

# Thunderbolt Wind Farm

## Independent Planning Commission Briefing

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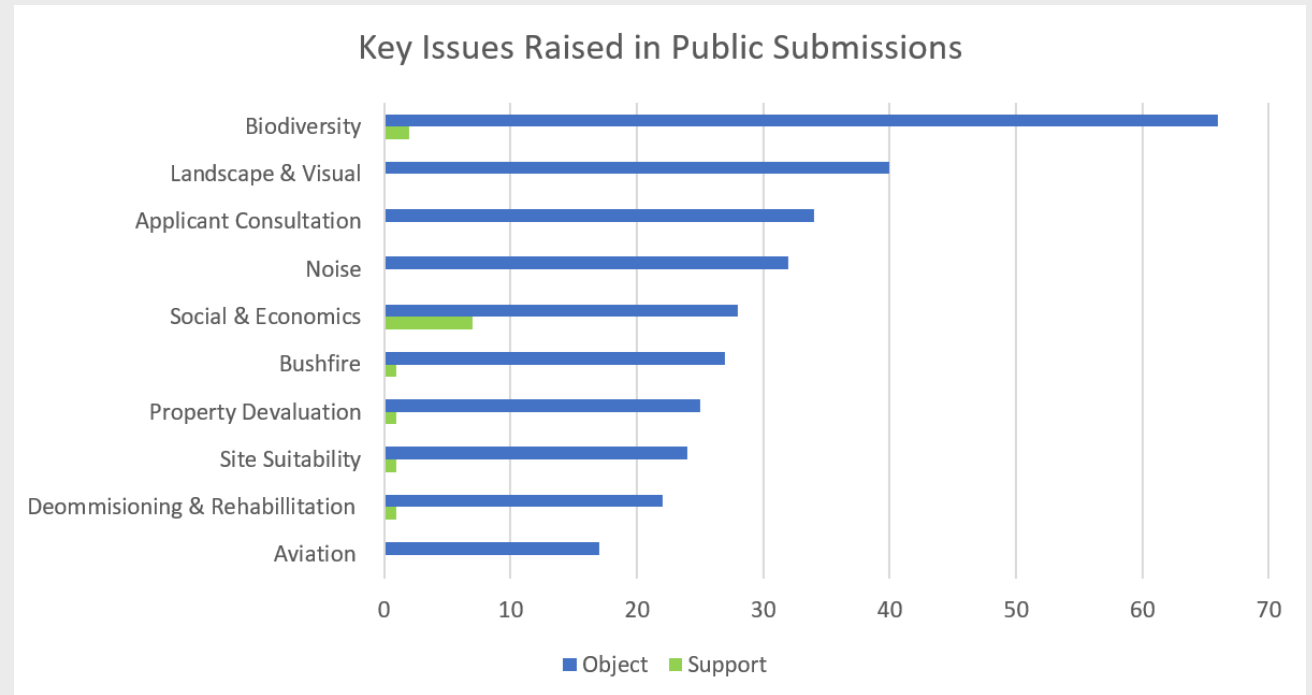


# Department's engagement

- Public Exhibition of EIS – 27 April 2022 to 24 May 2022
  - 100 unique public submissions (out of 107 total submissions):
    - 82 objecting to the project;
    - 14 in support; and
    - 4 comments;
  - 5 additional public submissions received outside of the submission period;
  - Advice from 15 government agencies and two host councils:
    - Uralla Shire Council objected to the project;
    - Tamworth Regional Council provided comments; and
    - Muswellbrook Shire Council raised concerns outside of the exhibition period (not a host council)
- Two site visits, including consultation with landowners

# Public Submissions

- Public objections cited:
  - biodiversity;
  - landscape and visual;
  - Applicant's consultation;
  - noise; and
  - social and economic;
- Supporting submissions cited benefits to the local economy, the creation of jobs and the benefits of renewable energy.



# Key Issues

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- Energy security
- Biodiversity
- Visual amenity

# Energy Security



- The Project would have a 192 MW generating capacity that would power about 99,000 homes per year.
- Consistent with the NSW Climate Change (Net Zero Future) Act 2023 for net zero emissions by 2050.
- Suitable site with direct access to the transmission network within the site with available capacity and wind resources.
- The Project would play an important role in:
  - Increasing renewable energy generation and capacity; and
  - Contributing to the transition to a cleaner energy system as coal fired generators retire.
- Opportunity to contribute to replacing the loss of energy generation earlier than other projects that rely on new transmission infrastructure to be built.

# Biodiversity

- Project was designed to avoid impacts on threatened species and communities within the site.
- 162 ha of native vegetation clearance, including 82 ha of woodland and 80 ha of DNG.
- **BC Act:**
  - 15.29 ha of threatened ecological communities (TEC) would be impacted, including:
    - 12.24 ha of Box Gum Woodland (CEEC), of which 7.54 ha is woodland (mod-good and low class), 0.56 ha is planted and 4.14 is DNG;
    - 3.05 ha of Carex Sedgeland (EEC).
- **EPBC Act:** 7.26 ha of the Box Gum Woodland (CEEC), of which 5.68 ha is woodland (moderate - good) and 1.58 ha is DNG.
- 0.8 ha of Austral Toadflax (vulnerable under BC Act and EPBC Act) would be impacted and would be offset.
- 80.5 ha of koala (endangered under BC Act and EPBC Act) habitat would be impacted. Assessment found that the project would be unlikely to significantly reduce the area of occupancy for koalas and impacts would be offset.
- Recommended conditions require the Applicant to carry out detailed monitoring of the bird and bat strike impacts of the project, and carry out adaptive management if the impacts are higher than predicted.
- Offset requirements : 4,337 ecosystem credits and 3,253 species credits.



# Visual Amenity

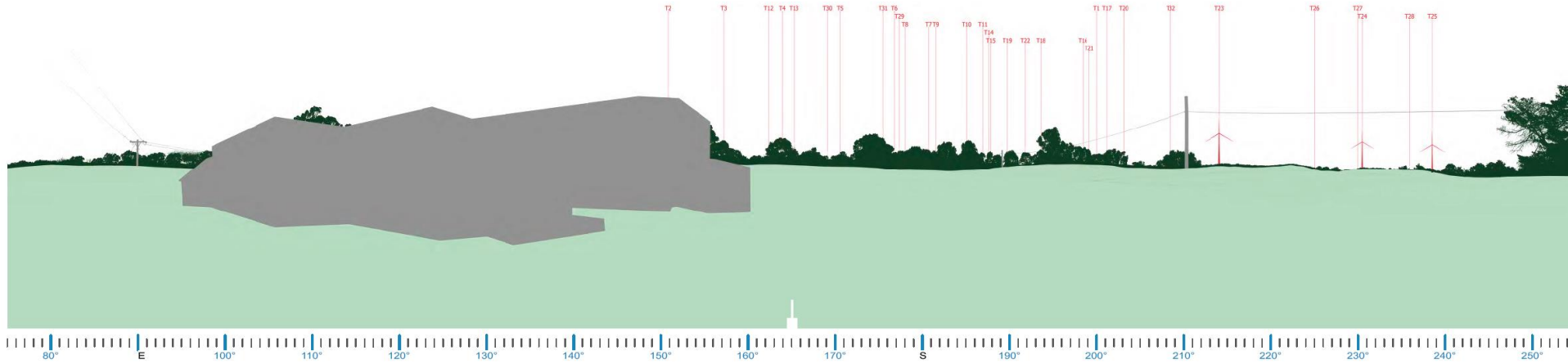


- **Public viewpoints:** Applicant considered 23 public viewpoints (roads and lookouts), with the nearest public viewpoints located on the New England Highway and Green Valley Road (1.24 km and 1.82 km accordingly). Project would not dominate the existing visual catchment due to distance, topography and existing mature vegetation along the road sides.
- **Private receivers:** Assessment against performance objectives of the Visual Bulletin:
  - 16 non-associated receivers within 3.45 km of turbines and 11 non-associated receivers are between 3.45 km and 5.1 km;
  - visual performance objectives are met at all non-associated receivers.
- Project is located at least 8km from most Kentucky village residences and performance objectives achieved at all receivers.
- **Aviation hazard lighting:** CASA recommended obstacle lighting – the Department has recommended conditions requiring Neoen to consult with CASA regarding installation of aviation hazard lighting.
- **Shadow flicker:** recommended condition to limit the impact to 30 hours per year.
- **Ancillary infrastructure:** Unlikely to have significant visual impacts with the proposed mitigation measures.

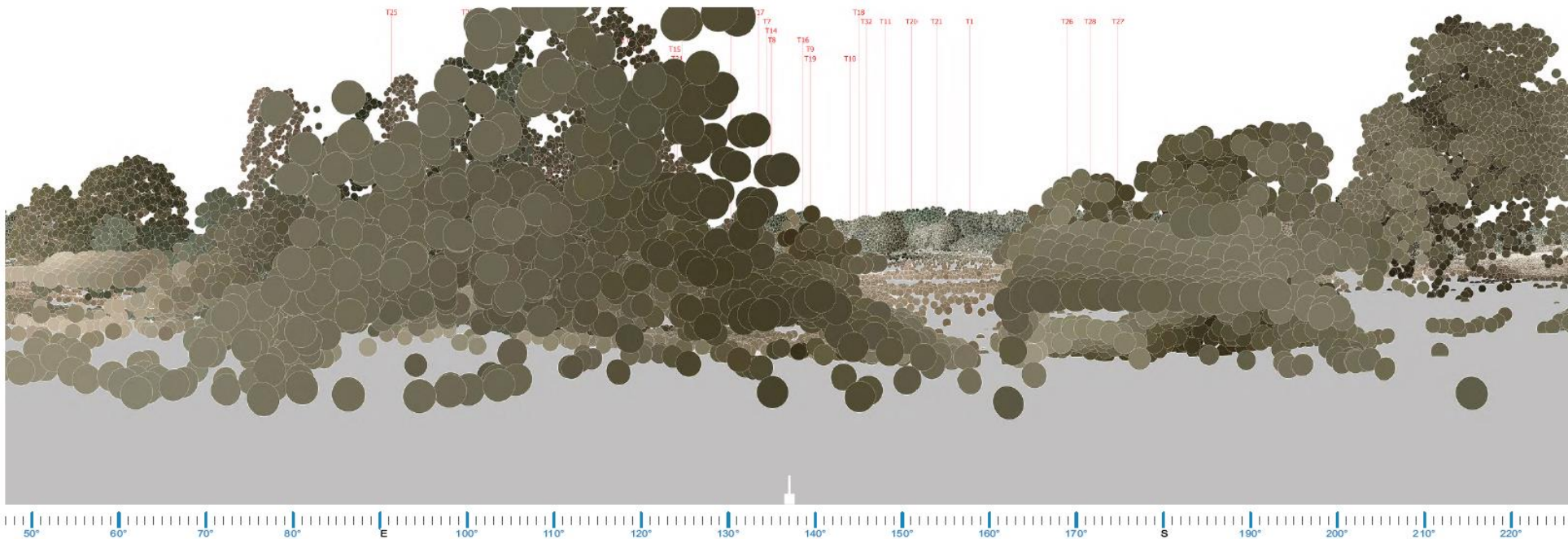
## Conclusion

- While the project would be visually apparent for multiple receivers, it would meet the Bulletin's visual performance objectives.
- Recommended conditions requiring Neoen to offer landscape screening to all non-associated dwellings within 5.1 km.

Looking north



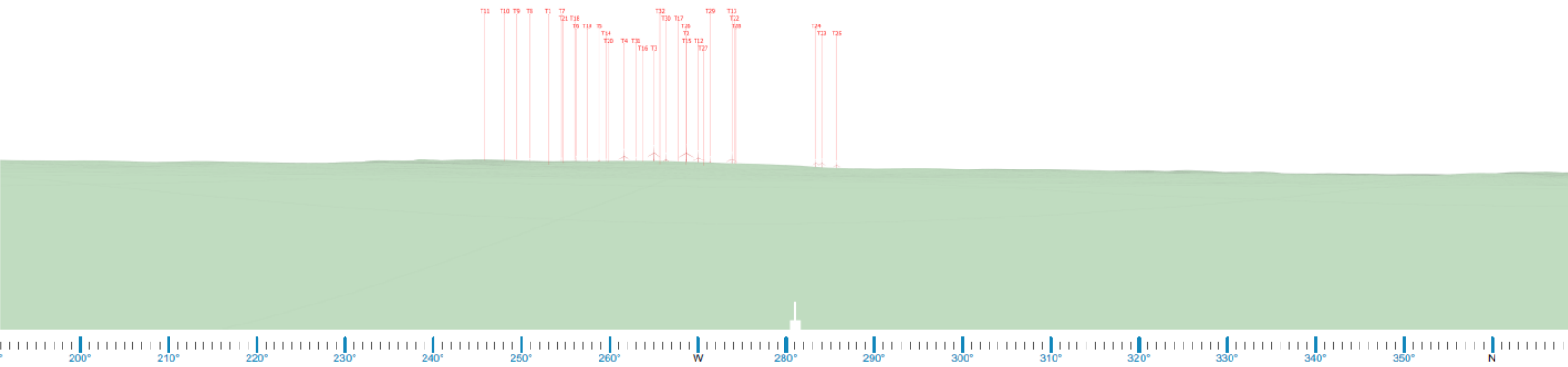
View from receiver 221, looking south



View from receiver 55, looking south east



View from receiver 12, looking north



Representative view from Kentucky village, looking west

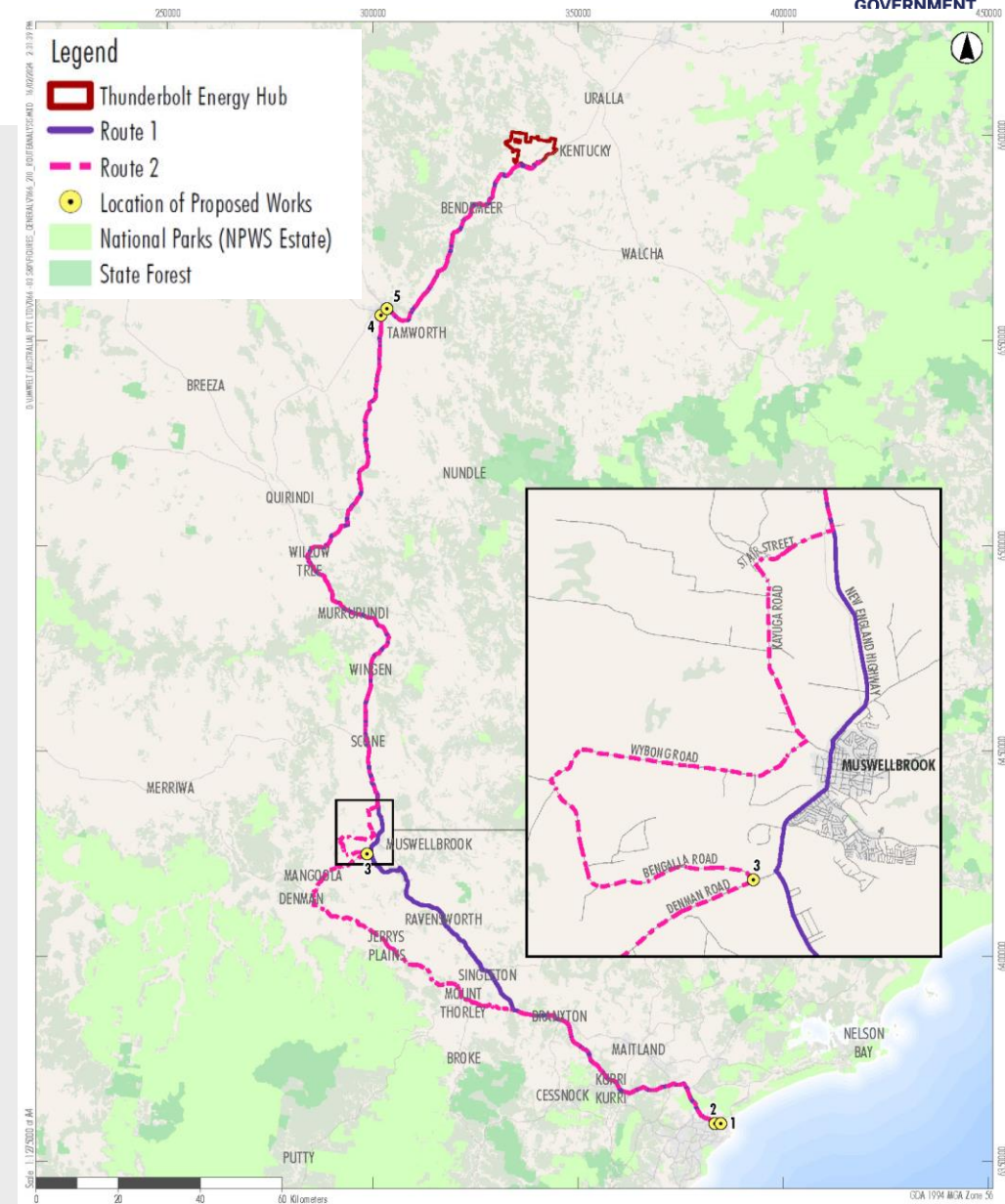
# Other matters

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- Traffic and transport
- Decommissioning and rehabilitation
- Noise and vibration
- Heritage
- Socio-economic impacts

# Traffic and transport

- Large plant, equipment and materials would be transported to the site along the route to be developed by EnergyCo from the Port of Newcastle to the New England REZ via one of two routes:
  - Route 1: Components under 5.2 m high; or
  - Route 2: Components over 5.2 m high.
- Peak of 64 heavy and 188 light vehicles per day over the 24-month construction period.
- Maximum of 6 heavy vehicles requiring escort per day delivering turbine components over 6 months.
- Operational traffic volumes would be minimal.



# Decommissioning and Rehabilitation

- Operational life is likely to be approximately 25– 30 years (unless turbines are upgraded).
- Recommended conditions require Neoen to rehabilitate the site in accordance with a number of objectives, which are that:
  - the site must be safe, stable and non-polluting;
  - native vegetation must be restored;
  - above ground infrastructure, access roads and underground cabling must be removed, unless the landowner and Planning Secretary agrees otherwise - visual impacts for retained infrastructure must be minimised;
  - wind turbine pads must be covered and revegetated;
  - the land must be rehabilitated and restored to pre-existing use; and
  - public safety must be ensured at all times.
- Project would be suitably decommissioned at the end of the project life and the site will be appropriately rehabilitated.

# Noise and vibration

- Construction noise levels would exceed the recommended 'noise affected' criterion (45 dB(A)) as per the EPA's *Interim Construction Noise Guideline* at 6 non-associated receivers for construction of the turbines. Noise levels would be well below the highly noise affected criteria of 75 dB(A).
- Construction traffic noise would comply with the NSW Road Noise Policy at all receivers.
- Operational noise levels would not exceed the Department's *Wind Energy: Noise Assessment Bulletin* criteria of 35 dB(A) at any non-associated residences.
- The Friends of Kentucky special interest group commissioned a peer review of Neoen's Noise Impact Assessment. The Department acknowledges the concerns raised in the review, however the Department considers the information provided by Neoen to be appropriate.
- Recommended conditions:
  - restrict works to standard construction hours;
  - require Neoen to minimise noise during construction by implementing mitigation measures as per ICNG; and
  - require Neoen to monitor and minimise construction vibration.

# Heritage

- There are no non-Aboriginal heritage items listed on Commonwealth, National or State Registers are located within or surrounding the project area.
- 5 Aboriginal heritage items of low significance would be impacted by the project. Neoen have committed to salvaging and relocating all impacted Aboriginal heritage items to suitable alternative locations, in consultation with Aboriginal stakeholders.
- 4 potential archaeological deposits (PADs) would be potentially impacted by the project. Text excavations confirmed the presence of subsurface artefacts at all 4 PAD locations:
  - 2 locations have continuing archaeological deposits and buried artefacts, requiring an exclusion area and potential salvage; and
  - 2 locations have low densities of artefact distribution, requiring no further assessment or mitigation.
- The Department has recommended a condition requiring Neoen to implement all reasonable and feasible measures to avoid and minimise harm to heritage sites and provide a detailed justification where impacts cannot be avoided.

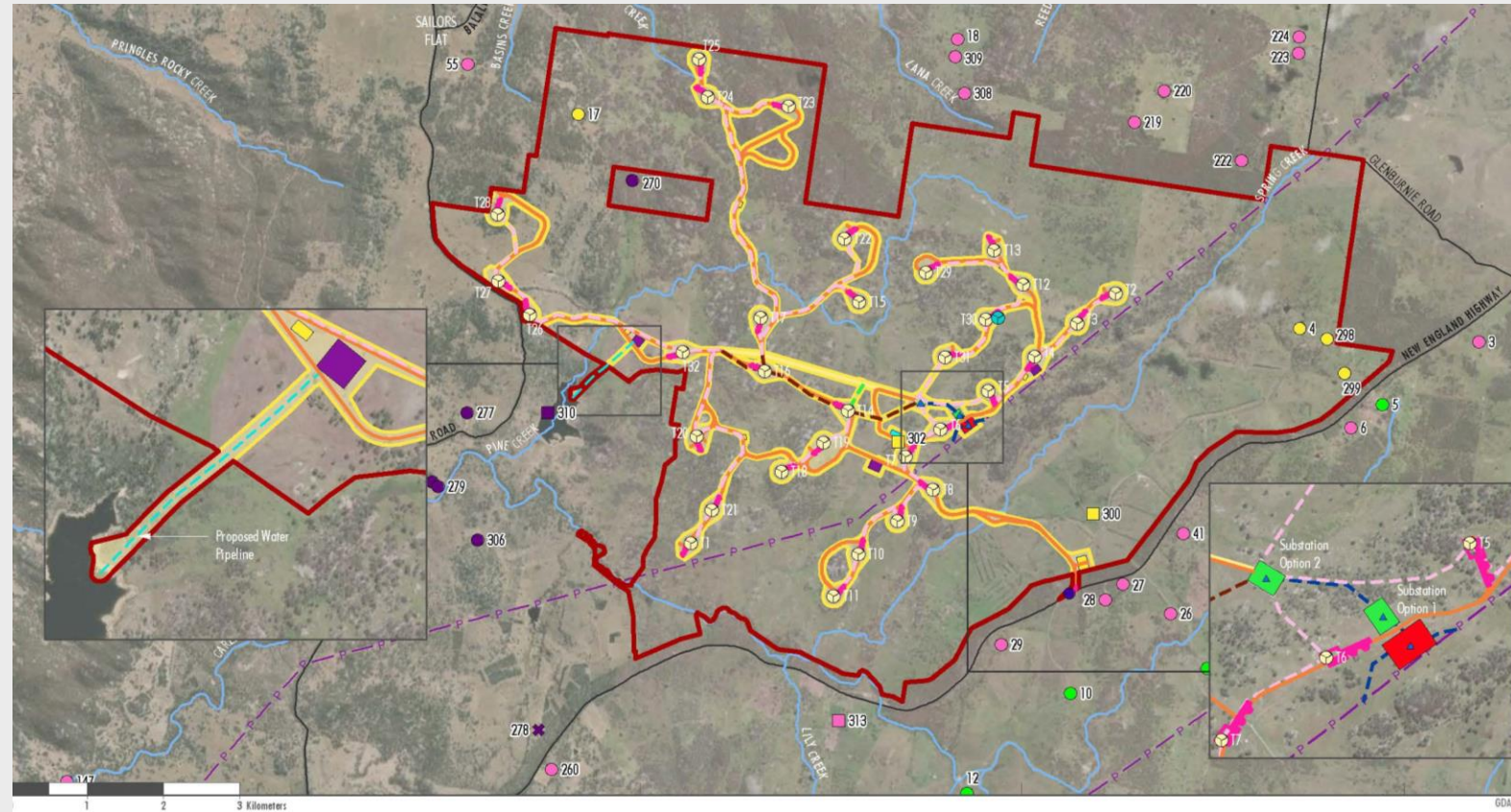


# Socio-economic impacts

- Benefit to the community through 285 construction jobs (of which Neoen has committed to sourcing 135 from surrounding LGAs), expenditure on accommodation and businesses in the local economy by workers.
- The Department has recommended a condition requiring Neoen to prepare an Accommodation and Employment Strategy.
- Neoen made an offer to provide a community benefit programs or a voluntary planning agreement with Tamworth Regional Council for around \$3.4 million and Uralla Shire Shire Council for up to \$2.4 million, adjusted to CPI.
- Broader benefits to the State through an injection of \$373 million in capital investment.
- Impact on property values is not a relevant consideration under the EP&A Act as the project would not have significant and widespread economic impacts on the locality.

# Adjustments to the Project

- In August 2023, Neoen sought to amend the DA to include an above-ground pipeline to provide water supply during construction
- The amendment was in response to concerns with construction water availability raised in agency advice



# Evaluation

- The project is located on a suitable site in the New England REZ, with good wind resources, access to the existing electricity network within the site and in close proximity to the New England Hwy;
- Neoen reduced the number of proposed turbines and limited the project in this application to the north of the New England Highway, significantly reducing the visual impacts to the landscape and for residents south of the New England Highway;
- Impacts can be readily managed through the recommended conditions of consent;
- Assists in transitioning the electricity sector from coal and gas-fired power to low emissions sources and is consistent with NSW policy;
- Could generate over 570,000 MWh of clean electricity annually, enough to power 99,000 homes and save up to 550,000 tonnes of greenhouse gas emissions per year;
- Achieves an appropriate balance between maximising the efficiency of the wind resource development and minimising potential impacts on surrounding land uses and the environment; and
- Stimulates economic investment in renewable energy, providing flow-on benefits to the local community through job creation and capital investment.