# Birriwa Solar Farm

Independent Planning Commission – Public Meeting

**Iwan Davies**Director, Energy Assessments

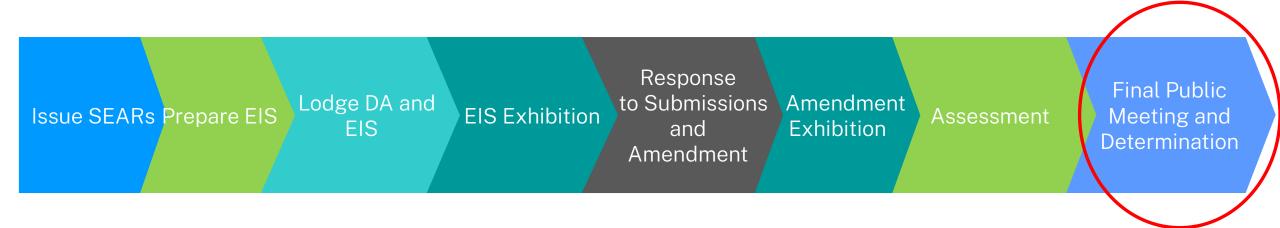
June 2024



#### Assessment Process



- Environmental Planning & Assessment Act 1979
- State Significant Development
- Whole of Government Assessment including key agencies and local councils



### Strategic Context

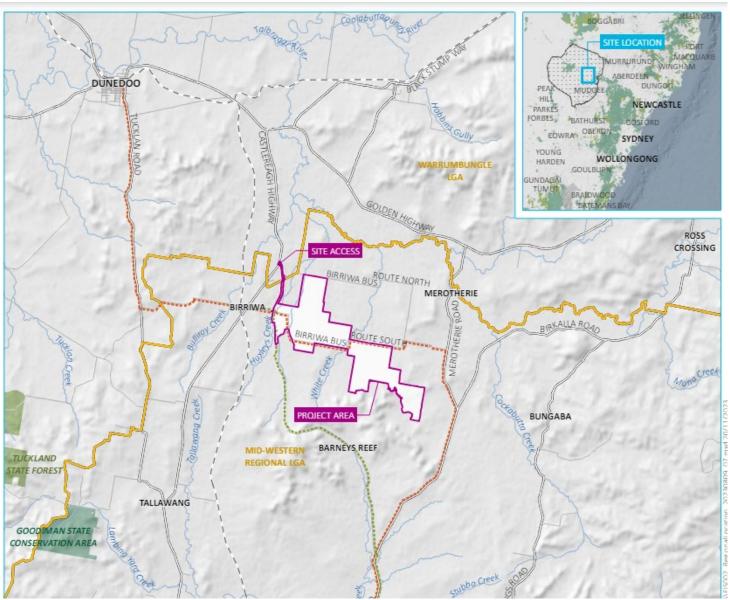


- 600 MW solar farm with a 600 MW / 1200 MWh battery, on-site accommodation and connection to the adjacent EnCo Merotherie Hub.
- The project is a permissible land use with consent under the relevant legislation.
- Coal fired power plants in NSW are scheduled for closure in the next twenty years, the project would provide large-scale renewable energy generation to meet increased electricity demand.
- Several National and State policies aim to achieve net zero emissions in NSW by 2050 and reduce emissions by 70% below 2005 levels by 2035.
- Project is consistent with policies which identify the need to diversify the energy generation mix and reduce the carbon emissions, while providing energy security and reliability.

#### Regional Context



- The site is located within the Central-West Orana Renewable Energy Zone.
- The site is located in a sparsely populated rural area.
- The site has good transport links and grid connection.
- There are minimal biodiversity and heritage impacts.
- The site is primarily used for grazing and not mapped as BSAL land.



# Community Engagement & Public Submissions - EIS



#### **EIS Public Exhibition:**

- 14th October 10th November 2022
- 85 Objections
- 4 Comments

#### Amendment Report Exhibition:

- 6th October 19th October 2023
- 45 Objections
- 0 Comments

#### Other Engagement:

- The Department engaged with 13 Government Agencies throughout the assessment process
- The Department engaged with both Mid-Western Council and Warrumbungle Council throughout the assessment process
- The Department inspected the site in December 2023 and met with nearby landowners

## **Energy Transition**



- 600 MW generating capacity that would power about 230,000 homes.
- Consistent with the NSW Climate Change Policy Framework of net zero emissions by 2050.
- Project is within the Central-West Orana Renewable Energy Zone, which has been identified for investment in new electricity infrastructure.
- Project would play an important role in:
  - o Increasing renewable energy generation and capacity; and
  - o Contributing to the transition to a cleaner energy system as coal fired generators retire.

### Land Use Compatibility

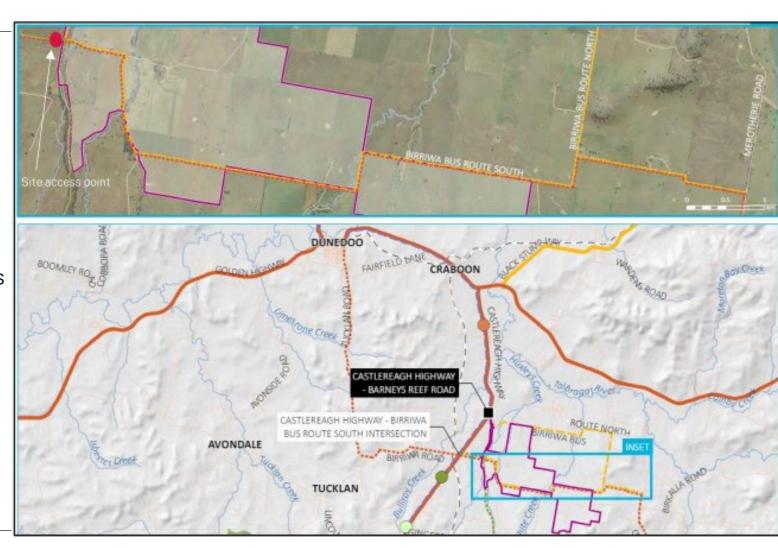


- The proposed development is permitted with consent as the relevant land zonings under each respective LEP (RU1 and SP2) are nominated non-residential zones for which electricity-generating development is permissible via the Transport and Infrastructure SEPP.
- Consistent with the Mid-Western LEP, the Warrumbungle LEP and the Central West and Orana Regional Plan 2041.
- The development footprint does not include BSAL, is comprised of Class 5 and 7 land and would represent 0.01% of the 8.9 million ha of land currently used for agricultural output in the Central-West Orana region.
- Regarding cumulative impacts, the amount of agricultural land that would be occupied by solar farms in the region would be less than 0.18%.
- Land subject to development would be capable of returning to usable agricultural land following decommissioning.
- The cumulative impacts which the development footprint would have on regional productivity would be negligible.

### Traffic & Transport

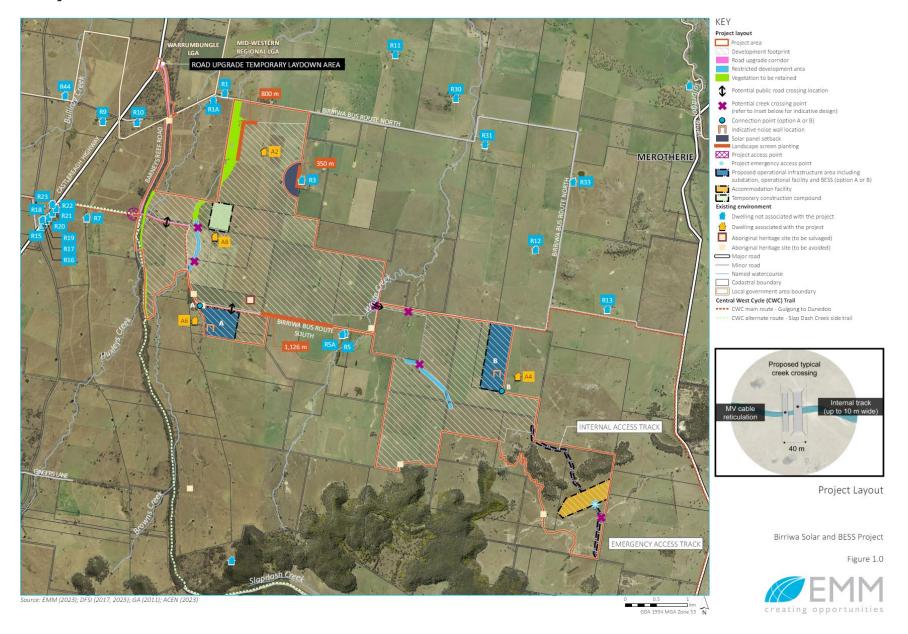


- The haulage route for the project is via the Castlereagh Hwy, Barneys Reef Rd, and Birriwa Bus Route Sth
- Daily (Peak) 120 heavy vehicles and 50 light vehicles
- 6 Heavy Vehicle Movements Requiring Escort
- Access to the accommodation camp would be through the site to avoid the use of Birriwa Bus Route North and Merotherie Road
- Roadworks include road widening along Barneys Reef Rd and Birrwa Bus Route Sth, resurfacing, and two intersection upgrades (Barneys Reef Road / Castlereagh Highway and Barneys Reef Rd / Birrwa Bus Route Sth)



# Visual Impacts

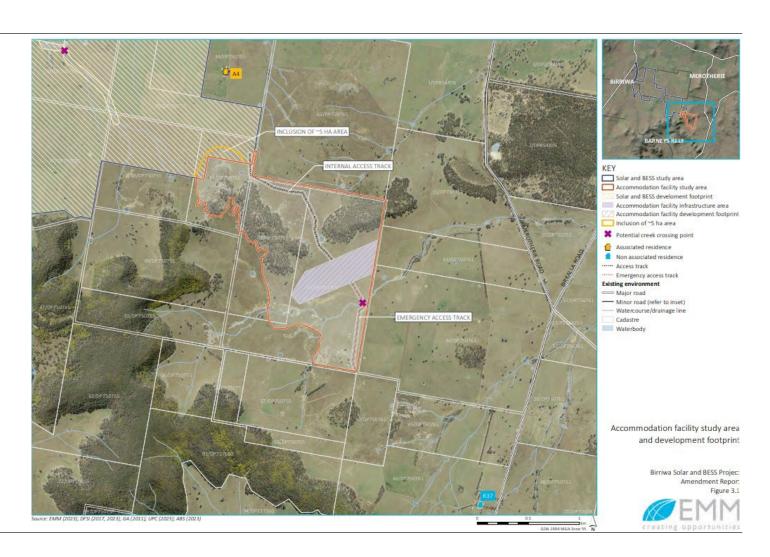




#### Accommodation



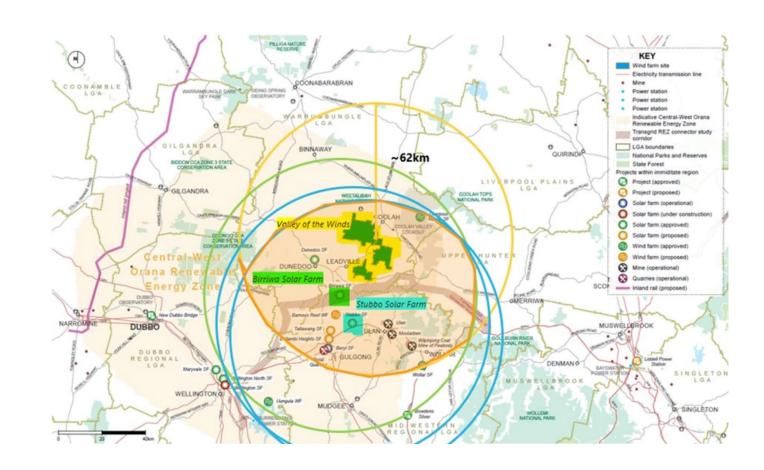
- An accommodation camp was proposed through the amendment report to reduce impacts to social amenities including roads and accommodation.
- Access to the camp is through main site access and camp will be provided with medical services including onsite nurse and security
- The Department is satisfied that the proposed accommodation camp is capable of being effectively serviced.



#### Cumulative Impacts



- In accordance with the SSD Guidelines, potential cumulative impacts have been identified with five nearby projects:
- Merotherie Energy Hub (under assessment)
- Stubbo Solar Farm (construction)
  - o Generation capacity: 400 MW
- Tallawang Solar Farm (RTS recieved)
  - o Generation capacity: 500 MW
- Barneys Reef Wind Farm (proposed)
  - o Generation capacity: 300 MW
- Valley of the Winds Wind Farm (proposed)
  - Generation capacity: 800 MW
- Key cumulative impacts considered:
  - o loss of agricultural land;
  - o traffic; and
  - visual impacts



# Decommissioning and Rehabilitation



- Operational life is likely to be up to 40 years.
- The Department considers that the solar farm project would be suitably decommissioned and rehabilitated, with the implementation of objective-base conditions, including requirements to:
  - 1. Return land to pre-existing use
  - 2. Remove project infrastructure
  - 3. Rehabilitate and return land to its pre-existing use (including LSC Class)
  - 4. The owner/operator should be responsible for the decommissioning and rehabilitation
- Solar farm would be suitably decommissioned and rehabilitated at the end of the project life, or within 18
  months if operations cease unexpectedly.
- Accommodation camp to be decommissioned within 12 months of operation of the solar farm.



#### Other Issues

- Department also conducted detailed assessment of the following:
  - Biodiversity
  - Heritage
  - Erosion and sediment control
  - Water
  - Dust
  - Waste
  - Noise
  - Hazards and risks
  - Subdivision
  - Community benefit
  - Land value

#### **Evaluation**



- The Department has assessed the application, documents, submissions and advice, as per the requirements
  of the EP&A Act.
- The Department acknowledges that some members of the community remain strongly opposed to the project, and that the project would result in residual environmental and amenity impacts.
- Changes made to the project through the assessment process have significantly reduced the residual impacts of the project.
- With the implementation of the recommended conditions, the Department considers that the environmental
  and amenity impacts of the project can be managed to achieve acceptable outcomes.
- The project would:
  - o provide significant economic and social benefits to the region
  - contribute to the transition of the NSW economy away from a reliance on fossil fuels
  - maximise the efficiency of the solar resource while minimising the potential impacts on surrounding land uses, local residents, and the environment.