characteristics.

   8.3. Check species identification on data sheets and revise BDAR sections 4.2 - 4.5 to be consistent with any corrected floristic plot data and site observations. If required, revise VI scores in BAM-C and throughout the BDAR

   8.4. Following confirmation of the PCTs present on the subject land, review sections 4.2.2 and 4.3 of the BDAR to ensure any associated threatened ecological community aligns with the selected PCT(s). If required, update the BAM-C to reflect the results of PCT selection.

9. Revise patch size class for Vegetation Zone 3

   9.1. Revise the patch size class for VZ 3 and ensure the BAM-C and BDAR are consistent.

10. Exclusion of some ecosystem credit species requires further justification

    10.1. Revise all ecosystem credit species removed from further assessment in accordance with Section 5.2.2(2) of the BAM. Update relevant sections of the BDAR, including Table 10, and BAM-C to include any species identified as requiring assessment.

11. Additional surveys are required for Slender Darling Pea (*Swainsona murrayana*)

    11.1. Provide evidence that conditions during targeted surveys were suitable for identifying the species is it were present on site. Alternatively, conduct a targeted threatened flora survey for Slender Darling Pea in accordance with *Surveying threatened plants and their habitats* (DPIE 2020) in the nominated survey period, or, assume presence if surveys are not possible.

    11.2. Update the BAM-C and BDAR sections 5.1.2 , 5.3 and 11 (if relevant), to reflect the results of the survey or presumption of presence.

12. Evidence should be provided to distinguish Common Eastern Froglet (*Crinia signifera*) from Sloane's Froglet (*Crinia sloanei*)

    12.1. Provide additional evidence to demonstrate how the presence of Sloane's Froglet was ruled out.

13. Indirect impacts to native vegetation during construction and operational phases requires further assessment

    13.1. Provide the location and required maintenance for the proposed security fencing and any likely impacts not already considered.

    13.2. Include consideration of, and mitigation measures to indirect impacts on adjacent native vegetation and habitat do not occur due to the installation and ongoing maintenance of security fencing, i.e. sufficient buffers between Tree Protection Zones (TPZ) and the security fencing.

14. Prescribed impacts to water quality and hydrology of Mulwala Channel No 19 must be considered

    14.1. Amend section 8.3 of the BDAR to include prescribed impacts to waterbodies, water quality and hydrological process in accordance with Section 8.3.4 of the BAM.

    14.2. Specify measures that will be implemented to mitigate any additional prescribed impacts.

15. Mitigation measures need more detail to meet the requirements of BAM section 8.4

    15.1. Update Table 22 and Table 23 of the BDAR to detail auditable mitigation and management measures that follow the SMART principles.

Matters of National Environmental Significance

16. EPBC Act listed Natural Grasslands of the Murray Valley Plains CEEC has not been considered

    16.1. Based on the outcome of PCTs revision (as per Issue 8), if required, update the BDAR to assess grassland PCTs against the diagnostic criteria and condition thresholds for the Natural Grasslands of the Murray Valley Plains CEEC. Revise the BDAR if the CEEC is confirmed to be present.

    16.2. Update Tables 5 and 6 to specify that they relate to EPBC Act listed TECs.

ATTACHMENT B Detailed advice for Finley Battery Energy Storage System (SSD-72430958)

Flood Risk Management

RD has reviewed the flood risk management component in Section 6.8 of the EIS and Appendix L, Water Impact Assessment (WIA), prepared by Premise (April 2025).

The EIS does not address the SEARs for flood risk management.

The WIA quantitatively assesses the impact of the 1% AEP flood event on the existing and proposed site conditions. However, the WIA does not specifically address the flood risk management SEARs issued in our advice dated 5 July 2024. To fully address the SEARs for flood risk management, the proponent should conduct additional modelling and assessment to inform a revised WIA. Specifically, the revised WIA must address the following deficiencies:

1. The WIA needs to assess the 5%, 0.5%, 0.2% AEP and Probable Maximum Flood (PMF) events

The WIA assesses the impact of the 1% AEP flood event on the existing and proposed site conditions only. However, to fully address the SEARs for flood risk management, the proponent should conduct additional modelling for the 5%, 0.5%, 0.2% AEP and PMF events. The additional modelling should be supported by an appropriate assessment describing the impacts of the additional design flood events on the site, and the impact of the proposed site conditions on flood behaviour and climate change.

Recommendations:

1.1. Complete additional modelling to assess the impact of the 5%, 0.5%, 0.2% AEP and PMF flood events on the site, and the impact of the proposed site conditions on flood behaviour.

1.2. Utilise the 0.5% and 0.2% AEP events as proxies for assessing the impact of climate change.

2. The WIA needs to assess whether there will be detrimental increases in flood affectation of other properties and/or assets off-site

The WIA provides an assessment of the proposed site conditions on the 1% AEP flood event. The WIA includes afflux mapping which indicates that there is a slight (0.04 m) increase in flood levels to the northeast in the post-development scenario. RD notes that a dwelling and ancillary infrastructure is in proximity to the demonstrated afflux. The proponent should conduct further assessment, including assessing the additional design flood events, to accurately define the off-site impacts. Any identified detrimental increases in flood affectation to off-site properties and/or assets must be adequately mitigated.

Recommendations:

2.1. Conduct further assessment to adequately define any detrimental increases in flood affectation of off-site properties and/or assets.

2.2. Where detrimental increases in flood affectation are identified the proponent should describe how the risk will be mitigated.

3. The description of the hydrologic analysis and hydraulic modelling provided in the WIA requires review

RD recommends that the data presented in the WIA to inform the hydrologic analysis be reviewed for accuracy. In particular, the intensity-frequency-duration (IFD) design rainfall and median pre-burst depth and ratio data presented in the WIA do not appear to be consistent with the data available for the subject site. Also, the final adopted initial loss (IL) and continuing loss (CL) values are not clearly defined in the WIA. When determining IL values, RD recommends that the proponent adhere to current NSW guidance which suggests that the probability neutral burst IL values available through the AR&R datahub are used, unless a Monte Carlo assessment of pre-burst and losses has been carried out.

Furthermore, the WIA does not sufficiently describe how the post-development scenario was represented in the hydraulic model. It is assumed that this representation is based on the conceptual design available at the time, but it is not clear. RD recommends that once finalised, the detailed design be incorporated into the hydraulic model to accurately investigate the impact of the proposed site conditions on flood behaviour. RD acknowledges that this may not be possible however until detailed design phase of the project is reached.

Recommendations:

3.1. Review, for accuracy, the data presented in the WIA used to inform the hydrologic analysis and clearly define the final IL and CL values adopted.

3.2. Incorporate the detailed design of the project into the hydraulic model to accurately investigate the impact of the proposed site conditions on flood behaviour OR provide additional detail to describe the representation of the proposed site conditions in the post-development scenario.

4. The WIA needs to map the hydraulic (flood function) categories

RD requires the mapping of the flood function categories and demonstration of the project's compatibility with the defined flood functions. The mapping of flood function categories under both the existing and post-development scenarios are not provided in the WIA.

Recommendations:

4.1. Define and map the flood function categories for both the existing and post-development scenarios.

4.2. Demonstrate the compatibility of the proposed site conditions with the flood function of the land.

5. The WIA needs to demonstrate how emergency management matters have been discussed with the Berrigan Shire Council and NSW State Emergency Services (SES)

RD acknowledges that during operation few full-time staff are to be located on site, so the flood risk posed to life is minimal. However it is necessary that emergency management, access, and contingency measures are adequately considered. As stated in our SEARs letter dated 5 July 2024 these matters must be discussed with, and have the support of, the Berrigan Shire Council and NSW SES.

Recommendations:

5.1. Actively engage with the Berrigan Shire Council and NSW SES to demonstrate that emergency management matters have been discussed and, where applicable, supported.

Biodiversity

In preparing this advice, RD has reviewed the BDAR at Appendix E of the EIS, prepared by Premise (April 2025), in addition to BOAMS case number 00049170.

Specific advice on the BDAR and related sections in the EIS are identified below.

6. Construction footprint indicating clearing associated with temporary/ancillary facilities needs to be provided

A map showing where the construction impacts listed in EIS section 3.2.7 ('Temporary ancillary facilities') will occur, including the construction compound, laydown areas, site office and car parking must be included. Given this, the boundary of the development footprint within areas of native vegetation mapped as PCT 76 is not justified.

Figure 3 showing the proposed operational layout is ambiguous as it has very similar symbols indicating existing and proposed infrastructure. BDAR maps should clearly show the difference between the existing site context and proposed development.

Clarification is required as to why the subject land covers the land surrounding the substation and what impacts will be to the native vegetation. It is also unclear where impact to Mulwala Channel No 19 (mentioned in s.3.2.2) is proposed.

Recommendations:

6.1. Revise Section 1.1.3 to include all construction impacts as described in the EIS Section 3.2. Provide a map clearly differentiating existing and proposed infrastructure.

6.2. Provide a map showing the location of construction compounds (and security fencing), laydown areas, light and heavy vehicle parking and site office.

7. Avoidance and minimisation of impacts on native vegetation need to be clearly demonstrated

Impacts to native vegetation could be avoided by the proposal. Section 2.1.2 of the BDAR states that there is only 4% native vegetation remaining in the local area. Section 7.1.1 states that the entire site will be cleared, including cropped land and areas of PCT 76 DNG, which meets the definition of the BC Act-listed ‘Inland Grey Box Woodland in the Riverina, NSW South Western Slopes, Cobar Peneplain, Nandewar and Brigalow Belt South Bioregions’ endangered ecological community’ (Inland Grey Box EEC).

For example, there is potential to redesign the development layout to reduce impacts to derived native grasslands that forms the EEC rather than the area of cropped paddock, as shown on Figure 11 of the BDAR. This could further lower the credit generation and offset obligation for the project.

Recommendations:

7.1. Demonstrate that impacts to threatened ecological communities have been avoided by revising the development layout to locate the development footprint, including ancillary facilities, in areas lacking biodiversity values. Update the BDAR and BAM-C accordingly.

8. Justify Plant Community Types (PCTs) selection using dominant native species recorded in BAM plots and their relative abundance

The identification of PCT 76 requires further justification to address inconsistencies in species identification and reporting. It should include consideration of other likely native grassland PCTs (particularly PCTs 44, 45 and 46) and selection supported by observations relied upon, such as details of remnant canopy species from adjoining areas with similar geophysical characteristics. Sampling in winter would have limited the identification of some native species characteristic of grassland PCTs.

There is no discussion about the possibility that VZ2 'DNG wet' could be derived from a different PCT to the surrounding vegetation. Wet depressions in the landscape may have supported wetland vegetation dominated by Black Box (*Eucalyptus largiflorens*) or River Red Gum (*Eucalyptus camaldulensis*) before clearing for agriculture. Dominant species identified include *Juncus subsecundus* , *Cynodon dactylon* , *Enteropogon acicularis* and *Chloris truncata*. The understorey of PCT 5 River Red Gum herbaceous-grassy very tall open forest wetland and PCTs 13 (Black Box - Lignum woodland wetland of the inner floodplains in the semi-arid (warm) climate zone) and 74 (Yellow Box - River Red Gum tall grassy riverine woodland) include these species as characteristic species.

The presence of *Austrostipa aristiglumis* (Plains Grass) and *Rytidosperma caespitosum* (Ringed Wallaby Grass) should also be confirmed, given these species are used to describe vegetation zone PCT 76 DNG Roadside but are not represented in the floristic plot data. *A. aristiglumis* is the characteristic species identifying PCT 45 Plains Grass grassland. If present and dominant, PCT 45 should be considered.

The accredited assessor should confirm the *Daucus carota* observation as it is not known from the locality. The species may be a misidentification of *Daucus glochidiatus,* which is native and common in the Riverina.

Recommendations:

8.1. Revise section 4.2.2 of the BDAR to consider other possible PCTs present on the subject land, such as grassland PCTs 44, 45 and 46. Justify final PCT selection from this list using dominant native species recorded in BAM plots and their relative abundance as per BAM Section 4.2.1(3). Describe how the subject land matches PCTs as described in the BioNet Vegetation Classification.

8.2. Provide any additional evidence relied upon for PCT selection for derived vegetation zones, such as observations of remnant canopy species from adjoining areas with similar geophysical characteristics.

8.3. Check species identification on data sheets and revise BDAR sections 4.2 - 4.5 to be consistent with any corrected floristic plot data and site observations. If required, revise VI scores in BAM-C and throughout the BDAR

8.4. Following confirmation of the PCTs present on the subject land, review sections 4.2.2 and 4.3 of the BDAR to ensure any associated threatened ecological community aligns with the selected PCT(s). If required, update the BAM-C to reflect the results of PCT selection.

9. Revise patch size class for Vegetation Zone 3

Table 8 of the BDAR indicates the patch size class of Vegetation Zone (VZ) 3 is <5 hectares, however all native vegetation within the subject land is continuous according to the definition of patch size in Section 4.3.2 of the BAM. Given there are 5.18 hectares of native vegetation in the subject land, the patch size is >5 hectares. This is also inconsistent with the BAM-C, which indicates the patch size is 19 hectares.

Recommendations:

9.1. Revise the patch size class for VZ 3 and ensure the BAM-C and BDAR are consistent.

10. Exclusion of some ecosystem credit species requires further justification

Limited justification has been provided in the BDAR to exclude ecosystem credit species from further assessment. Appropriate justification must rely on peer-reviewed ecological information for the species or information held within the Threatened Biodiversity Data Collection. For example, Flame Robin (*Petroica phoenicea*) has been excluded due to ‘absent microhabitat (complex habitat)’ ignoring that the species uses open understories and native grasses which exists within the subject land.

We note that this is unlikely to impact the credit obligation, however, should be consistent with BAM Section 5.2.2(2).

Recommendations:

10.1. Revise all ecosystem credit species removed from further assessment in accordance with Section 5.2.2(2) of the BAM. Update relevant sections of the BDAR, including Table 10, and BAM-C to include any species identified as requiring assessment.

11. Additional surveys are required for Slender Darling Pea (*Swainsona murrayana*)

Slender Darling Pea has been excluded as a candidate species and from further survey due to the geographic limitation 'Hay Plains' identified in the BAM-C. The extent of the Hay Plains accepted by South West RD is the boundary of the Riverina Bioregion, in which the subject land is located. The species cannot be removed from consideration based on geographic constraints.

Recommendations:

11.1. Provide evidence that conditions during targeted surveys were suitable for identifying the species is it were present on site. Alternatively, conduct a targeted threatened flora survey for Slender Darling Pea in accordance with *Surveying threatened plants and their habitats* (DPIE 2020) in the nominated survey period, or, assume presence if surveys are not possible.

11.2. Update the BAM-C and BDAR sections 5.1.2 , 5.3 and 11 (if relevant), to reflect the results of the survey or presumption of presence.

12. Evidence should be provided to distinguish Common Eastern Froglet (*Crinia signifera*) from Sloane's Froglet (*Crinia sloanei*)

Targeted threatened frog survey must be undertaken by someone with skills in frog identification, particularly in distinguishing calls, and a strong knowledge of frog ecology. Preferably they have experience with the target species. Appendix A of the BDAR does not demonstrate that the targeted Sloane's Froglet surveys were undertaken by a suitably qualified ecologist.

Section 5.3.2.1 of the BDAR states that Common Eastern Froglet and not Sloane's Froglet was recorded on site. The *Crinia* genus can be very difficult to differentiate even for experienced ecologists specialising in frogs. To demonstrate why Sloane's Froglet was considered to not be present on site, provide additional evidence for the Common Easter Froglet record. Supporting information may include photographs, FrogID app confirmation and/or audio recordings.

Recommendations:

12.1. Provide additional evidence to demonstrate how the presence of Sloane's Froglet was ruled out.

13. Indirect impacts to native vegetation during construction and operational phases requires further assessment

Additional measures could be proposed to address indirect impacts to trees adjacent to the southern boundary of the development footprint. We acknowledge that Section 3.3.1 of the EIS states that a 'security fence will be installed on the development site boundary'. The location and impact of the security fencing to tree protection zones (TPZs) should be addressed in the BDAR with any associated impacts identified.

Consideration of the likelihood of spreading existing weed infestations or importing new exotic plant species with construction machinery and materials and associated impacts to biodiversity values should be addressed in Table 21 of the BDAR.

Recommendations:

13.1. Provide the location and required maintenance for the proposed security fencing and any likely impacts not already considered.

13.2. Include consideration of, and mitigation measures to indirect impacts on adjacent native vegetation and habitat do not occur due to the installation and ongoing maintenance of security fencing, i.e. sufficient buffers between Tree Protection Zones (TPZ) and the security fencing.

14. Prescribed impacts to water quality and hydrology of Mulwala Channel No 19 must be considered

Section 8.3 of the BDAR only includes prescribed impacts to non-native vegetation, however Table 17 of the BDAR identifies impacts to Mulwala Channel No 19

Recommendations:

14.1. Amend section 8.3 of the BDAR to include prescribed impacts to waterbodies, water quality and hydrological process in accordance with Section 8.3.4 of the BAM.

14.2. Specify measures that will be implemented to mitigate any additional prescribed impacts.

15. Mitigation measures need more detail to meet the requirements of BAM section 8.4

Mitigation measures should follow SMART principles (specific, measurable, achievable, relevant, and time-bound). Measures need to be given unique identifiers for auditing purposes and to ensure each measure is tracked through the consent and post-approval processes. This also applies to measures in the EIS.

For example, Table 22 and Table 23 should be amended to include specific timing and frequency of each measure, including the species likely to be impacted and months that should be avoided to implement the measure. Define terms such as ‘regular’ and ‘ongoing’, apply binding language to measures, reference the documents that define ‘best practice’ standards, and provide locations for sediment barriers and erosion control specifically to manage any impacts to Mulwala Channel No 19. .

Recommendations:

15.1. Update Table 22 and Table 23 of the BDAR to detail auditable mitigation and management measures that follow the SMART principles.

Matters of National Environmental Significance

16. EPBC Act listed Natural Grasslands of the Murray Valley Plains CEEC has not been considered

The proposal site is within the distribution of the Natural Grasslands of the Murray Valley Plains critically endangered ecological community (CEEC). Although the four grass species that dominate the CEEC are present, the BDAR (section 4.3) excludes vegetation mapped as PCT 76 DNG from conforming with the CEEC based on the absence of canopy and mid-storey shrubs. Following further analysis about the occurrence of natural grassland as per Issue 8, the BDAR should be updated to compare any grassland PCTs present against the diagnostic criteria and condition thresholds for the Natural Grasslands of the Murray Valley Plains CEEC.

Section 4.3 of the BDAR discusses both BC Act and EPBC Act listed TECs. As the titles of Tables 5 and 6 are ambiguous, it could be inferred that they relate to BC Act TECs rather than the EPBC listings.

Recommendations:

16.1. Based on the outcome of PCTs revision (as per Issue 8), if required, update the BDAR to assess grassland PCTs against the diagnostic criteria and condition thresholds for the Natural Grasslands of the Murray Valley Plains CEEC. Revise the BDAR if the CEEC is confirmed to be present.

16.2. Update Tables 5 and 6 to specify that they relate to EPBC Act listed TECs.