

Department of Planning, Housing and Infrastructure

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Dinawan Solar Farm

State Significant Development Assessment Report (SSD 50725959)

December 2025





Acknowledgement of Country

The Department of Planning, Housing and Infrastructure acknowledges that it stands on Aboriginal land. We acknowledge the Traditional Custodians of the land and show our respect for Elders past and present through thoughtful and collaborative approaches to our work, seeking to demonstrate our ongoing commitment to providing places in which Aboriginal people are included socially, culturally and economically.

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Preface

This assessment report provides a record of the Department of Planning, Housing and Infrastructure's (the Department's) assessment and evaluation of the State significant development (SSD) application for the Dinawan Solar Farm, about halfway between the towns of Coleambally and Jerilderie in Riverina area of NSW. The SSD application was lodged by Dinawan Energy Hub Pty Ltd as trustee for Dinawan Energy Hub Trust, a wholly owned subsidiary of Spark Renewables. The report includes:

- an explanation of why the project is considered SSD and who the consent authority is
- an assessment of the project against government policy and statutory requirements, including mandatory considerations
- a demonstration of how matters raised by the community and other stakeholders have been considered
- an explanation of any changes made to the project during the assessment process
- an assessment of the likely environmental, social and economic impacts of the project
- an evaluation which weighs up the likely impacts and benefits of the project, having regard to the proposed mitigations, offsets, community views and expert advice; and provides a view on whether the impacts are on balance, acceptable
- an opinion on whether the project is approvable or not, along with the reasons, to assist the Independent Planning Commission in making an informed decision about whether development consent for the project can be granted and any conditions that should be imposed.

Executive Summary

Dinawan Energy Hub Pty Ltd as trustee for Dinawan Energy Hub Trust, a wholly owned subsidiary of Spark Renewables (Spark Renewables), proposes to develop the Dinawan Solar Farm (the project), a 800 megawatt (MW) solar farm and 356 MW / 1,574 MW-hour (MWh) battery, located approximately halfway between the towns of Coleambally and Jerilderie, in the Murrumbidgee local government area.

The project is within the South West Renewable Energy Zone (REZ) and has access rights to connect into Project EnergyConnect. The project would connect to Project EnergyConnect's Dinawan substation directly north of the site, which has commenced construction.

The site is located in a sparsely populated rural area, with one non-associated residence within 5 kilometres (km) of the development footprint. The site is mostly cleared and is currently used for agricultural purposes, including sheep and cattle grazing. The Coleambally Irrigation Channel traverses the eastern portion of the development footprint. The majority of the site is categorised by Land and Soil Capability Class 4 (moderate capability), with a small portion of the remainder categorised as Class 5 (moderate-low capability) and Class 6 (low capability), and the site does not contain any Biophysical Strategic Agricultural Land. The project would not significantly reduce the overall agricultural productivity of the region and the site could be returned to agricultural uses in the future.

Access to both the eastern and western sections of the development footprint is proposed via Kidman Way (a State road), with a second access to the eastern section also proposed via Bundure Road (a local road). Vehicles would travel to the access points from both the north and south along Kidman Way, turning on to Kidman Way from Sturt Highway to the north or Newell Highway to the south. Road upgrades are proposed at the site access points and the Newell Highway / Kidman Way intersection to facilitate the movement of high-risk heavy vehicles requiring escort.

The Department of Planning, Housing and Infrastructure (the Department) publicly exhibited the Environmental Impact Statement for the project from 17 November 2023 to 18 December 2023 and received 80 unique submissions, including 77 objections from the general public and 3 objections from special interest groups. Twelve government agencies and Murrumbidgee Council (Council) provided advice on the project.

Only 3 submissions were received from within 5 km of the site and only 11 submissions were received between 5 and 100 km of the site. The remaining 66 submissions were from more than 100 km from the site, of which 12 submissions were interstate. The Department consulted with Council and relevant government agencies on key issues and inspected the site. None of the agencies, Council or utility providers, objected to the project and they each recommended the implementation of appropriate mitigation and management measures.

The Department requested Spark Renewables prepare a Submissions Report immediately after close of exhibition in December 2023. Spark Renewables submitted its Submissions Report to the Department in September 2024, along with Amendment Report 1. After undertaking further investigations, including threatened flora surveys during the Spring 2025 survey season, Spark Renewables sought a subsequent amendment to the project (Amendment Report 2) in November 2025, that included further information to address feedback from New South Wales (NSW) Department of Climate Change, Energy, the Environment and Water – Conservation Programs, Heritage and Regulation and Transport for NSW.

In response to agency advice and public submissions, Spark Renewables undertook additional assessments and amended the project to include minor road upgrades, changes to the battery storage, and reduce the development footprint by 29% to avoid environmental constraints and to increase setback distances from sensitive receivers. The project amendments would lead to better outcomes and address many of the matters raised by the Department, agencies and in public submissions by increasing the battery storage capacity, whilst reducing impacts on visual amenity and biodiversity values.

The key assessment issues identified for the project are energy security, land use compatibility, biodiversity, traffic and visual amenity. The Department has also undertaken a comprehensive assessment of the full range of other potential impacts and recommended detailed conditions, developed in conjunction with agencies and Council, to ensure all potential impacts are effectively minimised, managed or offset.

The Department considers the project represents an effective and compatible use of the land and that the site is suitable to accommodate the development. The siting of the project is consistent with the Department's *Large Scale Solar Energy Guideline* (2022), as well as the *Riverina Murray Regional Plan 2041* which aims to support the State's transition to lower emissions and renewable energy generation.

Spark Renewables has demonstrated that the amenity impacts of the proposed development are low for all non-associated residential receivers. The solar arrays are relatively low-lying structures and expansive views across the area are limited by topography and the setback distance from local roads and receivers. The Department considers that potential visual impacts are low and acceptable in accordance with the Department's *Large Scale Solar Energy Guideline*. The operational noise levels are predicted to comply with the relevant criteria in the *NSW Noise Policy for Industry* (EPA, 2017) at all non-associated receivers.

Spark Renewables would be required to establish and properly maintain groundcover throughout operations. The Department considers the site could be fully restored and has recommended conditions requiring Spark Renewables to restore land capability to pre-existing productive capacity on decommissioning of the project.

While the project would result in the clearing of 1,771 ha of native vegetation, it has minimised biodiversity impacts by avoiding higher quality native vegetation and habitat during site selection and design of the project.

The Department considers the project would not result in unacceptable impacts on the capacity, efficiency or safety of the road network. Potential traffic impacts would be suitably managed through road upgrades, road maintenance and the implementation of a Traffic Management Plan.

The Department has also considered the potential cumulative impacts with other developments in the region and considers that there would be no significant cumulative traffic, visual or noise impacts due to distance, different haulage routes and capacity of the road network following the proposed intersection upgrade. The inclusion of a temporary accommodation camp would also serve to mitigate potential cumulative impacts on traffic and local housing in the area.

The project is consistent with the Commonwealth's Renewable Energy Target and NSW's *Climate Change Policy Framework* and the *Net Zero Plan Stage 1: 2020 – 2030*, as it could contribute 800 MW of renewable energy to the National Electricity Market, including a battery storage facility with a capacity of 356 MW / 1,574 MW-hour. Importantly, the battery would enable the project to store solar energy for dispatch to the grid outside of daylight hours and / or during periods of peak demand, which has the potential to contribute to increased grid stability and energy security.

The project is located in the South West REZ, which was formally declared by the then Minister for Energy in 2024 under section 24(1) of the *Electricity Infrastructure Investment Act 2020* (the EII Act). The South West REZ is aimed at encouraging investment in electricity infrastructure and unlocking additional generation capacity in order to ensure secure and reliable energy in NSW. The Dinawan Solar project has been granted Access Rights under the South West REZ Access Scheme.

The project would provide other flow on benefits to the local community, including up to 400 construction jobs and contributions of \$850/MW per annum (consumer price index adjusted) for the operational life of the project from the start of construction through a voluntary planning agreement. There would be broader benefits to the State through an injection of \$1.3 billion in capital investment into the NSW economy.

The Department considers the project would not result in significant impacts on the local community or the environment, and any residual impacts can be managed through conditions.

Overall, the Department's assessment concludes that the project would result in benefits to the State of NSW and considers the project is in the public interest. As such, the Department concludes that the project is approvable subject to conditions.

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1 Project

1. Dinawan Energy Hub Pty Ltd, as trustee for Dinawan Energy Hub Trust, a wholly owned subsidiary of Spark Renewables (Spark Renewables), proposes to develop an 800 megawatt (MW) State significant development (SSD) solar farm and associated battery energy storage system (BESS), approximately halfway between the towns of Coleambally and Jerilderie, in the Murrumbidgee Local Government Area (LGA). The project is located within the South West Renewable Energy Zone (REZ) (see **Figure 1**).
2. The project would include a 356 MW / 1,574 megawatt-hour (MWh) BESS, up to two on-site substations and a connection to the National Energy Market (NEM) via the Dinawan substation, a new substation being built as part of Project EnergyConnect. An overhead 330 kilovolt (kV) or 500 kV transmission line would connect the on-site substations to the Dinawan substation. On 12 April 2025, the project was granted access rights and allocated 300 MW of capacity to connect to the approved Project EnergyConnect in the South West REZ.
3. The key components of the project are summarised in **Table 1**, shown in **Figure 2** and described in detail in the Environmental Impact Statement (EIS) and supporting documentation (see **Appendix A, D and E**).

Table 1 | Key Components of the Project

Aspect	Description
Project summary	<p>The project has a generating capacity of 800 MW and includes:</p> <ul style="list-style-type: none">• approximately 2 million photovoltaic (PV) modules and associated mounting infrastructure (up to 4.7 m high) supported by approximately 150 power conversion units (PCU);• aboveground and underground cabling;• up to two substations and switchyards with a connection voltage of 330 kV or 500 kV;• a lithium-ion BESS with a total capacity of up to 356 MW / 1,574 MWh, located adjacent to the eastern proposed on-site substation;• an overhead 330 kV or 500 kV transmission line would connect the project substations to the Dinawan substation;• ancillary infrastructure including internal access tracks, water tanks, staff amenities, control buildings, maintenance buildings, offices, laydown areas, car park and security fencing;• a temporary accommodation camp with a capacity of up to 400 construction staff (i.e. full workforce) during the construction phase of the project; and• temporary construction compounds, laydown, storage and parking areas.
Project area	<ul style="list-style-type: none">• Site: 3,257 ha

Aspect	Description
	<ul style="list-style-type: none"> Development footprint: 1,786 ha
Site entry and access route	<ul style="list-style-type: none"> Site access via Kidman Way to both the eastern and western sections of the development footprint, with two accesses to the eastern section also proposed via Bundure Road Vehicles would travel to the site from both the north and south along Kidman Way, turning on to Kidman way from the Sturt Highway to the north or Newell Highway to the south
Road upgrades	<p>Road upgrades proposed:</p> <ul style="list-style-type: none"> two new intersections on Kidman Way to provide access to the eastern and western sections of the development footprint; upgrades to the Kidman Way/ Bundure Road / Liddles Lane intersection including widening and sealing of Bundure Road from Kidman Way and until 50 m past the Bundure Road eastern site access; and additional hardstand on the northern and western corner of the Newell Highway / Kidman Way intersection to facilitate Oversize Overmass (OSOM) vehicles.
Construction	<ul style="list-style-type: none"> Construction period of approximately 18-36 months Construction hours limited to Monday to Friday 7am - 6pm and Saturday 8am - 1pm
Operation	<ul style="list-style-type: none"> The expected operational life of the infrastructure is approximately 25-35 years, but the project may involve infrastructure upgrades that may extend the operational life The solar farm and BESS would operate 24 hours a day, seven days a week
Decommissioning and rehabilitation	At the end of the project life, all above and below-ground infrastructure, where buried above 500 millimetres (mm) depth, would be removed and the land rehabilitated. A temporary accommodation camp may be re-established to facilitate decommissioning.
Subdivision	<p>Subdivision of the following lots may be required to create new allotments for the substations:</p> <ul style="list-style-type: none"> Lot 6 of DP 594041 Lot 125 of DP 756444 Lot 22A of DP 756444 Lot 1 of DP 113903 Lot 112 of DP 756444.
Employment	Up to 400 construction jobs and up to 10 operational jobs
Investment Value	\$1,348.3 million
Voluntary Planning Agreement (VPA)	\$850/MW per annum (consumer price index (CPI) adjusted) for the life of the project from the start of construction

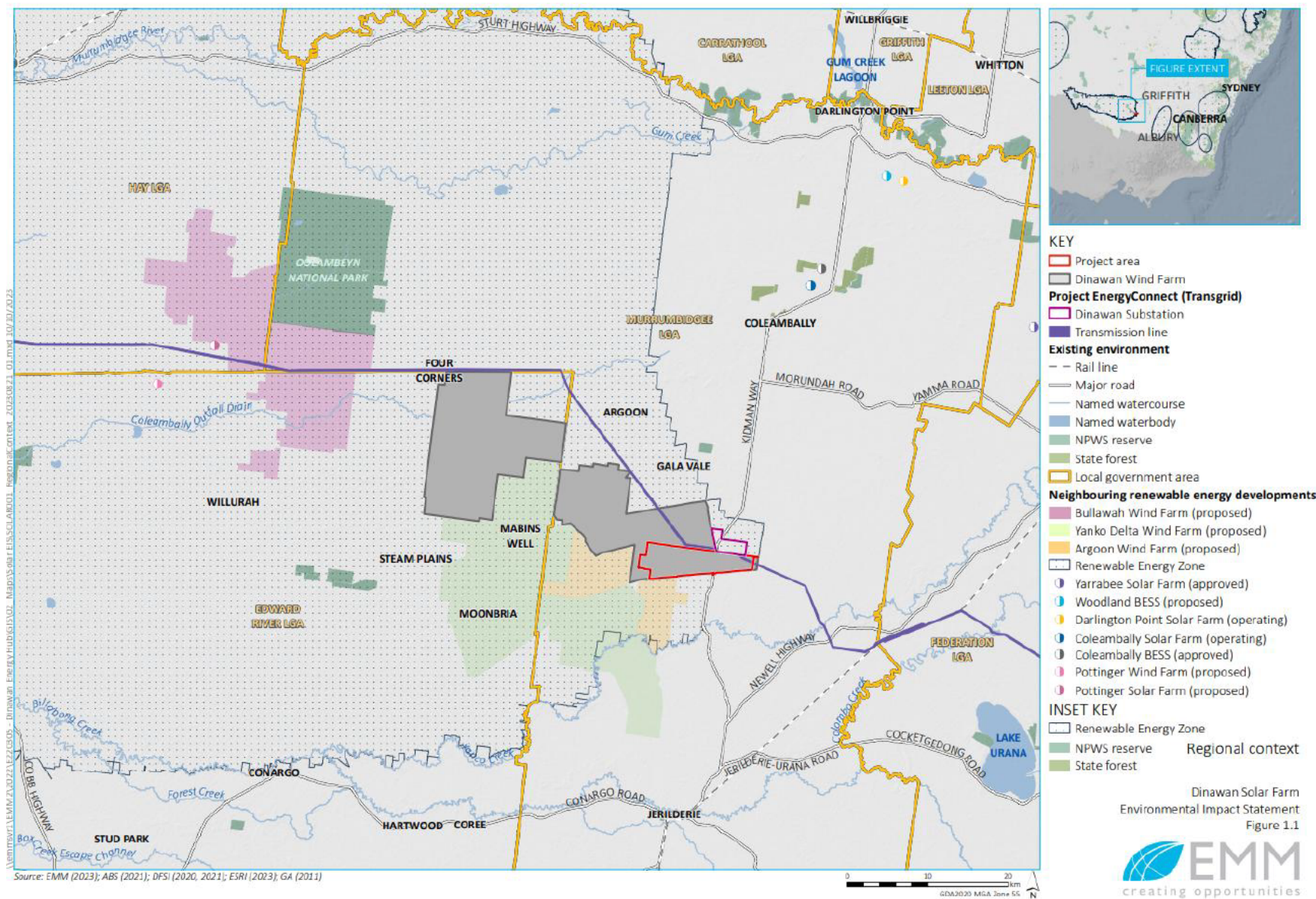


Figure 1 | Regional Context

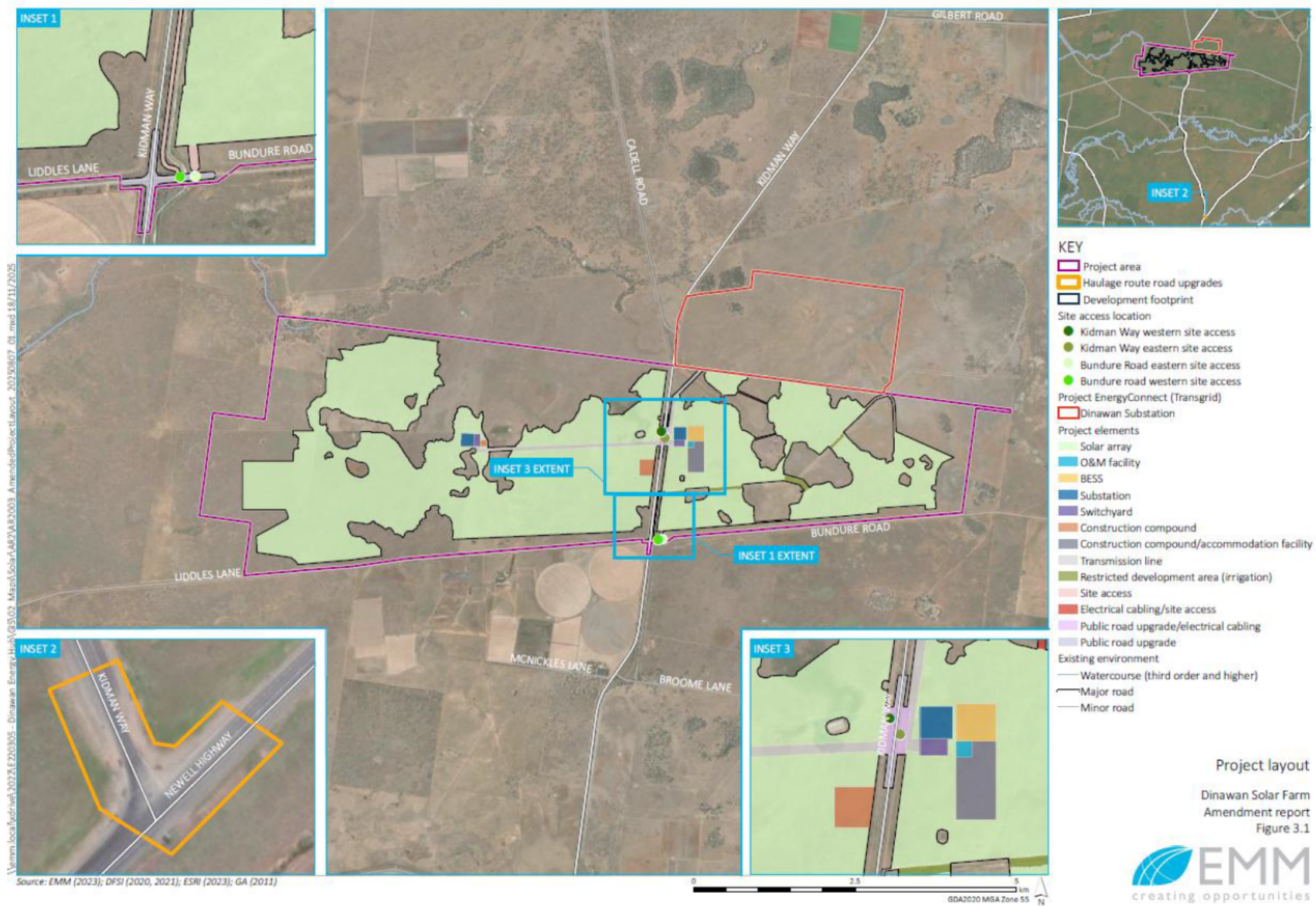


Figure 2 | Project Layout

2 Strategic context

2.1 Site and surrounds

4. The site and surrounds consist largely of agricultural land zoned RU1 (Primary Production) with the site predominantly used for sheep and cattle grazing. The land and soil capability within the development footprint is primarily Class 4 (moderate to high limitations).
5. Access to the site would be via Kidman Way to both the eastern and western sections of the development footprint, with two accesses to the eastern section also proposed via Bundure Road (see Figure 2).
6. Dinawan substation and transmission infrastructure is currently being constructed and would be located directly north of the site.
7. The site contains several watercourses all of which are ephemeral. The development footprint also includes the Coleambally Irrigation Channel (CIC) which traverses the eastern portion of the site.
8. There is one non-associated receiver located within 5 km of the site. The closest residence (R049) is located 420 m south of the site and 656 m south of the development footprint. Three lots that directly adjoin the project area have dwelling entitlements.
9. The key aspects of the project are described in detail in the amended project description in Appendix A of Amendment Report 2 and outlined in Table 1.

2.2 Other energy projects

10. There are 12 State significant renewable energy projects within 50 km of the site (see Figure 1), of which seven development applications were lodged or approved prior to Spark Renewables application, being Project EnergyConnect, Yanco Delta Wind Farm, Coleambally Solar Farm, Coleambally BESS, Darlington Point Solar Farm and Woodland BESS. The Department notes that the consent for the Yarrabee Solar Farm lapsed in 2023.
11. The Department notes that since the time of lodgement of the development application for this project, applications have also been progressed for Dinawan Wind Farm, Bullawah Wind Farm, Conargo Wind Farm and Boags Creek Solar Farm. As per the Department's *Cumulative Impact Assessment Guidelines for State Significant Projects 2021*, Spark Renewables and the Department's assessments of cumulative impacts have considered the relevant future projects to be those that have been exhibited and are currently under assessment.

12. Potential cumulative impacts at a regional level relate to agricultural land use, biodiversity, traffic, visual and social impacts related to workforce accommodation, and are discussed in Section 5.3, Section 5.4, Section 5.5, and Section 5.6.

2.3 Energy Policy Context

13. In 2024, NSW derived approximately 37% of its energy from renewable sources. The rest was derived from fossil fuels, including 60% from coal and 3% from gas. NSW is one of the nation's leaders in large-scale renewables, with 47 major operational projects and 92 under construction or planned to be under construction.
14. The Commonwealth and State energy context is described in Table 2 and the project's alignment with existing State policies and strategies are considered in Section 5.1.

Table 2 | Energy Context

Policy	Summary
<i>Australia's Long Term Emissions Reduction Plan (2021)</i>	Sets a pathway to net zero emissions by 2050 and affirms Australia's commitment to meeting its revised 2030 target (43% below 2005 levels).
<i>Australia's Energy Market Operator's 2024 Integrated System Plan (ISP)</i>	Notes that: <ul style="list-style-type: none"> • without coal, investment is urgently needed to meet significantly increased electricity demand requiring a six-fold increase in large-scale variable renewable energy generation (wind and solar); • different forms of storage are needed to support this growth; • a mix of solar and wind is needed, as they offer complementary daily and seasonal profits; and • forecasts that there will be a demand for 83 GW of utility-scale wind and solar in the National Electricity Market by 2034-35, and 127 GW by 2049-50.
NSW: <i>Climate Change Policy Framework (2016);</i> <i>Transmission Infrastructure Strategy (2018);</i> <i>Electricity Strategy (2019);</i> <i>Electricity Infrastructure Roadmap (2020);</i> <i>Net Zero Plan Stage 1: 2020 – 2030 (2020)</i> <i>and Implementation update (2022);</i> <i>Riverina Murray Regional Plan 2041 (2023)</i>	Relevant aspects of these policy documents: <ul style="list-style-type: none"> • aim to achieve net zero emissions in NSW by 2050 and reduce emissions by 70% below 2005 levels by 2035; • note that all coal fired power plants in NSW are scheduled for closure within the next twenty years; • are aimed at encouraging investment in new electricity infrastructure and unlocking additional generation capacity in order to ensure secure and reliable energy in NSW; • include regional goals to support the State's transition to lower emissions and Murrumbidgee Council (Council) goals to promote renewable energy production; and • support the NSW Government's transition to net zero by 2050.

2.4 NSW Solar Guideline

15. The Department released the revised *Large-Scale Solar Energy Guideline* in August 2022 to provide the community, industry, and regulators with guidance on the planning framework for assessing large-scale solar projects and identifying the key planning considerations relevant to solar energy development in NSW. The Department's *Large-Scale Solar Energy Guideline* (2022) applies to the assessment as it was in force at the time of the development application.
16. The Guideline recognises that large-scale solar projects could help to reduce reliance on fossil fuels, thereby contributing to reduction in air pollution and greenhouse gas emissions, while also supporting regional NSW through job creation and investment in communities that may not have similar opportunities from other industries.

3 Statutory Context

3.1 State Significant Development

17. The project is classified as SSD under section 4.36 of the *Environmental Planning and Assessment Act 1979* (EP&A Act). This is because it triggers the criteria in Clause 20 of Schedule 1 of *State Environmental Planning Policy (Planning Systems) 2021* (Planning Systems SEPP), as it is development for the purpose of electricity generating works with a capital investment value of more than \$30 million.
18. Under section 4.5(a) of the EP&A Act and Clause 1(b) of section 2.7 of the *State Environmental Planning Policy (Planning Systems) 2021* (Planning Systems SEPP), the Independent Planning Commission (the Commission) is the consent authority for the development as the project has received more than 50 unique public submissions by way of objection.

3.2 Amended Application

19. In accordance with clause 37 of the *Environmental Planning and Assessment Regulation 2000* (EP&A Regulation), a development application can be amended at any time before the application is determined. Spark Renewables sought to amend its application twice in response to comments raised by regulatory agencies, the details of which are summarised in Section 4.4 of this report. Under the delegation from the consent authority (i.e. the Commission for this development), of 14 June 2022, the Director, Energy Assessments can agree to amendments to an application.

20. The Department accepted the amended application for the following reasons:
- the project amendments reduced the impacts of the project as a whole;
 - the amended application directly responds to the key issues raised in public submissions and agency submissions received by the Department during the exhibition of the original application, and consultation on the application as amended in Amendment Report 1;
 - Spark Renewables assessed the impacts of the amended project (see **Appendix E** and **Appendix F**); and
 - the Department made the additional information available online and sent it to Council and the relevant agencies for comment.

3.3 Permissibility

21. The site is zoned as RU1 - Primary Production under the *Jerilderie Local Environmental Plan 2012* (Jerilderie LEP), the provisions of which are discussed in **Section 5.2**. Kidman Way is zoned SP2 - Infrastructure (Classified Road) under the Jerilderie LEP.
22. Electricity generating works are permissible with consent on any land in a prescribed non-residential zone, including RU1 and SP2, under Clause 2.36 of the *State Environmental Planning Policy (Transport and Infrastructure) 2021* (Transport and Infrastructure SEPP). Consequently, the project is permissible with development consent.
23. The proposed subdivision of the lots would be below the minimum lot size of 213 ha and prohibited under the LEP. Section 4.38(3) of the EP&A Act allows development consent to be granted for SSD applications where the development is partially prohibited. While the consent authority can override a partial prohibition for a SSD, it must assess the merits of such a decision. The Department has considered the merits of the subdivision as follows:
- Council did not raise concern with the subdivision;
 - it is necessary for the operation of the substations;
 - it would not result in any additional dwelling entitlements on the subdivided lots;
 - the project aligns with the RU1 zone's key objective by supporting diversity and primary industry enterprises; and
 - the Department has fully considered the impacts of the project and considers it can be approved.

24. Based on the above assessment, and via section 4.38(3) of the EP&A Act, the Department is satisfied that the proposed development, including the subdivision of the site, is permissible with consent on the site.

3.4 Integrated and Other Approvals

25. Under section 4.41 of the EP&A Act, a number of other approvals are integrated into the SSD approval process, and therefore are not required to be separately obtained for the project. Under section 4.42 of the EP&A Act, a number of further approvals are required, but must be substantially consistent with any development consent for the project (e.g. approvals for any works under the *Roads Act 1993*).

3.5 Commonwealth Approvals

26. Under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act), assessment and approval are required from the Australian Government if a project is likely to impact on a Matter of National Environmental Significance (MNES), as it is considered to be a 'controlled action'.
27. On 12 July 2023, a delegate for the Commonwealth Minister for the Environment determined the project (EPBC 2023/09516) to be a 'controlled action' in accordance with the EPBC Act due to likely significant impacts to listed threatened species and communities (sections 18 and 18A). Consequently, the project requires the approval of the Commonwealth Minister for the Environment in addition to any State approvals before the project may proceed.
28. The assessment process under the EP&A Act has been accredited under a Bilateral Agreement with the Commonwealth under Chapter 3 of the EPBC Act. Accordingly, the NSW Government has undertaken the assessment of MNES on behalf of the Commonwealth.
29. The Department's assessment of the potential impacts of the project on MNES under the EPBC Act is provided in Section 5.3. Further information on the matters that the Commonwealth Minister must consider is provided in **Appendix K**.
30. The Department consulted with the Australian Government Department of Climate Change, Energy, the Environment and Water (AG DCCEEW) in accordance with the bilateral agreement and provided draft copies of this assessment report and the recommended conditions of approval to the AG DCCEEW for comment. The AG DCCEEW confirmed that this assessment report contains the information required by the Commonwealth to make a decision about the project and that the recommended conditions of consent provide appropriate protection in relation to Commonwealth matters.

3.6 Renewable Energy Zone

31. The *Electricity Infrastructure Investment Act 2020* (EII Act) coordinates investment in transmission, generation, storage and firming infrastructure in NSW and gives effect to the Electricity Infrastructure Roadmap. Under section 19 of the EII Act, the Minister for Energy may declare a renewable energy zone comprising a specified geographical area of the State, and specified generation, storage or network infrastructure.
32. This project is located in the geographical area specified in the South West REZ declaration, which comprises the network infrastructure, including planned or existing infrastructure within the South West REZ geographical area and extending outside the specified geographical area, with an intended network capacity of 2.5 gigawatts. EnergyCo has granted the project access rights to the electrical grid via the approved Project EnergyConnect Transmission project (currently under construction).
33. EnergyCo has granted access for the project for a maximum of 300 MW. Spark Renewables has advised that the project is readily scalable and the project would be staged to meet the current access granted. The additional proposed generation capacity provides:
 - scalability for future network augmentation or if additional headroom becomes available in the existing South West REZ;
 - redundancy if other projects with access rights do not proceed; and
 - flexibility to optimise infrastructure layouts and offset electrical losses.

3.7 Mandatory Matters for Consideration

34. Section 4.15 of the EP&A Act outlines the matters that a consent authority must take into consideration when determining development applications. The Department has considered these matters in its assessment of the project as well as Spark Renewables' consideration of environmental planning instruments in its EIS, as summarised in **Section 5** of this report. The Department has also considered relevant provisions of the environmental planning instruments in **Appendix J**.

3.7.1 Objects of the EP&A Act

35. In determining the application, the consent authority should consider whether the project is consistent with the relevant objects of the EP&A Act (section 1.3), including the principles of ecologically sustainable development (ESD). Consideration of those factors is described in **Appendix J**. As a result of the analyses in **Appendix J**, the Department is satisfied that the development is consistent with the objectives of the EP&A Act and the principles of ESD.

3.7.2 Biodiversity Development Assessment Report

36. Section 7.9(2) of the *Biodiversity Conservation Act 2016* (BC Act) requires all SSD applications to be accompanied by a Biodiversity Development Assessment Report (BDAR) unless it is determined that the project is not likely to have any significant impact on biodiversity values (as identified in the BC Act and in the *Biodiversity Conservation Regulation 2017*).
37. The EIS, Amendment Report 1 and Amendment Report 2 included a BDAR (see **Appendix A** and **Appendix F**). The final BDAR (dated November 2025) and the overall impact of the project on biodiversity values is assessed in **Section 5.3**.

4 Engagement

4.1 Department’s Engagement

38. The Department publicly exhibited the EIS from 17 November 2023 until 18 December 2023, advertised the exhibition in the Leeton Irrigator, Narrandera Argus and Southern Riverina News, and notified landowners adjacent to the project boundary.
39. The Department consulted with Council and relevant government agencies throughout the assessment and inspected the site in November 2024 to assess potential visual impacts of the project.
40. The Department also notified and sought comment from Transgrid and Transport for NSW in accordance with the Transport and Infrastructure SEPP, as discussed further in Section 4.5 of this report.

4.2 Summary of public submissions

41. During the exhibition period, the Department received 77 unique public submissions from individuals and 3 from organisations (see **Appendix B**) objecting to the project, 3 of whom are located within 5 km of the project.
42. A summary of the proximity of public submissions is provided in **Table 3** and a link to all submissions in full is provided in **Appendix B**.

Table 3 | Breakdown of public submissions

Submitter distance to development footprint	Objection	Support	Comment	Total
0-5km	3	0	0	3
5-100km	11	0	0	11
> 100km	54	0	0	54
Interstate	12	0	0	12
Total	80	0	0	80

43. The key issues raised in public submissions are summarised in **Figure 3**. The most common matters raised relate to:
- energy security: reliability of renewable energy and batteries;

- **biodiversity:** adverse impacts on threatened species and ecological communities;
- **land use & location:** site selection, impacts to agricultural land;
- **hazards and risk:** concern about contamination from the project and increased bushfire risk and threat of fire;
- **visual:** impact on the surrounding landscape, impacts on neighbouring properties and tourism, impacts from glint and glare; and
- **waste:** capacity of local infrastructure to accommodate disposal requirements.

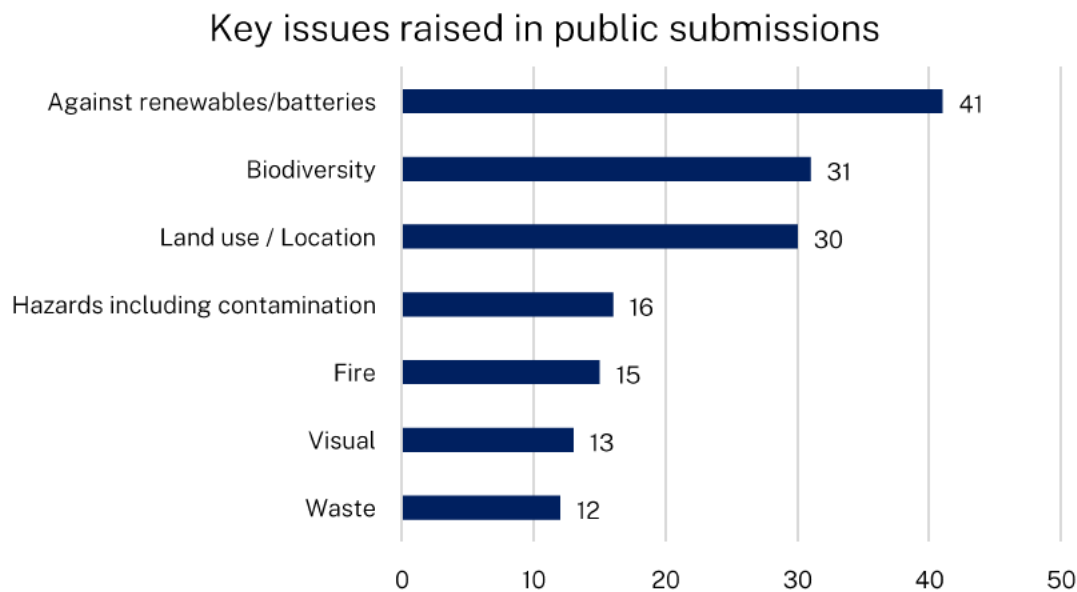


Figure 3 | Key issues raised in submissions

44. Other issues raised in objections included ethics of sourcing materials, decommissioning, property values, traffic access and road safety, community consultation, water, the assessment process, noise and dust.
45. A further breakdown and summary of key issues raised by the public is summarised in **Appendix I**. Section 5 of this report provides a summary of the Department's consideration of these matters and recommended conditions.

4.3 Response to submissions

46. Following the public exhibition period, the Department requested Spark Renewables to respond to the issues raised in submissions and the advice received from government agencies. Spark Renewables provided a Submissions Report to the Department in September 2024 (**Appendix D**).

47. The Department published the Submissions Report on the NSW Planning Portal and forwarded the Submissions Report to relevant government agencies and Council for comment.

4.4 Amendment

4.4.1 Amendment Report 1

48. Following consideration of submissions on the EIS, Spark Renewables amended its application as detailed in Amendment Report 1 (see **Appendix E**). The amendments included a reduction in the project area and development footprint, removal of the option to construct the western-most BESS, substation and switchyard, revision of the site access intersection at Kidman Way, optimisation of the biodiversity offset staging, increase in the footprint of the worker accommodation facility, and a reduction in the number of lots that would require subdivision.

4.4.2 Amendment Report 2

49. Spark Renewables further amended its application in November 2025 as detailed in Amendment Report 2 (see **Appendix F**). Spark Renewables undertook further threatened flora surveys within the Spring survey season of 2025 to confirm species impacts and further refined the development footprint to avoid impacts. The amendments included:
- a further reduction in the development footprint to avoid threatened species;
 - increasing the discharge and storage capacity of the BESS to 356 MW / 1,574 MWh;
 - removal of the option to construct the BESS west of Kidman Way; a request to extend construction work hours on Saturday and Sunday; road upgrades to facilitate high-risk heavy vehicle movements; removal of the Port of Newcastle as an option for high-risk heavy vehicle movements; and
 - further optimisation of the biodiversity offset staging.

4.5 Summary of advice received from government agencies

50. During exhibition of the EIS, the Department received advice from 10 government agencies.
51. Further advice was provided from 12 government agencies on the Submissions Report, Amendment Report 1 and Amendment Report 2. A summary of the agency advice is provided in Table 4. A link to the full copies of the advice is provided in **Appendix C**.

Table 4 | Summary of agency advice

Agency	Advice Summary
NSW DCCEEW – Conservation Programs, Heritage and Regulation (CPHR)	<ul style="list-style-type: none"> • Following its review of the EIS, requested: <ul style="list-style-type: none"> – further information and justification regarding avoidance of impacts to serious and irreversible impact (SAIL) species, prescribed and indirect impacts, assessment of MNES, reviewing the approach to partial loss, the approach to species polygons for threatened flora, proposed mitigation measures, the flora survey method used, vegetation integrity plot locations and additional surveys for SAIL threatened flora; and – creation of individual BAM-C child cases for each proposed project stage. • Following its review of the Submissions Report, Amendment Report 1 and an amended BDAR dated September 2024, advised: <ul style="list-style-type: none"> – several matters previously raised were still outstanding; and – further assessment was required of the impacts associated with the perimeter fencing, perimeter access track and asset protection zones. • Following its review of Amendment Report 2 and the final BDAR dated November 2025, confirmed that all matters were resolved and endorsed the recommended condition set.
NSW DCCEEW – Heritage NSW	<ul style="list-style-type: none"> • Following its review of the EIS, requested: <ul style="list-style-type: none"> – clarification regarding the consultation dates, extent of surveys carried out, areas of extensive past disturbance and the extent of potential impact due to Bundure Road upgrades; – recommended updates to management and mitigation measures; and – provided recommended conditions including the preparation of an Aboriginal Cultural Heritage Management Plan. • Following its review of the Submissions Report, Amendment Report 1 and an amended Aboriginal Cultural Heritage Assessment Report (ACHAR) dated August 2024, confirmed that all matters were resolved.
Transport for NSW (TfNSW)	<ul style="list-style-type: none"> • Following its review of the EIS, requested: <ul style="list-style-type: none"> – further information regarding site access, proposed access routes and route assessment, key intersection performance and design, consideration of safety risks and cumulative impacts, turn warrant assessments and provision of swept paths (including for high-risk heavy vehicles requiring escort); and – strategic designs for intersection upgrades, the quantities and commitments regarding the use of shuttle buses, traffic count data and the impact of the accommodation camp on the road network. • Following its review of the Submissions Report, Amendment Report 1 and an amended Traffic Impact Assessment (TIA) dated August 2024, requested: <ul style="list-style-type: none"> – further information on the strategic designs for the impacted state road intersections, high-risk heavy vehicle requiring escort route assessment, and a traffic assessment associated with the temporary accommodation camp. • Following its review of the additional information referred on 24 October 2024, advised the comments previously provided had not been adequately addressed. • Following its review of Amendment Report 2 and an updated TIA dated November 2025, confirmed that all matters were resolved and endorsed the recommended condition set.
DPIIRD – Agriculture	<ul style="list-style-type: none"> • Following its review of the EIS, requested: <ul style="list-style-type: none"> – clarification regarding the extent of earthworks being carried out; and

Agency	Advice Summary
	<ul style="list-style-type: none"> – recommended management strategies for potential biosecurity issues through a Biosecurity Management Plan and rehabilitation of the site at the completion of operation. • Following its review of the Submissions Report and Amendment Report 1, confirmed that all matters were resolved and reiterated that a Biosecurity Management Plan should be required as a condition of approval. • DPIRD Agriculture has reviewed and endorsed the recommended condition set and the commitment by Spark Renewables to prepare a biosecurity management plan.
DCCEEW – Water Group	<ul style="list-style-type: none"> • Following its review of the EIS, requested further information in relation to water supply and the ability to obtain the necessary water volumes for the project. • Following its review of the Submissions Report and Amendment Report 1, confirmed that all matters were resolved.
NSW Rural Fire Service (RFS)	<ul style="list-style-type: none"> • Following its review of the EIS, advised: <ul style="list-style-type: none"> – the Bushfire Assessment Report (BAR) dated October 2023 addressed the requirements of the <i>Planning for Bush Fire Protection 2019</i> and raised no objection to the project subject to the recommendations identified in the BAR being implemented; and – recommended that the available operational response for emergency services be considered. • Following its review of the Submissions Report, Amendment Report 1 and the amended BAR dated August 2024, raised no objection to the project subject to the bushfire mitigation measures identified in the amended BAR being implemented, which Spark Renewables has committed to. • Following its review of Amendment Report 2, advised there were no further comments. • RFS has reviewed and endorsed the recommended condition set.
Fire and Rescue NSW (FRNSW)	<ul style="list-style-type: none"> • Following its review of the EIS, recommended preparation of a Fire Safety Study, Emergency Plan, Emergency Services Information Package and Emergency Responders Induction Package. • Following its review of the Submissions Report, Amendment Report 1 and Amendment Report 2, advised there were no additional comments or recommendations. • FRNSW has reviewed and endorsed the recommended condition set.
Energy Corporation of NSW (EnergyCo)	<ul style="list-style-type: none"> • Encouraged Spark Renewables to collaborate and coordinate with neighbouring developers, Transgrid and Council to minimise cumulative impacts on the locality and to maximise benefits for the community. • EnergyCo has reviewed and raised no concerns regarding the recommended conditions.
Transgrid	<ul style="list-style-type: none"> • Following its review of the EIS, Submissions Report and Amendment Report 1: <ul style="list-style-type: none"> – noted that Spark Renewables must engage Transgrid via a Connection Processes Agreement and further consultation will be required; – requested consideration be given to Transgrid’s Victoria to New South Wales – West double circuit 500kV transmission line preferred route, and provide any necessary easement for access, construction, operation, and maintenance of its infrastructure; – noted that the transmission connection to Transgrid’s Dinawan substation has been excluded from the application and a connection processes agreement would be required; and – proposed conditions regarding future collaboration between Transgrid and Spark Renewables throughout project phases and consideration of cumulative impacts.

Agency	Advice Summary
	<ul style="list-style-type: none"> Following its review of the recommended condition set: <ul style="list-style-type: none"> acknowledged that Spark Renewables is committed to working with Transgrid on the transmission connection from the project into Transgrid's Dinawan substation, including consideration of any necessary easements for the proposed Victoria to NSW Interconnector (VNI)-West and EnergyConnect-East projects; advised Spark Renewables would be responsible for seeking approval to modify the consent for the transmission connection once the design has been finalised; and expressed support for the recommended condition set.
NSW Health	<ul style="list-style-type: none"> Provided comment on the requirements for potable water trucked to site for use and consideration of in-demand health services that should be provided by the onsite medical practitioner. Spark Renewables has committed to consulting with Council and Edward River Council to identify potential health service limitations and implement mitigation measures.
NSW State Emergency Service (SES)	<ul style="list-style-type: none"> Following its review of the Submissions Report and Amendment Report 1: <ul style="list-style-type: none"> noted parts of the site are prone to flooding, requiring management; noted the design of the project should consider all flood scenarios, including probable maximum flood (PMF) and climate change impacts; recommended flood resilience be improved through adoption of the mitigation measures proposed by the Spark Renewables and raised access routes, sited away from flooding; and recommended flooding to be included in emergency plans and seek expert advice on flood risks. SES has reviewed and endorsed the recommended condition set.
DCCEEW – Energy Infrastructure	<ul style="list-style-type: none"> Advised that should the project connect to the transmission network in a timely way, it will meaningfully contribute to NSW's strategic priorities for energy transition and emissions reduction.

52. Crown Lands and Mining, Exploration and Geoscience (MEG) did not raise any concerns with the project.

4.6 Summary of Council advice

53. A summary of the issues raised by Council is provided in **Table 5** below and a link to all submissions in full is provided in **Appendix C**.

Table 5 | Summary of Council advice

Advice summary
<ul style="list-style-type: none"> Following its review of the EIS, provided comment and recommended conditions relating to the VPA, bushfire management, traffic, accommodation camp and waste. Following its review of the Submissions Report and Amendment Report 1, confirmed Council's concerns had been resolved. Council has reviewed and provided input into the recommended condition set.

5 Assessment

54. The Department has undertaken a comprehensive assessment of the merits of the project. This report provides a detailed discussion of the key issues, namely energy security (Section 5.1), land use compatibility (Section 5.2), biodiversity (Section 5.3), traffic and transport (Section 5.4), and visual amenity (Section 5.5).
55. The Department has also considered the full range of other potential impacts associated with the project and has included a summary of the conclusions in Section 5.6.

5.1 Energy Security

56. The project aligns with national and State policies that support diversifying the energy mix, reducing carbon emissions, and ensuring energy security.
57. With an 800 MW capacity, the solar farm could power approximately 142,400 homes during peak demand, supporting the *NSW Climate Change Policy* goal of net zero emissions by 2050. The integrated 356 MW / 1,574 MWh battery would store solar energy for use during peak demand and outside of daylight hours, enhance grid stability, and provide backup capacity.
58. Located within the South West REZ and directly to the south of the Dinawan substation, the project has direct access to the transmission network and abundant solar resources. It would contribute to expanding renewable energy, enhancing grid stability, and facilitating the transition to cleaner energy as coal-fired generators retire.

5.2 Land Use Compatibility

5.2.1 Provisions of the LEP

59. The site is located on land within the RU1 Primary Production zoned land under the Jerilderie LEP, which is a permissible land use for the project under the Transport and Infrastructure SEPP (as discussed in Section 3.3). Kidman Way is zoned SP2 Infrastructure (Classified Road).
60. The project is consistent with the objectives of RU1 zoning under the LEP, particularly by:
- providing diversity in primary industry enterprises and systems appropriate for the area;
 - minimising the fragmentation and alienation of resource lands; and
 - minimising conflict between land uses within this zone and land uses within adjoining zones.

61. While agriculture has traditionally supported the Murrumbidgee LGA, the solar farm would diversify the local economy, attract new investment, and provide seasonally stable economic benefits, aligning with Council's *Economic Development Strategy*.
62. Council's *Local Strategic Planning Statement* supports renewable energy projects, in particular solar farms, as an ambition for Council, and the *Murrumbidgee Community Strategic Plan 2022-2032* includes an aim to carefully manage resources and support sustainable energy initiatives.
63. The project aligns with government strategic plans, including the *Riverina Murray Regional Plan 2041*, which supports the transition to renewable energy and highlights the region's potential to derive economic benefits from renewable projects.
64. Spark Renewables' note that the siting of the project is within the southern extent of two large landholdings and therefore would not fragment any existing agricultural landholdings or enterprises, with existing agricultural land use to continue on land adjacent to the development footprint. Additionally, the amended development footprint reduced the development footprint from the EIS by 29%, further reducing impacts to agricultural land.
65. The Department considers that the project is compatible with the LEP and broader strategic planning objectives for the site. The project's impacts on other land uses are further discussed below.

5.2.2 Potential Impacts on Agricultural Land and Other Land Uses

66. The project has a development footprint of approximately 1,786 hectares, the majority of which has been previously cleared and used for agricultural activities, primarily sheep and cattle grazing.
67. Fifteen submissions objecting to the project raised concerns about establishing a solar farm on agricultural land.
68. Spark Renewables undertook a detailed assessment of the impact of the project on the local and regional agricultural industry.
69. Spark Renewables' assessment concluded that the impacts on agriculture would be temporary and minor in the context of the gross commodity values and land use coverage of the agricultural industries operating within the LGA. Spark Renewables also noted that impacts to existing agricultural activities within the site would be further mitigated the ability to return the land to its pre-existing land use after decommissioning of the project, and separately through sheep grazing.
70. Spark Renewables' assessment verified that the site is not mapped Biophysical Strategic Agricultural Land (BSAL) and approximately 90% of the land has a Land and Soil Capability

of Class 4 (moderate limitations), with the remainder of the site categorised as Class 5 (moderate-severe limitations) and Class 6 (severe limitations).

71. The inherent agricultural capability of the land would not be affected by the project due to the relatively low scale of the development. Spark Renewables would be required to return the land back to existing agricultural capability following decommissioning of the project. Agricultural operations of adjoining landholders would not be impacted and weeds would be controlled through strict land management measures included in the recommended conditions of consent.
72. Spark Renewables would maintain sheep grazing within the development footprint during project operation, supporting both solar energy generation and agricultural production.
73. The project's development footprint, along with other proposed SSD solar and wind farms in the South West REZ, totals approximately 10,142 ha, representing just 0.46% of the region's 2.78 million ha of agricultural land. Given the nature and scale of the established agricultural industries within the region, the project would result in a negligible reduction in the overall agricultural productivity of the region.
74. The potential loss of a small area of agricultural land and land use conflicts must be balanced against:
 - strategic renewable energy goals of the Commonwealth and NSW governments;
 - environmental benefits, especially in reducing greenhouse gas emissions;
 - economic benefits from good solar resources and existing network capacity; and
 - dispatchable energy's role in grid stability and reliability.
75. Spark Renewables has proposed a number of mitigation measures, consistent with the *Large-Scale Solar Energy Guideline*, to reduce the potential impacts and minimise land use conflict, including:
 - measures to minimise impacts associated with weeds, pathogens and pest species;
 - measures to minimise soil disturbance and erosion;
 - soil management measures to limit impacts to soil resources; and
 - separately, maintaining sheep grazing.
76. The Department finds that the project would not fragment or alienate any resource lands, and the land could readily be returned to agricultural land following decommissioning.
77. The Department considers that the project represents an effective and compatible use of the land within the region and that the site is suitable for the project.

5.2.3 Recommended Conditions

78. The Department has recommended conditions requiring Spark Renewables to maintain the agricultural capability of the site, including establishing ground cover and maintaining grazing within the site where practicable. Spark Renewables would be required to fully reinstate the agricultural capability of the land following decommissioning of the project, including the requirement to return the development footprint to its existing land and soil capability.
79. The Department notes that DPI Agriculture were satisfied that the project would not compromise the long-term use of the land for agricultural purposes, subject to the implementation of the mitigation measures described above and the recommended conditions.
80. With the implementation of the recommended conditions and Spark Renewables' proposed mitigation measures, the Department considers that the project would not result in land use conflicts.

5.3 Biodiversity

81. The site is predominantly comprised of native vegetation in varying conditions. Due to historical overstorey removal and grazing, native vegetation on site is predominantly derived native grasslands, areas of natural grasslands and fragmented and small areas of regenerating woodlands, with wetlands scattered throughout.
82. Thirty-one public submissions expressed concerns about the biodiversity impacts on the vegetation communities, threatened species present on site and disruption to existing conservation arrangements. These issues are discussed further below.
83. A BDAR was prepared for the project in accordance with the BC Act and Biodiversity Assessment Method (BAM), with a revised and final versions of the BDAR prepared in response to issues raised by CPHR, including further justification of the survey effort, avoidance of SAll, updates to mitigation measures, assessment of MNES, further detail on total loss versus partial loss and updates to the BAM-C to consider staged retirement of credits. The final BDAR (dated November 2025) along with additional information was reviewed and accepted by CPHR.

5.3.1 Avoidance and mitigation

84. Spark Renewables has generally focused on avoidance of impacts through the refinement of the project layout and avoidance of higher quality native vegetation and habitat during

site selection and design of the project. This is consistent with the *Large-Scale Solar Energy Guideline's* focus on avoiding or minimising impacts during site selection and design.

85. Overall, Spark Renewables has designed the project to avoid and minimise impacts on high quality vegetation and habitat, including:
- project siting to minimise impacts to native vegetation, which, following project amendments, have been reduced from 2,447 ha to 1,771 ha (28% reduction);
 - project siting to avoid impacts to better condition native vegetation and threatened species, including avoiding impacts to Plains Wanderer Important Habitat Areas;
 - avoiding approximately 97.4% of hollow bearing trees, with 38 out of 39 hollow bearing trees retained within larger patches of Plant Community Type (PCT) 13 Black Box Lignum woodland wetland and PCT 15 Black Box open woodland wetland; and
 - avoiding and minimising impacts to wetland vegetation communities.
86. Spark Renewables has included a number of mitigation measures to minimise indirect impacts to adjacent vegetation through exclusion fencing and implementation of a Biodiversity Management Plan (BMP). The project maintains habitat connectivity throughout areas of retained vegetation, and minimising impacts to species that may migrate between the site and adjacent biodiversity conservation areas.

5.3.2 Native Vegetation

87. The project has the potential to impact biodiversity through the clearing of 1,771 ha of native vegetation of varying condition.
88. Of the 1,771 ha of native vegetation impacted by the project comprises the following plant community types (PCT): 0.12 ha of *Black Box - Lignum woodland wetland* (PCT 13), 0.16 ha of *Black Box open woodland wetland* (PCT 15), 1.14 ha of *Lignum shrubland wetland* (PCT 17), 0.05 ha of *Plains Grass grassland* (PCT 45), 1.68 ha of *Curly Windmill grassland* (PCT 46) and 1,768.19 ha of *Weeping Myall open woodland* (PCT 26). Of the area mapped as PCT 26 within the development footprint on 0.42 ha is intact, with the remaining areas mapped as sparse condition (917.88 ha) and derived native grassland (DNG) (849.89 ha).
89. Several of the PCTs identified on site are associated with listed ecological communities, including 918.3 ha (PCT 26) is listed as endangered ecological community (EEC) *Myall Woodland in the Darling Riverine Plains, Brigalow Belt South, Cobar Peneplain, Murray-Darling Depression, Riverina and NSW South Western Slopes bioregions* under the BC Act, 0.42 ha is listed as EEC *Weeping Myall Woodlands* under the EPBC Act and 1.73 ha is listed as critically endangered ecological community (CEEC) *Natural Grasslands of the Murray Valley Plains* under the EPBC Act.

90. Table 6 provides a summary of the impacts of the project, and the relevant ecosystem credit liability under the NSW Biodiversity Offset Scheme. Spark Renewables has proposed the staged retirement of the project's biodiversity credits to align with the delivery of discrete packages of work, comprising 'enabling works', 'Stage 1', and 'Stage 2'.

Table 6 | Ecosystem credit requirements

Plant Community Type (PCT)	Ecosystem credits required		
	Enabling Works	Stage 1	Stage 2
PCT 13 - Black Box - Lignum woodland wetland of the inner floodplains in the semi-arid (warm) climate zone (mainly Riverina Bioregion and Murray Darling Depression Bioregion)	0	4	0
PCT 15 - Black Box open woodland wetland with chenopod understorey mainly on the outer floodplains in south-western NSW (mainly Riverina Bioregion and Murray Darling Depression Bioregion)	0	0	5
PCT 17 - Lignum shrubland wetland of the semi-arid (warm) plains (mainly Riverina Bioregion and Murray Darling Depression Bioregion).		26	10
PCT 26 - Weeping Myall open woodland of the Riverina Bioregion and NSW South Western Slopes Bioregion	223	10,295	15,049
PCT 45 - Plains Grass grassland on alluvial mainly clay soils in the Riverina Bioregion and NSW South Western Slopes Bioregion•	0	0	3
PCT 46 - Curly Windmill Grass - speargrass - wallaby grass grassland on alluvial clay and loam on the Hay Plain, Riverina Bioregion	0	91	2

5.3.3 Threatened Flora and Fauna Species

91. The project has the potential to affect flora and fauna species listed in the BC Act and EPBC Act through direct habitat loss from vegetation clearing, and from indirect impacts.

Ecosystem Credit Species

92. Direct impacts resulting from the development footprint include loss of habitat for 34 threatened species identified or predicted to occur as ecosystem credit species. Nine species were detected within the site during field surveys. Potential direct impacts on these species would be offset via the ecosystem credit offsets detailed in Table 6.
93. Indirect impacts, including indirect impacts to adjacent vegetation and habitat were assessed to have a low to moderate likelihood of occurring. Indirect impacts would be

managed through the implementation of accepted best practice management measures during construction, implementation of weed and pest management regimes and the incorporation of fauna friendly components in fencing.

Species Credit Species

94. Thirteen candidate threatened flora species and eleven candidate threatened fauna species were identified as having potential to occur within the development footprint and were the subject of targeted surveys. Targeted species surveys detected two flora species and one fauna species within the development footprint. Table 7 details the conservation significance and the species credit liability for these species that would offset direct and indirect impacts.

Table 7 | Species credit requirements

Species Impacts	Type	Conservation Significance		Species credits required		
		BC Act	EPBC Act	Enabling Works	Stage 1	Stage 2
Slender Darling Pea (<i>Swainsona murrayana</i>)	Flora	Vulnerable	Vulnerable	0	482	0
Silky swainsona-pea (<i>Swainsona sericea</i>)	Flora	Vulnerable		0	523	32
Southern Bell Frog (<i>Litoria raniformis</i>)	Fauna	Vulnerable	Vulnerable	5	1,350	293

5.3.4 Serious and Irreversible Impacts

95. The project may impact the Plains Wanderer (*Pedionomus torquatus*), listed as at risk of serious and irreversible impacts (SAIL) under Principle 1 of the *Biodiversity Conservation Regulation 2017*.
96. Surveys undertaken within the site and surrounds did not detect any individuals of the Plains Wanderer and Spark Renewables concluded that the project is not likely to impact on individuals.
97. The development footprint was amended to exclude all Important Mapped Habitat (IMH) areas of Plains Wanderer habitat. Impacts would be limited to 0.94 ha of potential Plains Wanderer habitat within a 100 m buffer of IMH for the Plains Wanderer and the impacted area is separated from the IMH by the CIC. Spark Renewables estimates this impact represents 0.01% of the 598.8 ha of potential habitat within 10 km of the subject land (which includes the development footprint and additional areas where indirect and prescribed

impacts may occur). CPHR confirmed it was satisfied that concerns raised in response to the EIS have been addressed and consider that SAI on the Plains Wanderer is? unlikely.

98. Avoidance of habitat has been prioritised and the project has been designed such that areas of IMH would not be isolated as gates and perimeter fencing would follow the southern and western portions of the IMH 100 m buffer. Furthermore, Spark Renewables has committed to fox control to limit predation, and development and implementation of a groundcover management plan to reduce predation, promote the retention of native groundcover within the development footprint, and prevent weed ingress. Consequently, the Department considers there is unlikely to be a SAI impact on the Plains Wanderer.

5.3.5 Aquatic Ecology

99. Several ephemeral watercourses associated with Delta Creek are located within the site along with several shallow topographic depressions. These depressions create swamp and wetland environments during rainfall events that could provide aquatic habitat corridors for certain species.
100. There is no Key Fish Habitat, as mapped by the NSW Department of Primary Industries (DPI), within 10 km of the site.
101. Spark Renewables determined that the project would not have a material impact on groundwater flows, and impacts to groundwater dependent ecosystems (GDEs) are unlikely.
102. Spark Renewables has minimised impacts to ephemeral wetlands, wetland vegetation communities, drainage lines and existing farm dams through project siting. If farm dams require removal, Spark Renewables has committed to measures including draining several days prior to removal, having an appropriately qualified individual present to relocate fauna, and developing a dewatering plan as a component of the BMP.

5.3.6 Significant Impacts on Commonwealth-listed Species and Communities

103. Spark Renewables identified and assessed all threatened species and communities included in the Commonwealth Referral Decision (EPBC 2023/09516) (Referral Decision).
104. Assessments of significance were undertaken for threatened species that were identified as having a moderate or uncertain potential to occur within the site, including 10 threatened fauna species, seven threatened flora species and one threatened ecological community (TEC).
105. Spark Renewables concluded the project may have a significant impact on the Weeping Myall Woodlands TEC, Plains Wanderer and *Swainsona murrayana* and concluded that

impacts to the species would be adequately offset through meeting the biodiversity offset obligation established under the NSW Biodiversity Scheme.

106. Assessments of significance for all other ecological communities and species concluded that the project would be unlikely to have a significant impact on any of the threatened ecological communities or fauna species assessed.
107. CPHR reviewed the final BDAR and advised that it provides an appropriate assessment of listed threatened species and ecological communities and migratory species.
108. The Department considered Commonwealth matters in consultation with CPHR and the AG DCCEEW, including consideration of Spark Renewables assessments of significance, the relevant approved conservation advice, recovery plans and threat abatement plans (TAPs). A summary of this assessment is provided in **Appendix K**.

5.3.7 Biodiversity Offsets

109. Spark Renewables has committed to delivering a biodiversity offset strategy to compensate for the unavoidable loss of ecological values as a result of the project and have identified the following offsetting options for the project:
 - establishment of local Biodiversity Stewardship Sites to cover the credit requirements;
 - purchase of credits from the open market (if required); and
 - payment into the Biodiversity Conservation Fund (if required).
110. The Department notes that Spark Renewables has commenced investigations into the establishment of local Biodiversity Stewardship Sites and have identified six potential sites.
111. As noted above, Spark Renewables has sought to stage the retirement of offsets in accordance with an indicative staging plan comprising three stages: enabling works, Stage 1 and Stage 2. The Department has conditioned the retirement for each stage prior to commencing works that would impact biodiversity values requiring offset within each of the offset stage areas.

5.3.8 Cumulative Impacts

112. Spark Renewables' assessment considered 18 large scale renewable energy related projects in the South West REZ and found that many projects impact upon similar PCTs (such as PCT 16, PCT 26 and PCT 24), TECs (Weeping Myall Woodland and Natural Grasslands of the Murray Darling Plain), habitats and threatened species. The assessment identified that there is potential for significant impacts on PCT 26 (Weeping Myall Woodlands) and the impacts to the area of potential occupancy for the Plains Wanderer,

when taking into account the cumulative impact of the project. Direct impacts to PCT 26 (Weeping Myall Woodlands) from the project would account for 0.14% of the total cumulative impacts associated with renewable energy projects within the region.

113. Offsets for residual significant impacts for these species have been provided through the ecosystems credits and species credits as identified above. The Department notes that more registrations have been received for the access rights to the South West REZ than available gigawatts and that cumulative impacts to biodiversity may be subject to change.

5.3.9 Recommended Conditions

114. The Department has recommended Spark Renewables retire the ecosystem and species credits outlined in Table 6 and Table 7 in accordance with the NSW Biodiversity Offsets Scheme prior to carrying out works that could directly or indirectly impact the biodiversity values requiring offset in each of the offset stage areas.
115. The Department has recommended conditions requiring Spark Renewables to:
- avoid the disturbance of native vegetation or fauna habitat located outside the development footprint;
 - prepare and implement a BMP in consultation with CPHR and AG DCCEEW, including measures to:
 - minimise clearing and avoid unnecessary disturbance of vegetation located within the development footprint;
 - minimise impacts to fauna on site, including the siting of security fencing outside of the area of IMH for the Plains Wanderer and design of security fencing to incorporate fauna friendly components as far as practicable;
 - rehabilitating and revegetating temporary disturbance areas with appropriate native species;
 - managing weeds, feral pests and pathogens, having regard to the actions in relevant Threat Abatement Plans; and
 - a program to monitor and report on the effectiveness of mitigation measures; and
 - prepare and implement an unexpected threatened species finds protocol, to be implemented if additional threatened species are discovered on the site.
116. Subject to the recommended conditions and the mitigation measures committed to by Spark Renewables, the Department and CPHR consider that the project could be undertaken in a manner that maintains the biodiversity values of the locality over the medium to long term.

5.4 Traffic and Transport

117. Five submissions raised concerns about the potential traffic and road safety impacts on local roads during construction.
118. Construction involves the delivery of plant, equipment and materials, including the movement of heavy vehicles requiring escort, which has the potential to impact on the local and regional road network.
119. In response to submissions and advice received from TfNSW, Spark Renewables updated its Traffic Impact Assessment (TIA) including additional assessment of the haulage route, intersection upgrade designs, swept paths and turn warrant assessments. The amendment reports changed the proposed four-way intersection at Kidman Way with access points to the project's eastern and western sections and included road upgrades at the Newell Highway / Kidman Way intersection to facilitate the movement of high-risk heavy vehicles requiring escort (HVRE).

5.4.1 Traffic route and Site Access

120. The access route for heavy vehicles would be via Sturt Highway and Kidman Way from the north or Newell Highway and Kidman Way from the south. Water trucks supplying the project during construction would travel along McLennons Bore Road, Cadell Road (south) and Kidman Way between the site and groundwater bores GW401211 and GW062049.
121. The haulage route for high risk HVRE would be from Port Kembla via the Princes Motorway, Hume Highway, Sturt Highway, Newell Highway and Kidman Way, from the south.
122. Four access points are proposed, with 50% of traffic coming from the north and 50% from the south along Kidman Way:
 - two access points on Kidman Way, approximately 1.6 km north of Bundure Road (Kidman Way eastern site access and Kidman Way western site access), creating two staggered intersections for access to the eastern and western site portions and facilitating cross movements between the eastern and western portions of the site;
 - two access points would be from Bundure Road, east of its intersection with Kidman Way (Bundure Road eastern site access and Bundure Road western site access).
123. The Bundure Road eastern and western site accesses have been positioned to minimise the need for additional crossings of the CIC, providing access on either side of the channel. The existing bridge in the north of the development footprint would be used to provide access to vehicles across the CIC.
124. All vehicles associated with the project would access the site via one of the four site access points. No heavy vehicles requiring escort (including high-risk vehicles requiring escort)

would use the site access points on Bundure Road. Movements across Kidman Way, between the Kidman Way eastern site access and the Kidman Way western site access would mostly be limited to shuttle buses transporting workers from the accommodation camp to their active work site and return.

5.4.2 Traffic volumes

125. The highest volume of traffic related to the project during the 36-month construction period would occur during months 10 and 21 of construction. The estimated peak daily vehicle movements during construction would be up to 167 heavy vehicles, and 142 light vehicle movements, which includes shuttle bus movements (peak of 48) transporting workers from the accommodation camp to their active work areas.
126. Heavy vehicles (including HVRE) up to 26 m in length would be used for transporting materials and components to the site. It is anticipated that there would be a total of 17 movements of HVRE during construction, including up to 4 movements of high-risk HVRE.
127. Spark Renewables' assessment found that in the AM and PM peak, the intersections on Kidman Way perform satisfactorily under the worst-case cumulative scenario. Significant impacts to traffic safety or road flow during construction are not predicted, with intersections performing satisfactorily, with only minor queuing of traffic. Following its review of the updated TIA, TfNSW raised no concerns on the cumulative traffic impacts.
128. Traffic generation during operations would be significantly less than construction. It is anticipated approximately 10 light vehicle movements and one heavy vehicle movement per day would be required for routine maintenance. Heavy vehicles may occasionally be required for maintenance. These movements would not have a discernible impact on the external road network.

5.4.3 Road upgrades

129. The Department has included a requirement for Spark Renewables to undertake the following road upgrades prior to commencing construction or pre-construction minor works (whichever come first) in the recommended conditions of consent:
 - Kidman Way western site access intersection: a short auxiliary left turn (AUL(s)) on the approach from the south and channelised right turn (CHR) treatment on the approach from the north;
 - Kidman Way eastern site access intersection: an AUL(s) on the approach from the north and short CHR treatment on the approach from the south; and

- Kidman Way / Bundure Road / Liddles Lane intersection: CHR(s) treatment on both the southern and northern approaches on Kidman Way, a basic left turn (BAL) comprising a widened road shoulder on the approach from the north, and sealing of Bundure Road to 50 m past the Bundure Road eastern site access and 50 m from the intersection up Liddles Lane.
130. The Department notes that while no vehicles associated with the development would use Liddles Lane, increased traffic volumes on Kidman Way and Bundure Road would place additional demand on the Kidman Way / Bundure Road / Liddles Lane intersection. To ensure the efficient movement of through traffic along Kidman Way, this intersection would be upgraded to accommodate the forecast increase in traffic.
131. To facilitate high-risk HVRE movements from Port Kembla, additional hardstand on the northern and western corner of the Newell Highway / Kidman Way intersection would be required. The Department has included a requirement for Spark Renewables to complete this road upgrade prior to the use of HVRE (including high-risk HVRE) on the public road network in the recommended conditions of consent.
132. Spark Renewables consulted with TfNSW and Council about the proposed road upgrades and has committed to preparing a construction traffic management plan, prior to the commencement of works. This would include:
- measures to manage the obstructions to sight distance for vehicles exiting the site via the Bundure Road site access points, such as adoption of safety measures in the Driver's Code of Conduct and placement of warning signs for trucks entering; and
 - 'No overtaking or passing' signage be placed on the east side of the existing bridge over the CIC on Bundure Road, and traffic on the west side of the bridge would have priority to avoid queuing onto Kidman Way.

5.4.4 Recommended conditions

133. The Department has recommended conditions of consent requiring Spark Renewables to:
- undertake the road upgrades to the site entry points prior to the commencing pre-construction minor works and upgrades to the Newell Highway/ Kidman Way intersection prior to commencing the transport of high-risk HVRE;
 - restrict project related heavy vehicles to the use of the approved access route only;
 - restrict the number of heavy vehicles during construction, upgrading and decommissioning to the peak volumes identified in the final Traffic Impact Assessment;
 - ensure the length of vehicles (excluding high-risk HVRE) does not exceed 26 m; and

- prepare and implement a Traffic Management Plan (TMP) in consultation with TfNSW and Council, including provisions for dilapidation surveys, consultation with landholders regarding stock and farm traffic movements along the local road network, and details of the measures that would be implemented to address road safety.

134. TfNSW has confirmed they are satisfied with the proposed access route and road design and upgrades, subject to the recommended conditions of consent. Council requested that Liddles Lane and Bundure Road east of the Bundure Road eastern access point not be used by vehicles associated with the development and this has been included as a recommended condition of consent.

5.5 Visual

135. Thirteen public submissions raised concerns about potential visual impacts, including potential impacts on the visual landscape and scenic quality of the region. The Department visited the site to assess visual impacts.
136. Spark Renewables provided a Landscape and Visual Impact Assessment with the EIS and a technical memo assessing the amended application using the methodology outlined in the revised *Large-Scale Solar Energy Guideline (2022)* and accompanying *Technical Supplement - Landscape and Visual Impact Assessment*. This assessment confirmed the effectiveness of proposed mitigation strategies.

5.5.1 Visual Context

137. The site and surrounds are located within a largely cleared agricultural landscape that is heavily disturbed by agricultural use. Land within the site is predominantly flat and open.
138. Dinawan substation and transmission infrastructure is currently being constructed and would be located north of the site.
139. There is one non-associated residence within 5 km of the amended development footprint (R049), located 656 m south. Three lots with dwelling entitlements directly adjoin the project area, one of which is the lot of non-associated receiver R049.
140. Four local roads are located within 1 km of the site - Kidman Way running north-south through the site, Cadell Road to the north, and Bundure Road and Liddles Lane running east-west directly south of the site.

5.5.2 Visual Mitigation

141. The project has been designed to minimise visual impacts by locating the BESS, substation and switchyard infrastructure in the northern part of the development footprint, away from nearby residences and retaining established vegetation within and around the site.
142. Following the exhibition of the development application, and to address concerns raised by the community, Spark Renewables made a number of changes to the project.
143. Refinements to the development footprint have reduced the development footprint and provided an increased setback of up to 100 m along Kidman Way and Liddles Lane, resulting in increased separation distances between the project and residences R049 to the south and R036 to the west. The assessment concluded that the project would result in low visual impacts at residential receivers and public viewpoints along Kidman Way and, accordingly, no mitigation is required in accordance with the *Technical Supplement – Landscape and Visual Impact Assessment*.
144. Spark Renewables has also proposed additional avoidance and mitigation measures to reduce potential visual impacts on surrounding receivers, including minimising unnecessary night-time lighting of the development and using lower intensity lighting to reduce disturbance to neighbouring properties.

5.5.3 Assessment

Landscape

145. Public submissions highlight that the landscape is valued by the community for its scenic value.
146. The visual impact assessment found that project infrastructure, including the BESS and associated substation, would be visible to motorists on Kidman Way. However, visual impacts would be low due to the large setback distance between the road and the project infrastructure, and views would be limited to motorists passing at speed, resulting in only brief and transient visual exposure. Spark Renewables' assessment found minimal impact on all public viewpoints, given the low visual sensitivity of the low-use roads.
147. Spark Renewables found that the proposed night lighting is unlikely to impact the night-time landscape, as light sources will be low-brightness and infrastructure is sited to minimise visibility from residences and public viewpoints.
148. The Department acknowledges that the solar farm would alter the immediate landscape, but that any impact would be limited. The proposed setback distances would minimise views of the project from the surrounding area.

Residences

149. The project has been designed to minimise visibility from surrounding residences, with setbacks provided and the solar panels are relatively low lying (up to 4.66 m high). The BESS, maintenance buildings, power conversion units, and substation would resemble agricultural sheds, commonly used in the area.
150. Of the two closest non-associated residences (R036 and R049), the visual assessment concluded visual impacts would be low, due to the existing vegetation screening, as shown in Figure 4. The reduction to the development footprint as part of the amended project further reduced the visibility of the project from both receivers.



Figure 4 | Photomontage of view from R049

151. The visual impact assessment identified that the two lots with dwelling entitlements may have views of the project using a bare earth digital terrain model, which excludes all vegetation, buildings, and man-made objects that may otherwise limit views to the project. However, the assessment concluded that these views would be limited by existing vegetation along Cadell Road and could be further mitigated by screen planting at future dwellings.
152. The Department considers that visual impacts at all potentially affected residences would be low due to separation distance and the screening provided by existing vegetation, which is consistent with the requirements of the *Large-Scale Solar Energy Guideline (2022)* and accompanying *Technical Supplement - Landscape and Visual Impact Assessment*.

Glint and Glare

153. While photovoltaic panels are designed to absorb rather than reflect sunlight, the Department acknowledges that some components, like the galvanised steel mounting framework, may cause glare or reflection, although this diminishes over time.
154. Spark Renewables' assessment concluded that yellow glare is likely on Cadell Road, Bundure Road, Liddles Lane, and Kidman Way. Without controls, there would be moderate

potential for yellow glare on Bundure Road (about 26.2 hours/year) and high potential for yellow glare on Liddles Lane (about 35.9 hours/year). To minimise glare, Spark Renewables has committed to implementing a PV exclusion zone of up to 100 m from the Kidman Way road corridor for a '2 in portrait' (2P) module configuration (i.e. two solar modules mounted vertically, end-to-end on a tracker), and up to 50 m for a '1 in portrait' (1P) configuration (i.e. a single solar module, mounted vertically on a tracker) and restricting backtracking operations, to limit the panel angles during times when glint and glare have the potential to occur.

155. Glare modelling found that with the mitigation measures, there is no potential for yellow glare along Bundure Road and Liddles Lane. Subject to the recommended conditions and mitigation measures, the Department is satisfied that the project would not cause significant glint or glare impacts.

Cumulative

156. Spark Renewables' assessment determined five projects (Dinawan Wind Farm, Project EnergyConnect, Argoon Wind Farm, VNI West and Yanco Delta Wind Farm) within 5 km would create cumulative visual impacts and are likely to be visible alongside Dinawan Solar Farm.

5.5.4 Recommended Conditions

157. To address residual visual impacts, the Department has recommended a range of stringent conditions requiring Spark Renewables to:
- limit the angle of solar panel backtracking in accordance with Glint and Glare Assessment Results Attachment B -Scenario 2 presented in the EIS;
 - minimise off-site visual impacts of the development, including potential for glare or reflection;
 - minimise the visual impact of ancillary infrastructure, including the selection of paint colours and finishes to blend with the surrounding landscape;
 - not mount advertising signs or logos on site, except for identification or safety purposes; and
 - minimise the off-site lighting impacts of the development and ensure the development complies with Australian/New Zealand Standard AS/NZS 4282:2019 – Control of Obtrusive Effects of Outdoor Lighting.
158. The site selection and project design are consistent with the Department's *Large-Scale Solar Energy Guideline*, avoiding high-visibility sites like prominent areas or valleys with

elevated residences. The development footprint has been amended to increase setback distances from non-associated residences and public viewpoints.

159. The Department considers Spark Renewables has minimised the project's visual impacts to an acceptable level while maintaining the proposed solar capacity.

5.6 Other Issues

160. The Department’s consideration of other issues is provided in Table 8.

Table 8 | Assessment of other issues

Issue	Recommended Conditions
Heritage	
<u>Aboriginal Cultural Heritage</u> <ul style="list-style-type: none">• Spark Renewables undertook a survey of the site in consultation with Registered Aboriginal Parties (RAPs) that identified 35 Aboriginal cultural heritage sites. Of these, eight were located within the amended development footprint, comprising three artefact scatters, one potential hearth, one hearth with artefact scatters, and three isolated stone artefacts.• Of the eight sites located within the amended development footprint, impacts range from partial loss (one site) to complete loss of value (seven sites, one considered to be of high overall significance (DEHS-2023-HAS4)). The recommended conditions include preparation of a procedure for excavation and salvage of DEHS-2023-HAS4 within the Heritage Management Plan to be prepared for the development.• Prior to commencement of construction, and in consultation with RAPs, surface collection and salvage would be carried out. DEHS-2023-H4 (Hearth) requires further investigation to validate the site prior to any salvage. Outcomes from the consultation with RAPs resulted in the redesign of the development footprint to avoid impact to Aboriginal sites and areas of high archaeological potential.• Heritage NSW were consulted throughout the assessment and confirmed that all matters were resolved.• With these measures, the Department and Heritage NSW consider the project would not significantly impact the Aboriginal heritage values of the locality.	<ul style="list-style-type: none">• Ensure the development does not cause any direct or indirect impacts on any items located outside the approved development footprint.• Prepare and implement a Heritage Management Plan, including procedures for unexpected finds, in consultation with RAPs and Heritage NSW.• Include a contingency plan in the event of unexpected heritage finds or Aboriginal skeletal material are discovered.
<u>Historic Heritage</u> <ul style="list-style-type: none">• The site and surrounds are not subject to any Commonwealth or State historic heritage listings and no locally listed heritage items occur within the development footprint.	

Issue	Recommended Conditions
<ul style="list-style-type: none"> • One historic heritage item comprising a site with a scatter of artefacts containing glass, ceramic vessel fragments, horseshoes and scrap metal, suggesting the possibility of the site's utilisation as a horse paddock with surrounding ancillary structures (DEHS001) was recorded during survey adjacent to the development footprint and has potential to be indirectly impacted. DEHS001 is considered to hold local heritage significance with the archaeological resource potentially meeting the threshold for relics. • Spark Renewables has committed to the establishment of a no-go zone around DEHS001 during construction in its vicinity, and the preparation and implementation of an unexpected finds protocol should previously unrecorded historical objects be encountered. • The Department is satisfied that the project would not have any adverse impacts on historic heritage items. 	
Water	
<p><u>Surface Water and Groundwater</u></p> <ul style="list-style-type: none"> • The site is located within the <i>Water Sharing Plan for the Murrumbidgee Unregulated River Water Sources 2012</i> and includes the Lower Billabong Anabranch Water Source and Murrumbidgee Western Water Sources. • The site contains four first-order and one second-order watercourse, which would be incorporated into the stormwater drainage system. A third-order watercourse, that would not be impacted by the project, also exists on site. All watercourses are ephemeral and drain into Yanco Creek, about 6 km south. • The development footprint contains the CIC, which traverses the eastern portion of the site. Irrigation infrastructure associated with the CIC would be retained. Four underground cable crossings are proposed where the development intersects the CIC. Spark Renewables consulted with Coleambally Irrigation Co-operative Limited (CICL) regarding the design and construction of cable crossings of the CIC and have identified that the preferred approach would be to install the cables through trenching when the CIC is typically dry. Spark Renewables has committed to continued consultation with CICL on designs, construction methods and timing of works. Vehicle crossing of the CIC would be via existing bridges and the Bundure Road eastern and western access points are located on either side 	<ul style="list-style-type: none"> • Design, construct and maintain the project to reduce impacts on surface water and flooding at the site. • Consult with CICL during design, construction and maintenance of any cable crossings of the CIC. • Reinstate all irrigation infrastructure in consultation with the host landholder on decommissioning of the project. • Prepare a Soil and Water Management Plan in consultation with the Water Group. • Spark Renewables must ensure that it has sufficient water for all stages of the development, and if necessary, adjust the scale of the development to match its available water supply.

of the CIC to minimise the need for additional watercourse crossings and therefore impacts on waterways.

- The development footprint contains other minor irrigation systems, including privately owned channels and agricultural dams, some of which may be removed, in consultation with the host landholder. Spark Renewables has committed to reinstating irrigation infrastructure, in consultation with the landholder, as part of decommissioning of the project.
- The site is located within the *Water Sharing Plan for the Murrumbidgee Alluvial Groundwater Sources 2020* and includes both the Lower Murrumbidgee Shallow and Deep groundwater sources.
- Noting that the groundwater levels are reported to be at depths from 15 metres to 35 metres below ground level, the project is unlikely to intercept groundwater levels or adversely affect groundwater resources.
- Construction of the project has potential to cause minor localised disruption to drainage and, if unmanaged, may lead to sediment being present in runoff.
- Water quality impacts during operation could occur due to contamination from unintended spillages. Spark Renewables has committed to providing spill containment for the substation and switchyard and the BESS area.
- The potential for adverse water quality impacts would be managed through a Soil and Water Management Plan and progressive erosion and sediment control plans. With the implementation of these measures the Department considers there would be limited impacts to surface water.

Flooding

- Spark Renewables undertook flood modelling of the development for flood events up to and including the probable maximum flood (PMF). The development footprint was refined such that in a 1% Annual Exceedance Probability (AEP) flood event, much of the development would remain clear of floodwater with water depths less than 0.1 m and the location of the BESS would remain above the water level. In the 1% AEP flood event the water depths at the site access points would range between 0.1 and 0.3 m, with a rating of H1 peak flood hazard under the *Australian Disaster Resilience Handbook* (AIDR 2017), which is 'generally safe for people, vehicles and buildings'.
- The maximum flood depth impacting the workers accommodation camp during a 1% AEP is 0.12 m. This corresponds to a H1 peak flood hazard under the *Australian Disaster Resilience Handbook* (AIDR 2017), which is 'generally safe for people, vehicles and buildings'. Spark Renewables has committed

to developing flood management protocols for flood events that could impact construction sites or access and siting of temporary works, plant, materials and workforce facilities with consideration of flood risk.

- DCCEE Water Group were consulted throughout the assessment and confirmed all requirements had been adequately addressed, and NSW SES has reviewed and endorsed the recommended condition set.
- Spark Renewables has committed to preparing and implementing a flood management plan to manage residual flood risks and locating sensitive infrastructure above the 1% AEP flood level (or other suitable level of flood immunity as may be determined during detailed design). The Department has recommended conditions requiring Spark Renewables to prepare and implement a Flood Emergency Response Plan, include flood warning and evacuation management measures in the TMP, and design the site access in accordance with flood resilient design considerations.

Water Supply

- During construction, the project would require up to 230 megalitres (ML) of non-potable water for dust suppression, fire protection, and equipment washing, sourced from nearby groundwater bores and trucked to site. The workers' accommodation camp and construction offices would need 110 ML of potable water, transported weekly by truck from a local regulated source and stored in tanks connected to the accommodation and communal infrastructure.
- Spark Renewables has identified water supply from groundwater bores in Delta Park (GW401211) and Hawks Nest (GW062049). While extraction would not exceed the maximum limits under the Works Approvals, a modification would be needed to the Works Approvals to add a 'commercial' designation, and would be sought separately to the SSD approval. Spark Renewables would be required by the proposed conditions of consent to ensure there is sufficient water for all stages of the development.
- 5 ML of non-potable water would be required annually during operation, which would be sourced from the nearby Delta Park and Hawks Nest groundwater bores and trucked to site.
- The Water Group are satisfied that sufficient water entitlement and access to viable water supplies is available and Council did not raise concerns regarding water supply. The Department considers that the project would not result in significant impacts on water resources, subject to the recommended conditions.

Issue	Recommended Conditions
<p>Erosion and sediment control</p> <ul style="list-style-type: none"> • The majority (99.7%) of the development footprint has been assessed to have a low erosion hazard, based on the average slope. The project site is predominantly flat, with only 0.27% of the development footprint has a moderate to high erosion potential. • Spark Renewables has committed to implementing drainage, erosion, and sediment control measures, including channel improvements and sediment ponds, to reduce erosion hazards to acceptable levels. Erosion and Sediment Control Plans will be developed to manage potential impacts. • The Department considers any erosion and sedimentation risks can be effectively managed by the recommended conditions that require Spark Renewables to prepare a Soil and Water Management Plan in consultation with the Water Group. 	<ul style="list-style-type: none"> • Prepare a Soil and Water Management Plan in consultation with the Water Group prior to commencing construction. • Minimise soil erosion in accordance with the <i>Managing Urban Stormwater: Soils and Construction</i> (Landcom, 2004) and ensure the project is constructed and maintained to avoid causing erosion on site. • Ensure that the development does not cause any water pollution as defined under Section 120 of the POEO Act.
<p>Hazards and Risks</p> <p><u>Hazards analysis</u></p> <ul style="list-style-type: none"> • Spark Renewable's Preliminary Hazard Analysis (PHA), Amendment Report 1 Technical Memo (Hazards) and Amendment Report 2 Technical Memo (Hazards) assessed the risks associated with the transport and storage of hazardous materials, as well as the operation of the BESS itself, in accordance with <i>State and Environmental Planning Policy</i> (Resilience and Hazards SEPP), and the relevant Hazardous Industry Planning Advisory Papers. • The Department is satisfied that the dangerous goods stored on site would be unlikely to exceed the threshold limits in the Department's Hazardous and Offensive Development Application Guidelines 'Applying SEPP 33' and the project is not 'potentially hazardous' as per Chapter 3 of the Resilience and Hazards SEPP. • The project includes a 5.8 ha area for battery storage (located east of Kidman Way), with a total storage capacity of 1,574 MWh. The area identified for battery storage is sufficient to contain the BESS units, with adequate separation distances between each of the BESS units and to onsite and offsite infrastructure. 	<ul style="list-style-type: none"> • The BESS must not exceed the proposed delivery capacity of 356 MW and total storage capacity of 1,574 MWh and be installed in an arrangement consistent with the EIS. • Prepare a Fire Safety Study and an Emergency Plan for the development the meets the requirements of FRNSW and to the satisfaction of the Planning Secretary. • Ensure the project complies with the relevant asset protection requirements in the RFS's <i>Planning for Bushfire Protection 2019</i> and Standards for APZs.

Issue	Recommended Conditions
<ul style="list-style-type: none"> • The PHA and Technical Memo (Hazards) found that, subject to the separation distances, design, installation and maintenance of BESS units in accordance with Australian Standards, installation and maintenance of a BESS fire protection/suppression system, installation of fencing and security and emergency management protocols, the project would have a very low risk of a hazardous event occurring. • The Department considers the hazard risk for the project can be managed subject to the recommendations of the PHA and the Department's recommended conditions of consent, including, preparation of a Fire Management Plan, Fire Safety Study and Emergency Response Plan prior to construction. • Further, the project would comply with the <i>International Commission on Non-Ionizing Radiation Protection</i> (ICNIRP) guidelines for electric, magnetic and electromagnetic fields. 	<ul style="list-style-type: none"> • Ensure all chemicals, fuels and oils to be stored in accordance with Australian Standards and EPA requirements. • Prepare an Unexpected Finds Procedure for contamination prior to commencing construction.
<p><u>Bushfire Risk</u></p> <ul style="list-style-type: none"> • Fifteen public submissions raised concerns regarding increased fire risk, including bushfire impacts. • The site is not mapped as bushfire prone land. Spark Renewables prepared a Bushfire Assessment Report (BAR) to assess the bushfire threat to and from the project and identify protection measures to address those risks. • Spark Renewables has committed to mitigating bushfire risk by establishing a 10 m Asset Protection Zone (APZ) around critical infrastructure and complying with <i>Planning for Bushfire Protection 2019</i> and standards for APZs; preparing a Fire Management Plan, Fire Safety Study, and Emergency Response Plan per FRNSW recommendations; and ensuring adequate water supply, including static tanks at access points and mobile firefighting resources. • The Department consulted with RFS throughout the assessment and in preparing the conditions of consent, who advised the BAR addressed the requirements of the <i>Planning for Bush Fire Protection 2019</i>, and raised no objection to the project subject to the recommendations identified in the BAR being implemented, which Spark Renewables has committed to. • The Department considers the fire risks for the project can be managed subject to the recommended conditions including preparation of a Fire Safety Study and Emergency Plan to ensure all operational requirements are met and appropriate management measures are in place, consistent with the recommendations of RFS and FRNSW. 	

Issue	Recommended Conditions
<p><u>Contamination</u></p> <ul style="list-style-type: none"> Seventeen public submissions raised concerns regarding contamination risk to the environment. Spark Renewables has committed to using either monocrystalline or polycrystalline PV panels, which would not contain cadmium telluride (CdTe) or release any materials that present a risk to the environment and ensuring design of the BESS would include multiple levels of physical separation between chemicals within the cells and the environment. In response to a request for additional information, Spark Renewables provided a Preliminary Site Investigation (PSI) prepared by a qualified person, for the site confirming there were no specific records of contaminated sites identified within the site, and based on historical land use activities and a visual inspection of areas of interest within the site, the potential for widespread contamination is considered low. Spark Renewables would manage any residual risks as a part of an Unexpected Finds Procedure to guide responses to finds of contaminated material during construction, and has committed to implementing spill prevention and management measures during construction and operation. The Department considers that the contamination risk would be managed subject to the Department's recommended conditions of consent, which includes the requirement for an Unexpected Finds Procedure. 	
<p>Social impacts, accommodation and workforce</p> <ul style="list-style-type: none"> The EIS includes an accommodation camp for the project's entire workforce (i.e. 400 beds). There is the potential for construction of the project to overlap with the construction of the approved Project EnergyConnect, Coleambally BESS and the proposed Dinawan Wind Farm, Yanco Delta Wind Farm and Woodland BESS. The worker influx from multiple renewable projects may boost economic activity in the local area but may strain housing, healthcare, and labour resources. The proposed accommodation camp would help alleviate these pressures. Spark Renewables has committed to developing a Worker Code of Conduct as part of a Social Impact Management Plan to address concerns regarding privacy and public safety risk. Spark Renewables would service the accommodation camp in relation to water, sewage, waste, electricity and medical services as follows: 	<ul style="list-style-type: none"> Prepare an Accommodation and Employment Strategy for the project in consultation with Council and EnergyCo, with consideration of the cumulative impacts associated with other State significant development projects in the area. Prepare an Accommodation Camp Management Plan for the project in consultation with Council, NSW Health

Issue	Recommended Conditions
<ul style="list-style-type: none"> – the project would use groundwater from existing bores for non-potable needs. Potable water would come from rainwater tanks and commercial suppliers that would be stored in tanks onsite. The Department has included a condition requiring Spark Renewables to ensure there is sufficient water supply for all stages of the development; – sewage treatment would be managed through an on-site sewage treatment plant, with treated wastewater to be used during construction and potentially for non-potable functions; – putrescible waste, recyclable waste and general waste would be collected and stored in waste bins that would be emptied and removed by truck to licensed landfill or recycling centre. Licensed facilities to be used would be confirmed prior to construction commencing (see Waste discussion below); – Spark Renewables has included an on-site first aid facility which would be established and resourced with personnel with suitable first aid / medical training. NSW Health support the proposal for an onsite medic to reduce the impact on health services; and – electricity would be generated on-site via diesel generators and solar panels. Electricity may also be sourced via the local distribution network, should a fixed connection be established. • Council initially raised concerns regarding workers accommodation. Following review of the Submissions and Amendment Reports, Council advised it is satisfied with the proposal of the accommodation camp and that their concerns had been resolved. • While the Department considers there is sufficient workers accommodation for this project, the recommended conditions require Spark Renewables to develop an Accommodation and Employment Strategy and Accommodation Camp Management Plan, in consultation with Council, to manage potential cumulative impacts associated with multiple projects in the region, manage local and regional labour availability and manage impacts associated with the accommodation camp. 	<p>and EnergyCo prior to commencing construction.</p> <ul style="list-style-type: none"> • Spark Renewables must ensure that it has sufficient water for all stages of the development and if necessary adjust the scale of the development to match its available water supply.
Noise	
<ul style="list-style-type: none"> • Twenty-five non-associated residences are located within 10 km of the site. The closest non-associated residence, R049, is located 656 m south of the development footprint and over 2 km from the closest substation and BESS. Three lots with dwelling entitlements directly adjoin the project area, one of which is an associated lot (R156). • Noise generated during construction, upgrading and decommissioning activities is predicted to be below the ‘highly noise affected’ criterion of 75dB(A) in the EPA’s <i>Interim Construction Noise Guideline</i> 	<ul style="list-style-type: none"> • Minimise noise generated by all stages of the development in accordance with best practice requirements outlined in the ICNG and NPfl.

Issue	Recommended Conditions
<p>(the ICNG) at all non-associated residential receivers. Construction noise would comply with the noise management level of 45 dB(A) at all but one residence (R049), where noise levels are expected to be 61 dB(A) and 62 dB(A) for site establishment and delivery and installation of the solar and BESS components respectively, when activity occurs at the development footprint boundary closest to the receiver.</p> <ul style="list-style-type: none"> • The Department notes construction noise was assessed under a worst-case scenario, where one third of potential plant and equipment are operating for each corresponding construction stage at the point closest to the receiver. In practice, construction activities would take place at variable distances from sensitive receivers and R049 would experience noise levels about the <i>noise affected</i> level of the ICNG for short durations. • Use of the accommodation camp would be 24 hours per day, 7 days per week during construction. Spark Renewables has confirmed that operation of the accommodation camp is expected to comply with all relevant noise criteria at all residences during all time periods, including evening and night-time. No cumulative noise impacts associated with the assessment of the 24/7 operation hours of the accommodation camp are expected due to the low density of rural residences within the local area. • Spark Renewables has committed to preparing and implementing a Construction Noise Management Plan to manage impacts generated from construction works within 2 km of receiver R049. • During construction, road traffic noise is expected to exceed the <i>Road Noise Policy</i> at two receivers, located 40 and 50 m from Kidman Way, with increases of 2.2 – 2.3 dB predicted during peak periods of construction. The development would have minimal impact on other residences due to setbacks. Spark Renewables would limit road traffic noise by limiting traffic movements to the day period, where possible, and prioritising full loads to minimise traffic movements. The Department has included a requirement for the TMP to include these measures to mitigate road traffic noise impacts. • Operational noise would comply with relevant noise criteria, as calculated in accordance with the NSW EPA's <i>Noise Policy for Industry</i> (NPfI), at all residences during weather conditions which are most conducive to noise propagation. • Noise modelling indicates that operational noise levels would comply with the relevant noise criteria at all adjoining lots with dwelling entitlements. • Spark Renewables' assessment found no operational noise impacts from vehicle movements due to receiver distance and low traffic volume. 	<ul style="list-style-type: none"> • Comply with the noise management levels as derived from the ICNG and NPfI at any non-associated residence. • Prepare and implement a Construction Noise and Vibration Management Plan for the duration of construction. • Restrict construction hours to Monday to Friday, 7am to 6 pm and Saturday, 8 am to 1 pm, other than works that are inaudible at non-associated residences, the delivery of materials requested by public authorities for safety reasons and emergency work. • Audible works outside of standard construction hours would be subject to further justification, verification and prior written approval of the Planning Secretary.

Issue	Recommended Conditions
<ul style="list-style-type: none"> Spark Renewables proposes to carry out works on the site outside of the standard construction hours from 1 pm to 6 pm on Saturday and Sunday, that would not be audible at non-associated receivers. The proposed extended construction hours are based on feedback from the Bundure Landowner Group, a collective of landowners within proximity of the project and Dinawan Wind Farm, who raised concerns relating to construction duration. These works are proposed to only occur within the development footprint. The Department has recommended conditions restricting works to standard construction hours (i.e. 7 am to 6 pm Monday to Friday, and 8 am to 1 pm Saturday), with no works permitted on Sundays or NSW public holidays. However, the Department acknowledges that there may be some instances where construction activities are required to occur outside of standard hours. Where these activities are for the purposes of commissioning and inaudible at non-associated receivers, or required for emergency purposes, the Department has recommended conditions allowing these activities to be undertaken outside of standard hours. The Department has considered Spark Renewables' request for extended construction hours and has recommended a condition requiring further verification and justification of out of hours works on a case-by-case or activity specific basis, in consultation with sensitive receivers and Council, for approval by the Planning Secretary. An exemption has been included for works that would be inaudible at residential receivers. The Department considers noise generated by the project can be appropriately managed through implementation of the proposed mitigation measures and the recommended conditions. 	
Social and Economic Impact	
<ul style="list-style-type: none"> Thirteen public submissions raised concerns regarding economic impacts of the project, including impacts on property values, impacts of local businesses and insurance costs. The Department considers that, in addition to its contribution to the NSW's energy transition target, the project would generate direct and indirect benefits to the local community, including: <ul style="list-style-type: none"> around \$1.3 billion capital investment into the NSW economy; up to 400 construction jobs during peak construction and 10 operational jobs; expenditure on accommodation and business in the local economy by workers residing in the area; and 	<ul style="list-style-type: none"> Spark Renewables implement its letter of offer to enter into a planning agreement with Council.

Issue	Recommended Conditions
<ul style="list-style-type: none"> – the procurement of goods and services by Spark Renewables and associated contractors. • Further, Spark Renewables has reached an in-principle agreement with Council to enter into a VPA. The VPA consists of \$850/MW per annum (CPI adjusted) for the life of the project. Spark Renewables would administer 15% of the funding through a Community Benefit Fund and 15% would go to initiatives to share project benefits with the neighbouring community. The other 70% would be administered by Council for public purpose projects. • Noting the above, the Department considers that the project would have a positive socio-economic impact on the local community. 	
Waste <ul style="list-style-type: none"> • Twelve public submissions raised concerns about waste generated by the project during the decommissioning stage. • Most waste produced by the project would be during the construction and decommissioning phases. There would be minimal waste generated during operations. All waste generated would be managed in accordance with the <i>Protection of the Environment Operations Act 1979</i> and the <i>Waste Avoidance and Resource Recovery Act 2001</i>. Spark Renewables would treat sewage using on-site treatment infrastructure. Treated effluent suitable for reuse would be used during construction to minimise water demand. Waste solids would be emptied by a licensed contractor and disposed of at an appropriately licensed facility. • To minimise waste generation during decommissioning and maintenance, Spark Renewables would attempt to recover and recycle all dismantled and decommissioned infrastructure and equipment. Spark Renewables would preference the use of manufacturers, distributors and installers of PV modules that are members of product stewardship schemes. • Council prohibits any waste generated by renewable energy development from disposal in any landfill within the Murrumbidgee Council area. In acknowledgement of this, Spark Renewables has identified several waste management facilities within 250 km of the project with capacity to receive waste from the project and would prepare a waste management plan for all stages of the project, in consultation with Council. 	<ul style="list-style-type: none"> • Prepare and implement a Waste Management Plan prior to commencing construction.

Issue	Recommended Conditions
<ul style="list-style-type: none"> The Department has recommended conditions requiring Spark Renewables to reduce waste, recycle where possible, and to dispose of unrecyclable waste at a licenced waste facility. Accordingly, the Department considers that the waste generated by the project would be appropriately managed. 	
Decommissioning and rehabilitation	
<ul style="list-style-type: none"> The operational life of the project is expected to be 25–35 years, but could be extended with solar panel and infrastructure upgrades, which would be permitted under the recommended conditions of consent. The <i>Large-Scale Solar Energy Guideline</i> outlines four key decommissioning and rehabilitation principles, including infrastructure removal and restoring land to its pre-existing use and LSC Class, for land used for agriculture. The project owner/operator would be responsible for this process, which should be formalised in an agreement with landowners. Spark Renewables has committed to removing aboveground solar infrastructure, reinstating irrigation infrastructure, and rehabilitating the site to its current land use, in consultation with landholders. With the implementation of the proposed objective-based conditions and monitoring, the Department considers the project would be decommissioned appropriately at the end of its life — or within 18 months if operations cease unexpectedly — and the site to be properly rehabilitated. 	<ul style="list-style-type: none"> Include rehabilitation objectives requiring the site to be rehabilitated within 18 months of cessation of operations, including reinstatement of irrigation infrastructure. Include rehabilitation objectives requiring the accommodation camp to be decommissioned and rehabilitated within 12 months of commencing operation of the solar farm.

6 Evaluation

161. The Department has assessed the development application, EIS, Submissions Report, amendment reports and additional supporting documents provided by Spark Renewables and has carefully considered:
- submissions received from members of the community;
 - comments provided by Council; and
 - advice received from government agencies.
162. The Department has considered the objectives of the EP&A Act, including the Ecologically Sustainable Development principles, and relevant considerations under section 4.15(1) of the EP&A Act. The Department has given consideration to spark Renewables' evaluation of the project's merits against applicable statutory and strategic planning requirements.
163. The site is located on land zoned RU1 and SP2, in which electricity generating works are a permissible land use for the project under the Transport and Infrastructure SEPP. The project would include up to two on-site substations and a connection to the NEM via the Dinawan substation (a new substation being built as part of Project EnergyConnect). An overhead 330 kV or 500 kV transmission line would connect the on-site substations to the Dinawan substation.
164. The project has been designed to avoid site constraints including areas of intact native vegetation and several Aboriginal heritage items, while maintaining its ability to utilise the existing electricity and road networks. The project would not result in a significant reduction in the overall agricultural productivity of the region, and it would avoid all areas of BSAL. Following decommissioning, the site could return to agricultural use.
165. The Department considers that there would be no significant visual impacts on surrounding residences, due to distance from non-associated residences and public view points, and there would be no significant glint and glare impacts resulting from the installation of the solar arrays.
166. The Department considered the submissions made through the exhibition of the project and the issues raised by the community and agencies during consultation, including fire safety, land use compatibility, contamination risk, biodiversity, visual impacts and waste management. These matters have been addressed through changes to the project and the recommended conditions of consent, including strict requirements to manage any fire risk, biodiversity impacts, waste and decommissioning triggers and rehabilitation objectives.

167. The project is located in the South West REZ, which is aimed at encouraging investment in electricity infrastructure and unlocking additional generation capacity in order to ensure secure and reliable energy in NSW. The project has been granted Access Rights under the South West REZ Access Scheme.
168. Importantly, the project would assist in transitioning the electricity sector from coal and gas-fired power stations to low emissions sources and is therefore consistent with the goals of the NSW's *Climate Change Policy Framework* and the *Net Zero Plan Stage 1: 2020 – 2030*. The project would have a generating capacity of 800 MW clean electricity, which is enough to power approximately 142,400 households during peak household consumption. Additionally, the battery storage component of the project has a capacity of 356 MW / 1,574 MWh to dispatch energy to the grid during periods of low generation.
169. The project achieves an appropriate balance between maximising the efficiency of the solar resource development and minimising the potential impacts on surrounding land users and the environment. The project would provide flow-on benefits to the local community, including up to 400 jobs during peak construction and a capital investment of \$1.3 billion. A VPA involving contributions of \$850/MW per annum (consumer price index adjusted) for the life of the project from the start of construction is also proposed for community benefits.
170. On balance, the Department considers that the project is in the public interest and is approvable, subject to the recommended conditions of consent (see **Appendix H**).
171. This assessment report is hereby presented to the Commission to determine the application.

Prepared by:

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Recommended by:

23/12/2025



Iwan Davies
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Appendices

Appendix A – Environmental Impact Statement

Appendix B – Submissions

Appendix C – Agency advice

Appendix D – Submissions Report

Appendix E – Amendment Report 1

Appendix F – Amendment Report 2

Appendix G – Additional Information

Appendix H – Recommended Development Consent

Appendices A to H available at: <https://www.planningportal.nsw.gov.au/major-projects/projects/dinawan-solar-farm>

Appendix I – Consideration of community views

The Department exhibited the Environmental Impact Statement (EIS) for the project from 17 November 2023 until 18 December 2023 and received 80 unique submissions from the community (all objections,).

The Department consulted with government agencies and Murrumbidgee Council throughout the assessment process. The key issues raised by the community (including in public submissions) and considered in the Department's Assessment Report include biodiversity, land use & location, fire and hazards.

Other issues are addressed in detail in the Department's Assessment Report.

Issue	Consideration
<p>Biodiversity</p> <ul style="list-style-type: none"> • Adverse impacts on threatened species and TECs • Disruption of biodiversity on neighbouring properties including existing biodiversity conservation agreements 	<p>Assessment</p> <ul style="list-style-type: none"> • The amended development footprint outlined in Amendment Report 2 has reduced impacts to threatened species habitat and TECs. Mature wooded areas have been prioritised for avoidance by Spark Renewables. This reduces biodiversity impacts from: <ul style="list-style-type: none"> – 2,477 ha to 1,771 ha of native vegetation, including from 1,571 ha to 918.3 ha impact to BC Act listed TECs (42% reduction) & from 148.8 ha to 2.2 ha impact to EPBC Act listed TECs (99% reduction); – 337.8 ha to 204.23 ha for threatened species habitat (38% reduction), 100% for the Plains Wanderer and two flora species (<i>Austrostipa wakoolica</i> and <i>Pilularia novae-hollandiae</i>); and – 15 to 1 hollow-bearing trees. • The project as presented in the EIS required 40,229 ecosystem credits and 14,462 species credits. The amended project would require 25,719 ecosystem credits (36% reduction) and 2,683 species credits (81% reduction). • Biodiversity conservation trust agreements on neighbouring properties would not be impacted by the project. • Adjacent biodiversity and vegetation of adjoining landholders would not be impacted as impacts to adjacent habitat would be prevented or minimised through implementation of a Biodiversity Management Plan and construction environmental management plan. <p>Recommended condition</p> <ul style="list-style-type: none"> • Retire the applicable biodiversity offset credits in accordance with the NSW Biodiversity Offset Scheme. • Prepare and implement a Biodiversity Management Plan prior to construction and in consultation with CPHR and AG DCCEEW, including an unexpected threatened species finds protocol to avoid and/or minimise and/or offset options to be implemented if additional threatened species are discovered on the site.
<p>Land use and location</p> <ul style="list-style-type: none"> • Location unsuitable for an efficient solar farm • Adverse impacts to productive agricultural land 	<p>Assessment</p> <ul style="list-style-type: none"> • Land within the development footprint is mapped as predominantly Class 4 (moderate-capability land) with some Class 5 and 6 under the Land and Soil Capability (LSC) mapping for NSW. • The project would result in temporary removal of 0.16% of the present LSC Class 4 lands within the South-West Renewable Energy Zone (REZ). • There are no areas of Biophysical Strategic Agricultural Land (BSAL) within the development footprint. • Agricultural operations of adjoining landholders would not be impacted as weeds would be controlled through strict land management measures, erosion and sediment risks can be managed effectively by implementing a control plan, water pollution is not permitted, and noise and dust would not be significant. • The project is considered reversible in its ability to restore to the pre-existing land uses. The implementation of the proposed mitigation measures, including proposed decommissioning, rehabilitation and biosecurity measures, would enable the land to return to full agricultural production at the end of project life. <p>Recommended conditions</p>

Issue	Consideration
	<ul style="list-style-type: none"> Within 18 months of the cessation of operations, infrastructure must be decommissioned and removed, and land must be restored to its pre-existing use and irrigation infrastructure reinstated in consultation with the landholder. Restore the groundcover of the site following construction or upgrading, maintain the groundcover and maintaining grazing within the site where practicable.
Hazards (fire risk) <ul style="list-style-type: none"> Safety of neighbouring dwellings and agricultural land Risks and difficulties for fire-fighting personnel in event of battery fire 	Assessment <ul style="list-style-type: none"> Spark Renewables has undertaken a preliminary hazards analysis (PHA) which concluded that the risks would not exceed the acceptable risk criteria or can be mitigated subject to implementation of recommendations. To actively manage fire risk, an asset protection zone would be established and maintained around the solar arrays and BESS infrastructure. In addition, a water supply tank and two mobile water supplies with a minimum capacity of 500 L each would be made available on-site during construction and operation. A Fire Safety Study would be prepared along with an Emergency Plan to support the development. Recommended conditions <ul style="list-style-type: none"> Develop a Fire Safety Study prior to the commencing construction of the BESS. Develop an Emergency Plan prior to commencing construction of the solar farm and commissioning of the battery storage. Provide an asset protection zone in accordance with RFS's <i>Planning for Bushfire Protection 2019</i> and Standards for Asset Protection Zones.
Contamination <ul style="list-style-type: none"> Contamination of soils and waterways Release of toxic materials in event of damage to solar panels 	Assessment <ul style="list-style-type: none"> Spark Renewables has committed to using either monocrystalline or polycrystalline PV panels, which would not contain cadmium telluride (CdTe) or release any materials that present a risk to the environment. The location of the BESS would include multiple levels of physical separation between chemicals within the cells and the environment. Spark Renewables has committed to implementing spill prevention and management measures during construction and operation. Recommended Conditions <ul style="list-style-type: none"> Ensure that the development does not cause any water pollution, as defined under Section 120 of the POEO Act. Store and handle all chemicals, fuels and oils and used on-site in accordance with relevant standards.
Visual <ul style="list-style-type: none"> Impacts on landscape views and rural character 	Assessment <ul style="list-style-type: none"> The closest non-associated residence (R049) is located approximately 656 m south from the development footprint. The project has been designed to minimise potential impacts on surrounding receivers. Of the closest two non-associated residences (R036 and R049) to the development footprint, the visual reports concluded that all would experience low visual impacts due to separation distances and intervening vegetation in the surrounding area and within the site.

Issue	Consideration
	<ul style="list-style-type: none"> The solar panels would be relatively low lying (maximum of 4.7 m) and ancillary infrastructure such as maintenance buildings, inverter stations and the onsite substation would generally be a similar size to agricultural sheds commonly used in the area. <p>Recommended Conditions</p> <ul style="list-style-type: none"> Minimise and mitigate the off-site visual impacts of the development, including the potential for any glare or reflection. Ensure the visual appearance of all ancillary infrastructure (including paint colours) blends in with the surrounding landscape, where reasonable and feasible.

Appendix J – Statutory considerations

Objects of the EP&A Act

In line with the requirements of section 4.15 of the EP&A Act, the Department's assessment of the project has given detailed consideration to a number of statutory requirements.

These include:

- the objects found in Section 1.3 of the EP&A Act; and
- the matters listed under Section 4.15(1) of the EP&A Act, including applicable environmental planning instruments and regulations.

The Department has considered all these matters in its assessment of the project and has provided a summary of this assessment below.

Summary

Objects of the EP&A Act

The objects of most relevance to the Consent Authority's decision on whether to approve the project are found in Section 1.3(a), (b), (c), (e) and (f) of the EP&A Act.

The Department is satisfied the project encourages the proper development of natural resources (Object 1.3(a)) and the promotion of orderly and economic use of land (Object 1.3(c)), particularly as the project:

- is a permissible land use on the subject land;
- is located in a logical location for efficient solar energy development;
- is able to be managed such that the impacts of the project could be adequately minimised, managed, or at least compensated for, to an acceptable standard;
- would contribute to a more diverse local industry, thereby supporting the local economy and community;
- would not fragment or alienate resource lands in the LGA; and

Summary

- is consistent with the goals of NSW's *Climate Change Policy Framework* and *Net Zero Plan Stage 1: 2020 – 2030 and Implementation update* (2022) and would assist in meeting Australia's renewable energy targets whilst reducing greenhouse gas emissions.

The Department has considered the encouragement of Ecologically Sustainable Development (ESD) (Object 1.3 (b)) in its assessment of the project. This assessment integrates all significant socio-economic and environmental considerations and seeks to avoid any potential serious or irreversible environmental damage, based on an assessment of risk-weighted consequences.

In addition, the Department considers that appropriately designed SSD solar facility development, in itself, is consistent with many of the principles of ESD. Spark Renewables has also considered the project against the principles of ESD. Following its consideration, the Department considers that the project can be carried out in a manner that is consistent with the principles of ESD.

Consideration of environmental protection (Object 1.3(e)) is provided in **section 5** of this report. Following its consideration, the Department considers that the project is able to be undertaken in a manner that would at least maintain the biodiversity values of the locality over the medium to long term and would not significantly impact threatened species and ecological communities of the locality. The Department is also satisfied that any residual biodiversity impacts could be managed and/or mitigated by imposing appropriate conditions and retiring the required biodiversity offset credits.

Consideration of the sustainable management of built and cultural heritage (Object 1.3(f)) is also provided in **section 5.6** of this report. Following its consideration, the Department considers the project would not significantly impact the built or cultural heritage of the locality, and any residual impacts can be managed and/or mitigated by imposing appropriate conditions.

State significant development

Under Section 4.36 of the EP&A Act the project is considered a State significant development.

Under Section 4.5(a) of the EP&A Act and Clause 1(b) of Section 2.7 of the Planning Systems SEPP, the Independent Planning Commission is the consent authority for the development as the project received more than 50 unique public submissions by the way of objection to the application.

Under Section 4.38(3) of the EP&A Act development consent is allowed to be granted for SSD applications where the development is partially prohibited, noting that the proposed subdivision of the lots would be below the minimum lot size of 213 ha and prohibited under the LEP.

Environmental Planning Instruments (EPIs)

The *Jerilderie Local Environmental Plan 2012* (LEP) applies to the extent of determining the permissibility and land use zoning of the project. The project is located in RU1 and SP2 land use zonings under the LEP and is permissible with consent under the provisions of the Transport and Infrastructure SEPP.

Spark Renewables completed a preliminary risk screening and preliminary hazard analysis in accordance with *State Environmental Planning Policy (Resilience and Hazards) 2021* (Hazards SEPP) and confirmed that the site was not categorised as potentially hazardous or potentially offensive. A preliminary hazard analysis (PHA) prepared for the project concluded the risk profile of the project was tolerable and that there was not a significant risk of off-site consequences associated with the project. Spark Renewables has committed to implementing all controls recommended by the PHA. Accordingly, the Department is satisfied that the

Summary

proposed development is not potentially hazardous or potentially offensive development and does not pose an unacceptable risk to community or environment.

The Department also considered the contaminated land provisions of the Hazards SEPP and reviewed the Preliminary Site Investigation provided by Spark Renewables. The Department found that the site is not listed as a contaminated site in the NSW EPA Contaminated Land Record or the list of NSW contaminated sites. Given the site was assessed to have a low contamination risk, the Department considers the site would be suitable for the proposed development.

The Department has considered the provisions of *State Environmental Planning Policy (Primary Production) 2021*, which aims to facilitate the orderly economic use and development of land for primary production, to reduce land use conflict and sterilisation of rural land and to identify State significant agricultural land. While the location of State significant agricultural land has not been finalised, the Department has considered all of these matters in Section 5.2 of this report and concluded that the project is generally consistent with the land use planning objectives for the site and the region under the relevant planning instruments and strategies.

In accordance with the Transport and Infrastructure SEPP, the Department has given written notice of the project to Murrumbidgee Council, Transgrid and Transport for NSW, in accordance with the Transport and Infrastructure SEPP requirements to notify relevant public authorities about developments that may affect public infrastructure or public land.

The Department has consulted with public authorities and considered the matters raised in its assessment of the project (see Section 4.5). Where appropriate, the Department has also developed conditions of consent to address recommendations and advice of public authorities consulted for the project, including Council. Overall, the Department considers that the project is located to avoid land use conflicts with existing and approved uses of land.

Appendix K – Assessment of Matters of National Environmental Significance

In accordance with the bilateral agreement with the Australian Government Department of Climate Change, Energy, the Environment and Water (AG DCCEEW), the Department provides the following additional information required by the Commonwealth Minister, in deciding whether to approve a development under the EPBC Act.

The Department's assessment has been prepared based on the assessment contained in the Dinawan Solar Farm Environmental Impact Statement (EIS), Submissions Report, Amendment Report 1, Amendment Report 2 and the final Biodiversity Development Assessment Report (BDAR), and additional information provided during the assessment process, and advice provided by the Conservation Programs, Heritage & Regulation (CPHR) Group within the NSW DCCEEW, other NSW government agencies and the DCCEEW.

This Appendix is supplementary to, and should be read in conjunction with, the assessment included in section 5.3 of this assessment report which includes the Department's consideration of impacts to

listed threatened species and communities, and mitigation and offsetting measures for threatened species and communities, including Matters of National Environmental Significance (MNES).

Identifying MNES

The Commonwealth Referral Decision (EPBC 2023/09516) (Referral Decision) was based on likely significant impacts on two threatened ecological community (TEC) and one threatened fauna species. The Referral Decision also identified eight threatened flora species and ten threatened fauna species that may be at risk of significant impacts, subject to further investigation by Spark Renewables.

The final BDAR for the project identified and addressed all listed threatened species and communities included in the Referral Decision.

The AG DCCEEW determined that other matters under the EPBC Act are not controlling provisions with respect to the controlled action. These include listed World Heritage, National Heritage, Ramsar wetlands, Commonwealth marine environment, Commonwealth land, Commonwealth action, nuclear action, Great Barrier Reef Marine Park, Commonwealth Heritage places, overseas and a water resource, in relation to coal seam gas development and large coal mining development.

Impacts on EPBC Listed Species and Communities

Spark Renewables completed assessments of significance for threatened species that were identified as having a moderate or uncertain potential to occur within the site. Table K-1 provides a summary of the likelihood of occurrence for each of the species identified by the AG DCCEEW as requiring consideration, and all MNES species that are ecosystem credits, along with an assessment of the impact to the species, including likelihood of significant impacts.

Spark Renewables assessed the significance of the impacts on these species and communities using the methodology outlined in the *Matters of National Environmental Significance Significant Impact Guidelines 1.1 (2013)* (see Appendix 6 of the final BDAR).

The Department notes that Spark Renewables concluded the project is likely to have a significant impact on the Weeping Myall TEC, the Plains Wanderer and *Swainsona murrayana* and subsequently assessments of significance were not carried out. Spark Renewables concluded that the project would be unlikely to have a significant impact on any of the other threatened species or the Natural Grasslands of the Murray Valley Plains TEC. The Department's consideration of these assessments is provided in the sections below.

The reason other species do not require assessments of significance is either that they were excluded based on either survey outcomes, geographic limitations in the BAM-C or the lack of suitable habitats. CPHR advised that the species excluded from the assessment were justified with supporting evidence, including targeted survey effort consistent with industry guidelines.

Table K-1 | Likelihood of occurrence of MNES identified in AG DCCEEW SEARs

MNES entity	Conservation status	Likelihood of occurrence	Comments
Threatened Ecological Communities			
Natural Grasslands of the Murray Valley Plains	Critically endangered	Present	The project would reduce the extent of the community in the landscape by 1.73 ha and potential indirect impacts to 152.58 ha. The project is unlikely to have a significant impact on the community at a state or national scale due to the small scale of the impact in the context of the NSW community.
Weeping Myall woodlands	Critically endangered	Recorded within development footprint.	The project would reduce the extent of the community in the landscape by 0.42 ha. Based on the small area of Weeping Myall Woodland to be impacted that meets the EPBC listing criteria it is considered that a significant impact is not likely to EPBC Act Weeping Myall Woodland.
Threatened Flora			
A Speargrass (<i>Austrostipa wakoolica</i>)	Endangered	Not recorded in subject land despite targeted survey effort.	Unlikely to have a significant impact.
Chariot Wheels (<i>Maireana cheelii</i>)	Vulnerable	Not recorded in subject land despite targeted survey effort.	Unlikely to have a significant impact.
Claypan Daisy (<i>Brachyscome muelleroides</i>)	Vulnerable	Not recorded in subject land despite targeted survey effort.	Unlikely to have a significant impact.
Mossgiel Daisy (<i>Brachyscome papillosa</i>)	Vulnerable	Not recorded in subject land despite targeted survey effort.	Unlikely to have a significant impact.
Turnip Copperburr (<i>Sclerolaena napiformis</i>)	Endangered	Not recorded in subject land despite targeted survey effort.	Unlikely to have a significant impact.
Red Darling-pea (<i>Swainsona plagiotropis</i>)	Vulnerable	Not recorded in subject land despite targeted survey effort.	Unlikely to have a significant impact.
Winged Peppercress (<i>Lepidium monoplacoides</i>)	Endangered	Not recorded in subject land despite targeted survey effort.	Unlikely to have a significant impact.

MNES entity	Conservation status	Likelihood of occurrence	Comments
Slender Darling-pea (<i>Swainsona murrayana</i>)	Vulnerable	Recorded within the development footprint in Stage 1	The project would directly impact about 88 plants (38.4 ha). Similar habitat is available throughout project area. The project is unlikely to have a significant impact at a state or national scale.
Threatened fauna			
Australasian Bittern (<i>Botaurus poiciloptilus</i>)	Endangered	Limited potential habitat. Not recorded in subject land despite targeted survey effort.	Unlikely to have a significant impact.
Australian Painted Snipe (<i>Rostratula australis</i>)	Endangered	Limited potential habitat. Not recorded in subject land despite targeted survey effort.	Unlikely to have a significant impact.
Blue-winged Parrot (<i>Neophema chrysostoma</i>)	Vulnerable	Not recorded in subject land despite targeted survey effort.	Unlikely to have a significant impact.
Diamond Firetail (<i>Stagonopleura guttata</i>)	Vulnerable	Not recorded in subject land despite targeted survey effort. The species has been recorded within the Dinawan Wind project site.	Unlikely to have a significant impact.
Glossy Black-cockatoo (<i>Calyptorhynchus lathami</i>)	Vulnerable	Not recorded in subject land despite targeted survey effort.	Unlikely to have a significant impact.
Hooded Robin (<i>Melanodryas cucullata cucullata</i>)	Endangered	Not recorded in subject land despite targeted survey effort.	Unlikely to have a significant impact.
Koala (<i>Phascolarctos cinerus</i>)	Endangered	Not recorded in subject land despite targeted survey effort.	Unlikely to have a significant impact.
Painted Honeyeater (<i>Grantiella picta</i>)	Vulnerable	Species recorded foraging in high condition Weeping Myall adjacent to the site.	Suitable habitat in the site and surrounds, in the form of woodland and scattered farm trees, would be mostly avoided. Unlikely to have a significant impact.
Pink Cockatoo (<i>Lophochroa leadbeateri</i>)	Endangered	Not recorded in subject land despite targeted survey effort.	Unlikely to have a significant impact.

MNES entity	Conservation status	Likelihood of occurrence	Comments
Plains-wanderer (<i>Pedionomus torquatus</i>)	Critically endangered	Not recorded but known to occur in areas of Important Mapped Habitat that would not be directly impacted and have been avoided.	Minor loss of 1.68 ha of associated PCTs and no impacts to Important Mapped Habitat. Total impacts equate to about 0.01% of the total available habitat within 10 km of the project (596 ha) and 0.001% of the total available habitat within 50 km of the project (4,453ha). There is the potential for a significant impact based on a possible reduction in the area of occupancy of the species due to the changing dynamic nature of grasslands and cumulative impacts from other projects in the area. The small contribution of the project to the cumulative impacts is unlikely to result in significant impacts.
Regent Parrot (<i>Polytelis anthopeplus monarchoides</i>)	Vulnerable	Not recorded in subject land despite targeted survey effort. Likely to be outside the species known range.	Unlikely to have a significant impact.
Southern Bell Frog (<i>Litoria raniformis</i>)	Vulnerable	Recorded in high numbers throughout the site and surrounding area following above average rainfall and flooding events throughout 2022.	Direct impacts would be limited to small areas around Coleambally Irrigation Channel (up to 8.4 ha) and suboptimal ephemeral habitat, and 122.16 ha of adjacent dispersal habitat. Direct impacts to potential Southern Bell Frog habitat are likely to represent marginal and opportunistic habitat, rather than core breeding habitat. Unlikely to have a significant impact at a state or national level.
Southern Whiteface (<i>Aphelocephala leucopsis</i>)	Vulnerable	Species recorded during targeted bird surveys adjacent to the site.	Unlikely to have a significant impact.
Superb Parrot (<i>Polytelis swainsonii</i>)	Vulnerable	Species was recorded foraging in the subject land, but no breeding was recorded.	Direct impacts to 0.42 ha of intact Weeping Myall and 0.29 ha of Black Box Woodland areas containing mature woody vegetation and marginal foraging habitat. Unlikely to have a significant impact at a state or national level.

Impacts on threatened ecological communities

Spark Renewables considered the potential impacts on all EPBC Act listed TECs identified in the Referral Decision, including:

- *Natural Grasslands of the Murray Valley Plains* – Critically Endangered
- *Weeping Myall woodlands* - Endangered

Spark Renewables has confirmed that both ecological communities would be impacted by the project (see Table 13 and Section 3.1.8 of the final BDAR).

The final BDAR (Appendix 6.21) provides Spark Renewables' assessment of significance for Natural Grasslands of the Murray Valley Plains, including consideration of the relevant conservation advice, recovery plans and threat abatement plans. The assessment concluded that the project is unlikely to have a significant impact on this TEC. CPHR and the AG DCCEEW agree with this conclusion.

An assessment of significance was not provided in the final BDAR for Weeping Myall Woodland as the project is considered likely to have a significant impact. The action would result in the clearance of approximately 0.42 ha of Weeping Myall Woodlands. Spark Renewables would offset the residual biodiversity impacts of the action in accordance with the requirements of NSW Biodiversity Offset Scheme.

CPHR has advised that for both communities the impacts would be appropriately offset via the ecosystem credit requirements detailed in Section 5.3 of this report and the Department has recommended a condition accordingly. Spark Renewables has confirmed that offsets can be provided on a like-for-like basis. The Department considers that impacts to these communities would be appropriately offset via the ecosystem credit requirements.

Impacts on threatened flora species

The Department and CPHR have considered the potential impacts on all EPBC Act listed flora species with predicted or known habitat within the proposal study area, identified in the Referral Decision.

Of the seven threatened EPBC listed flora species with predicted or known habitat within the proposal study area, all were the subject of targeted surveys. Table 25 of the final BDAR summarises the outcome of targeted surveys and identifies that *Swainsona murrayana* was recorded on site.

An assessment of significance was not provided in the final BDAR for *Swainsona murrayana* as the project is considered likely to have a significant impact. The action would result in the clearance of approximately 38.4 ha (approximately 88 individuals) of *Swainsona murrayana*. Spark Renewables would offset the residual biodiversity impacts of the action in accordance with the requirements of NSW Biodiversity Offset Scheme.

CPHR has advised that for *Swainsona murrayana* impacts would be appropriately offset via the species credit requirements detailed in Section 5.3 of this report and the Department has recommended a

condition accordingly. Spark Renewables has confirmed that offsets can be provided on a like-for-like basis. The Department considers that impacts to this community would be appropriately offset.

The assessments of significance undertaken for the other six species determined that the project is unlikely to have a significant impact on any other threatened flora species.

The Department and CPHR agree with the outcome of Spark Renewables assessment and considers that there would not be significant impacts on EPBC Act listed flora species.

Impacts on threatened fauna species

The Department and CPHR have considered the potential impacts on all EPBC Act listed fauna species with predicted or known habitat within the proposal study area, identified in the Referral Decision.

All of the ten fauna species with predicted or known habitat within the proposal study area were the subject of targeted surveys.

Table 62 of the final BDAR summarises the outcome of targeted surveys for EPBC listed species and identifies that the following species were observed within or adjacent to the site:

- Superb Parrot (*Polytelis swainsonii*)
- Southern Whiteface (*Aphelocephala leucopsis*)
- Painted Honeyeater (*Grantiella picta*)
- Southern Bell Frog (*Litoria raniformis*).

The assessments of significance for these species determined that the project is unlikely to have a significant impact on any of the above-listed threatened fauna species.

An assessment of significance was not provided in the final BDAR for the Plains-wanderer (*pedionomus torquatus*) as the project is considered likely to have a significant impact. The action would result in the clearance of approximately 1.68 ha of PCTs associated with the ecosystem credit species for the Plains-wanderer. Spark Renewables would offset the residual biodiversity impacts of the action in accordance with the requirements of NSW Biodiversity Offset Scheme. CPHR has considered and agrees Spark Renewables assessments and has advised that potential impacts on all species identified above would be appropriately offset via the ecosystem and species credit requirements detailed in Section 5.3 of this assessment report, and reflected in the recommended conditions of consent.

Conservation Advice

The Department notes the key threats to species and communities include fragmentation and isolations of populations, introduction of weeds, competition for hollows, habitat loss and degradation (particularly by pastoral development including grazing, rabbits and overgrazing by kangaroos),

climate change and extreme weather, disease transmission, road kill and illegal removal, and predations (particularly by dogs, feral cats and foxes).

The Department's recommended conditions require Spark Renewables to prepare and implement a Biodiversity Management Plan detailing how these risks would be minimised and managed, including measures to:

- implement fauna management protocols, including undertaking pre-clearance surveys;
- avoid the removal of hollow-bearing trees during Spring to avoid the main breeding period for hollow-dependent fauna;
- manage and enhance the remnant vegetation and fauna habitat onsite;
- protect native vegetation and key fauna habitat outside the approved disturbance area;
- implement clearing and operation vegetation management protocols;
- rehabilitate and restore disturbance areas to pre-existing conditions;
- maximise the salvage of resources within the approved development footprint– including vegetative and soil resources – for beneficial reuse (such as fauna habitat enhancement) during the rehabilitation and restoration of the site;
- control weeds, feral pests, pathogens with consideration of actions identified in relevant threat abatement plans;
- control erosion; and
- bushfire management.

Spark Renewables would be required to prepare the Biodiversity Management Plan in consultation with CPHR and AG DCCEEW, and ensure the plan is prepared by a suitably qualified and experienced biodiversity expert.

In addition, Spark Renewables has committed avoiding and minimising impacts on species and communities where practicable, during detailed design and are required to offset the residual biodiversity impacts of the project in accordance with the NSW Biodiversity Offset Scheme.

Recovery Plans

Recovery plans for Australasian Bittern, Australian Painted Snipe, Painted Honeyeater, Southern Bell Frog, Superb Parrot, *Brachyscome muelleroides*, *Lepidium monoplacoides*, *Maireana cheelii*, *Sclerolaena napiformis* and *Swainsona plagiotropis* are referenced in Appendix 6 of the BDAR.

Spark Renewables is required to minimise impacts on all species and communities, offset residual impacts on a like-for-like basis in accordance with the Biodiversity Offsets Scheme.

The Department's recommended conditions, including the requirement to prepare and implement a Biodiversity Management Plan, would also require Spark Renewables to manage indirect impacts on MNES, including measures to control weeds, pathogens and predation by feral pests, under a detailed Biodiversity Management Plan.

Threat Abatement Plans

The Department has included measures for the control of feral animals under the recommended Biodiversity Management Plan for the project, including specific requirements for Spark Renewables to consider the actions identified in relevant Threat Abatement Plans (TAPs). With these measures in place, the Department considers that the action can be carried out in a manner which is compatible with the relevant TAPs.

Subject to the recommended conditions, the Department considers that the project can be carried out in a manner that is consistent with the relevant conservation advice, recovery plans and threat abatement plans.

Review of EPBC listed threatened species and communities

Table K-2 provides a detailed review of whether the assessment documentation (i.e. the EIS, Submissions Report, Amendment Report and final BDAR) includes all relevant required information.

Table K-2 | NSW DCCEEW CPHR project advice to the Department on EPBC Act listed threatened species and communities

Requirement	Information	Reference BAM / BLA ¹
Background & Description of Action	Does the EIS/BDAR ² : <input checked="" type="checkbox"/> clearly show how operational and construction footprints including clearing boundaries, structures to be built and elements of the action are situated with regard to MNES <input checked="" type="checkbox"/> depict stages and timing of the action that may impact on MNES <input checked="" type="checkbox"/> provide a map(s) of the subject land boundary showing the final proposal/disturbance footprint with respect to location of MNES, including GIS shape files. Include references to where this detail is provided.	BAM Chapters 3, 4, 5 and 8. BDAR dated 24 November 2025
	Provide advice on the adequacy of the background and action description with respect to MNES and identify any recommended additional information requirements: <ul style="list-style-type: none"> The project was reviewed by CPHR for compliance with the Biodiversity Assessment Method (BAM), including the proponent's use of the credit calculator (the Calculator) to produce a Biodiversity Development Assessment Report (BDAR). CPHR had ongoing consultation with the BAM assessors during the preparation of the BDAR in the Environmental Impact Statement (EIS), Response to Submissions (RtS) and Request for Information (RFI) phases. CPHR considers the BDAR adequately describes the project that includes: (i) operational and construction footprints, (ii) structures to be built, (iii) elements of the action in relation to MNES. The project is proposed to be completed in three construction stages with offsets/credits to be retired in three stages in accordance with the BAM and project BDAR. Background information including a likelihood of occurrence assessment was completed for MNES and is considered adequate. CPHR review of the project EIS and the BDAR concluded that the BAM assessment adequately addressed issues raised for MNES at RtS and through subsequent RFIs. GIS shapefiles and maps have been provided to CPHR/DPHI by the proponent that represent MNES matters and can be provided if required. Chapter 9, Figure 19, shows the construction and operation footprint with proposed stages. Chapter 5 s5.5 shows the disturbance footprint boundary in relation to MNES including TECs in Figure 13 and Figure 11.1 to 11.3. 	Staging in s1.5, s8.3.3, s9.3 and Figure 19. Disturbance footprint boundary in relation to MNES in Figure 13 and Figure 11.

¹ Bilateral agreement (BLA) made under section 45 of the EPBC Act, including Amending Agreement No.1 (2020)

² Or revisions of the BOAR and associated documentation made as a result of previous reviews or project changes post-exhibition.

Requirement	Information	Reference BAM / BLA ¹
Landscape Context of the MNES	<p>Provide advice on the adequacy of the landscape context information and identify any additional information requirements:</p> <ul style="list-style-type: none"> Details on landscape context have been provided in accordance with BAM requirements, and the landscape assessment meets the requirements of Stage 1 (s3 and 4.1) of the BAM. The proposal is for the construction and operation of the Dinawan Solar Farm which is a new solar farm consisting of an 800MW solar array as well associated access tracks, transmission lines, Battery Energy Storage Systems (BESS) and construction and operational facilities impacting about 1786 hectares of the 4620-hectare project area. The proposal occurs in a single IBRA region being the Riverina Bioregion and all impacts to native vegetation (1771.34 hectares) occurs in the Murrumbidgee IBRA subregion. CPHR confirms that details on landscape context have been provided in accordance with BAM requirements and the landscape assessment meets the requirements of Stage 1 (s3 and 4.1) of the BAM. The selection of a single IBRA subregion for BAM-C calculation purpose for each stage is consistent with guidance provided in Section 2.2.1 of the Biodiversity Assessment Method 2020 Operational Manual – Stage 1. 	<p>BAM Section 3.1 BLA clause 7.4</p> <p>BDAR dated 24 November 2025 – section 1 and 2.</p>
EPBC Act Listed Threatened Species & Communities	<p>Verify that the EIS/BDAR includes relevant information on the identification of all EPBC Act listed threatened species and communities on the site or in the vicinity³ via</p> <ul style="list-style-type: none"> <input checked="" type="checkbox"/> field based survey effort <input type="checkbox"/> published peer reviewed literature <input type="checkbox"/> local data <input checked="" type="checkbox"/> supporting databases (such as the NSW BioNet Vegetation Classification, NSW BioNet Threatened Biodiversity Data Collection, NSW BioNet Atlas, Commonwealth Species Profile and Threats Database search results) <p><input checked="" type="checkbox"/> Verify that the EIS/BDAR includes appropriate mapping of all EPBC Act listed threatened species and communities in accordance with the relevant Commonwealth Listing Advice. The EIS/BDAR should include important populations and critical habitat as defined in Approved Listing Advice, Approved Conservation Advice and Recovery Action Plans.</p> <p>Provide advice on the adequacy of the identification methods and mapping information / any additional information requirements:</p> <ul style="list-style-type: none"> EPBC Act listed threatened and migratory species and communities that occur on the subject land, or in the vicinity, have been identified in the BDAR dated 24 November 2025 and the EIS, including some that are ecosystem credit species. The study area has historically had very little surveys completed on or near the site. Some surveys have been completed in the last five years associated with Project EnergyConnect. Because of this lack of background information, extensive 	<p>BAM Chapters 4 and 5.</p> <p>BDAR dated 24 November 2025</p> <p>Section 3.1.3 and 4.3.1 and outlined field based survey method and effort.</p> <p>Supporting database searches in s3.1.2, Appendix 2.</p> <p>Mapping of TECs is in</p>

³ On land to which impacts may extend

Requirement	Information	Reference BAM / BLA ¹
	<p>ground truthing of the State Vegetation Type Map was completed and changes to Plant Community Types were appropriately justified with plot data and analysis against TEC approved conservation advice (where applicable).</p> <ul style="list-style-type: none"> • The assessment of species and communities excluded (Appendix 2) because they do not occur on or near the site is supported by robust analysis and justification. The assessment of species and communities included/excluded were justified with supporting evidence including targeted survey effort consistent with industry guidelines and vegetation integrity plots to classify plant community types and TECs. • Survey effort for some threatened flora species did not meet the minimum survey effort when applying the large area survey method. However, multiple repeated survey effort over the EIS, RtS and RFI periods have allowed for all assumed presence areas to be removed after September 2025. Final direct impacts to species are based on the outcomes of adequate survey effort for flora and fauna. • While Tables 54 of the BDAR outlines the MNES entities that will be impacted, some ecosystem credit MNES species are missing or have incorrect credits reported in this table but are included in the BAM-C credit reports. CPHR have accounted for the omissions in the BDAR and included all impacted species in Table 2 of this document as they have been entered in the staged BAM-C cases. 	Figure 7, threatened species sightings in Figures 10.1, 10.2 and Figures 11.1 to 11.3.
	<p>Confirm that all EPBC Act listed threatened species and communities that occur on the subject land, or in the vicinity, have been identified in the BDAR/EIS including those that are ecosystem credit species.</p> <p>If any species and communities identified in the referral documentation (provided by AG DCCEEW) have been ruled out because they don't occur on or near the site, verify that there is robust analysis and justification for why these species can be ruled out.</p> <p>Provide advice on whether there are any other MNES species or communities that are missing from the assessment based on CPHR knowledge and experience.</p> <hr/> <p>The following threatened entities identified in the referral decision EPBC 2023/09516 were recorded on the subject land or in the vicinity during surveys for the Dinawan Solar Farm project:</p> <ul style="list-style-type: none"> • Diamond Firetail (<i>Stagonopleura guttata</i>) • Natural Grasslands of the Murray Valley Plains • Painted Honeyeater (<i>Grantiella picta</i>) • Slender Darling Pea (<i>Swainsona murrayana</i>) • Southern Bell Frog (<i>Litoria raniformis</i>) • Southern Whiteface (<i>Aphelocephala leucopsis</i>) • Superb Parrot (<i>Polytelis swainsonii</i>) • Weeping Myall Woodlands 	

Requirement	Information	Reference BAM / BLA ¹
	<p>The following threatened entities identified in referral decision EPBC 2023/09516 were considered and surveyed in the BDAR. Flora species were excluded based on no individuals being found. Fauna species were retained as ecosystem credit species that are predicted by the PCT as habitat surrogates but were not actually recorded during targeted surveys.</p> <ul style="list-style-type: none"> • A Speargrass (<i>Austrostipa wakoolica</i>) • Australasian Bittern (<i>Botaurus poiciloptilus</i>) • Chariot Wheels (<i>Maireana cheelii</i>) • Claypan Daisy (<i>Brachyscome muelleroides</i>) • Hooded Robin (<i>Melanodryas cucullata cucullata</i>) • Koala (<i>Phascolarctos cinereus</i>). • Pink Cockatoo (<i>Lophochroa leadbeateri leadbeateri</i>) • Plains-wanderer (<i>Pedionomus torquatus</i>) • Turnip Copperburr (<i>Sclerolaena napiformis</i>) • Winged Peppercress (<i>Lepidium monoplocoides</i>) <p>The following threatened entities not identified in referral decision EPBC 2023/09516 were not recorded during surveys and not considered likely to be impacted. However, the site still contains associated PCTs as habitat surrogates and ecosystem credits have been included for these species:</p> <ul style="list-style-type: none"> • Australian Painted Snipe (<i>Rostratula australis</i>) • Grey Falcon (<i>Falco hypoleucos</i>) • Regent Parrot (<i>Polytelis anthopeplus monarchoides</i>) • Swift Parrot (<i>Lathamus discolor</i>) • White-throated Needletail (<i>Hirundapus caudacutus</i>) <p>The following TECs, listed and migratory species were NOT identified in the referral decision 2023/09516 but were considered in the BDAR based on the Protected Matters Search Tool and/or BAM-C and then excluded based on either survey outcomes, geographic limitations in the BAM-C or lack of suitable habitats:</p> <ul style="list-style-type: none"> • River Swamp Wallaby Grass (<i>Amphibromus fluitans</i>) • Mossgiel Daisy (<i>Brachyscome papillosa</i>) • Sandhill Spider Orchid (<i>Caladenia arenaria</i>) • Spiny Peppercress (<i>Lepidium aschersonii</i>) • Menindee Nightshade (<i>Solanum karsense</i>) • Regent Honeyeater (<i>Anthochaera phrygia</i>) • Curlew Sandpiper (<i>Calidris ferruginea</i>) 	

Requirement	Information	Reference BAM / BLA ¹
	<ul style="list-style-type: none"> • Common Sandpiper (<i>Actitis hypoleucos</i>) • Fork-tailed Swift (<i>Apus pacificus</i>) • Sharp-tailed Sandpiper (<i>Calidris acuminata</i>) • Pectoral Sandpiper (<i>Calidris melanotos</i>) • Glossy Black Cockatoo (<i>Calyptorhynchus lathamii</i>) • Oriental Plover (<i>Charadrius veredus</i>) • Latham's Snipe (<i>Gallinago hardwickii</i>) • Gull-billed Tern (<i>Gelochelidon nilotica</i>) • Caspian Tern (<i>Hydroprogne caspia</i>) • Malleefowl (<i>Leipoa ocellata</i>) • Black-tailed Godwit (<i>Limosa limosa</i>) • Rainbow Bee-eater (<i>Merops ornatus</i>) • Yellow Wagtail (<i>Motacilla flava</i>) • Eastern Curlew (<i>Numenius madagascariensis</i>) • Night Parrot (<i>Pezoporus occidentalis</i>) • Glossy Ibis (<i>Plegadis falcinellus</i>) • Common Greenshank (<i>Tringa nebularia</i>) • Corben's Long-eared Bat (<i>Nyctophilus corbeni</i>) • Grey-headed Flying Fox (<i>Pteropus poliocephalus</i>) • Sloane's Froglet (<i>Crinia sloanei</i>) <p>The assessment of species and communities included/excluded were justified with supporting evidence including targeted survey effort consistent with industry guidelines and vegetation integrity plots to classify plant community types and TECs.</p>	
Avoidance, Minimisation, Mitigation & Management	<p>Verify that the EIS/BDAR demonstrates 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:</p> <ul style="list-style-type: none"> <input type="checkbox"/> designs and engineering solutions <input checked="" type="checkbox"/> modes or technologies <input checked="" type="checkbox"/> routes and locations of facilities <input checked="" type="checkbox"/> sites within the subject site <input checked="" type="checkbox"/> Verify that the EIS/BDAR identifies any other site constraints in determining the location and design of the proposal (such as bushfire protection requirements, flood planning levels, servicing constraints, etc) 	BAM Chapters 6, 7 and 8 BLA clause 7.1

Requirement	Information	Reference BAM / BLA ¹
	<p>Verify that the EIS/BDAR provides feasible measures to mitigate and/or manage impacts on EPBC Act listed threatened species and communities (including direct, indirect and prescribed impacts) including:</p> <ul style="list-style-type: none"> <input checked="" type="checkbox"/> techniques, timing, frequency and responsibility <input type="checkbox"/> identify measures for which there is risk of failure <input checked="" type="checkbox"/> evaluate the risk and consequence of any residual impacts <input type="checkbox"/> any adaptive management strategy proposed to monitor and respond to impacts 	
	<p>Provide advice on whether all feasible impact avoidance, minimisation, mitigation and management measures have been considered and are adequately justified:</p> <p>The proponent has worked to reduce overall impacts on native vegetation including a reduction in the original footprint from 2506.5 hectares to 1786 hectares. A reduction of about 720.5 hectares of impacts to native vegetation.</p> <p>Specific to MNES, avoidance includes:</p> <ul style="list-style-type: none"> • Reduction in impacts to the TEC of Natural Grasslands of the Murray Valley Plains from 34.8 hectares from version 2 of the design footprint to the final footprint of 1.73 hectares. This is about 5% impact compared to the version 2 impact to this TEC. • Avoidance of most impact to PCT 26 Intact condition which meets the conservation listing advice for the TEC of Weeping Myall listed under the EPBC Act. Reduction in version 2 of the development footprint of 67.3 hectares to 0.42 hectares in the final development footprint. • Avoidance of direct impacts to Plains-wanderer important mapped habitat. • Avoidance of approximately 97.4% of hollow bearing trees, with 38 out of 39 hollow bearing trees retained, including those with active hollows and large nests. • Avoidance of some known habitat for <i>Swainsona murrayana</i>. The quantities are not expressed in the BDAR but are outlined in Figure 11 of the BDAR. <p>While Table 40 of the BDAR summarises the avoidance measures, there are no modes and technologies or design and engineering solutions that are relevant or specific to MNES.</p> <p>Mitigation measures are outlined in Section 9 and summarised in Table 51 for direct, indirect and prescribed impacts. General measures to mitigate impacts to biodiversity (e.g. detailed design to minimise clearing, pre-clearing process to mitigate harm to native vegetation, TECs and nesting/breeding fauna etc) are appropriate and will be incorporated into a construction and operation Biodiversity Management Plan (BMP) and Construction Environmental Management Plan (CEMP). The mitigation measures include proposed techniques, timing, frequency and responsibility for implementing the measures. It does not identify the potential risk of failure or provide an analysis of consequence of any residual impacts.</p>	<p>BDAR dated 24 November 2025</p> <p>Section 5 – avoidance, Table 40</p> <p>Section 7 - mitigation</p>

Requirement	Information	Reference BAM / BLA ¹
	<p>Permanent 'no-go zones' will be constructed during construction and operation around the retained areas of <i>Swainsona murrayana</i> and monitored for the life of the project through the project BMP.</p> <p>There are also specific and appropriate mitigation measures around dewatering of aquatic habitats that may support Southern Bell Frog.</p> <p>Adaptive management and responsibilities have all been pushed to post approval and not investigated for MNES (see BDAR s7.2).</p>	
Impact Assessment	<p>Verify that the EIS/BDAR:</p> <ul style="list-style-type: none"> <input checked="" type="checkbox"/> identifies 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 <input checked="" type="checkbox"/> provides adequate Justification and evidence for the predicted level of impact, with reference to the: <ul style="list-style-type: none"> • Commonwealth's Significant Impact Guideline https://www.environment.gov.au/system/files/resources/42f84df4-720b-4dcf-b262-48679a3aba58/files/nes-guidelines_1.pdf • DPIE Guidance to Assist a Decision-Maker to Determine a Serious and Irreversible Impact (SAIL): (https://www.environment.gov.au/system/files/resources/42184df4-720b-4dcf-b262-48679a3aba58/files/nes-guidelines_1.pdf) 	BAM Chapters 8 and 9 BLA clauses 6.2(b)(i)-(ii) and 7.1
	<p>Complete the following information for each EPBC Act listed threatened species and/or community (add/remove rows as necessary):</p> <ul style="list-style-type: none"> • EPBC Act listed threatened species and/or community • nature and consequences of impacts (i.e direct and indirect) • duration of impact (e.g. construction, operation, life of project) • quantum of impact • consequences of impacts on the species, the population and/ or extent of the community at local, state and national scales <p>Confirm the level of predicted impact (cross appropriate):</p> <p><input checked="" type="checkbox"/> high risk of impact (requiring offsets)[#] or SAIL <input type="checkbox"/> Low risk of impact (not requiring offsets)</p> <p>[#]For purposes of EPBC approval, as a minimum, significant adverse residual impacts must be offset (significant impact can be evaluated with reference to the significance impact guidelines)</p> <p>Provide advice on whether adequate justification and evidence is provided for species and communities that have been identified as being at low risk of impact.</p>	<p>BDAR dated 24 November 2025</p> <p>Table 65.</p> <p>Appendix 6 – Significance assessments</p>

Requirement	Information	Reference BAM / BLA ¹
	<p>Section 10.1.1 (Table 62 and 63) and Appendix 6 of the BDAR outlines the MNES species at risk of impact including:</p> <ul style="list-style-type: none"> a) The name of the entity b) The EPBC Act listing of the entity c) The potential impacts including direct and indirect d) The extent of impact in hectares across the whole project (not stages) e) The duration of the impact f) The Assessment of Significance (AoS) results (if it is significant or not). <p>It should be noted that the significant impact criteria were not applied to three MNES as the BDAR authors anticipate significant impacts (as per the referral controlled action decision) to these entities are likely (see BDAR Appendix 6, page 468). No other species would be significantly impacted. The significantly impacted MNES are:</p> <ul style="list-style-type: none"> • Weeping Myall Woodland • Slender Darling Pea (<i>Swainsona murrayana</i>) • Plains-wanderer (<i>Pedionomus torquatus</i>). <p>Impacts to MNES Weeping Myall Woodland are 0.42 ha. Without a prepared significance assessment, a reliable outcome is not possible. However, based on the small area of Weeping Myall Woodland to be impacted that meets the EPBC listing criteria, CPHR recommends that a significant impact is not likely to EPBC Act Weeping Myall Woodland. Similarly, the project avoids impacts to all areas of Important Mapped Habitat for Plains-wanderer and impacts to associated PCTs is 1.68 hectares. Without a prepared significance assessment, a reliable outcome is not possible. CPHR note that a SAI assessment under the BC Act was prepared (BDAR Appendix 5) and CPHR consider the SAI is unlikely.</p> <p>With exception of the two species and one TEC above, all MNES species at risk of impact by the proposal were assessed in accordance with the <i>Significant Impact Guidelines</i> (DoE, 2013) in Appendix 6. Assessments of significance were completed for 21 entities including one EEC and 20 threatened species.</p> <p>It should be noted that Table 64 and 65 do not identify all MNES species that are ecosystem credits. The CPHR review has identified all ecosystem credit MNES species and TECs and included them in Table 2 of this advice.</p> <p>Section 10.1 of the BDAR provides a summary of MNES with potential for impact within the subject land. Detailed information is in Appendix 6 of the BDAR. The quantum of residual impacts to individual species (ecosystem and species credit species) are documented in Table 2.</p>	

Requirement	Information				Reference BAM / BLA ¹			
	<table><tr><th>MNES entity</th><th>Local consequence</th><th>State consequence</th><th>National consequence</th></tr></table>				MNES entity	Local consequence	State consequence	National consequence
	MNES entity	Local consequence	State consequence	National consequence				
	Threatened Ecological Communities							
	Natural Grasslands of the Murray Valley Plains	The project will reduce the extent of the community in the landscape by 1.73 hectares and potential indirect impacts to 152.58 hectares.	Riverina extent estimated at 61,000 ha (TSSC,2012). The amount of this community to be impacted is small in the context of the NSW community occurrence.	Unlikely to have a significant impact as will not result in long term significant decrease of extent or fragmentation.				
	Weeping Myall woodlands	The project will reduce the extent of the community in the landscape by 0.42 hectares.	Current NSW extent of 190,000–330,000 ha is known to occur within NSW (Benson 2006) (TSSC 2009). The amount of this community to be impacted is small in the context of the NSW community occurrence	Current national extent estimated to be between 220,000 and 361,000 ha. The amount of this community to be impacted is small in the context of the NSW and national community occurrence (0.42ha). Table 61 and Appendix 6 of the BDAR reports a likely significant impact on this TEC. The significant impact conclusion is based on the occurrence of the community as a whole (not just EPBC) which is subject to the largest impact from the project, which would reduce the area of occupancy for other areas within the sparse zone to meet the criteria in future, even with existing land				

Requirement	Information					Reference BAM / BLA ¹
				management practices, and in conjunction with cumulative impacts within the region, there is potential for significant impacts on the TEC.		
	Threatened flora					
	A Speargrass (<i>Austrostipa wakoolica</i>)	Species was not recorded in subject land despite targeted survey effort.	Unlikely to have a significant impact.	Unlikely to have a significant impact.		
	Chariot Wheels (<i>Maireana cheelii</i>)	Species was not recorded in subject land despite targeted survey effort.	Unlikely to have a significant impact.	Unlikely to have a significant impact.		
	Claypan Daisy (<i>Brachyscome muelleroides</i>)	Species was not recorded in subject land despite targeted survey effort.	Unlikely to have a significant impact.	Unlikely to have a significant impact.		
	Mossgiel Daisy (<i>Brachyscome papillosa</i>)	Species was not recorded in subject land despite targeted survey effort.	Unlikely to have a significant impact.	Unlikely to have a significant impact.		
	Turnip Copperburr (<i>Sclerolaena napiformis</i>)	Species was not recorded in subject land despite targeted survey effort.	Unlikely to have a significant impact.	Unlikely to have a significant impact.		
	Red Darling-pea (<i>Swainsona plagiotropis</i>)	Species was not recorded in subject land despite targeted survey effort.	Unlikely to have a significant impact.	Unlikely to have a significant impact.		
	Winged Peppercress (<i>Lepidium monoplocoides</i>)	Species was not recorded in subject land despite targeted survey effort.	Unlikely to have a significant impact.	Unlikely to have a significant impact.		
	Slender Darling-pea (<i>Swainsona murrayana</i>)	Recorded extensively throughout the development footprint in both Stage 1 and Stage 2. About 88 of the	Widespread in NSW on the Hay Plains and in woodland in the central west and into central	Unlikely to have a significant impact.		

Requirement	Information				Reference BAM / BLA ¹
		1,327 plants recorded (38.41 ha) will be directly impacted.	Victoria. Unlikely to have a significant impact.		
	Threatened fauna				
	Australasian Bittern (<i>Botaurus poiciloptilus</i>)	Limited potential habitat (8.84 ha in Coleambally Outfall Drain) in Subject Land and species not recorded during surveys despite targeted survey effort.	Unlikely to have a significant impact.	Unlikely to have a significant impact.	
	Australian Painted Snipe (<i>Rostratula australis</i>)	Limited potential habitat (8.84 ha in Coleambally Outfall Drain) in Subject Land and species not recorded during surveys despite targeted survey effort.	Unlikely to have a significant impact.	Unlikely to have a significant impact.	
	Blue-winged Parrot (<i>Neophema chrysostoma</i>)	Species was not recorded during targeted bird surveys. Suitable habitat available that may be used during migration.	Unlikely to have a significant impact.	Unlikely to have a significant impact.	
	Diamond Firetail (<i>Stagonopleura guttata</i>)	Species was not recorded during targeted bird surveys though was recorded in the adjacent Dinawan Wind Farm site. Sedentary but may move locally.	Unlikely to have a significant impact.	Unlikely to have a significant impact.	
	Glossy Black-cockatoo (<i>Calyptorhynchus lathami</i>)	Species was not recorded during targeted bird surveys and no vegetation with <i>Allocasuarina</i> feed trees occurs in the subject land.	Unlikely to have a significant impact.	Unlikely to have a significant impact.	
	Hooded Robin (<i>Melanodryas cucullata</i>)	Species was not recorded during targeted bird surveys	Unlikely to have a significant impact.	Unlikely to have a significant impact.	

Requirement	Information					Reference BAM / BLA ¹
	<i>cucullata</i>)	though suitable foraging and breeding habitat available that may be used.				
	Koala (<i>Phascolarctos cinerus</i>)	Not recorded during surveys and very small unconnected patches of Black Box and small River Red Gum occur in the subject land. Not recorded during targeted surveys.	Unlikely to have a significant impact.	Unlikely to have a significant impact.		
	Painted Honeyeater (<i>Grantiella picta</i>)	Species was recorded foraging in high condition Weeping Myall adjacent to the subject land. Suitable habitat in the subject land in the form of woodland and scattered farm trees which will be mostly avoided.	Minor loss of potential breeding habitat and weeping myall woodland. Unlikely to have a significant impact.	Unlikely to have a significant impact.		
	Pink Cockatoo (<i>Lophochroa leadbeateri</i>)	Species was not recorded during targeted bird surveys though suitable foraging and some limited breeding habitat available that may be used.	Unlikely to have a significant impact.	Unlikely to have a significant impact.		
	Plains-wanderer (<i>Pedionomus torquatus</i>)	Not recorded but known to occur in subject land which includes Important Mapped Habitat, but none of these mapped areas will be directly impacted and have been avoided. Direct impacts to associated PCTs limited to 1.68 hectares.	Minor loss of 1.68 hectares of associated PCTs and no impacts to Important Mapped Habitat. Unlikely to have a significant impact at the NSW level.	Table 61 and Appendix 6 of the BDAR reports a likely significant impact on this species despite no application of significant impact criteria. The significant impact conclusion is based on a possible reduction in the		

Requirement	Information					Reference BAM / BLA ¹
		Total impacts equate to about 0.01% of the total available habitat within 10km of the subject land (596 ha) and 0.001% of the total available habitat within 50km of the subject land (4,453ha).		area of occupancy of the species due to the changing dynamic nature of grasslands. CPHR note that the SAIL assessment under the BC Act is unlikely to result in SAIL.		
	Regent Parrot (<i>Polytelis anthopeplus monarchoides</i>)	Species was not recorded during targeted bird surveys though suitable foraging and breeding habitats that may rarely be used. Likely to be outside the species known range.	Unlikely to have a significant impact.	Unlikely to have a significant impact.		
	Southern Bell Frog (<i>Litoria raniformis</i>)	Recorded throughout the subject land. Southern Bell Frog was recorded in high numbers throughout the subject land following above average rainfall and flooding events throughout 2022. Direct impacts will be limited to small areas around Coleambally irrigation channel (up to 8.4 ha) and suboptimal ephemeral habitat, and 122.16 ha of adjacent dispersal habitat. Direct impacts to potential Southern Bell Frog habitat are likely to represent marginal and opportunistic	Suitable habitat along Coleambally outfall drain will be retained though areas around it will be impacted (8.4ha). Species is widespread locally and in NSW. Unlikely to significantly impact species at the NSW level.	Unlikely to have a significant impact.		

Requirement	Information					Reference BAM / BLA ¹
		habitat, rather than core breeding habitat.				
	Southern Whiteface (<i>Aphelocephala leucopsis</i>)	Species was recorded during targeted bird surveys adjacent to the subject land. Dinawan Wind Farm site. Suitable habitat throughout subject land and extensively across wider locality.	Unlikely to have a significant impact.	Unlikely to have a significant impact.		
	Superb Parrot (<i>Polytelis swainsonii</i>)	Species was recorded foraging in the subject land, but no breeding was recorded. Direct impacts to 0.42 ha of intact Weeping Myall and 0.29 ha of Black Box Woodland areas containing mature woody vegetation and marginal foraging habitat in grasslands of 861 hectares.	Unlikely to have a significant impact.	Unlikely to have a significant impact.		

Requirement	Information	Reference BAM / BLA ⁴
Offsets	<p>Verify that the EIS/BDAR:</p> <ul style="list-style-type: none"> <input type="checkbox"/> identifies any MNES that haven't been offset using the BAM <input checked="" type="checkbox"/> identifies how impacts requiring offsets correlate to MNES impacts <input checked="" type="checkbox"/> identifies the plant community types (PCTs) requiring offset and the number and type of ecosystem credits required for impacts to MNES <input checked="" type="checkbox"/> identifies threatened species requiring offset and the number of species credits required for impacts to MNES <p>correctly 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</p> <ul style="list-style-type: none"> <input type="checkbox"/> identifies if ecological rehabilitation and/or biodiversity conservation actions are proposed for offsetting <input checked="" type="checkbox"/> if known, identifies any other offsetting approach proposed, such as land-based offsets, retiring credits by payment into the Biodiversity Conservation Fund and/or through supplementary measures[#] <p>[#] In accordance the BAM there is no longer a requirement to define the offsetting approach at EIS stage.</p> <p>Complete the Impacts and Offsets Summary table below (Table 2)</p> <p>Provide advice on the adequacy of the proposed offsets in meeting the requirements of the BAM:</p> <ul style="list-style-type: none"> • In accordance with the BAM there is no longer a requirement to define the offsetting approach at EIS stage. The biodiversity offsets will be finalised prior to project construction impacts occurring. • BDAR section 9 outlines the approach to offsetting. This includes mostly securing credits through Biodiversity Stewardship Agreements (BSAs) on land owned privately by neighbouring landholders. The proponent may also use payments to the Biodiversity Conservation Fund, but it will only be used when all other local privately owned land BSA options and purchase of the credits on the open market have been exhausted. 	<p>BAM Chapter 10 BLA clauses 71 and 7.2</p> <p>BDAR dated 24 November 2025 Section 10.1</p> <p>Proposed offset approach in s9.3.</p>
Other Considerations	<p>Verify if any relevant Commonwealth guidelines and policy statements are applicable to the action and listed threatened species and/or community, including but not limited to:</p> <ul style="list-style-type: none"> • International environmental obligations • Recovery Plans • Approved Conservation Advice • Threat Abatement Plans <p>The relevant Commonwealth guidelines and policy statements for each species and community are available at: http://www.environment.gov.au/cgi-bin/sprat/public/sprat.pl</p>	<p>BLA clauses 6.2(b)(iv), 7.2(c), 7.3 and 7.4</p> <p>BDAR dated 24 November 2025 Section 10.1 and Appendix 6</p>

⁴ Bilateral agreement (BLA) made under section 45 of the EPBC Act, including Amending Agreement No.1 (2020)

Requirement	Information	Reference BAM / BLA ⁴
	<p>For each EPBC Act listed threatened species and/or community, provide advice on whether the assessment 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.</p> <p>Appendix 6 (Assessments of significance) includes reference to Commonwealth guidelines and policy statements as well as discussion of populations and important populations (depending on the species listing status). These assessments are made with reference to recovery plans and other relevant documents where they are available.</p> <p>Section 10.1 and Appendix 6 of the BDAR details the EPBC Act entities, significance assessments and shows that relevant recovery plans and approved conservation advice have been considered when determining the significance of the impact on the species and communities. BCS considers that the MNES assessment has been partially informed by Commonwealth guidelines and policy statements.</p> <p><u>International environmental obligations</u></p> <p>The proponent does not specifically discuss impacts to MNES in relation to Australia's international obligations. However, the proposal site does not impact on any Ramsar wetlands, and this is mentioned in relevant assessments for migratory species. Table 61 and Table A2 of the BDAR discuss migratory species.</p> <p><u>Recovery plans</u></p> <p>Recovery plans for the following entities are referenced in Appendix 6 of the BDAR:</p> <ul style="list-style-type: none"> • Australasian Bittern (<i>Botaurus poiciloptilus</i>) • Winged Peppercress (<i>Lepidium monoplacoides</i>) • Claypan Daisy (<i>Brachyscome muelleroides</i>) • Australian Painted Snipe (<i>Rostratula australis</i>) • Chariot Wheels (<i>Maireana cheelii</i>) • Southern Bell Frog (<i>Litoria raniformis</i>) • Painted Honeyeater (<i>Grantiella picta</i>) • Superb Parrot (<i>Polytelis swainsonii</i>) • Turnip Copperburr (<i>Sclerolaena napiformis</i>) • Red Darling Pea (<i>Swainsona plagiotropis</i>) 	

Requirement	Information	Reference BAM / BLA ⁴																						
	<p><u>Conservation Advice</u></p> <p>Conservation advice for Painted Honeyeater, Blue-winged Parrot, Pink Cockatoo, Diamond Firetail, Southern Whiteface, Glossy-black Cockatoo, <i>Austrostipa wakoolica</i> and <i>Brachyscome muelleroides</i> are referenced in Appendix 6 to inform preparation of significance assessment.</p> <p><u>Threat Abatement Plans (TAPs)</u></p> <p>None of the significance assessments in Appendix 6 of the BDAR reference any specific threat abatement plans. However, the following species for which a significance assessment was prepared have relevant listed Threat Abatement Plans.</p> <table><tr><th>Threatened Species/ Community listed under EPBC Act</th><th>Relevant Threat Abatement Plan</th></tr><tr><td>A Speargrass (<i>Austrostipa wakoolica</i>)</td><td>Threat abatement plan for competition and land degradation by rabbits</td></tr><tr><td>Australasian Bittern (<i>Botaurus poiciloptilus</i>)</td><td><ul style="list-style-type: none">Threat abatement plan for predation by the European red fox.Threat abatement plan for predation by feral cats.</td></tr><tr><td>Australian Painted Snipe (<i>Rostratula australis</i>)</td><td>Threat abatement plan for predation by feral cats</td></tr><tr><td>Blue-winged Parrot (<i>Neophema chrysostoma</i>)</td><td>Threat abatement plan for predation by feral cats</td></tr><tr><td>Diamond Firetail (<i>Stagonopleura guttata</i>)</td><td>Threat abatement plan for predation by feral cats</td></tr><tr><td>Glossy Black Cockatoo (<i>Calyptorhynchus lathami lathami</i>)</td><td>Threat abatement plan for predation by feral cats</td></tr><tr><td>Hooded Robin (<i>Melanodryas cucullata cucullata</i>)</td><td>Threat abatement plan for predation by feral cats</td></tr><tr><td>Koala (<i>Phascolarctos cinereus</i>)</td><td>Threat abatement plan for predation by feral cats</td></tr><tr><td>Pink Cockatoo (<i>Lophochroa leadbeateri leadbeateri</i>)</td><td>Threat abatement plan for predation by feral cats</td></tr><tr><td>Plains-wanderer (<i>Pedionomus torquatus</i>)</td><td><ul style="list-style-type: none">Threat abatement plan for competition and land degradation by rabbits.Threat abatement plan for predation, habitat degradation, competition and disease transmission by feral pigsThreat abatement plan for predation by the European red foxThreat abatement plan for predation by feral cats.</td></tr></table>	Threatened Species/ Community listed under EPBC Act	Relevant Threat Abatement Plan	A Speargrass (<i>Austrostipa wakoolica</i>)	Threat abatement plan for competition and land degradation by rabbits	Australasian Bittern (<i>Botaurus poiciloptilus</i>)	<ul style="list-style-type: none">Threat abatement plan for predation by the European red fox.Threat abatement plan for predation by feral cats.	Australian Painted Snipe (<i>Rostratula australis</i>)	Threat abatement plan for predation by feral cats	Blue-winged Parrot (<i>Neophema chrysostoma</i>)	Threat abatement plan for predation by feral cats	Diamond Firetail (<i>Stagonopleura guttata</i>)	Threat abatement plan for predation by feral cats	Glossy Black Cockatoo (<i>Calyptorhynchus lathami lathami</i>)	Threat abatement plan for predation by feral cats	Hooded Robin (<i>Melanodryas cucullata cucullata</i>)	Threat abatement plan for predation by feral cats	Koala (<i>Phascolarctos cinereus</i>)	Threat abatement plan for predation by feral cats	Pink Cockatoo (<i>Lophochroa leadbeateri leadbeateri</i>)	Threat abatement plan for predation by feral cats	Plains-wanderer (<i>Pedionomus torquatus</i>)	<ul style="list-style-type: none">Threat abatement plan for competition and land degradation by rabbits.Threat abatement plan for predation, habitat degradation, competition and disease transmission by feral pigsThreat abatement plan for predation by the European red foxThreat abatement plan for predation by feral cats.	
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Requirement	Information		Reference BAM / BLA ⁴
	Regent Parrot (<i>Polytelis anthopeplus monarchoides</i>)	<ul style="list-style-type: none"> Threat abatement plan for competition and land degradation by rabbits. Threat abatement plan for predation by feral cats 	
	Slender Darling-pea (<i>Swainsona murrayana</i>)	<ul style="list-style-type: none"> Threat abatement plan for competition and land degradation by rabbits. Threat abatement plan for predation, habitat degradation, competition and disease transmission by feral pigs Threat abatement plan for competition and land degradation by unmanaged goats. 	
	Southern Bell Frog (<i>Litoria raniformis</i>)	<ul style="list-style-type: none"> Threat abatement plan for infection of amphibians with chytrid fungus resulting in chytridiomycosis. Threat abatement plan for predation by feral cats 	
	Southern Whiteface (<i>Aphelocephala leucopsis</i>)	<ul style="list-style-type: none"> Threat abatement plan for predation by feral cats 	
	Swift Parrot (<i>Lathamus discolor</i>)	Threat abatement plan for predation by feral cats	
	Winged Peppercreep (<i>Lepidium monoplocoides</i>)	<ul style="list-style-type: none"> Threat abatement plan for competition and land degradation by rabbits. Threat abatement plan for predation, habitat degradation, competition and disease transmission by feral pigs. 	
Recommended Conditions	<p>Provide advice on any recommended conditions and reasons for imposing the conditions:</p> <p><u>EPBC Approval 1</u></p> <p>CPHR recommends an EPBC condition that minimises the impacts of the action on protected matters by not clearing more than the amounts (ha) and credits specified in Tables 55 to 57 of the final BDAR dated 24 November 2025.</p>		BLA clause 6.2(c)(iii)

Table K-2.1 | NSW DCCEE CPFR project advice to the Department – MNES impact and offset summary

Threatened species / community listed under EPBC Act	PCTs associated with the ecosystem credit species / ecological community	Area of impact (ha)	Credits required	Offsetting approach	Reference (EIS, BDAR)
Threatened ecological communities					
Weeping Myall Woodlands	PCT 26 - Intact	0.43	10 ecosystem credits	Establishment of a Biodiversity Stewardship Site, or purchase of credits on the open market, or Payment into the Biodiversity Conservation Fund (or possible combination of these options)	BDAR dated 24 November 2025 BDAR s9.1 and 9.2.
Threatened species					
Australasian Bittern (<i>Botaurus poeciloptilus</i>),	PCTs 13 and PCT 17	1.26	40 ecosystem credits consisting of: <ul style="list-style-type: none"> PCT 13 – 4 ecosystem credits PCT 17 – 36 ecosystem credits. 	Establishment of a Biodiversity Stewardship Site, or purchase of credits on the open market, or Payment into the Biodiversity Conservation Fund (or possible combination of these options)	BDAR dated 24 November 2025 BDAR s9.1 and 9.2. Potential BSA sites described in section 9.1.
Australian Painted Snipe (<i>Rostratula australis</i>)	PCTs 13 and PCT 17	1.26	40 ecosystem credits consisting of: <ul style="list-style-type: none"> PCT 13 - 4 ecosystem credits PCT 17 – 36 ecosystem credits. 		
Blue-winged Parrot (<i>Neophema chrysostoma</i>)	PCTs 13, 15, 17, 26, 45 and 46,	1771.35 ha	25,708 ecosystem credits consisting of: <ul style="list-style-type: none"> PCT 13 – 4 ecosystem credits, PCT 15 – 5 ecosystem credits, PCT 17 – 36 ecosystem credits, PCT 26 – 25,567 ecosystem credits, PCT 45 – 3 ecosystem credits, PCT 46 – 93 ecosystem credits. 		
Diamond Firetail (<i>Stagonopleura guttata</i>)	PCTs 13, 26, 45 and 46	1770.05	25,444 ecosystem credits consisting of: <ul style="list-style-type: none"> PCT 13 – 4 ecosystem credits, PCT 26 – 25,344 ecosystem credits, PCT 45 – 3 ecosystem credits, PCT 46 – 93 ecosystem credits. 		
Grey Falcon (<i>Falco hypoleucos</i>)	PCTs 13, 15, 17, 26, 45 and	1771.35 ha	25,708 ecosystem credits consisting of:		

Threatened species / community listed under EPBC Act	PCTs associated with the ecosystem credit species / ecological community	Area of impact (ha)	Credits required	Offsetting approach	Reference (EIS, BDAR)
	46,		<ul style="list-style-type: none"> PCT 13 – 4 ecosystem credits, PCT 15 – 5 ecosystem credits, PCT 17 – 36 ecosystem credits, PCT 26 – 25,567 ecosystem credits, PCT 45 – 3 ecosystem credits, PCT 46 – 93 ecosystem credits. 		N.B. some EPBC listed ecosystem credit species are missing from BDAR Table 54 and have been calculated incorrectly but have been corrected in this Table.
Hooded Robin (<i>Melanodryas cucullata cucullata</i>)	PCTs 13, 15 and 26	1768.48	25,576 ecosystem credits consisting of <ul style="list-style-type: none"> PCT 13 - 4 ecosystem credits PCT 15 - 5 ecosystem credits PCT 26 – 25,567 ecosystem credits. 		
Painted Honeyeater (<i>Grantiella picta</i>)	PCTs 13, 15 and 26	1768.48	25,576 ecosystem credits consisting of: <ul style="list-style-type: none"> PCT 13 – 4 ecosystem credits, PCT 15 – 5 ecosystem credits, PCT 26 – 25,567 ecosystem credits, 		
Pink Cockatoo (<i>Lophochroa leadbeateri leadbeateri</i>)	PCTs 13, 15, 26 and 45 (foraging only)	1768.53	25,579 ecosystem credits consisting of <ul style="list-style-type: none"> PCT 13 - 4 ecosystem credits PCT 15 - 5 ecosystem credits PCT 26 – 25,567 ecosystem credits PCT 45 – 3 ecosystem credits. 		
Plains-wanderer (<i>Pedionomus torquatus</i>)	PCT 46 (foraging only)	1.68	93 ecosystem credits only.		
Regent Parrot (<i>Polytelis anthopeplus monarchoides</i>)	PCTs 13 and 15 (foraging only)	0.28	9 ecosystem credits consisting of <ul style="list-style-type: none"> PCT 13 - 4 ecosystem credits PCT 15 - 5 ecosystem credits 		
Slender Darling-pea (<i>Swainsona murrayana</i>)	PCT 26	38.4	482 species credits for PCT 26		
Southern Bell Frog (<i>Litoria raniformis</i>)	PCTs 15, 17, 26 and 46	121.67 ha	1643 species credits consisting of: <ul style="list-style-type: none"> PCT 15 – 6 species credits, PCT 17 – 8 species credits, PCT 26 – 1556 species credits, PCT 46 – 73 species credits. 		
Southern Whiteface (<i>Aphelocephala leucopsis</i>)	PCTs 13, 15, 17, 26, 45 and 46,	1771.35 ha	25,708 ecosystem credits consisting of: <ul style="list-style-type: none"> PCT 13 – 4 ecosystem credits, PCT 15 – 5 ecosystem credits, 		

Threatened species / community listed under EPBC Act	PCTs associated with the ecosystem credit species / ecological community	Area of impact (ha)	Credits required	Offsetting approach	Reference (EIS, BDAR)
			<ul style="list-style-type: none"> PCT 17 – 36 ecosystem credits, PCT 26 – 25,567 ecosystem credits, PCT 45 – 3 ecosystem credits, PCT 46 – 93 ecosystem credits. 		
Superb Parrot (<i>Polytelis swainsonii</i>),	PCTs 13, 26, 45 and 46	1770.05	25,667 ecosystem credits consisting of: <ul style="list-style-type: none"> PCT 13 – 4 ecosystem credits, PCT 26 – 25,567 ecosystem credits, PCT 45 – 3 ecosystem credits, PCT 46 – 93 ecosystem credits. 		
Swift Parrot (<i>Lathamus discolor</i>)	PCTs 13, 15 and 26 (foraging only)	1768.48	25,576 ecosystem credits consisting of <ul style="list-style-type: none"> PCT 13 - 4 ecosystem credits PCT 15 - 5 ecosystem credits PCT 26 – 25,567 ecosystem credits. 		
White-throated Needletail (<i>Hirundapus caudacutus</i>)	PCTs 13, 15, 17, 26, 45 and 46,	1771.35 ha	25,708 ecosystem credits consisting of: <ul style="list-style-type: none"> PCT 13 – 4 ecosystem credits, PCT 15 – 5 ecosystem credits, PCT 17 – 36 ecosystem credits, PCT 26 – 25,567 ecosystem credits, PCT 45 – 3 ecosystem credits, PCT 46 – 93 ecosystem credits. 		

Table K-2.2 | NSW DCCEEW CPHR project advice to the Department – MNES impacted and only listed under the EPBC Act

Threatened Species / Community listed under EPBC Act	PCTs associated with the species / ecological community	Area of Impact (ha)	Credits required	Reference (EIS, BDAR)	Significance
Natural Grasslands of the Murray Valley Plains	Equivalent NSW PCT 45 and 46 (moderate good and moderate vegetation zones)	1.73	96 ecosystem credits	BDAR dated 24 November 2025 - Table 64.	No significant impact