

NEOEN



IPC – Applicant Meeting

# Acknowledgement of Country

Neoen would like to acknowledge the Gadigal people of the Eora Nation, the traditional custodians of this land and pay our respects to the Elders both past and present.

# Agenda

- 1) Applicant Overview
- 2) Project Overview
  - i. Project Evolution
  - ii. Community Engagement
- 3) Key Topics
  - i. Biodiversity
  - ii. Landscape and Visual
  - iii. Traffic/EMI
- 4) Development Conditions
- 5) Conclusion

# Australia's leading renewable energy company



## • Solar

In operation:  
917 MW  
Under construction:  
440 MW



## • Wind

In operation:  
677.8 MW  
Under construction:  
412 MW



## • Storage

In operation:  
476 MW / 678.9 MWh  
Under construction:  
844.5 MW / 2.128 MWh



## 7 Offices

Adelaide • Brisbane • Canberra  
Hobart • Melbourne  
Perth • Sydney

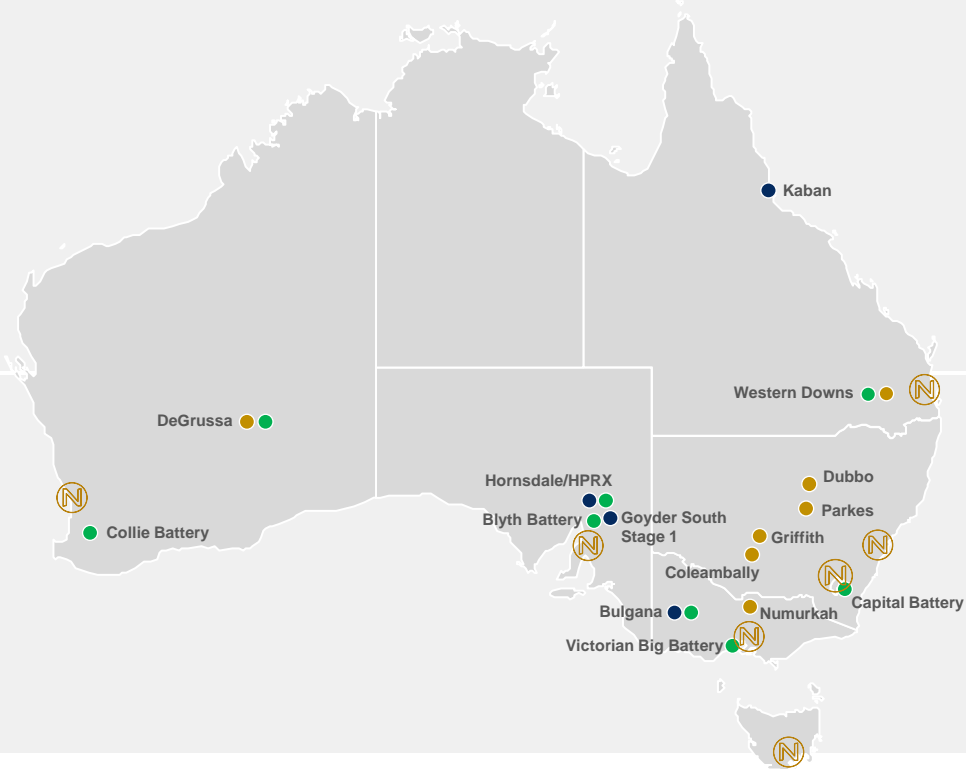


## 98 Employees



## 10 GW

2030 target



## Total Capacity 3.76 GW

Under construction: 1.696 GW  
In operation: 2.070 GW

(1) As of January 2024

# NSW needs renewable electricity

## Context

- Australia's ageing coal-fired power stations are closing. NSW has four coal fired units, all of which are forecast to close by 2038:
  - Eraring (2,922 MW) – Aug 2025
  - Bayswater (2,665 MW) & Vales Point (1,320 MW) – 2033
  - Mt Piper (1,430 MW) – 2038
- AEMO, draft Integrated System Plan, 2024:

*“Renewable energy connected by transmission, firmed with storage and backed up by gas is the lowest cost way to supply electricity to homes and businesses through Australia's energy transition”.*

## Federal targets

- Net zero by 2050, 43% reduction in 2005-level emissions by 2030, 82% of electricity in the market supplied from renewable sources.

## State targets

- To halve emissions by 2030 and achieve net zero by 2050 and to establish a reliable, affordable and clean energy system.

# Why this site

## Site largely cleared already

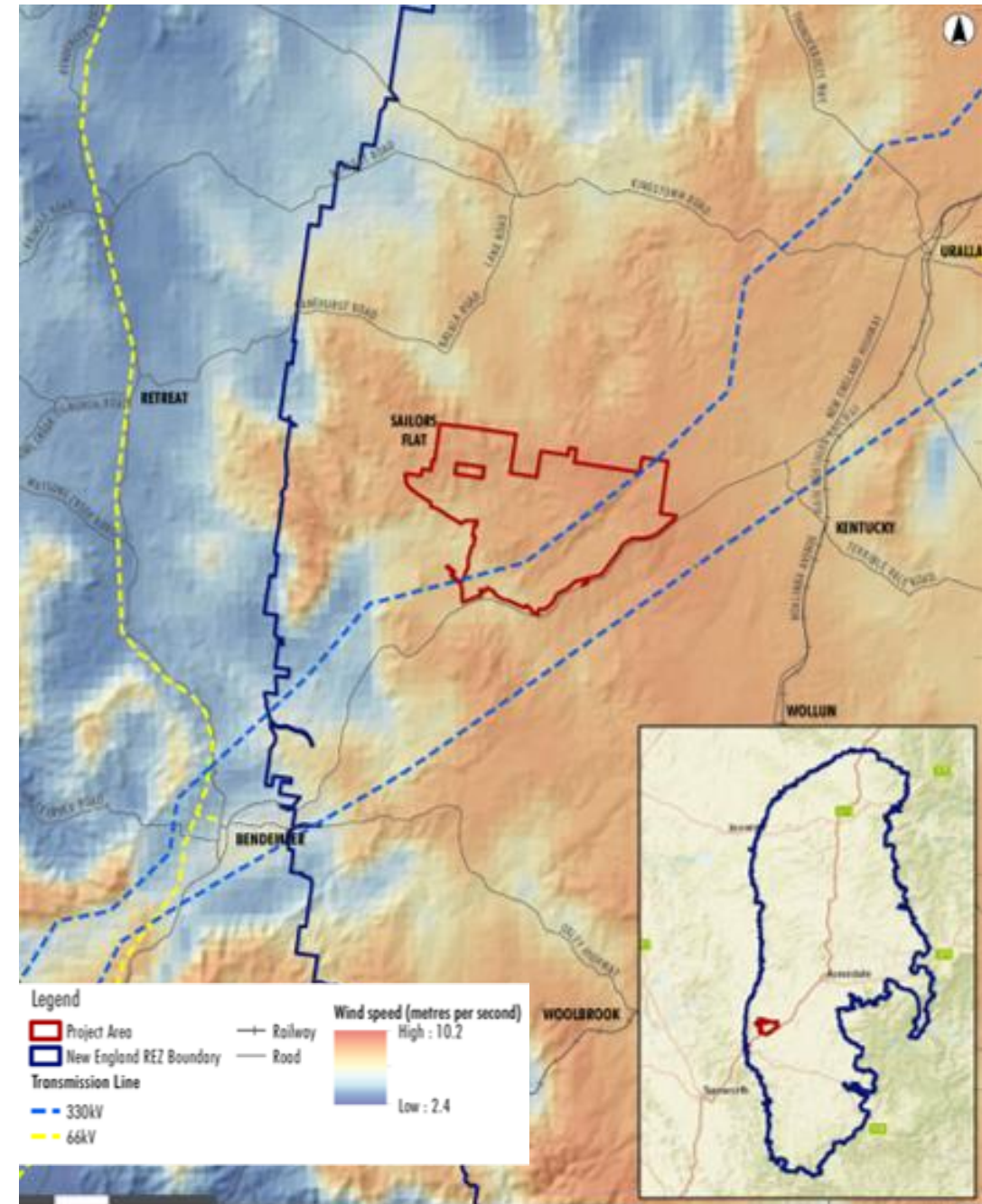
- The project is located within a landscape that has been **largely cleared** for agriculture (grazing and logging).

## Great wind resource

- The site has a high average wind speed and good capacity factor (est. 7.6 m/s and 37.8% respectively).
- The project is expected to generate approximately 650,000 MWh per year – enough power for over **100,000 homes** and to avoid **500,000 tonnes of CO2** every year.
- Each turbine represents clean energy for approximately 3,000 homes.

## Early electricity for NSW consumers

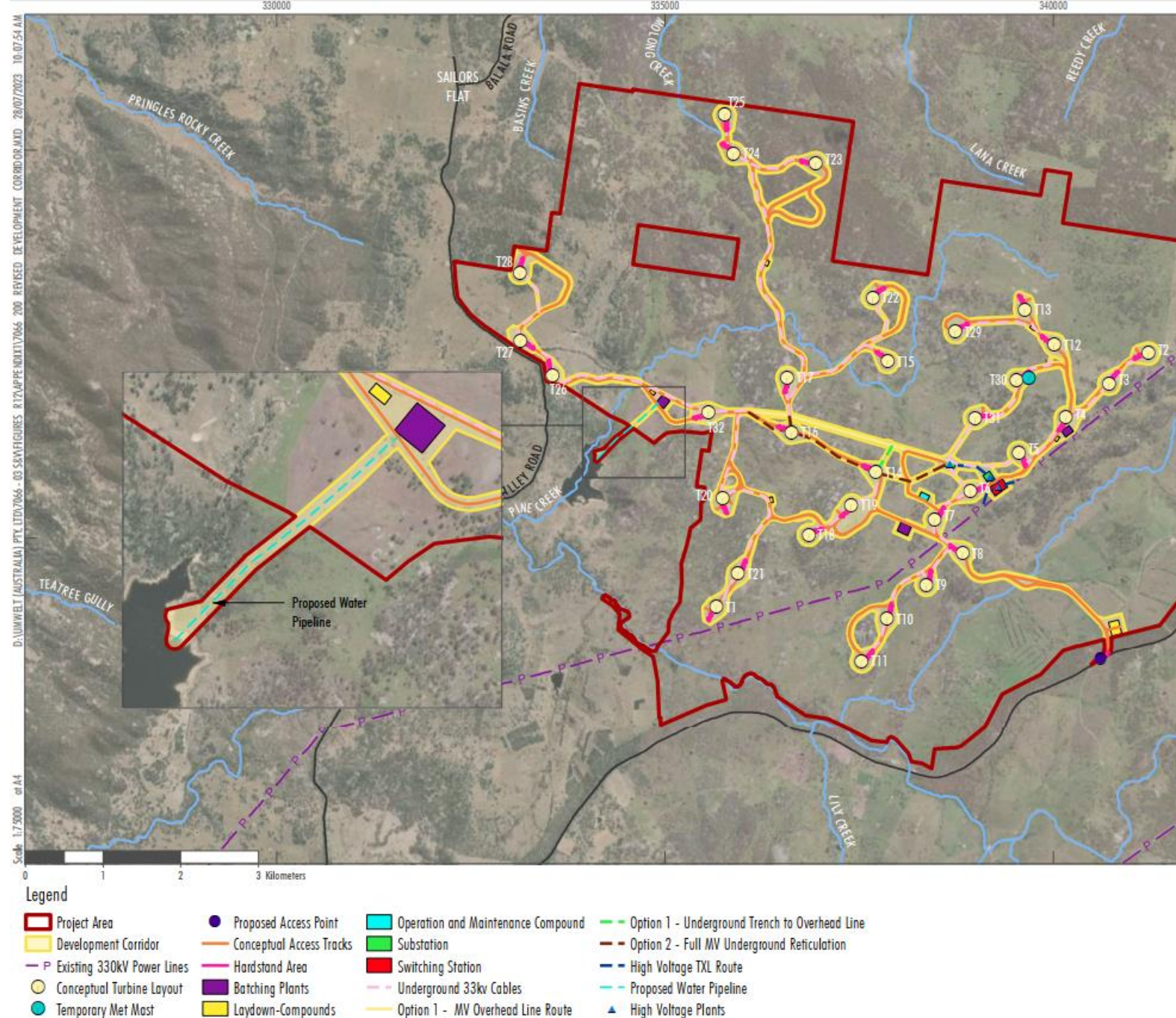
- Unlike other projects in the NE REZ, Thunderbolt is connecting into an **existing transmission line** within the site.
- The new NE REZ transmission link is not due to be completed until September 2028 – Thunderbolt will be generating well before this, aligning with both state and federal **net-zero targets**.





# Project Overview

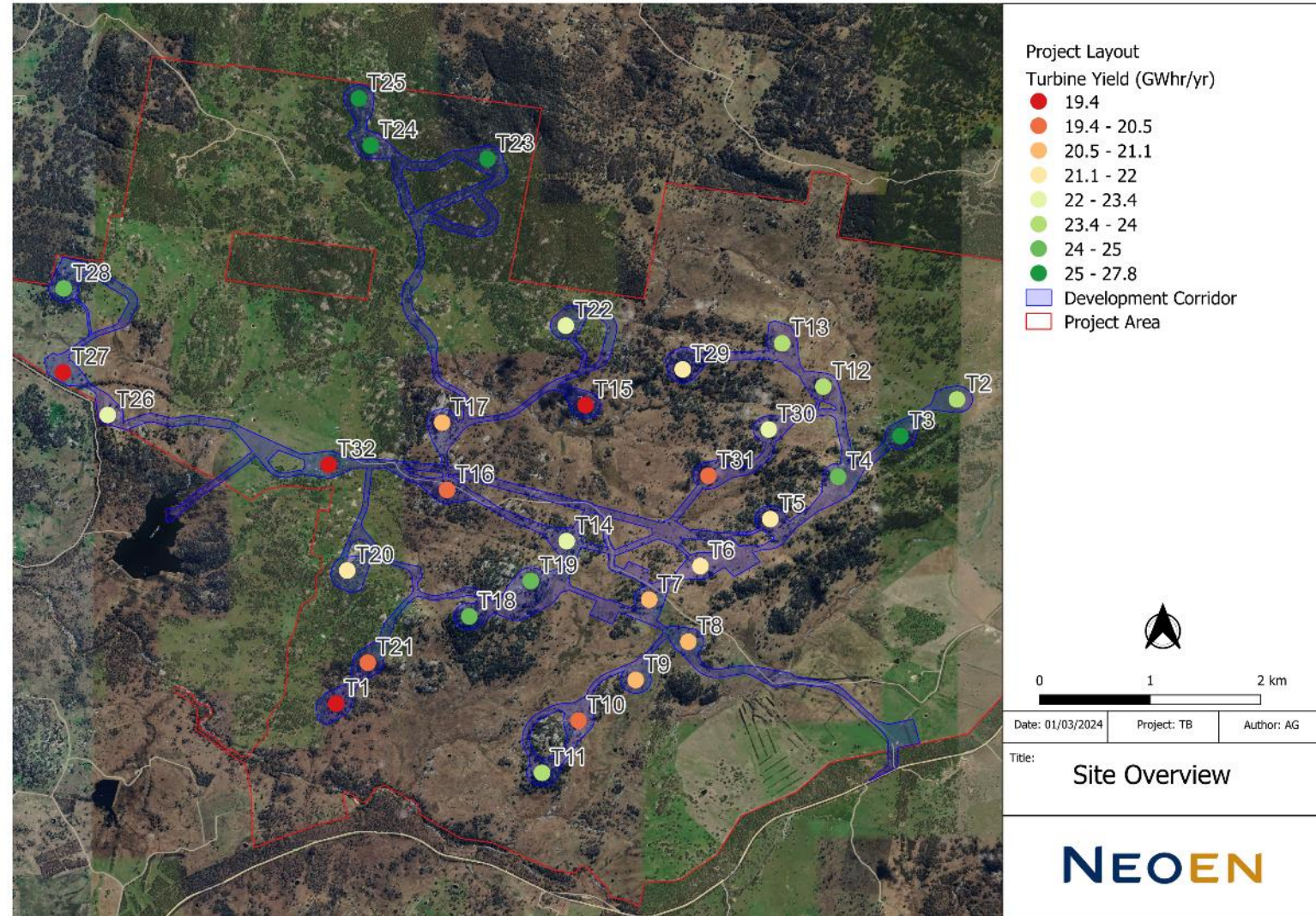
- **Site entrance:** directly off the **NE Highway**.
- **Size:** **up to 32 wind turbines** and one onsite substation (29 turbines in **Tamworth Regional** and 3 in **Uralla Shire**).
- **Location:** near Kentucky in the NE REZ.
- **Connection:** into the **existing** 330kV overhead line which crosses the site (Line 86 - Tamworth to Armidale).
- **Landowners:** **two host landowners** and a further 3 associated landowners.
- **Land use:** Livestock (each host landowner operates separately with sheep and cattle).
- **Infrastructure:** ~45km of internal access roads, O&M Facility, concrete batch plants, construction laydown areas and temporary water pipeline.





# Project Constraints – Impact Mitigation

- All proposed turbine locations have **good wind and capacity factors**.
- Wind layout design is a delicate balancing act – **maximizing wind** resource while **minimizing impacts**.
- The **highest wind is in elevated areas**, which coincides with areas of minimal agricultural activity and therefore **less disturbed vegetation**.
- We have worked hard to design the project to **minimise impacts** to the extent possible.
- These elevated areas are more visually prominent but have been selected as existing vegetation provides a large degree of shielding for most residences with a potential view of the Project.





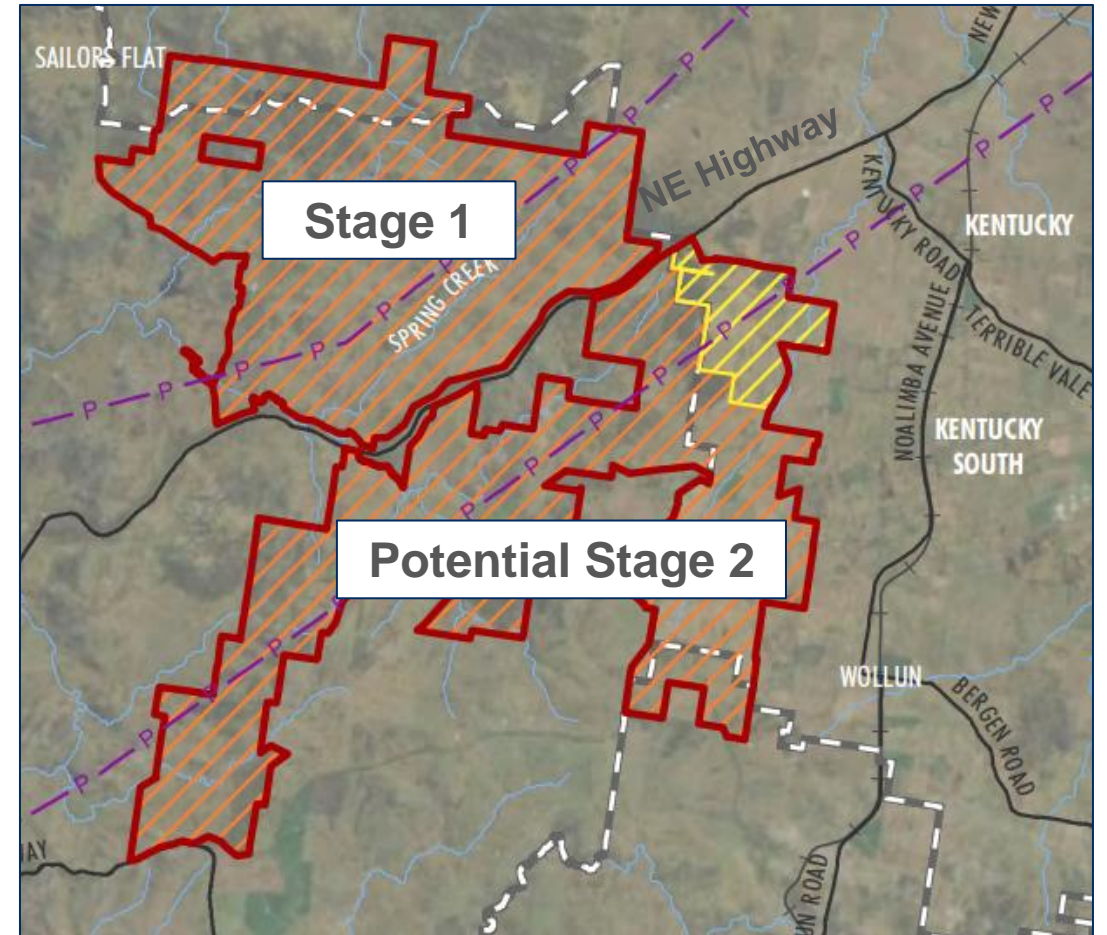
# Early & extensive community engagement

- **Host landowner group & neighbour** workshops across 2018-2019 guided overall approach
- Engaged a local **Community Liaison Officer** in 2020
- CLO contacted **195 community members**, held **88 meetings** (mainly 1-on-1), and delivered **46** booklets where direct contact couldn't be made.
- Held online and in-person **Community Info Sessions** (Sept 2020, 2021, and April 2022).
- **Presented to Uralla Shire Council** (Oct 2020, Jul 2021, Mar 2023) and **Tamworth Regional Council** (Oct 2021) in addition to separate meetings on the Planning Agreements
- Presented to **other community organisations**, including New England Visions 2030, Job Link Plus, Regional Development Australia (Northern Inland NSW) and Z-NET Uralla (Oct 2021), NSW Farmers (2022)
- Sent out **project newsletters and bulletins** (9 since 2020)
- Advertised the project through **posters in local cafes** and in **Uralla Wordsworth** (Mar 2021)
- **Community Consultative Committee** – 7 meetings since Aug 2021



# Engagement response – project staging

- **Original Scoping Report** in Nov 2020 for “Thunderbolt Energy Hub”
  - **70 turbines, 120 MW of solar & 400 MW battery**
- Issues raised by the community related mainly to:
  - Impact on property value
  - Impacts on visual amenity, noise and environment
  - Disruption during construction
- **The feedback received resulted in the project being split in two:**
  - Stage 1 – **project size reduced to 32 turbines** based on the feedback received; this is the project assessed under the current DA application
  - Stage 2 – this may be the subject of a future DA application and would be treated as a separate project.



# Engagement response – project evolution

- **Neighbour benefit-sharing**

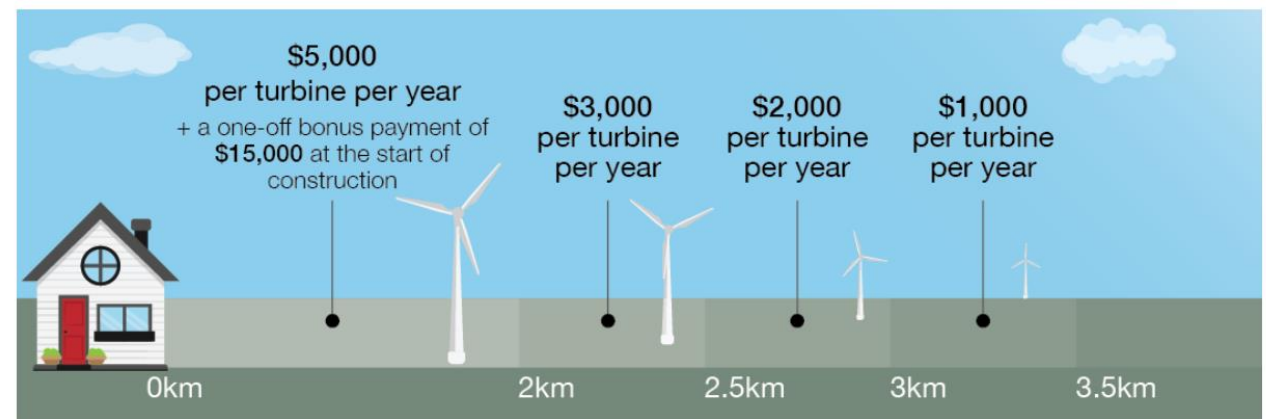
- In early host landowner discussions, it was clear that not everyone was going to get a turbine
- Host landowners wanted their neighbours to still see direct benefits from the project
- Upfront and annual payments have been offered to all neighbours within 3.5km of a turbine
- Industry-leading approach - transparent, generous scheme with clear 'no gag' clause

- **Community benefit-sharing**

- \$5M in contributions proposed through Planning Agreements with Uralla Shire and Tamworth Regional Councils.
- Initial Community Benefit Fund proposed was \$100k / year
- This was increased to \$160k / year in response to Council requests

- **Tailored project insights**

- Ecology Video showing nature of survey work
- Photomontages online to show visual impact
- Virtual townhall online throughout Covid
- Biodiversity credit workshop with NSW Farmers



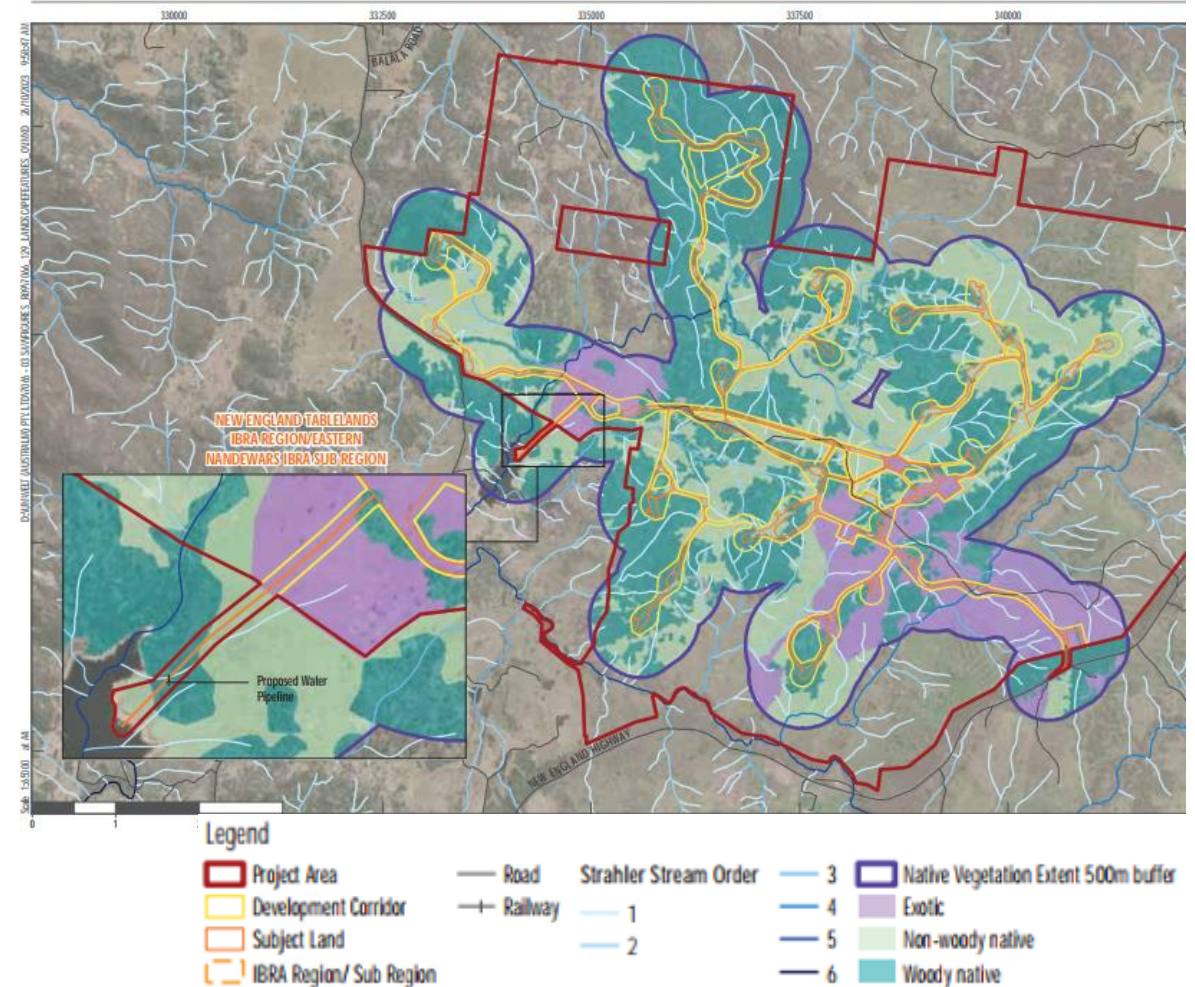


# Biodiversity

- The project is located on a site that has already been **largely cleared (for agriculture)**, with stands of remnant vegetation existing within a mosaic of native and exotic grazing land parcels.
- **Remnant vegetation** is generally restricted to **the higher elevation** areas where significant areas of rocky outcrops and lower fertility soils occur.
- The final layout **prioritises** locating infrastructure within **exotic and/or low-quality native grassland**.

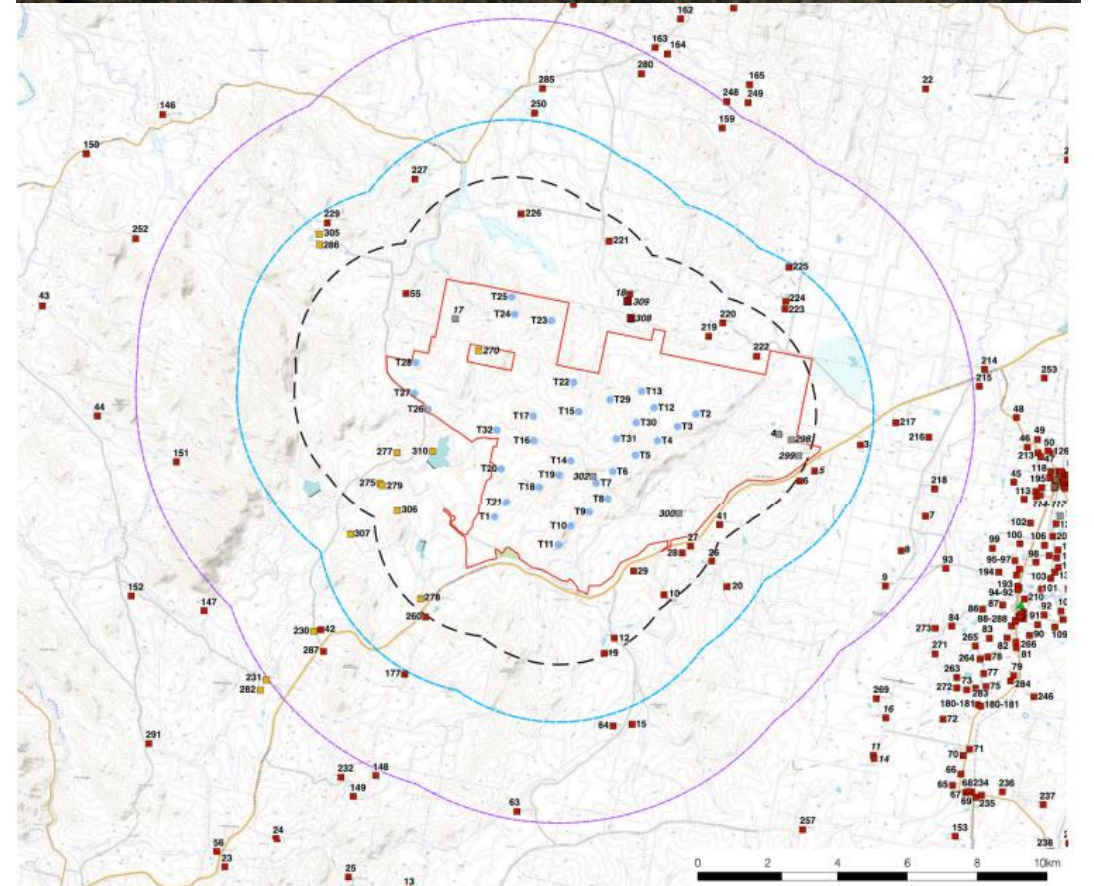
## Proposed mitigation measures:

- ✓ Implementation of comprehensive Environmental Management Strategy and Bird and Bat Adaptive Management Plan.
- ✓ Minimum of 50m clear space between the tip of turbine blade and native vegetation.
- ✓ Additional monitoring to be undertaken prior to construction and operation.
- ✓ Commitment to \$100,000 investment into a bird and bat strike research program which is supported by DPHI.



# Landscape and visual

- The regional landscape character is typical of the New England Tableland region, with agricultural land used for grazing, and with areas of remnant vegetation.
- 37 dwellings were identified within 5.1km of the nearest associated turbine:
  - 23 dwellings within the “black line” of 3,450m; and
  - 14 dwellings between the black and “blue line” of 5,100m.
- The LVIA identifies 7 non-associated dwellings with a “moderate” impact and proposes screen planting to reduce these to “negligible-low”.
- The DPHI assessment **indicates the project meets the visual performance objective**, however it overstates the impact the project has by requiring vegetation screening to all properties within the blue line (5.1 km).





# Other Topics: Traffic and EMI

## Traffic

- Transport Impact Assessment carried out from Port of Newcastle to site entrance, which includes local government and state-controlled roads.
- Neoen will seek the relevant permits from councils and TfNSW for the upgrade works required.
- Examples of proposed mitigation measures:
  - Site entrance to be upgraded in accordance with Austroad standards.
  - Signage to be installed at site entrance intersection to indicate trucks turning.
  - Traffic Management Plan developed such that its minimising road and traffic impact on the project site (including OSOM vehicles).

## Electro-Magnetic Interference (EMI)

- The initial EMI assessment concluded that the project may interfere with point-to-area style communication services (e.g. mobile phone signals and terrestrial TV) particularly in areas of existing poor/marginal coverage (north and west of the project) .
- However, during the submissions phase consultation with all service providers indicated that they do not expect the wind farm to cause material impact to services.
- A Condition of Consent is proposed to address remediation of any potential impacts.



# Draft Conditions of Consent

## Visual impact mitigation – Schedule 2, Part B – Condition B1

- B1. For a period of 5 years from the commencement of construction, **the owner of any non-associated residence within 5.1 km of any wind turbine identified in the Final Layout Plan** may ask the Applicant to implement visual impact mitigation measures on their land to minimise the visual impacts of the development on their residence (including its curtilage).

Upon receiving such a written request from the owner of these residences, the Applicant must implement appropriate mitigation measures (such as landscaping and vegetation screening) in consultation with the owner.

These mitigation measures must:

- (a) be reasonable and feasible;
- (b) be aimed at reducing the visibility of the wind turbines from the residence and its curtilage, and commensurate with the level of visual impact on the residence;
- (c) consider bushfire risk (including the provisions of *Planning for Bushfire Protection 2019*); and
- (d) be implemented within 12 months of receiving the written request, unless the Planning Secretary agrees otherwise.

If the Applicant and the owner cannot agree on the measures to be implemented, or there is a dispute about the implementation of these measures, then either party may refer the matter to the Planning Secretary for resolution.

- The obligation on the Applicant to implement visual impact mitigation measures on request for any non-associated residences within 5.1km of a turbine is not reasonable in our view.
- We suggest that any non-associated residences within 5.1km where the visual impact has been assessed in the LVIA as “low” or “negligible” should not be able to request such mitigation.

### Proposal:

- That the first part of this condition be amended to read ***“the owner of any non-associated residence within 5.1 km of any wind turbine identified in the Final Layout Plan and which the LVIA has assessed as having a “moderate” or “high” impact from a wind turbine, may ask the Applicant...”***
- That part (b) of this condition be amended to read: ***“be aimed at reducing the visibility of wind turbines from the residence and its curtilage to “low” or “negligible”.***

# Draft Conditions of Consent

## Biodiversity offsets – Schedule 2, Part B– Condition B23

### Biodiversity Offsets

B23. Prior to carrying out any development that could directly or indirectly impact the biodiversity values requiring offset, the Applicant must retire biodiversity credits of a number and class specified in Table 1 and 2 of Appendix 5, unless the Planning Secretary agrees otherwise.

The retirement of these credits must be carried out in accordance with the *NSW Biodiversity Offsets Scheme* and can be achieved by:

- (a) acquiring or retiring 'biodiversity credits' within the meaning of the *Biodiversity Conservation Act 2016*;
- (b) making payments into an offset fund that has been developed by the NSW Government; or
- (c) funding a biodiversity conservation action that benefits the entity impacted and is listed in the ancillary rules of the biodiversity offset scheme.

### Schedule 2, Part B – Condition B21 of Uungala Wind Farm DA:

- B21. Unless the Planning Secretary agrees otherwise, prior to the commencement of construction, the Applicant must:
- (a) update the baseline mapping of the vegetation and key habitat within the development corridor;
  - (b) calculate the biodiversity offset credit liabilities for the development in accordance with the *Framework for Biodiversity Assessment* under the *NSW Biodiversity Offset Policy for Major Projects*, in consultation with BCS, and to the satisfaction of the Planning Secretary.

- Appendix 5 currently sets out the exact number and class of the biodiversity credits that must be retired for the project. Inclusion of the exact credit liability removes the flexibility for applicants to revise their conceptual layout (which is usually conservative) and confirm the final infrastructure footprint without modification of the DA, even if this is to reduce the credit liability.
- By hard-wiring the credit liability in to the DA, the Applicant is not incentivised to reduce its footprint of impact – this is clearly a missed opportunity for a better biodiversity outcome.
- There is no legislative restriction that prevents confirmation of biodiversity offset liability following detailed design.
- **We propose that a new condition is inserted, similar to Condition B21 of the Uungala Wind Farm DA (granted in 2021), to enable the Applicant to recalculate its offset credit liabilities (through an updated BDAR) based on the more detailed design information available prior to construction so that the offsets reflect the actual disturbance footprint the project expects to have.**

# Draft Conditions of Consent

## Transport – Schedule 2, Part B – Condition B30

- B31. Unless the Planning Secretary agrees otherwise, the road upgrades identified in:
- (a) Table 7-1 of Appendix 7 must be implemented in accordance with the relevant timing requirements.
  - (b) Table 7-2 of Appendix 7 must be implemented by the Applicant in accordance with the relevant timing requirements, to the satisfaction of the relevant roads authority and TfNSW.

If there is a dispute about the road upgrades to be implemented, or the implementation of these upgrades, then either party may refer the matter to the Planning Secretary for resolution.

This consent does not approve the Applicant to undertake upgrades identified in B31(a).

- Part (b) of the condition requires that the upgrades identified in Table 7-2 “must be implemented by the Applicant”. However, with numerous other projects likely to use this route from Denman to the NE REZ, there is a possibility that it will not be Neoen who undertakes these works (e.g. if another project starts construction before us).
- **Proposal: That part (b) of this condition is amended to read “the road upgrades identified in:...Table 7-2 of Appendix 7 must be implemented, by the Applicant or otherwise, in accordance with the relevant timing requirements,.....”.**



# Conclusion

- The project has been sited and located in a manner that minimises impacts to the extent possible while maximising the capture of wind resources available on the site.
- Neoen has undertaken extensive community engagement since 2019 and the project has evolved significantly since this time based on the conversations had and feedback received.
- When constructed, the project will live in Neoen's portfolio long-term – we continue to build social licence and deepen the relationships we have with the key local stakeholders.
- Once operational, Thunderbolt Wind Farm will:
  - **Deliver clean electricity to power 100,000 homes per year and offset 500,000t of CO2**
  - **Help reach** both state and federal energy targets due to its high wind resource.
  - Deliver more than \$5M in financial **benefits** to Tamworth Regional and Uralla Shire Councils and neighbours over the life of the asset.
- Neoen agrees in principle with the referral report provided by DPHI as an approvable development application, however we simply suggest some minor amendments to three of the conditions of consent.