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THUNDERBOLT ENERGY HUB SOLAR FARM AND BATTERY STORE

Scoping Report

FINAL

November 2020

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Scoping Report

FINAL

Prepared by
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on behalf of
Neoen Pty Ltd

Project Director: John Merrell
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Report No. 7066/R03
Date: November 2020

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This report was prepared using Umwelt's ISO 9001 certified Quality Management System.

Document Status

Rev No.	Reviewer		Approved for Issue	
	Name	Date	Name	Date
Final	John Merrell	13 November 2020	John Merrell	13 November 2020

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1.0 Introduction

The proposed Thunderbolt Energy Hub is located in the Kentucky Area of New South Wales (NSW), approximately 40 kilometres (km) north east of Tamworth adjacent to the New England Highway (refer to **Figure 1.1**). The Thunderbolt Energy Hub is proposed to include wind and solar electricity generation and battery storage. This application relates to the solar farm and battery infrastructure components (the Project), with the wind farm subject to a separate development application process.

The Project includes the construction and operation of a solar farm and battery storage infrastructure located near Kentucky NSW. Associated infrastructure is also proposed including operation and maintenance buildings, civil works and electrical infrastructure required to connect to the existing electricity transmission network.

The solar farm will produce approximately 120 megawatts (MW) AC, with the potential to power 50,030 homes. The overall output from the Thunderbolt Energy Hub (including the wind farm) will produce approximately 500 MW, with the potential to power 276,830 homes once fully operational. The battery infrastructure will have a capacity of approximately 400 MW.

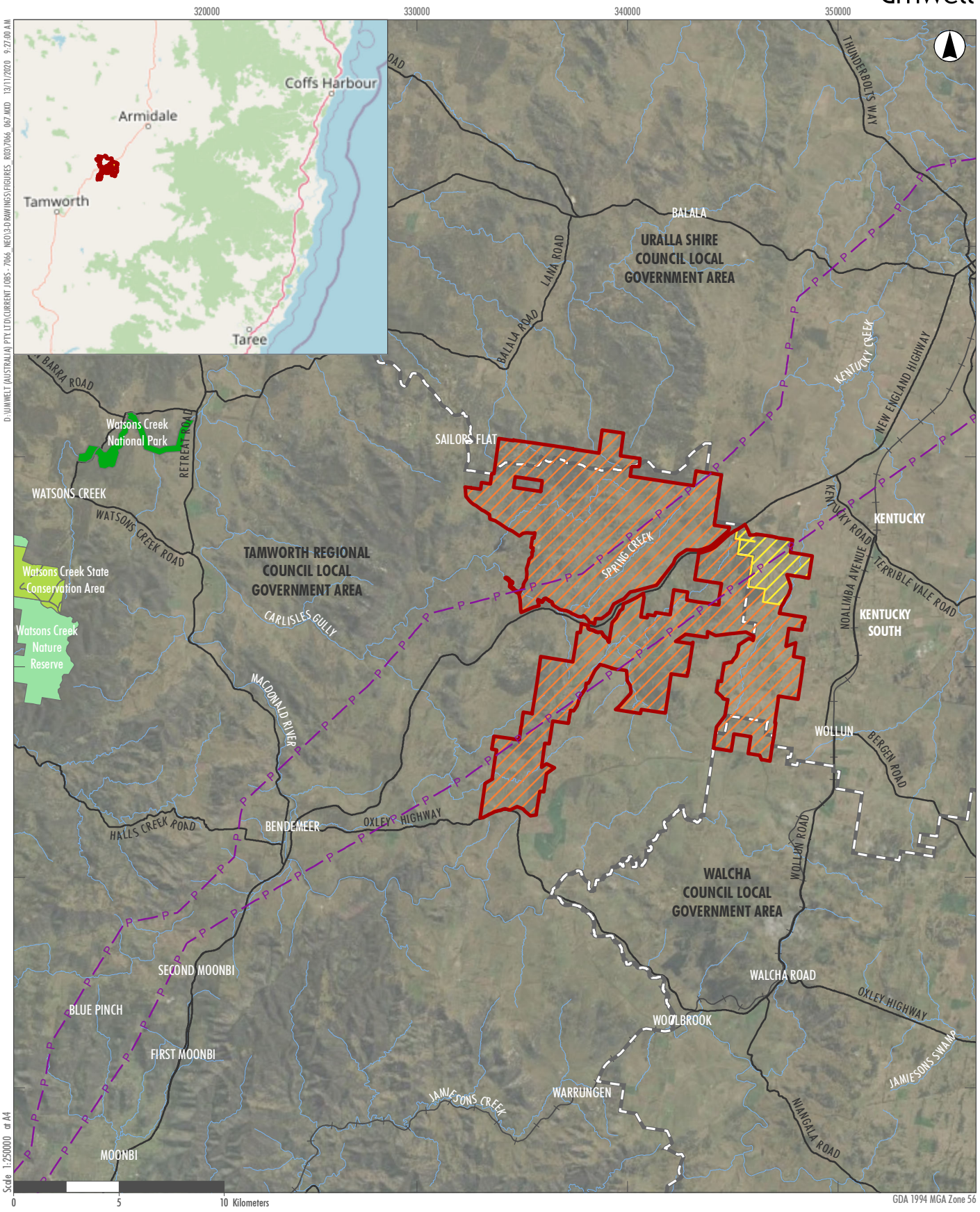
The Project Area is located within the New England Renewable Energy Zone (REZ) identified in the NSW Government's Electricity Strategy (refer to **Section 3.1.2**). The REZ is expected to play a vital role in delivery affordable energy to the community across NSW. The Project is therefore strategically located in a broad area identified as suitable for renewable energy projects.

The Project Area encompasses three freehold properties and covers approximately 718.22 hectares (ha). These properties are primarily utilised for grazing activities. The preliminary layout for the Project (refer to **Section 2.0**) will be subject to further review and refinement as the environmental and social impact assessment progresses.

1.1 The Proponent

The proponent for the development application for the Project is Neoen Australia Pty Ltd (Neoen). Neoen was founded in 2008 and is a leading independent producer of renewable energy. Neoen has been operating in Australia since 2012 and is the owner and manager of DeGrussa solar farm in WA; the Hornsdale Wind Farm and Hornsdale Power Reserve in SA; Parkes Solar Farm, Dubbo Solar Hub, Griffith Solar Farm and Coleambally Solar Farm in NSW; and the Bulgana Green Power Hub and Numurkah Solar Farm in Victoria. The business therefore has an established presence in both NSW and more broadly in Australia as a producer of renewable energy.

Neoen has more than 1.2 gigawatts (GW) of renewable projects either operating or under construction in Australia with offices in Sydney and Canberra and plans to be a key provider of renewable energy to both the people of NSW and across Australia. Neoen intends to reach 3 GW of operating or under construction assets in its portfolio in Australia by 2022.



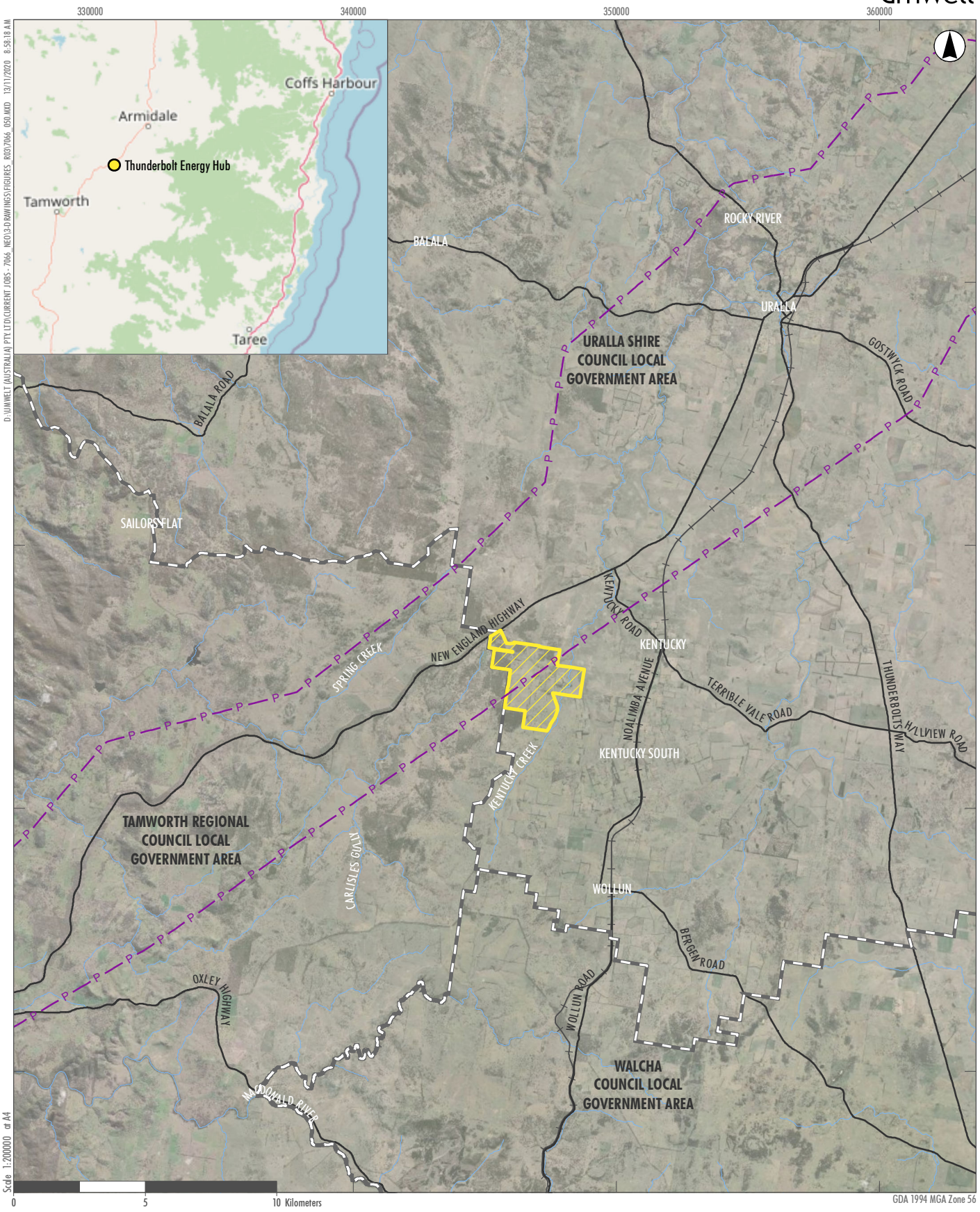
Legend

- Thunderbolt Energy Hub
- Thunderbolt Wind Farm
- Thunderbolt Solar Farm and Battery Store
- Local Government Areas
- National Park
- Nature Reserve
- State Conservation Area
- Existing 330kV Power Lines
- Watercourse
- Road
- Railway

FIGURE 1.1

Thunderbolt Energy Hub

Image Source: ESRI Basemap, Data source: DFSI (2020), Neoen (2020)



Legend

- Project Area
- Local Government Areas
- Existing 330kV Power Lines
- Watercourse
- Road
- Railway

FIGURE 1.2

Thunderbolt Solar Farm and Battery Store

Image Source: ESRI Basemap, Data source: DFSI (2020), Neoen (2020)

2.0 Project Overview

2.1 Environment and Community Context

The Project Area is located within a rural setting approximately 60 km north east of Tamworth adjacent to the New England Highway. The Project Area covers approximately 713 ha and is located within the Uralla Local Government Area (LGA). The Project Area is located to the west of the villages of Kentucky and Kentucky South (refer to **Figure 2.1**). The Project Area is accessed directly from the New England Highway and Old Wollun Road.

The land within the Project Area is owned by three separate landowners as well as Crown/Uralla Shire Council reserves and roads. Land within and surrounding the Project Area has been subject to extensive vegetation clearing associated with historic agricultural land uses and is predominately utilised for grazing activities. Agriculture (primarily grazing) is also the dominant land use in the surrounding area along with some horticulture, forestry and areas of nature conservation.

The land is Land Class 4, 5 and 6 under the Land and Soil Capability Mapping, which is considered moderate to low capability agricultural land.

There are 17 dwellings located within 2 km of the Project Area, two dwellings are landholders involved in the Project, five dwellings are landholders involved in the Thunderbolt Wind Farm Project and 10 are non-involved dwellings. Of the 10 non-involved dwellings, two are currently vacant. The closest non-involved dwelling (currently vacant) is located approximately 200 m from the Project Area.

The Project Area is zoned as RU1 Primary Production under the Uralla Local Environmental Plan (LEP). None of the land within the Project Area is identified as Biophysical Strategic Agricultural Land and the Project Area is not currently subject to any mineral titles, exploration leases or licences.

As discussed above, the Project Area is located within the New England REZ under the NSW Governments Electricity Strategy. A REZ involves the coordinated development of new grid infrastructure in energy rich areas to connect multiple generators (such as solar and wind farms) in the same location. The designation of REZs is intended to result in the development of additional capacity of renewable electricity generation at a lower cost. The REZs are expected to play a vital role in the delivery of affordable energy across NSW as the State's existing power stations close over the coming decades.

The New England REZ is identified as potentially supplying 8,000 MW of renewable energy as it has been identified by the NSW government as having some of the best natural energy resources in the country and is ideally located close to existing high voltage power lines that connect the NSW east coast and Queensland. The REZ is discussed further in **Section 3.1.2**.

2.2 The Project

The Project Area has been is located within the New England REZ and adjacent to the proposed Thunderbolt wind farm which provides opportunities to maximise the efficiency of energy generation and storage. Whilst there are efficiency opportunities by co-locating the solar and windfarm projects, it is noted that both the Project and the windfarm can operate separately and are not reliant on each other and are thus proposed as separate projects. The layout for the Project within the Project Area will be defined as the environmental and social impact assessment progresses.

The Project includes the construction, operation, and maintenance of the solar farm and battery infrastructure. Associated infrastructure is also proposed including operation and maintenance buildings, civil works and electrical infrastructure required to connect to the existing transmission network.

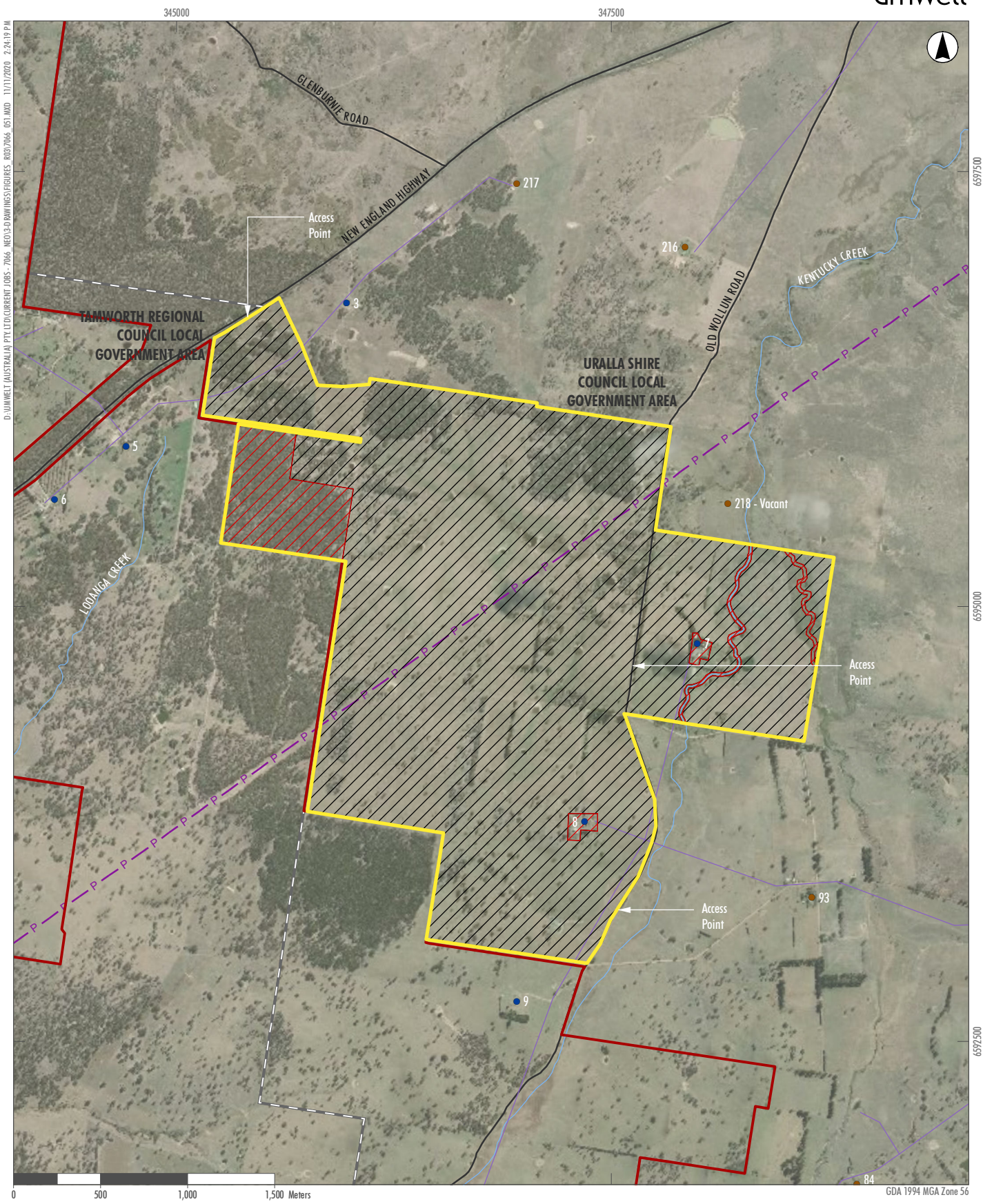
The key components of the Project include:

- construction of the 120 MW(AC) Thunderbolt Energy Hub solar farm, which will include approximately 320,000 flat plate PV modules in a tracking arrangement
- a 400 MW lithium-ion battery which stores energy produced by the Thunderbolt Energy Hub (both solar farm and the separate windfarm development)
- temporary construction site offices, construction vehicle parking areas, material laydown area for construction. Some material laydown areas would remain in place during operation. This will be determined in the final layout design
- operations and maintenance building with parking for the operations team
- shed for warehousing critical spare parts near the operations and maintenance building
- a site office and maintenance building
- one or more access points from New England Highway and Old Wollun Road (considering transport requirements and emergency access requirements)
- a system of inverters and voltage step up transformers throughout the solar arrays
- underground and above ground electrical conduits and cabling to connect the arrays to the inverters and transformers
- a switchyard and solar farm substation to connect to the existing transmission line
- National Energy Market (NEM) compliant metering arrangements for all energy exported to the grid as well as internal metering to measure solar output at the solar farm substation
- internal access tracks to allow for site maintenance
- perimeter security fencing
- vegetation screening around the perimeter of the site if and where required following consultation with surrounding landholders
- drainage line crossings if and where required to manage any existing surface water flows (to be determined during further design development)
- fencing, crossing gates, water tanks or dams, and potential alternate site entrances to facilitate sheep grazing.

2.2.1 Landownership

The Project Area encompasses three involved landholders, with the majority of land surrounding the Project Area in private ownership with some areas of Crown or Council land (refer to **Figure 2.2**). The three landholdings within the Project Area utilise the land for agricultural (predominately grazing) activities.

There are nine non-involved dwellings located within 2 km of the Project Area. The closest non-involved dwelling (currently a vacant dwelling) is located approximately 200 m from the Project Area.



Legend

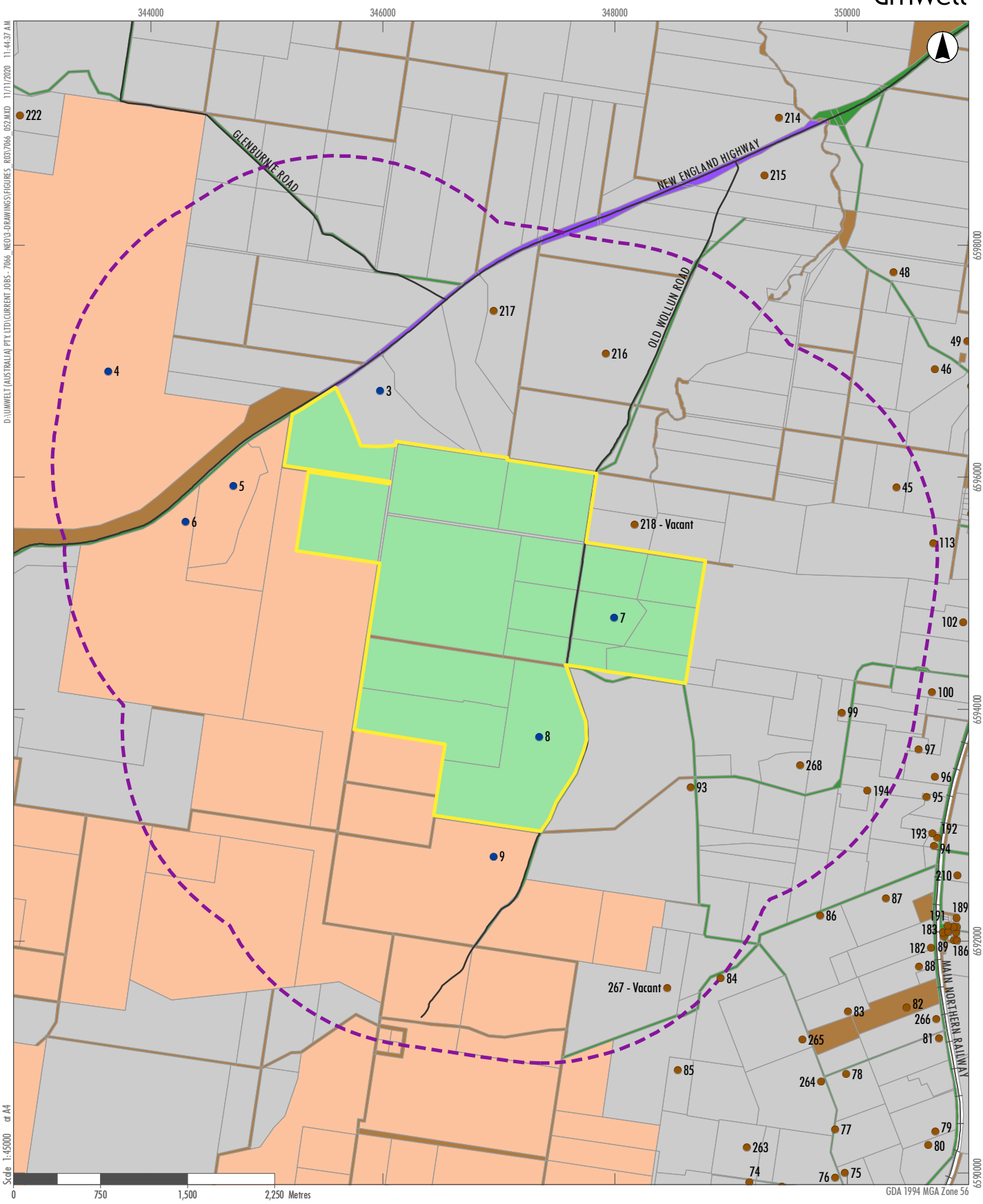
- Project Area
- Thunderbolt Wind Farm Project Area
- Development Footprint
- Exclusion Zone
- Involved Dwelling
- Non-involved Dwelling
- P Existing 330kV Power Lines
- Existing LV Power Lines
- Local Government Areas
- Road
- Railway
- Watercourse

FIGURE 2.1

Site Context and Project Area

Image Note: 20m setback to project area boundary from proposed solar infrastructure where adjoining non-involved propoerties. Proposed access points subject to detailed assessment

Image Source: ESRI Basemap, Data source: DFSI (2020), Neoen (2020)



Legend

- Project Area
- Involved Dwelling
- Non-involved Dwelling
- 2km Buffer
- Railway
- Road

Land Ownership

- Private - Involved Landowner - Solar Farm
- Private - Involved Landowner - Wind Farm
- Crown Land
- Private
- Local Government Authority
- Shared Crown/Council

FIGURE 2.2

Land Ownership

Image Source: ESRI Basemap, Data source: DFSI (2020), Neoen (2020)

3.0 Strategic Context

3.1 Project Justification

The development of renewable energy projects aligns with both Federal and NSW commitments to increase renewable energy generation and reduce carbon emissions across the NSW and Australian economies.

The proposed location of this Project is within an identified REZ, being an area identified by the NSW government as to be targeted for renewable energy development. The NSW government has indicated that these REZs will play a vital role in delivering affordable energy generation to help prepare the State for the expected retirement of thermal power stations over the coming decades. The government has also indicated that the REZ are expected to unlock a significant pipeline of large-scale renewable energy and storage projects, while supporting up to $23 billion of private sector investment in NSW regions and up to 2,000 construction jobs each year.[1]

The Project will contribute to meeting these Federal and NSW government objectives and is located within a defined area planned for renewable energy development.

Further detail regarding the strategic context and Project benefits of the development is provided in the following sections.

3.1.1 Federal and State Commitments

Australia is one of the 195 countries from around the world signed to the international climate change agreement (the Paris Agreement). The Paris Agreement aims to:

- hold the increase in the global average temperature to below 2°C above pre-industrial levels, and to pursue efforts to limit the temperature increase to 1.5°C above pre-industrial levels
- increase the ability [of nations] to adapt to the adverse impacts of climate change and foster climate resilience and low greenhouse gas emissions development, in a manner that does not threaten food production
- make finance flows consistent with a pathway towards low greenhouse gas emissions and climate-resilient development.

The Paris Agreement seeks to meet its objectives by developing programs and mechanisms that:

- require participating Parties to prepare and communicate greenhouse gas mitigation contributions. Parties have been expected to set mitigation targets for 2020, and then develop new targets every five years. Each successive target is expected to represent a larger mitigation effort than the previous target
- promote climate change resilience and adaptation
- provide mitigation and adaptation funding to developing countries
- foster mitigation and adaptation technology transfer between Parties
- require participating Parties to report progress towards their mitigation contributions on an annual basis.

[1] https://energy.nsw.gov.au/renewables/renewable-energy-zones

Australia signed the Paris Agreement on 22 April 2016, the obligations under the Paris Agreement will drive national greenhouse gas policy between 2020 and 2030. Australia's commitment to the Paris Agreement includes reducing greenhouse gas emissions by 26 - 28%, on 2005 levels, by 2030 (Commonwealth of Australia, 2015). Australia's Nationally Determined Contribution (NDC) prescribes an unconditional economy-wide target to reduce greenhouse gas emissions, and states that future policies will target emissions generated from energy use, industrial processes, agriculture, land-use, land-use change and forestry and waste.

In order to reduce the emissions of greenhouse gases generated by the electricity sector and to encourage additional generation of electricity from sustainable and renewable resources the Australian Government introduced the Renewable Energy Target (RET) in 2009. The RET has been a successful initiative as the current target of 33,000 GWh under the RET is expected to be met during 2020.

The NSW Government has developed its NSW Climate Change Policy Framework, which aims to deliver netzero emissions by 2050, and a State that is more resilient and responsive to climate change (OEH 2016).

Under the NSW Climate Change Policy Framework, NSW has committed to both follow the Paris Agreement and to work to complement national action.

The policy framework is being delivered through:

- the Climate Change Fund
- developing an economic appraisal methodology to value greenhouse gas emissions mitigation
- embedding climate change mitigation and adaptation across government operations
- building on NSW's expansion of renewable energy
- developing action plans and strategies.

In 2013 the NSW Government released the Renewable Energy Action Plan (REAP) and the NSW Energy Efficiency Action Plan (EEAP).

The REAP aimed to increase the generation, storage and use of renewable energy in NSW, at least cost to customers and with maximum benefits to NSW.

The three core goals of the REAP was to attract renewable energy investment, build community support for renewable energy and attract and grow expertise in renewable energy. Based on the implementation of the REAP, renewable energy is now well-placed to play a leading role in meeting NSW's energy needs into the future and has resulted in solar and wind generated electricity tripling during the five years the REAP was implemented.

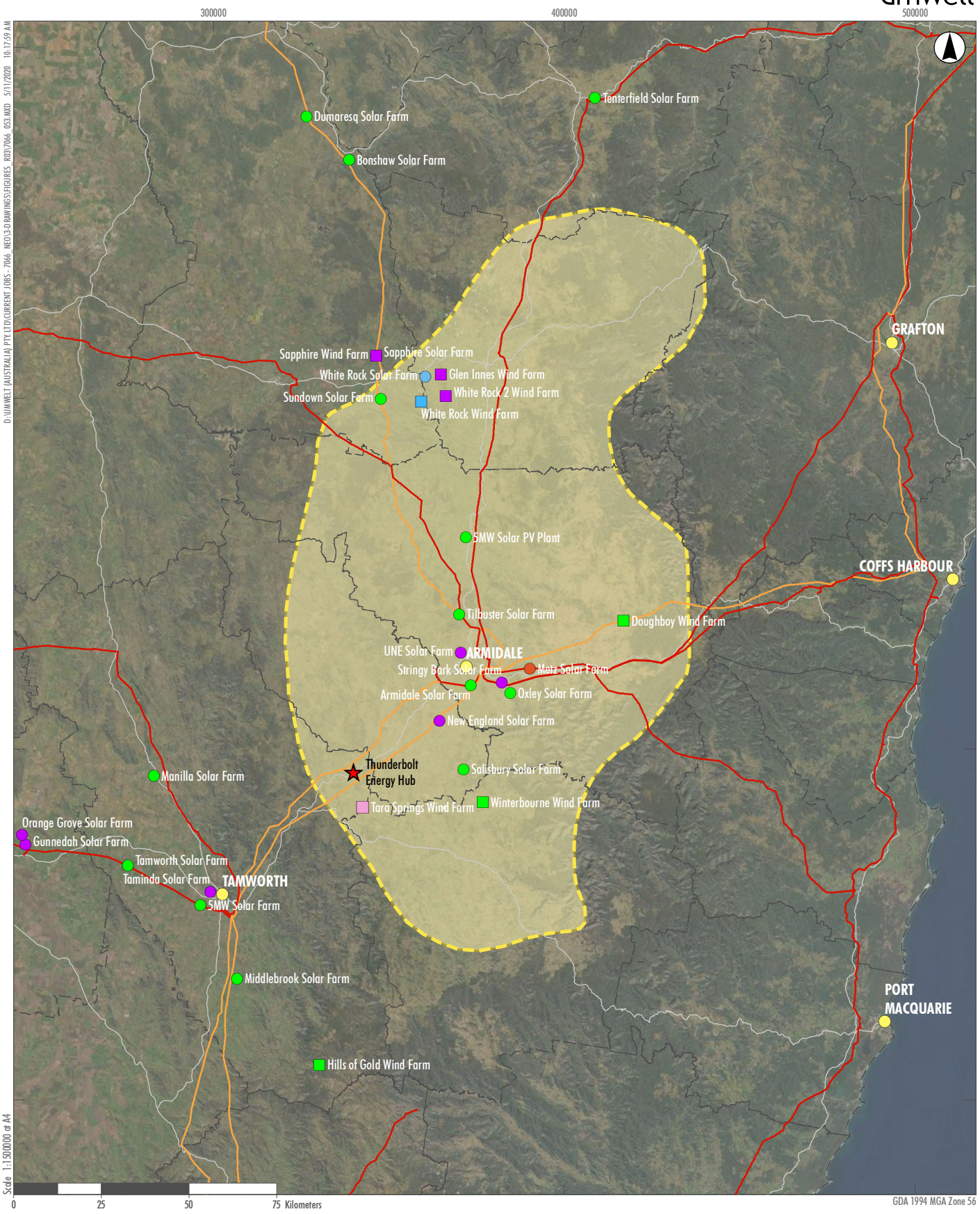
The objective of the EEAP is to deliver bill savings to those most affected by electricity price rises and to reduce pressure on future rises. The EEAP included targets to realise annual energy savings of 16,000 gigawatt-hours by 2020.

The Project will deliver clean, reliable and affordable energy and is well aligned with the objectives of the current Federal and State commitments to combat climate change and to provide affordable renewable energy to the community and businesses.

3.1.2 Local and Regional Renewables Context

The Project Area is located within the New England region within an identified REZ under the NSW Governments Electricity Strategy. There are a large number of renewable energy projects within the REZ, at different stages of the approval process within 100 km of the Project Area (refer to **Figure 3.1**).

The Project Area is mapped as an area with medium solar renewable energy source potential under the NSW REAP. The Renewable Energy Resource Mapping (DPIE, 2019) is reproduced in **Figure 3.2** which indicates the existing solar resources applicable to the Project Area. Solar farm projects contribute to the diversification of the State's energy mix and will help to significantly reduce energy costs.



Legend

- Indicative Location of Renewable Energy Zone
- Local Government Area (LGA)
- Roads

Solar Developments

- Operational
- Approved
- Under Assessment
- Under Construction

Wind Developments

- Operational
- Approved
- Under Assessment
- Pre-scoping Phase

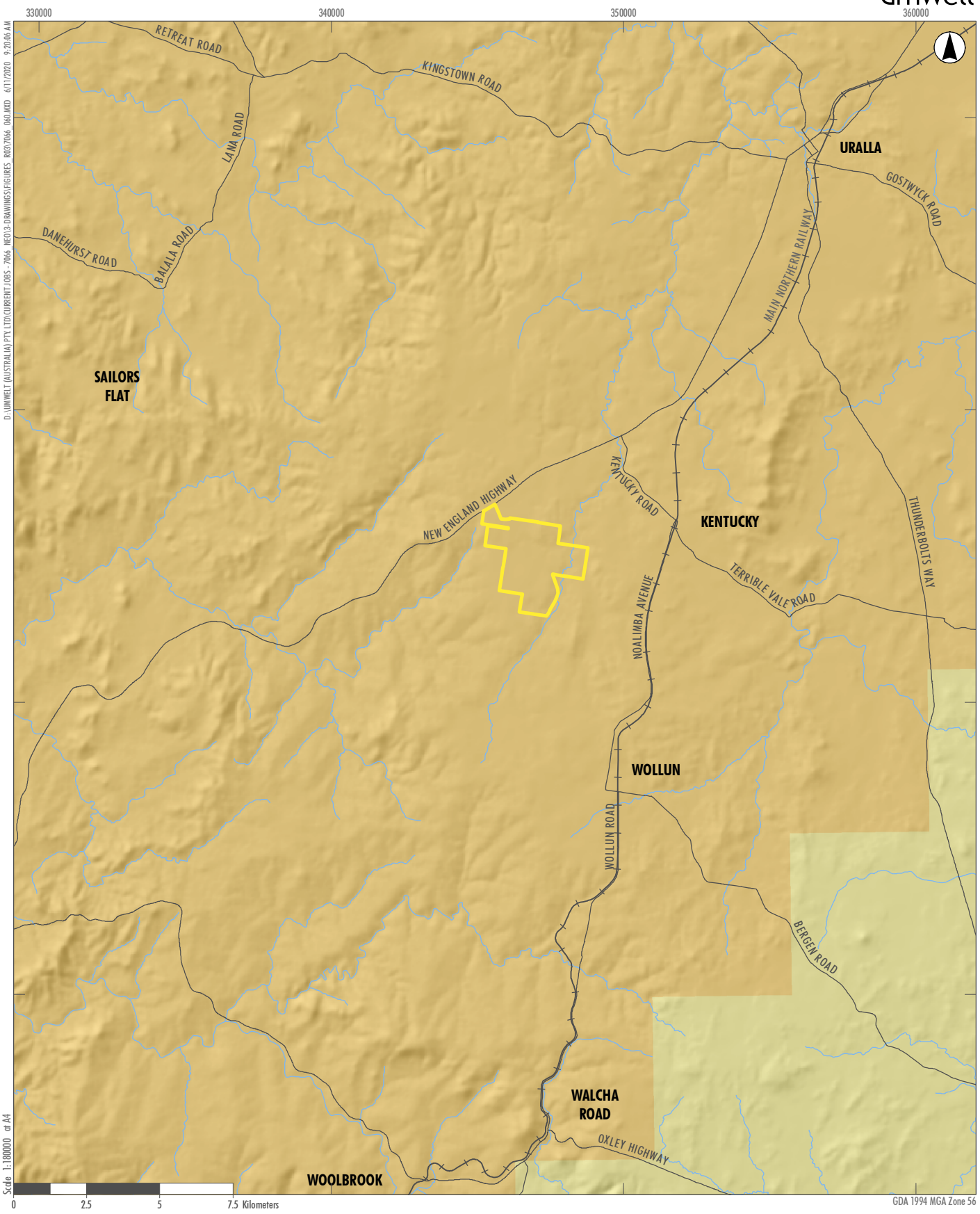
Operating System Voltage (kV)

- 132kV
- 330kV

FIGURE 3.1

New England Renewable Energy Zone

Image Source: ESRI Basemap, Data source: DFSI (2020), NSW Government (2020)



Legend

- Project Area
- Railway
- Road
- Watercourse

Average daily solar exposure (megajoules per square metre)

- 14
- 15
- 16
- 17
- 18
- 19
- 20
- 21

FIGURE 3.2

Solar Resource Mapping

Image Source: ESRI Basemap, Data source: DFSI (2020), Neoen (2020)

3.1.3 Project Benefits

The Project will provide long-term, strategic benefits to the state of NSW, including:

- renewable energy supply to assist with fulfilling the current obligations under state and federal renewable energy targets
- providing for cleaner reliable electricity generation, assisting with meeting current load demand while reducing greenhouse gas emissions and the impacts of climate change
- providing regional investment in the NSW renewable energy sector.

The Project will also provide direct financial benefits to the regional and local community, including:

- infrastructure investment of approximately $440 million
- employment generation creating over 250 jobs during the construction phase and 10 - 15 during the operational phase
- indirect benefits to local services through the construction and operation phases
- additional landowner income to involved landowners resulting in financial contributions to the local community
- local community benefits through the implementation of a proposed community benefit fund, that will invest in local community projects and initiatives to provide a direct and targeted local benefit.

3.2 Project Alternatives

The proposed location for Thunderbolt Energy Hub was selected due to the area being identified as a REZ and having renewable energy resource potential. Whilst they are separate projects, locating the solar farm and battery storage infrastructure adjacent to the separately proposed wind farm provides for a mix of renewable energy generation and also provides cost benefits and efficiencies.

Neoen initially commenced consultation with potential involved landholders based on a Project Area of 35,000 ha for the entire Thunderbolt Energy Hub. This area has been reduced to approximately 13,000 ha with the wind turbine placement, solar farm and infrastructure design being subject to a number of iterations during consultation with the landowners and initial environmental investigation which has informed the Project location.

Neoen commenced consultation with the now involved landholders in 2019 (initially as project neighbours). This consultation included phone calls, group workshops and face-to-face meetings conducted by Neoen employees. This initial consultation process resulted in the current involved landholders confirming involvement in the Project between June and September 2020.

The design of the Project will be defined as more information is obtained through the proposed environmental studies and ongoing feedback from consultation processes.

3.3 Planning Considerations

3.3.1 NSW Planning Approval Pathway

There are a number of legislative instruments in NSW which regulate the planning and environmental impact of development. The primary instrument is the EP&A Act which regulates the environmental assessment and approval process for development in the State. The EP&A Act is supported by the Environmental Planning and Assessment Regulation 2000 (the Regulation).

3.3.1.1 NSW Environmental Planning and Assessment Act 1979

The Project will require development consent under Part 4 of the EP&A Act. The Project is State Significant development (SSD) under the provisions of the State Environmental Planning Policy (State and Regional Development) 2011 and is subject to the provisions of Division 4.7 of the EP&A Act. The development application will be lodged with the Planning Secretary of the Department of Planning, Industry and Environment (DPIE). This report accompanies the request for the Secretary's Environmental Assessment Requirements (SEARs) for the EIS.

Under Division 4.2, Section 4.5 of the EP&A Act the consent authority for SSD is the Independent Planning Commission (if the development is of a kind for which the Commission is declared the consent authority by an environmental planning instrument) or the Minister (if the development is not of that kind).

Section 4.15 of the EP&A Act describes the matters for consideration in assessing State significant development, which includes the provisions of relevant environmental planning instruments, proposed instruments that have been the subject of public consultation, development control plans, planning agreements and statutory regulations. The assessment of SSD must also consider the likely impacts of the development, suitability of the Project Area, any submissions received and the public interest.

Clause 4.41 of the EP&A Act clarifies that development consent for SSD includes authorisations under the following statutory provisions, meaning that separate planning approval processes do not apply:

- a permit under section 201, 205 or 219 of the *Fisheries Management Act 1994*
- an approval under Part 4, or an excavation permit under section 139, of the *Heritage Act 1977*
- an Aboriginal heritage impact permit under section 90 of the *National Parks and Wildlife Act 1974*
- a bushfire safety authority under section 100B of the *Rural Fires Act 1997*
- a water use approval under section 89, a water management work approval under section 90 or an activity approval (other than an aquifer interference approval) under section 91 of the *Water Management Act 2000*.

3.3.1.2 State Environmental Planning Policy (State and Regional Development) 2011

State Environmental Planning Policy (State and Regional Development) 2011 (SRD SEPP) declares certain development to be SSD.

Under the SRD SEPP, the Project is SSD as it is a development for the purpose of electricity generation and will have a capital investment value of greater than $30 million.

3.3.1.3 Permissibility

Clause 34(1)(b) of State Environmental Planning Policy (Infrastructure) 2007 (Infrastructure SEPP) states that development for the purpose of electricity generating works may be carried out by any person with consent on any land in a prescribed rural, industrial or special use zone. Under Clause 8(1) of the Infrastructure SEPP, the provisions prevail where there are inconsistencies with any other environmental planning instruments, including local environmental plans.

The Project Area falls within the Uralla LGA and is zoned RU1 – Primary Production under the Uralla LEP (2012). Electricity generating works are not permitted within the RU1 – Primary Production Zone, however, due to the operation of Clause 34(1)(b) of the Infrastructure SEPP the proposed development is permissible with development consent.

3.3.2 NSW Legislation

The applicable State legislation is outlined in **Table 3.1**.

Table 3.1 State Legislation

Applicable Legislation	Description
Biodiversity Conservation Act 2016 **(BC Act)**	Under the BC Act, biodiversity assessment in accordance with the Biodiversity Assessment Method (BAM) is required for any SSD project. The Project (as SSD) will trigger the need to prepare a Biodiversity Development Assessment Report (BDAR) in accordance with the BAM. The EIS will include a BDAR.
Protection of the Environment Operations Act 1997 **(POEO Act)**	The POEO Act regulates pollution to the environment and requires licences for environmental protection including waste, air, water and noise pollution control. Solar farms are not a scheduled activity under the POEO Act and therefore does not require an Environment Protection Licence (EPL).
Water Management Act 2000 **(WM Act)**	Any water extractions (take) from water sources (surface and groundwater) regulated by a Water Sharing Plan (WSP) required for construction purposes will require licensing under the WM Act. The potential water requirements during construction will be assessed as part of the EIS. Any necessary licences would be obtained for the Project.
Roads Act 1993 **(Roads Act)**	A consent is required under section 138 to work on or above a road or to connect a road to a classified road. Consents under section 138 will be required for the proposed road works associated with access into the solar farm.
Crown Land Management Act 2016 **(Crown Land Act)**	The Crown Lands Act provides for the administration and management of Crown land in NSW. Crown land may not be occupied, used, sold, leased, licensed, dedicated, reserved or otherwise dealt with unless authorised by the Crown Lands Act. There are some areas of Crown land (e.g. Crown road reserves) within the Project Area and should any works be proposed in these areas an approval would be obtained.
Contaminated Land Management Act 1997 **(CLM Act)**	The CLM Act establishes the process for investigating and if required, remediating land that the NSW EPA considers to be contaminated significantly enough to require regulation under Division 2 of Part 3. The Project Area does not contain land listed on the Contaminated Lands Register. Relevant mitigation and management measures would be incorporated into the EIS to address any potential contamination issues.

3.3.3 Commonwealth Legislation

3.3.3.1 Environment Protection and Biodiversity Conservation Act 1999

The EPBC Act provides a framework for protection of the Australian environment, including its biodiversity and its natural and culturally significant places.

Any action which could have a significant impact on a matter of national environmental significance (MNES) must be referred to the Minister for the Environment, MNES includes:

- World heritage properties
- National heritage places
- Wetlands of international importance (listed under the Ramsar Convention)
- Listed threatened species and ecological communities
- Migratory species protected under international agreements
- Commonwealth marine areas
- The Great Barrier Reef Marine Park
- Nuclear actions (including uranium mines)
- A water resource, in relation to coal seam gas development and large coal mining development.

The Project Area is not within a world heritage property or place, does not have wetlands of international importance, is not within either a Commonwealth marine area or the Great Barrier Reef Marine Park, and does not relate to a nuclear action, coal seam gas or coal mining development.

The Project is unlikely to significantly impact on listed threatened species and ecological communities. Further investigation will be undertaken to determine whether a Referral will be required under the EPBC Act as the biodiversity assessment progresses.

4.0 Stakeholder Engagement

Neoen has prepared a Community Relations Plan (CRP) for the Thunderbolt Energy Hub and has undertaken consultation with the community to inform this scoping report. The following section provides a summary of the CRP, the consultation undertaken to date and key issues raised. Refer to the CRP, attached as **Appendix 1**, for further detail.

4.1 Community Relations Plan

The CRP (Neoen, 2020) identifies the community relations approach and objectives for the Thunderbolt Energy Hub and the surrounding communities. It outlines the overall framework across the phases of the project lifecycle (from development through construction to operations). It provides a summary of the key stakeholders including landholders, neighbours, local community and local government and consultation undertaken to date.

Through the implementation of the CRP Neon aims to:

- involve the community in the development, construction and operation of the solar farm
- collaborate with the community to ensure that local advice and insight are shaping the approach to engagement and benefit sharing
- empower the community to shape key elements of the Project, such as co-designing the long-term framework of the shared benefits program.

The CRP provides an overview of Neoen's approach to community relations throughout all stages of the assessment and construction process, outlines the relevant stakeholders, provides detail on the consultation undertaken to date and outlines the Community Benefit Sharing Program (CBSP).

Refer to **Appendix 1** for further detail.

4.1.1 Agency Stakeholder Engagement

Agency consultation undertaken to date in relation to the Project is provided in **Table 4.1**.

Table 4.1 Agency Consultation

Agency	
Department of Planning, Infrastructure and Environment (DPIE)	Video-conference – 18 August 2020 A Project overview was provided
Biodiversity Conservation Division (BCD) – North West and North East BCD Office	Video-conference – 24 July 2020 Meeting included providing a Project overview and assessment methodology discussions
Transport for New South Wales (TfNSW) – Northern region	Preliminary information booklet provided
Uralla, Walcha and Tamworth Local Council	Project overview provided July 2020 Meeting (Uralla Shire Council only) 6 October 2020
State and Federal Ministers	Letters providing an overview of the Project were sent to relevant MPs of the State electorates of Tamworth and Northern Tablelands and Federal electorate of New England

4.1.2 Community Stakeholder Engagement

The community consultation undertaken to date is summarised in **Table 4.2**.

Table 4.2 Community Consultation

Stakeholders	
Involved Landholder Group	Commenced in 2019 Workshops in 2019 and 2020 to refine Project Area and confirm involved landholders Regular informal consultation (phone and email) and information sharing
Near Neighbours	Community meeting – February 2020 Phone liaison (57 landowners located within 8 km of Project Area) Face to face meetings (27 landowners) – July to October Community Information Session – September 2020 Distribution of Project information booklet Online Project survey

Neoen met with 27 landowners during the face to face meetings, 33% indicated that had no concerns regarding the Thunderbolt Energy Hub. Neoen has indicated that to date no concerns have been raised specifically about the solar farm, with some landowners interested in whether the Project Area would also continue to be used for agricultural purposes once the solar farm was operational and if the solar panels could be recycled at the end of their operational life.

Key feedback identified by the community which relates to the solar farm includes:

- decreasing or increasing land values of neighbouring properties
- construction disruption (dust, noise, traffic)
- impact on local environment and/or land use.

Other potential issues identified included decommissioning, concerns regarding existing infrastructure and ability to connect to the grid, disruption to other services (such as phone lines) and impacts to water resources.

These issues are addressed in **Section 5.0** and will be subject to detailed environmental assessment during the EIS phase of the Project.

Further detail in relation to community engagement is provided in **Appendix 1**.

4.2 Continued Stakeholder Engagement

Neoen will continue to implement the CRP throughout the Project assessment phase. Key consultation mechanisms and activities will include:

- Project website including Project email, job interest register and feedback survey
- Community Information session(s)
- Council and agency stakeholder briefings

- Investigate, identify and confirm options for Community Benefit-sharing Scheme
- Face to face meetings with neighbouring landholders
- Project information sheets
- Involved landowner dinners and updates.

Neoen has engaged a local community liaison representative to support continued near neighbour engagement and other community liaison activities during the preparation of the EIS, refer to **Appendix 1** for further detail.

5.0 Preliminary Environmental Assessment

A preliminary environmental and social assessment has been undertaken for the Project which includes consideration of project specific and cumulative impacts. The identification of issues for consideration has been informed by the DPIE *Scoping an Environmental Impact Statement* guideline, the DPC Large-Scale Solar Energy Guideline and standard SEARs.

As part of the preliminary environmental and social assessment the potential Project issues have been separated into 'Key Issues' and 'Other Issues'. Key issues are issues where there is a reasonable likelihood that the Project will have a material impact and detailed assessment is required to fully understand such impacts and identify Project-specific mitigation. Other issues are issues which are not of particular concern and unlikely to have a material impact and/or the measures to manage the impacts are well understood and routinely used on similar projects.

Table 5.1 provides a summary of the key and other issues, potential impacts, preliminary mitigation controls and proposed assessment approach. Further detail regarding the preliminary analysis and proposed scope of the detailed assessments to be prepared to support the EIS is provided in **Section 5.1**.

Table 5.1 Preliminary Environmental Assessment

Issue	Potential Impacts	Preliminary Mitigation	Issue Level	Assessment Approach
Biodiversity	• Loss or modification of terrestrial habitats due to vegetation clearing • Impact to threatened species or endangered ecological communities • Spread of weeds across the Project Area due to construction activities • Cumulative biodiversity impacts	• Detailed site-specific assessment • Detailed project design to avoid and/or minimise impact where practicable • Mitigation measures	Key Issue	Specialist Assessment
Heritage	• Potential impact to Aboriginal or historic heritage objects or heritage values of the area	• Detailed site-specific assessment • Detailed project design • Implementation of appropriate mitigation (if required) • Implementation of construction and operational management plans	Key Issue	Specialist Assessment
Visual	• Impact to current scenic landscape/character of the locality • Loss of visual amenity of adjoining landholders • Cumulative visual impacts	• Detailed site-specific assessment • Detailed project design • Mitigation measures (landscaping etc)	Key Issue	Specialist Assessment
Noise	• Noise disturbance associated with increase road traffic and construction works during construction phase • Cumulative noise impacts	• Detailed project design • Implementation of appropriate mitigation (if required) • Implementation of construction noise management plans	Key Issue	Specialist Assessment
Transport	• Increased traffic during construction phase • Disruption to traffic due to delivery of construction materials • Disruption to traffic due to road upgrade works • Cumulative traffic and transport impacts	• Construction Traffic and Access Management Plan	Key Issue	Specialist Assessment

Issue	Potential Impacts	Preliminary Mitigation	Issue Level	Assessment Approach
Socio-Economic	• Land use changes • Property valuation • Economic impacts locally and regionally (positive and negative) • Community consultation	• Stakeholder Engagement Strategy • Community Benefits Fund • Community co-investment	Key Issue	Consultation and Economic evaluation to be undertaken by Neoen
Land use conflict	• Potential impact to agricultural land • Cumulative impacts with nearby developments	• Detailed assessment of the compatibility of the development with existing land uses during construction, operation and after decommissioning	Key Issue	EIS Chapter
Water and Soil Resources	• Erosion and sediment control • Water supply • Flooding	• Construction Environmental Management Plan • Detailed design	Other Issue	EIS Chapter
Hazards and Risks	• Risk to human health and infrastructure from bushfires, spontaneous ignition, electromagnetic fields or the proposed grid connection infrastructure	• Detailed project design • Implementation of appropriate controls, emergency response management and management of infrastructure on surrounding land	Other Issue	EIS Chapter
Waste	• Generation of waste associated with construction and operation	• Implementation of appropriate waste management plan	Other Issue	EIS Chapter
Air Quality	• Elevated dust levels associated with construction works	• Implementation of appropriate controls as part of Construction Environmental Management Plan	Other Issue	EIS Chapter
Decommissioning and Rehabilitation	• Decommissioning works • Rehabilitation practices	• Commitments to appropriate decommissioning and rehabilitation following closure	Other Issue	EIS Chapter

5.1 Environmental and Social Issues

5.1.1 Biodiversity

As discussed in **Section 3.3.2**, a BAM assessment is required for the Project as it is SSD and a BDAR will be prepared as part of the EIS.

The biodiversity development assessment has commenced with an initial site inspection undertaken to ground-truth existing regional vegetation mapping and review accuracy of the regional mapping for the Project Area. **Table 5.2** and **Figure 5.1** show the results of the mapping review, including preliminary updates. This mapping is preliminary and will be updated as further biodiversity surveys are completed.

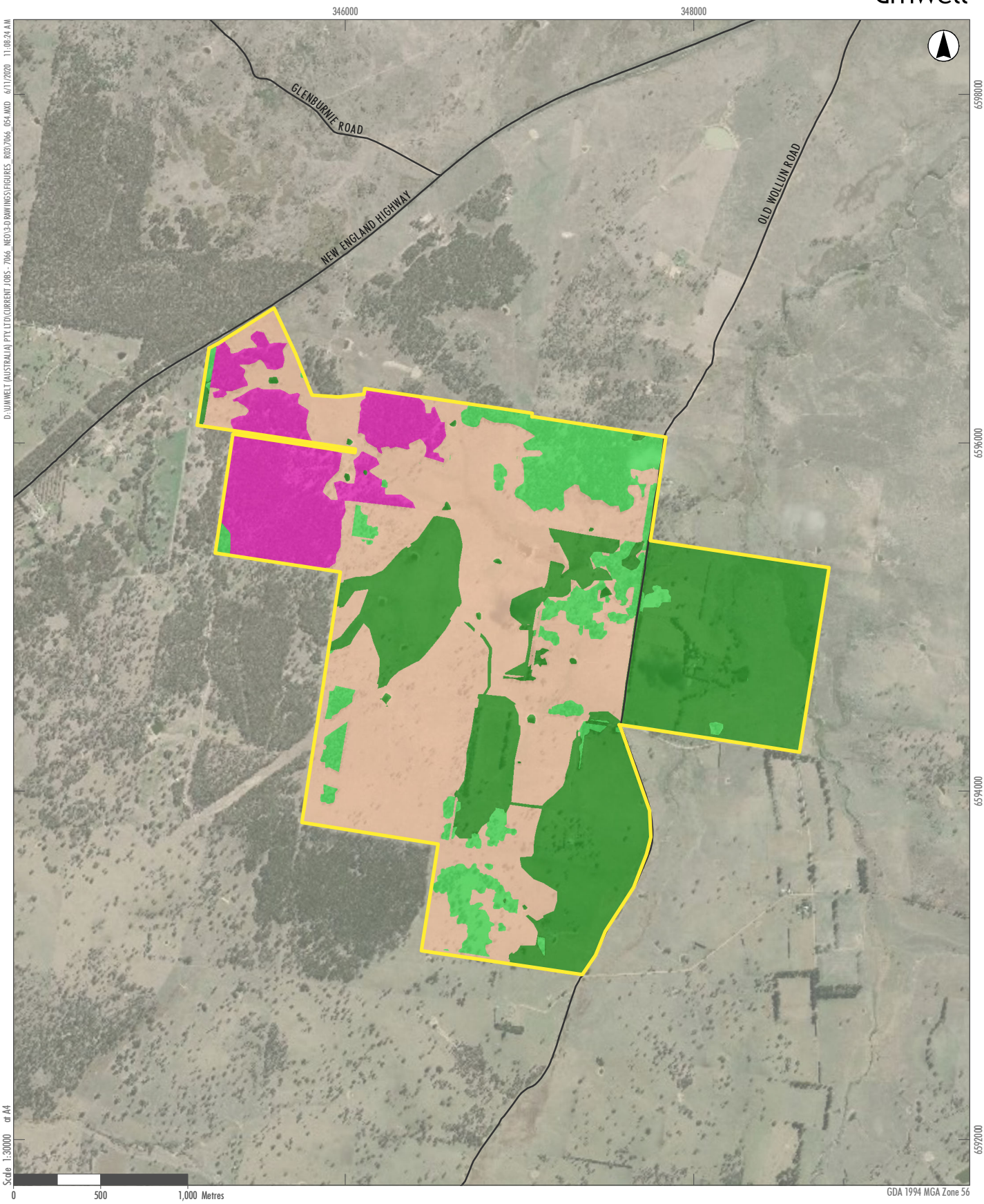
It is noted that detailed vegetation mapping has not yet been completed and extensive updates to the preliminary mapping will be necessary for the Project as it progresses, particularly in relation to the allocation of the Derived Native Grasslands to Plant Community Types (PCTs). Detailed BAM Plots will be undertaken to determine PCTs.

Table 5.2 Preliminary Plant Community Types and their extent in the Project Area

PCT	Possible TEC (see notes)	Preliminary Area (ha)	Likely Need for Mapping Refinement in the Future
1 - Candidate Native Grasslands	1	301.5	High
510 - Blakely's Red Gum - Yellow Box grassy woodland of the New England Tablelands Bioregion	1	79.4	High
568 - Broad-leaved Stringybark shrub/grass open forest of the New England Tableland Bioregion	1	84.6	High
Exotic Vegetation	No	252.7	Moderate

Notes:
Possible TECs (further analysis is required to confirm)
1. White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland (EEC - BC Act & CEEC - EPBC Act)

A list of Threatened Ecological Communities (TECs) that have the potential to occur within the Project Area has been prepared based on the results of the initial site inspection and desktop assessment as shown in **Table 5.3**. The design process for the solar farm will confirm the extent of impact on these TECs, if any, as a result of the Project.



Legend

- Project Area
- Railway
- Road

Preliminary PCT Mapping

- PCT1 - Candidate Native Grasslands
- PCT510 - Blakely's Red Gum - Yellow Box grassy woodland of the New England Tablelands Bioregion
- PCT568 - Broad-leaved Stringybark shrub/grass open forest of the New England Tableland Bioregion
- Not Native

FIGURE 5.1

Preliminary PCT Mapping

Image Source: Data source:

Table 5.3 Potential Threatened Ecological Communities in the Project Area

Threatened Ecological Community	BC Act Status	EPBC Act Status	Likelihood of Occurrence (probable locations in Project Area)
White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland	CEEC	CEEC	High
New England Peppermint (*Eucalyptus nova-anglica*) Woodland on Basalts and Sediments in the New England Tableland Bioregion/New England Peppermint (*Eucalyptus nova-anglica*) Grassy Woodland	CEEC	CEEC	Moderate

CEEC – Critically Endangered Ecological Community

The BAM requires consideration of curtained threatened species, referred to as species-credit species. Surveys for species-credit species will be completed within the Project Area as required by the BAM. A preliminary targeted survey was completed in October 2020, with no threatened species recorded.

Following the completion of the detailed vegetation and species surveys, a BDAR will be prepared to report the findings of the assessment, including the outcomes of a BAM calculator assessment identifying any biodiversity credits that will require offsetting for the Project.

5.1.2 Heritage

5.1.2.1 Aboriginal Heritage

The Project Area falls within the Armidale Local Aboriginal Land Council (LALC) area. One registered Aboriginal site, an open camp site, is located within the Project Area (refer to **Figure 5.2**). Detailed project design will seek to avoid this registered site.

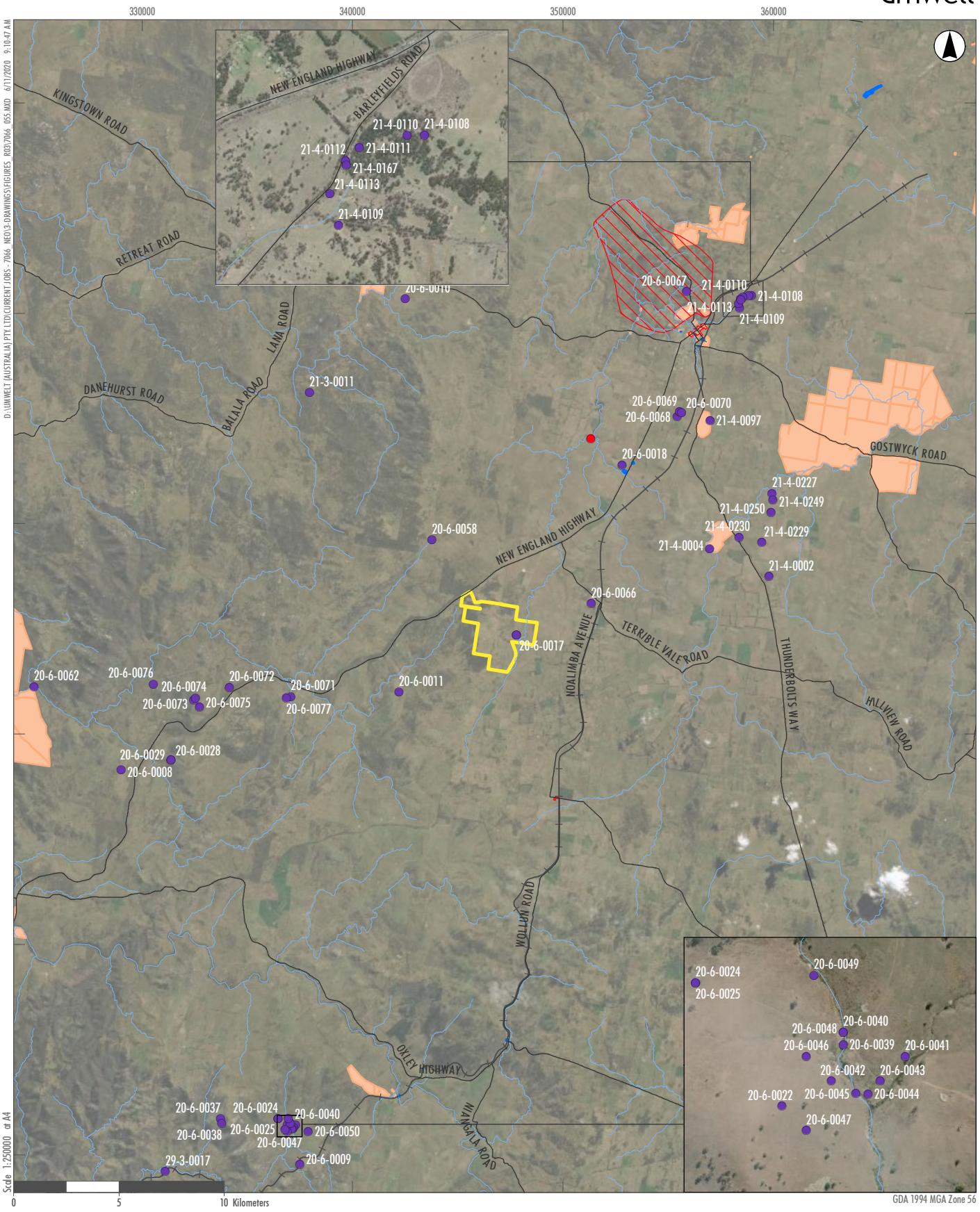
An Aboriginal Cultural Heritage Assessment (ACHA) will be undertaken as part of the EIS following the Guide to Investigating, Assessing and Reporting on Aboriginal Cultural Heritage in NSW (OEH, 2011) and the Code of Practice for the Archaeological Investigation of Aboriginal Objects in NSW (DECCW, 2010). The ACHA will include consultation with the relevant Aboriginal communities in determining and assessing impacts and developing mitigation measures, having regard to the Aboriginal Cultural Heritage Consultation Requirements for Proponents (DECCW, 2010).

5.1.2.2 Historic Heritage

There are no Commonwealth or World listed heritage places located within or in proximity to the Project Area. There are also no State listed or Locally listed heritage places or items located within the Project Area. The closest State listed heritage site is 'Thunderbolt's Death Site' which is located approximately 8.7 km north east of the Project Area (refer to **Figure 5.2**). 'Thunderbolt's Death Site' is a natural landscape feature near Kentucky Creek. It is considered to be the broad location of bushranger Captain Thunderbolt's last stand and death.

There are numerous local heritage sites located in proximity to the Project Area. The Rocky River Goldmining Precinct Local Heritage Conservation Area is located 15 km east of the Project Area. These local heritage sites will not be impacted by the Project.

An assessment of potential impacts on historical heritage will be undertaken as part of the EIS. The assessment will be prepared with regard to the NSW Heritage Manual, relevant Heritage Council of NSW guidelines and with consideration of the principles contained in the Burra Charter: the Australia ICOMOS Charter for Places of Cultural Significance (Australia ICOMOS 2013).



Legend

- Project Area
- Road
- Railway
- Watercourse
- AHIMS Site
- Captain Thunderbolt Death Site

Environmental Planning Instrument - Heritage

(NSW Department of Planning, Industry and Environment)

- State Heritage Listed Site
- Local Heritage Listed Site
- Local Heritage Conservation Area

FIGURE 5.2

Heritage

Image Source: ESRI Basemap, Data source: DFSI (2020), Neoen (2020), AHIMS (2020)

5.1.3 Visual Amenity

The Project will result in visual changes to the landscape within and outside the Project Area as infrastructure will be visible to both involved and non-involved landholders and from the New England Highway and minor roads such as via Old Wollun Road and Traceys Road.

The Project Area features intermittent hills and existing established tree lines. Parts of the Project infrastructure will likely be visible to passing motorists along the New England Highway and from Old Wollun Road which passes through the Project Area (refer to **Figure 5.3**).

A detailed Landscape and Visual Impact Assessment (LVIA) will be prepared as part of the EIS process. The LVIA will include:

- a detailed assessment of the Project layout with consideration to all influencing factors such as topography, relative distance, perspective, orientation and existing vegetation that may obscure views of the Project
- consultation with potentially impacted landholders
- ground truthing, photography and photomontages of the Project
- a description of the proposed mitigation measures to reduce visual impacts.

5.1.4 Noise

Potential noise impacts associated with the Project are primarily associated with construction activities, which will have the potential to affect rural properties located within the vicinity of the Project Area.

A Noise and Vibration Impact Assessment (NVIA) will be prepared as part of the EIS in accordance with relevant NSW guidelines including the NSW Noise Policy for Industry (NPfI) (EPA, 2017), Interim Construction Noise Guideline (DECC, 2009) and NSW Road Noise Policy (DECCW, 2011).

The NVIA will:

- establish the relevant level of background noise
- provide predictive noise modelling of the Project's construction activities
- assess the road traffic noise during construction and operational activities
- assess any vibration impacts at sensitive receptors
- identify any reasonable and feasible mitigation and management measures.

5.1.5 Traffic and Transport

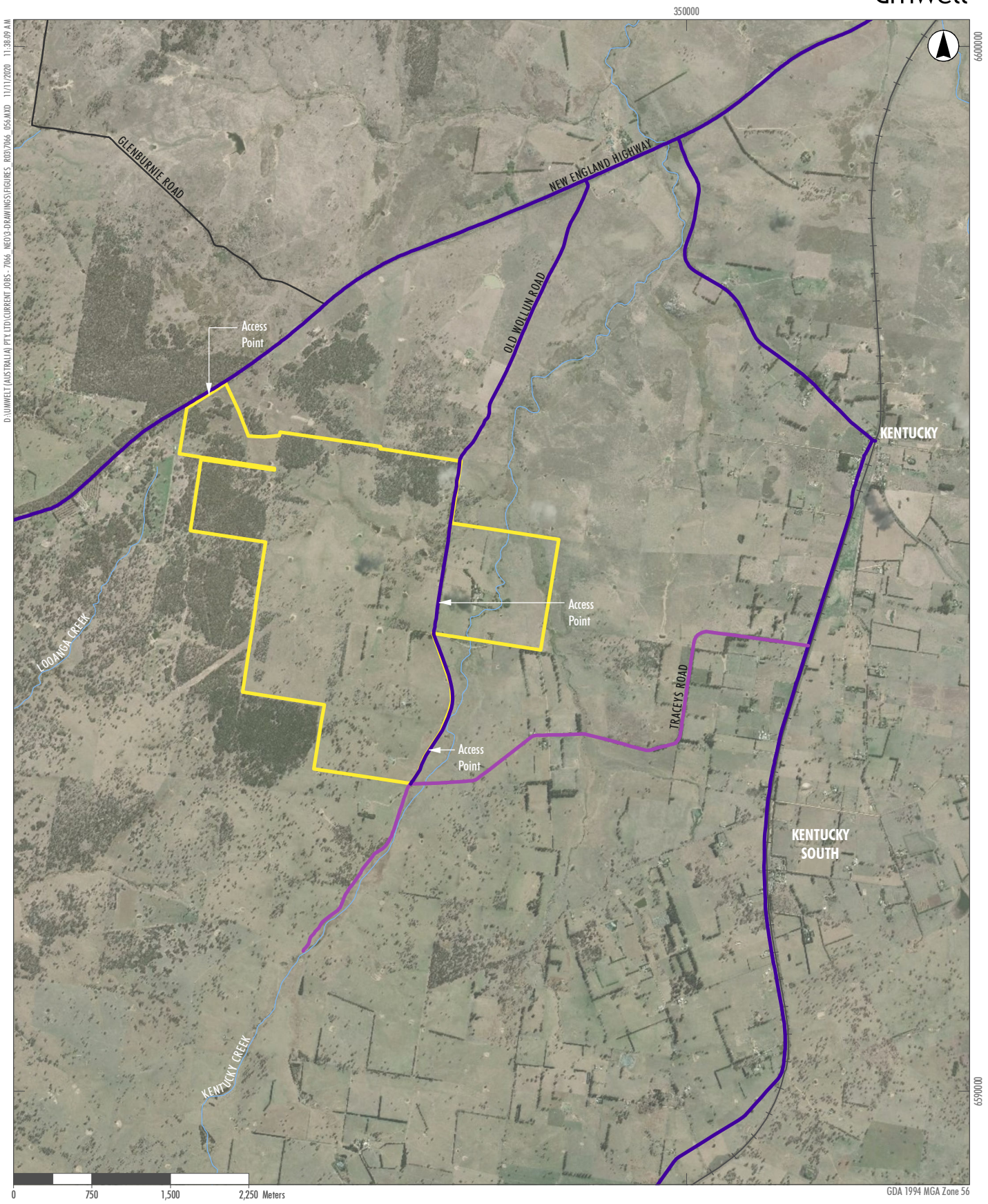
The construction phase of the Project will result in increased traffic movements by both lightweight vehicles transporting construction personnel and minor light construction materials and also heavy vehicle movements transporting the solar farm and battery infrastructure equipment required for construction purposes. Traffic increases associated with the operational phase of the Project will be minimal and will generally only involve the movement of light vehicles transporting operational staff around the site intermittently.

Major solar and battery components will be delivered to the site by truck via the New England Highway. The New England Highway and/or Old Wollun Road will provide primary access to the Project Area, however, Traceys Road could also provide secondary access to the site if required (refer to **Figure 5.3**). The proposed access route will be confirmed and assessed during the preparation of the EIS.

A Traffic and Transport Impact Assessment (TTIA) will be undertaken as part of the EIS to assess the potential transport routes required for the construction of the Project and any potential impact to the road network. The TTIA will be undertaken in accordance with relevant NSW Government guidelines and assessment standards including Guide to Traffic Generating Developments (RTA, 2002), Road Design Guide and relevant Austroads Standards and Austroads Guide to Traffic management.

The TTIA will be include:

- a review and assessment of the existing road network
- a review of any previous traffic impact assessments undertaken for the surrounding area
- traffic counts in selected areas along the proposed traffic routes (if data is not readily available)
- a detailed assessment of the likely Project-alone and cumulative traffic impacts during the construction and operational phases of the Project (including intersection performance, capacity, safety and site
- identification of any mitigation and management measures that may be required.



Legend

- Project Area
- Primary Access Road
- Potential Secondary Access Road
- Road
- Railway
- Watercourse

FIGURE 5.3

Access

Image Source: ESRI Basemap, Data source: DFSI (2020), Neoen (2020)

5.1.6 Land Use Conflict

The Project Area is located within a rural setting and has been subject to extensive clearing associated with past grazing activities. Cattle and sheep grazing are currently the main land use in the Project Area and adjoining areas.

The Project Area is zoned RU1 Primary Production under the Uralla LEP 2012. The Project will result in a change in land use from agricultural use to electricity generation as a result of the construction of the solar infrastructure with Neoen planning for grazing land uses to continue in and around the solar farm. Following consultation with landholders, the Project Area was chosen to minimise impacts on grazing and enable other land uses to continue around and within the site simultaneously. Neoen have successfully continued to graze Merino sheep on their existing wind farm projects, creating an agrisolar land use with the co-existence of agriculture and solar power generation.

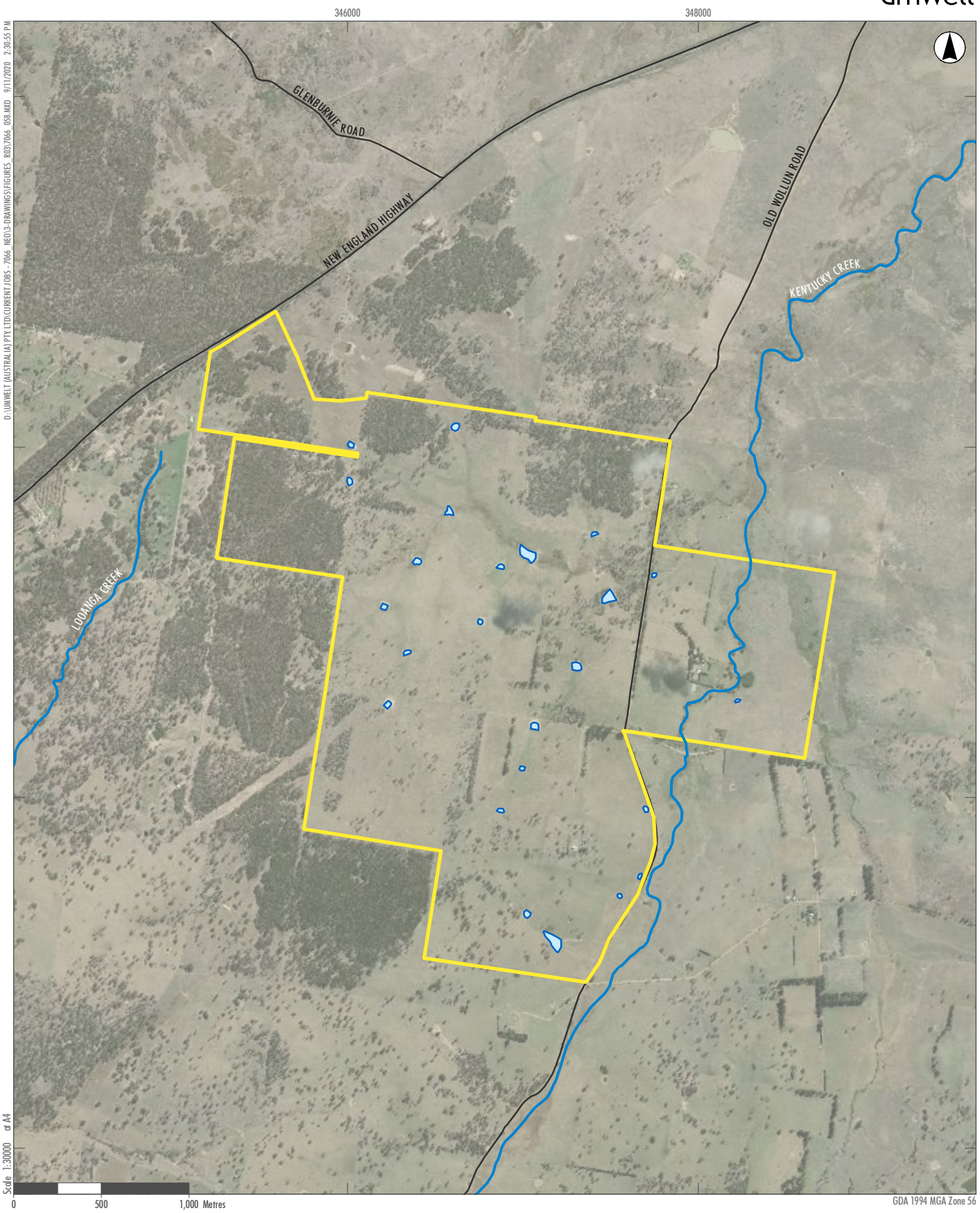
The EIS will include an assessment of the impact of the Project on existing land use, including on agricultural production.

5.1.7 Water and Soil Resources

The Project Area falls within the Gwydir River Catchment and the Namoi River Catchment. Kentucky Creek traverses the Project Area (refer to **Figure 5.4**). The conceptual project layout has been designed to provide appropriate setbacks to Kentucky Creek to assist with minising the potential for impacts on the creek or water flows or quality.

The majority of the soils within the Project Area are identified as erodible rudosols and tenosols. The land is mapped as Class 4, 5 and 6 under the Land and Soil Capability Assessment Scheme (LSC). The Project Area is not identified as Biophysical Strategic Agricultural Land.

An assessment of impacts on water and soils will be undertaken as part of the EIS that will consider potential impacts on water resources and the catchment, including flooding, erosion and sediment control, water quality, water users, water sourcing and any required management and mitigation measures to minimise the potential impacts of the Project on water and soil resources.



Legend

- Project Area
- Dam
- Watercourse
- Railway
- Road

FIGURE 5.4

Drainage Lines

Image Source: ESRI Basemap, Data source: DFSI (2020), Neoen (2020), NRFS (2016)

5.1.8 Socio-Economic Impacts

The Project Area is located within the Uralla LGA and in proximity to the localities of Kentucky, Kentucky South, Wollun and Uralla. Based on preliminary review of key community and demographic information (refer to **Table 5.4**), these proximal residential locations can be characterised as follows:

- key industries of employment include beef cattle or sheep farming
- age distribution is varied, but generally older than the NSW median age
- the localities have higher proportions of houses with no internet access (compared to NSW)
- lower than NSW median housing costs.

Table 5.4 Selected Demographic Characteristics of Key Communities

	Kentucky (SSC)	Kentucky South (SSC)	Wollun (SSC)	Uralla (SSC)	Uralla (LGA)	NSW
Population	158	125	67	2,743	6,048	7,480,228
Median age	49	46	37	45	46	38
Private Dwellings	80	58	27	1,291	2,734	3,059,599
Top Industry of employment (%)	Sheep-Beef Cattle Farming 16.3	Sheep Farming 12.5	*	Local Govt Admin 5.7	Beef Cattle Farming (Specialised) 5.4	Hospitals (except Psychiatric Hospitals) 3.5
Top occupation (%)	Managers 32.9	Managers 29.5	*	Technicians and Trades Workers 16.4	Managers 19	Professionals 23.6
Median weekly Family Income ($)	1,458	1,166	1,291	1,254	1,342	1,780
Median Rent ($)	7	110	50	220	190	380
Median Mortgage repayments ($)	1,337	1,274	*	1,278	1,346	1,986
Internet not accessed from dwelling (%)	18.8	32	*	25.1	21.4	14.7

Source: ABS QuickStats (2016) ABS make small random adjustments to all cell values to protect the confidentiality of data therefore data should be interpreted as indicative only. *Due to the small population for this area, limited information has been provided.

The potential social and economic impacts associated with Project are both positive (opportunities) and negative (impacts), these are summarised in **Table 5.5**.

Table 5.5 Potential Socio-economic Opportunities and Impacts

Potential Impact/Opportunity	Potential Negative Impacts
Employment opportunities at a local level (during construction over 250 and operation 10 - 15)	Construction activities may cause disruption (noise, traffic) to nearby dwellings and motorists on the New England Highway
Approx. $440 M infrastructure investment in the region	Community members, including non-involved landowners, may perceive the Project infrastructure to impact visual amenity and compete with the agricultural use of the land
Income generation for involved landowners providing additional income to farmers	Community concern about environmental impacts such as impacts on biodiversity
Community Benefit Sharing Program (CBSP) – the CBSP will be developed in consultation with local communities and may include near neighbour payments, community benefit fund, lower energy bills and investment to address specific local issues (such as mobile coverage), refer to Appendix 1 for further detail	Community perception of the level of renewable development in the region and the potential cumulative impacts

A key part of the consideration of the social impact aspects of the Project as part of the EIS will be the community engagement program. Neoen will undertake the community engagement program to engage the community throughout the life of the Project and the environmental assessment and approval process. This engagement will inform the assessment of the social and economic impacts associated with the Project. The consultation program has been designed in line with the following objectives:

- foster a transparent and open approach to the development of Thunderbolt Energy Hub and ensure 'no surprises' for the local community
- keep the community and stakeholders informed about Thunderbolt Energy Hub through the provision of accurate, timely and factual project information
- identify and address community and stakeholder concerns and maintain transparency in the project design, implementation and ongoing operations
- involve stakeholders and community regarding key decisions and develop long term relationships and partnerships
- identify opportunities for local business involvement and local employment in the construction and operations of Thunderbolt Energy Hub
- co-design, develop and deliver a benefit sharing program in collaboration with the community, and in partnership with local stakeholders where possible.

Further detail regarding Neoen's planned engagement program is provided in **Appendix 1**.

5.1.9 Hazards and Safety

This section addresses the hazard and safety risks associated with the Project including bushfire threat, spontaneous ignition and electromagnetic fields.

5.1.9.1 Hazard Analysis

The location of the proposed battery store will be subject to further assessment including a preliminary hazard analysis in accordance with *State Environmental Planning Policy No.33 – Hazardous and Offensive Development* (SEPP 33). The battery store will be implemented, maintained and decommissioned in accordance with relevant Australian Standards and best practice.

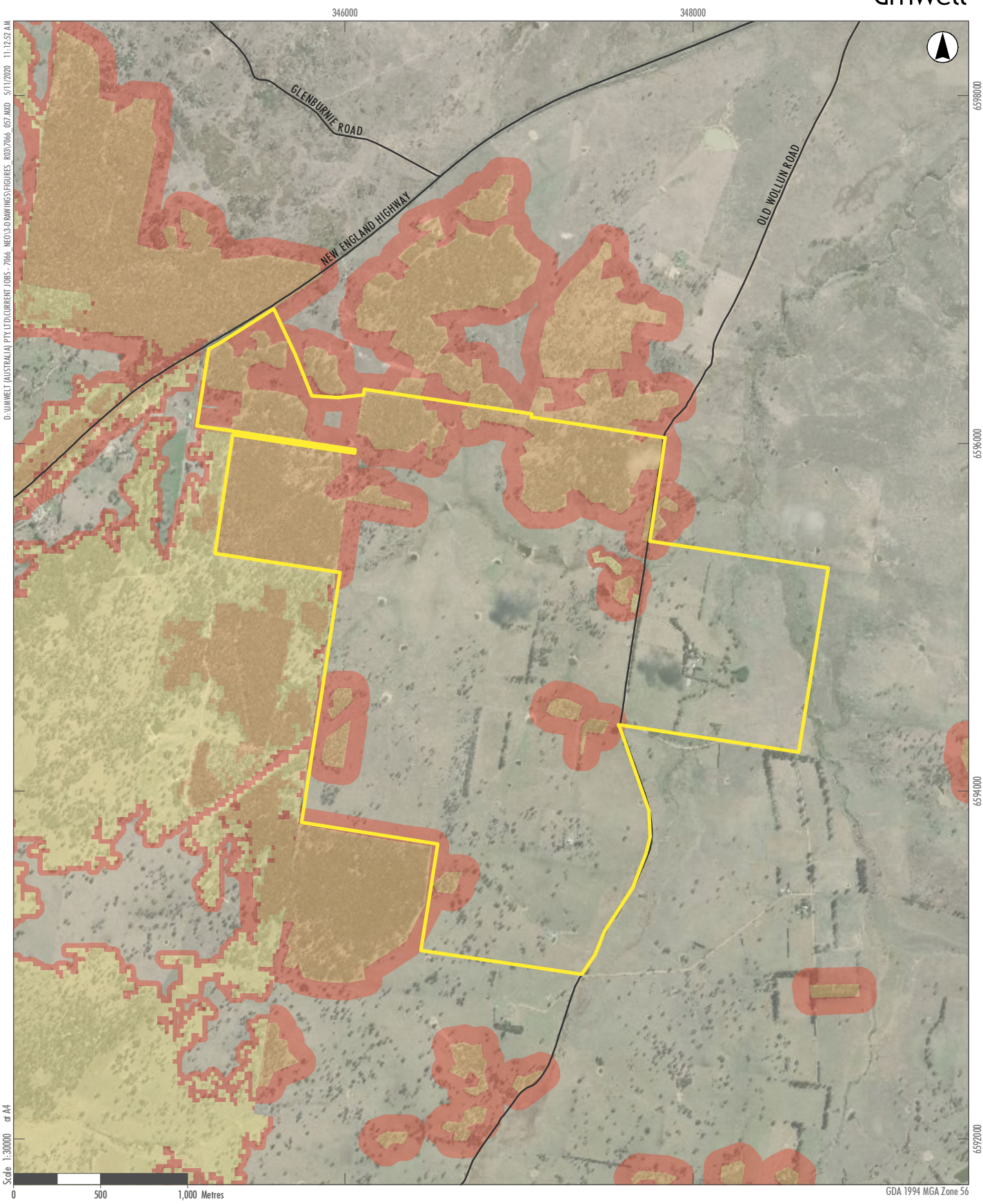
5.1.9.2 Bushfire

The Project Area is identified as bushfire prone land by the Uralla Shire Council's Bushfire Prone Land Mapping (refer to **Figure 5.5**). Although the Project Area has been subject to extensive clearing associated with agricultural land use there are areas of remnant vegetation which forms a fuel load capable of sustaining and spreading bushfire. Areas of vegetation within the Project Area also represent a potential linkage between vegetated areas within and adjoining the Project Area, with the potential to support the spread of bushfire.

A bushfire and spontaneous combustion threat assessment will be undertaken in accordance with the requirements of Planning for Bushfire Protection (PBP) 2019. Consultation with the Rural Fire Service (RFS) will also be undertaken during the preparation of the EIS.

5.1.9.3 Electric, Magnetic and Electromagnetic Fields

Electromagnetic fields (EMF) are present where electric current flows. The EIS will be supported by an EMF assessment which will consider potential health issues and risks associated with EMF produced by the solar farm and battery infrastructure within the Project Area in accordance with the ICNIRP Guidelines for Limiting Exposure to Time-varying Electric, Magnetic and Electromagnetic Fields (1998).



Legend

- Project Area
- Railway
- Road

Bushfire Prone Land

- Vegetation Buffer
- Vegetation Category 1
- Vegetation Category 2

FIGURE 5.5

Bushfire Prone Land

Image Source: ESRI Basemap, Data source: DFSI (2020), Neoen (2020), NRFS (2016)

5.1.10 Cumulative Impacts

The Large-Scale Solar Energy Guideline (DPE, 2018) identifies the requirement to assess any cumulative impacts from any other developments (proposed, approved and operating), especially biodiversity, visual impacts, socio-economic and construction traffic impacts.

As discussed in **Section 3.1.2**, the Project Area is located within a REZ and therefore there are a number of other existing and proposed renewable energy projects within the region. The EIS will include an assessment of the potential cumulative impacts associated with the Project.

5.1.11 Other Issues

The EIS will also address other issues relating to:

- Waste – the EIS will classify and quantify the likely waste streams to be generated during construction and operation and describe measures to manage, reuse, recycle and dispose of this waste in accordance with relevant guidelines.
- Air Quality and Dust Management – in accordance with relevant NSW guidelines in relation to construction.
- Decommissioning and Rehabilitation.

6.0 Conclusion

The Project Area is located within the New England REZ under the NSW Government's Electricity Strategy. The REZ has been identified as a suitable location for renewable energy projects. The Project will contribute to achieving the commitments to establishing renewable energy within NSW at both the Federal and State government level.

The Project layout will be subject to further analysis and refinement as part of the detailed specialist studies to be undertaken to inform the EIS and as an outcome of the ongoing stakeholder engagement program.

All identified environmental and social issues will be subject to assessment as part of the EIS as detailed in **Section 5.0** and in accordance with the SEARs.

In addition to providing long-term, strategic benefits to the State of NSW through providing regional investment and cleaner electricity generation, the Project will also provide direct financial benefits to the regional and local community, including:

- infrastructure investment of approximately $440 million
- employment generation creating over 250 jobs during the construction phase and 10-15 during the operational phase
- indirect benefits to local services through the construction and operation phases
- additional landowner income to involved landowners resulting in financial contributions to the local community
- local community benefits through the implementation of a proposed community benefit fund that will invest in local community project and initiatives to provide a direct and targeted local benefit.

7.0 References

Australian Bureau of Statistics, Quick Stats (2016), 30 September 2020

Commonwealth of Australia, Australia's Intended Nationally Determined Contribution to a new Climate Change Agreement (2015)

Department of Planning and Environment, Large-Scale Solar Energy Guideline (2018)

Department of Planning and Environment, Guideline 3 Scoping an Environmental Impact Statement (2017)

NSW Energy, Renewable Energy Zones Factsheet (2019)

NSW Office of Environment and Heritage, NSW Climate Change Policy Framework (2016)

NSW Office of Environment and Heritage, State Heritage Register

Uralla Shire Council, Uralla Local Environmental Plan (2012)

8.0 Glossary and Abbreviations

Term/Abbreviation	Definition
AHIMS	Aboriginal Heritage Information Management System
BAM	Biodiversity Assessment Methodology
BC Act	NSW Biodiversity Conservation Act 2016
BSAL	Biophysical Strategic Agricultural Land
CEEC	Critically Endangered Ecological Community
CEMP	Construction Environmental Management Plan
DAWE	Commonwealth Department of Agriculture, Water and the Environment
DPIE	NSW Department of Planning, Industry and Environment
EEAP	NSW Energy Efficiency Action Plan
EEC	Endangered Ecological Community
EIS	Environmental Impact Statement
EMI	Electromagnetic Interference
EPBC Act	Commonwealth Environment Protection and Biodiversity Conservation Act 1999
EPL	Environment Protection Licence
EP&A Act	NSW Environmental Planning and Assessment Act 1979
GW	Gigawatts
Involved Dwellings	Dwellings located on land owned by landholders involved in the Project
km	Kilometres
LALC	Local Aboriginal Land Council
LEP	Local Environmental Plan
LGA	Local Government Area
MW	Megawatts
MNES	Matter of National Environmental Significance
NEM	National Energy Market
NDC	Nationally Determined Contribution
Non-involved dwellings	Dwellings located on land owned by landholders not involved in the Project
OEMP	Operational Environmental Management Plan
OSOM	Over size and over mass vehicles
PCT	Plant community type
Project	Refers to the total area of the proposed windfarm
Proponent	Neoen
REAP	Renewable Energy Action Plan
REZ	Renewable Energy Zone
SEARs	Secretary's Environmental Assessment Requirements
SSD	State Significant Development
TEC	Threatened ecological communities
VPA	Voluntary Planning Agreement

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