Valley of the Winds Wind Farm

Independent Planning Commission Briefing

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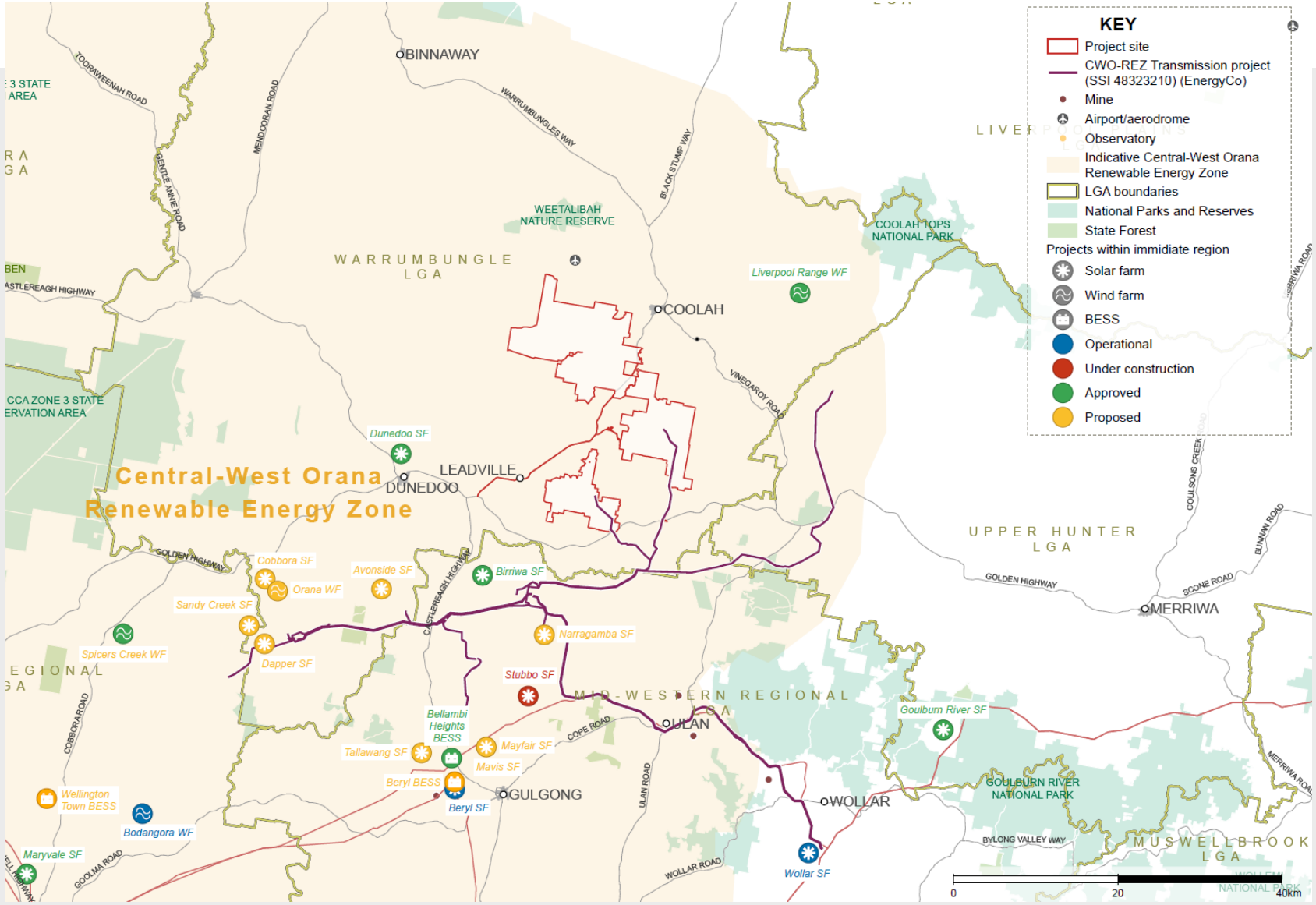
NSW GOVERNMENT

Contents

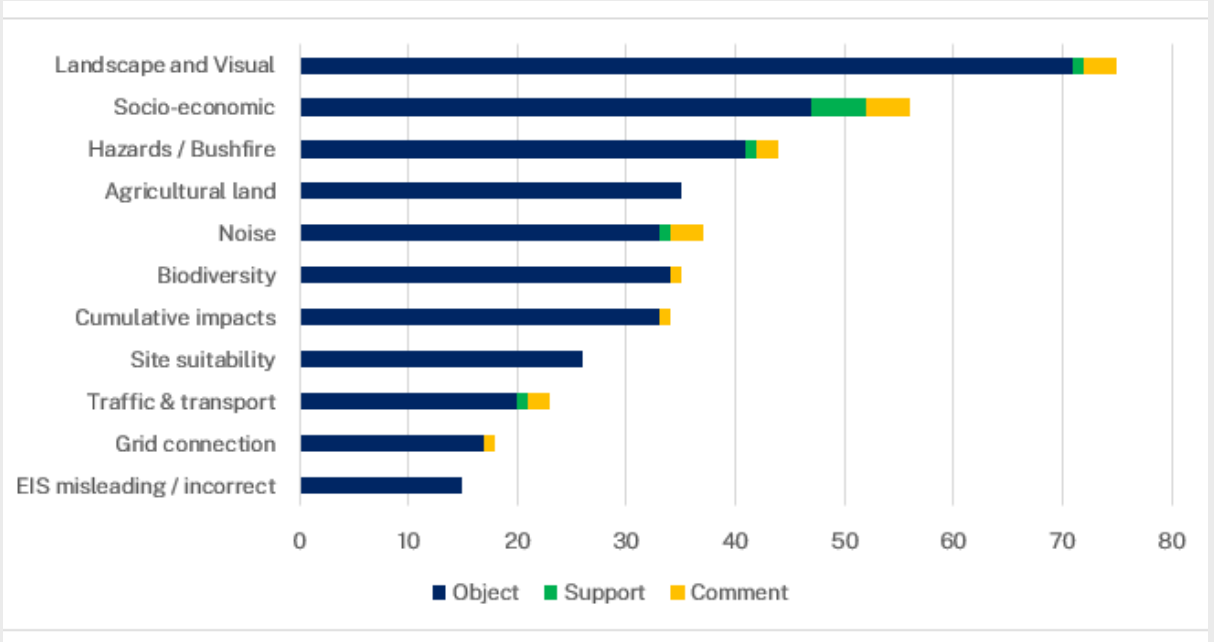
Strategic and Regional Context

- Proposed 131 turbine layout with a generating capacity of about 943 MW
- 35 km north of Gulgong within the Warrumbungle Shire LGAs
- Connection to EnergyCo's approved Central-West Orana REZ Transmission Line via direct connection



Community Engagement & Public Submissions - EIS

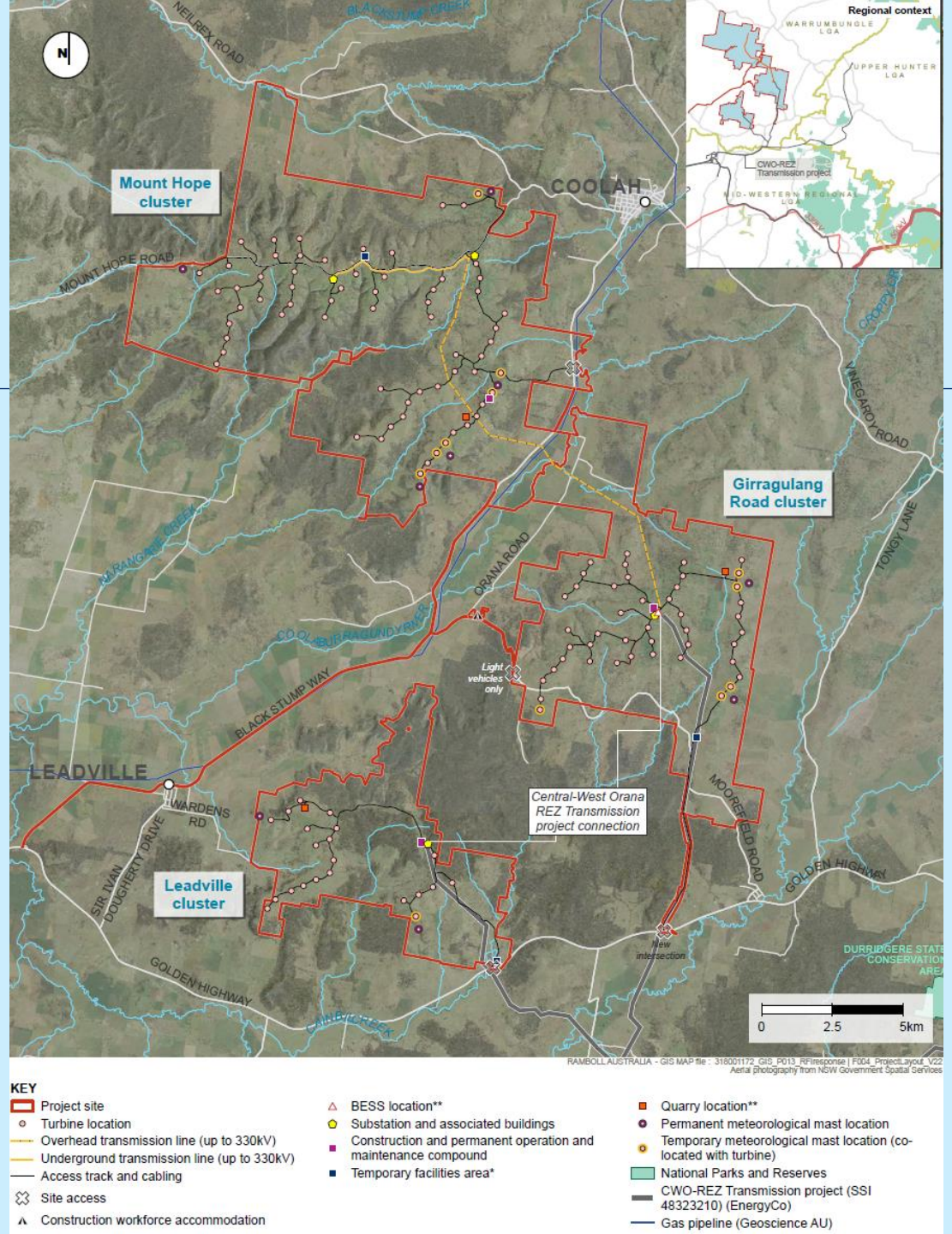
- Public Exhibition of EIS – 23 May 2022 to 20 June 2022
  - 105 unique public submissions (out of 106 total submissions):
    - 94 objecting to the project
    - 6 in support
    - 5 comments
  - Advice from 15 government agencies and one host councils:
    - Warrumbungle Shire Council (host) objected
    - Muswellbrook Shire Council and Mid-Western Regional Council (not host councils) provided comments
  - The most common matters raised in public objections were:
    - landscape and visual
    - socio-economic factors
    - hazards including bushfire



EnergyCo were invited to comment on project and draft conditions and are supportive of project

Key Issues

- Energy transition
- Visual impacts
- Traffic and Transport
- Biodiversity



Energy Transition

- 943 MW generating capacity that would power about 519,000 homes
- Consistent with the NSW Climate *Change Policy Framework* of net zero emissions by 2050
- Project would play an important role in:
  - Increasing renewable energy generation and capacity
  - Firming the grid by including 320 MW / 640 MWh of energy storage
  - Contributing to the transition to a cleaner energy system as coal fired generators retire

Visual Impacts

Project Design -Reduction of turbines from 148 to 131 and site selection reduced the potential for visual impacts

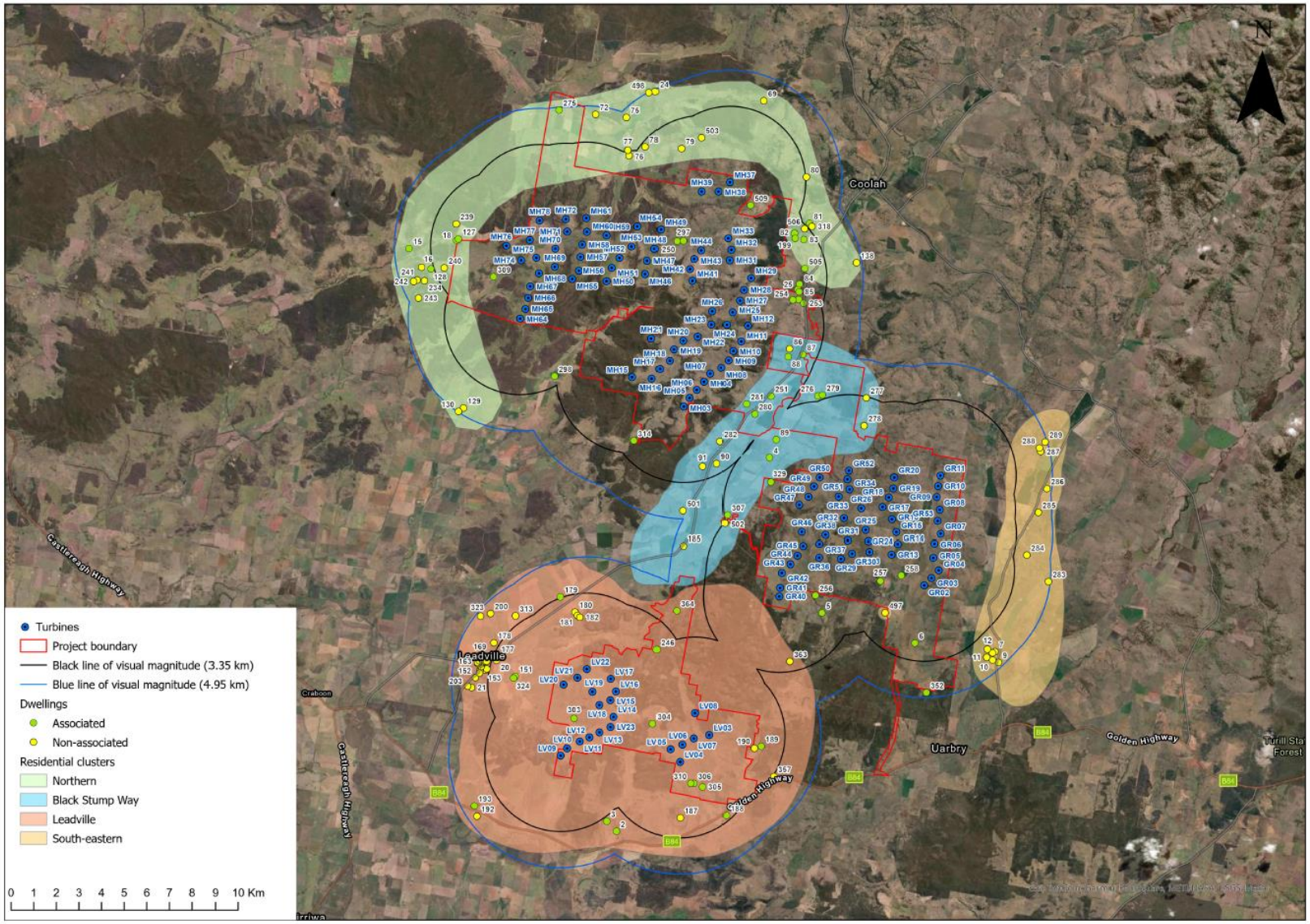
Public Viewpoints - 41 public viewpoints – project unlikely to significantly impact scenic values of existing landscape

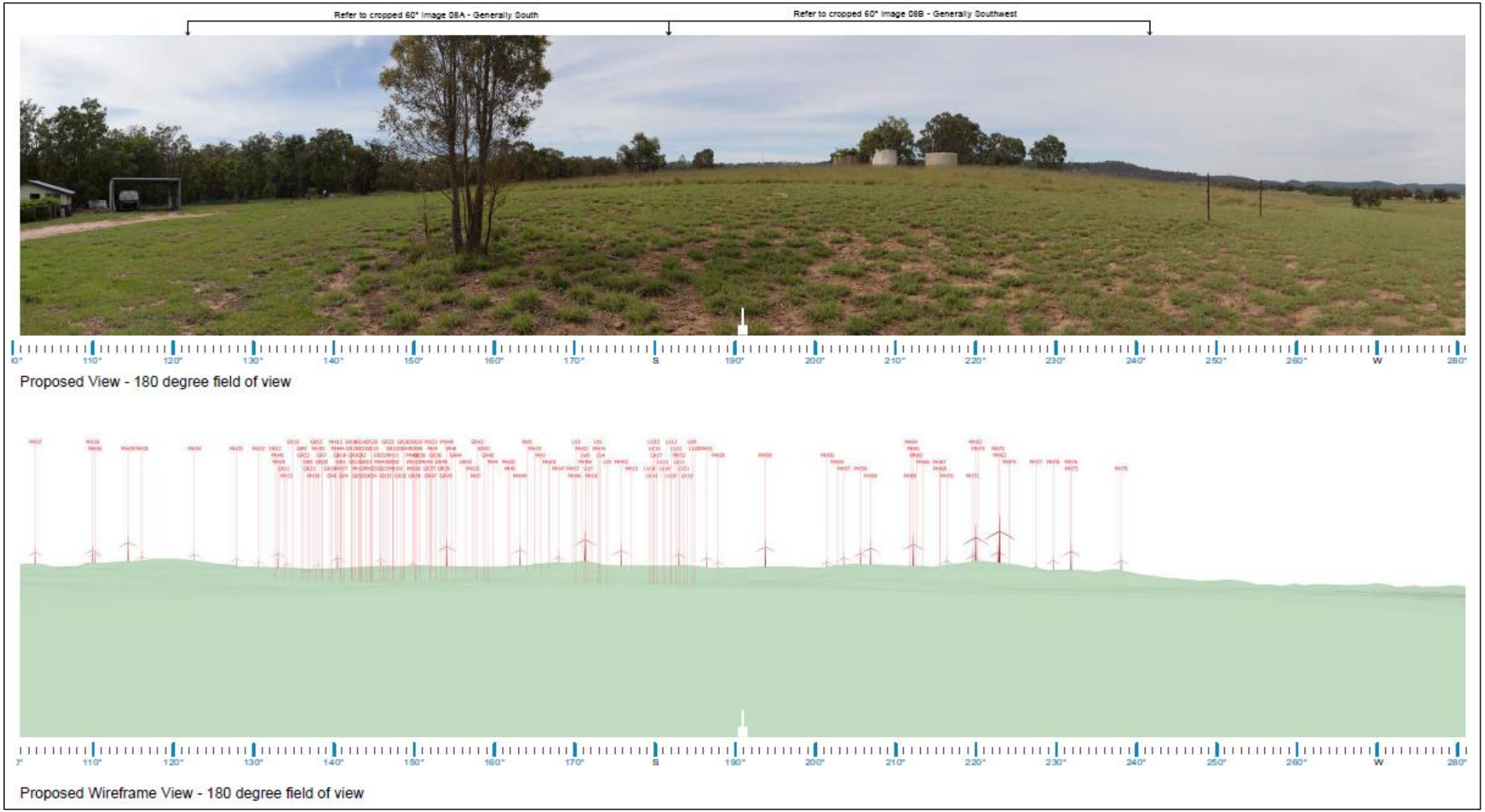
Private Receivers

- 23 non-associated receivers within 3.35 km of turbines (black line) and 87 non-associated receivers within 4.95 km (blue line)
- Visual performance met at all non-associated receivers

Aviation Hazard Lighting

- Recommended conditions requiring consultation with CASA and Siding Spring Observatory regarding obstacle lighting requirements

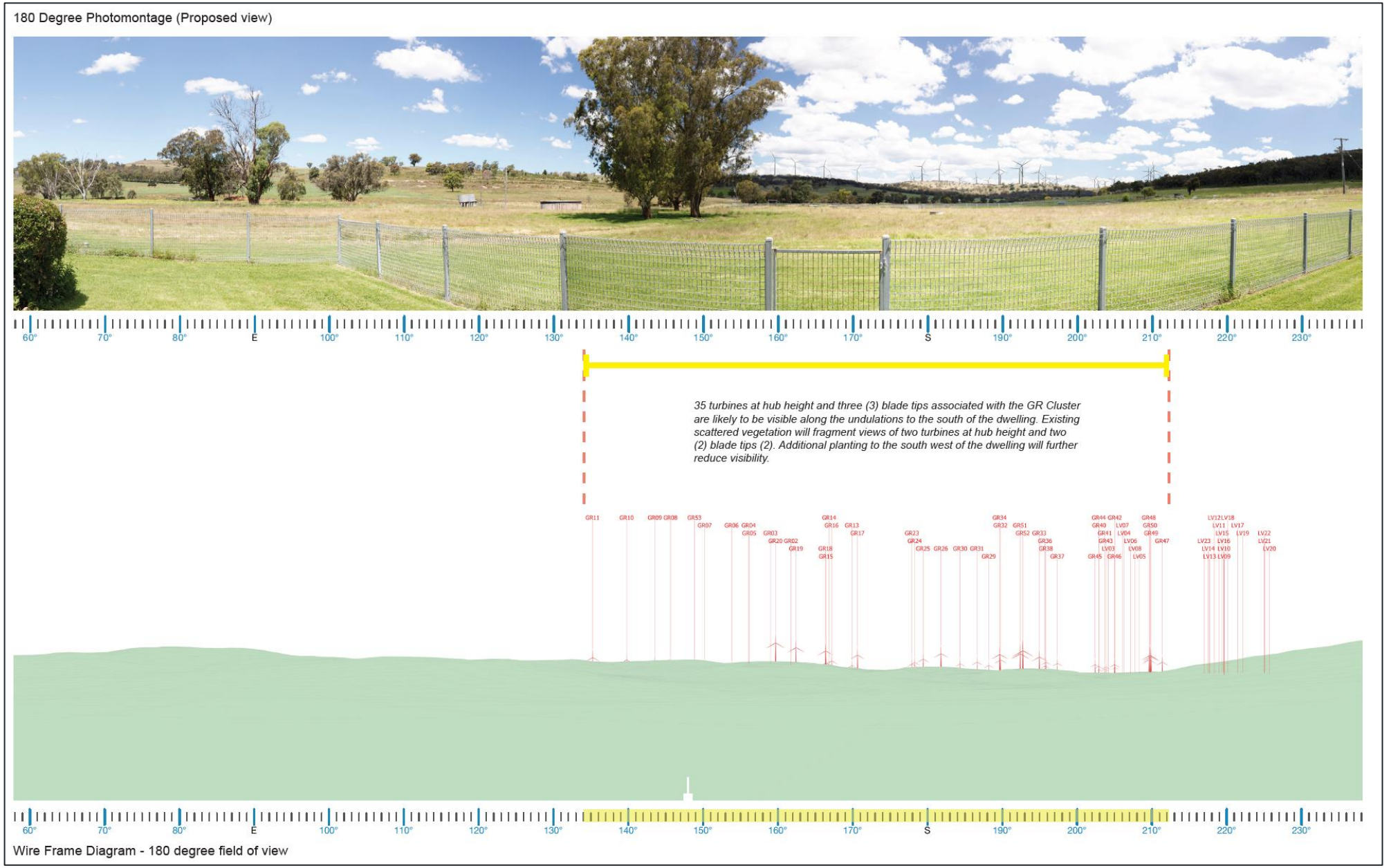




R76

3.15 km from nearest turbine

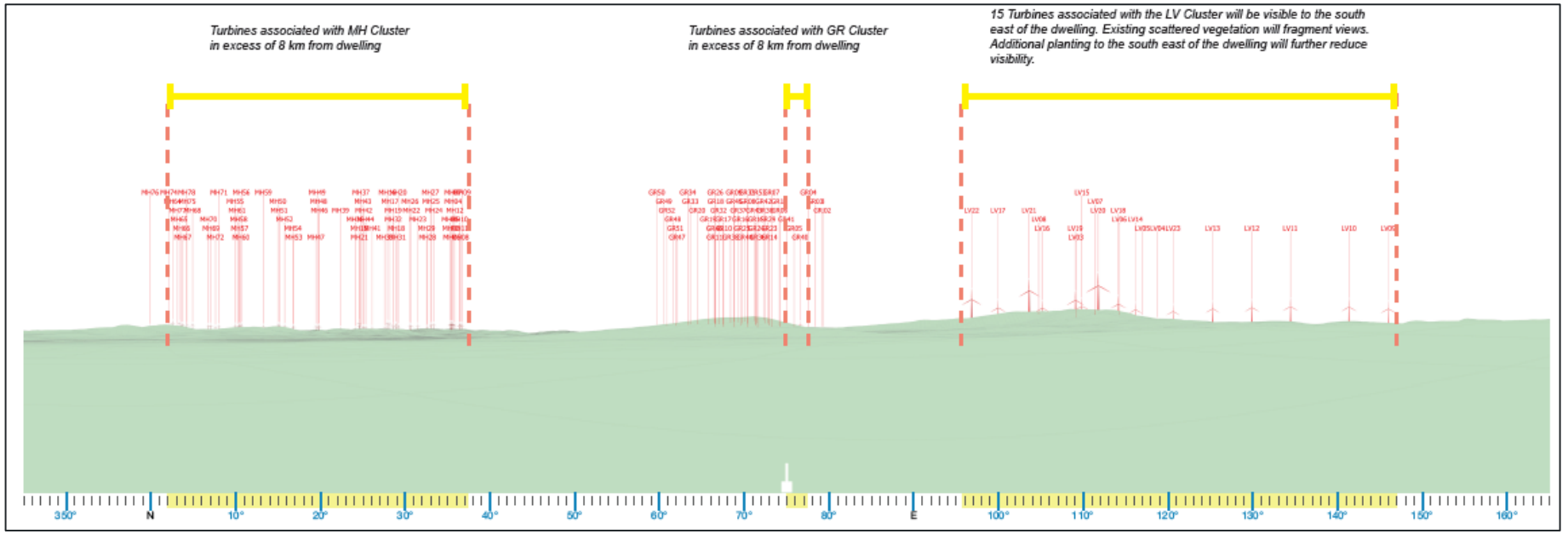
Visual Impact – Northern cluster



R277

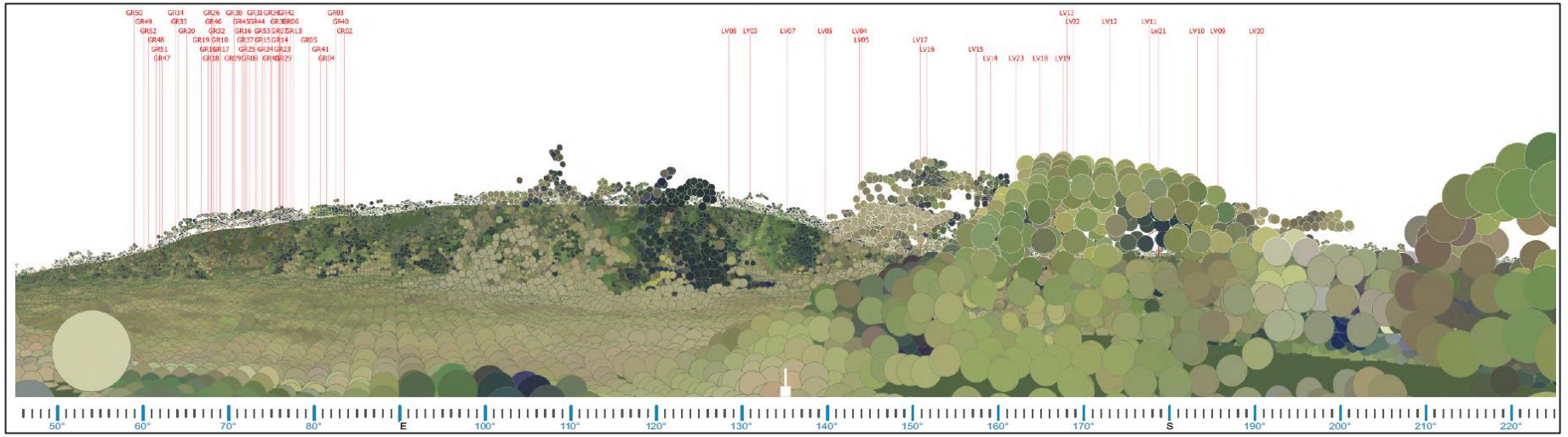
3.3 km from nearest turbine

Visual Impact – Black Stump Way cluster



R177

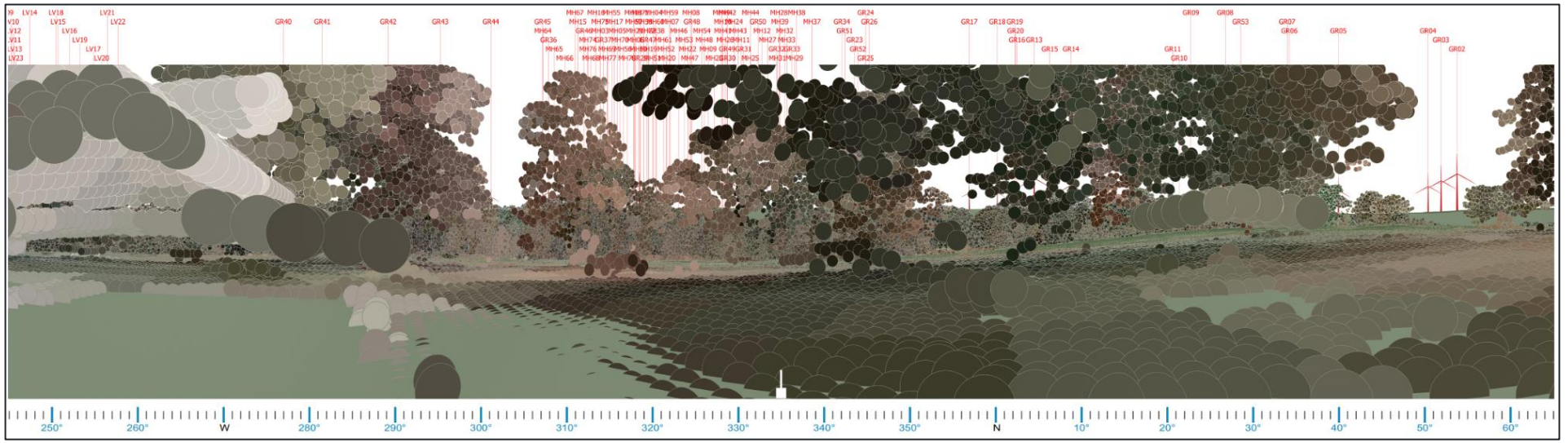
3.2 km from nearest turbine (representative of Leadville village)



R181

2.4 km from nearest turbine

Visual Impact – Leadville cluster



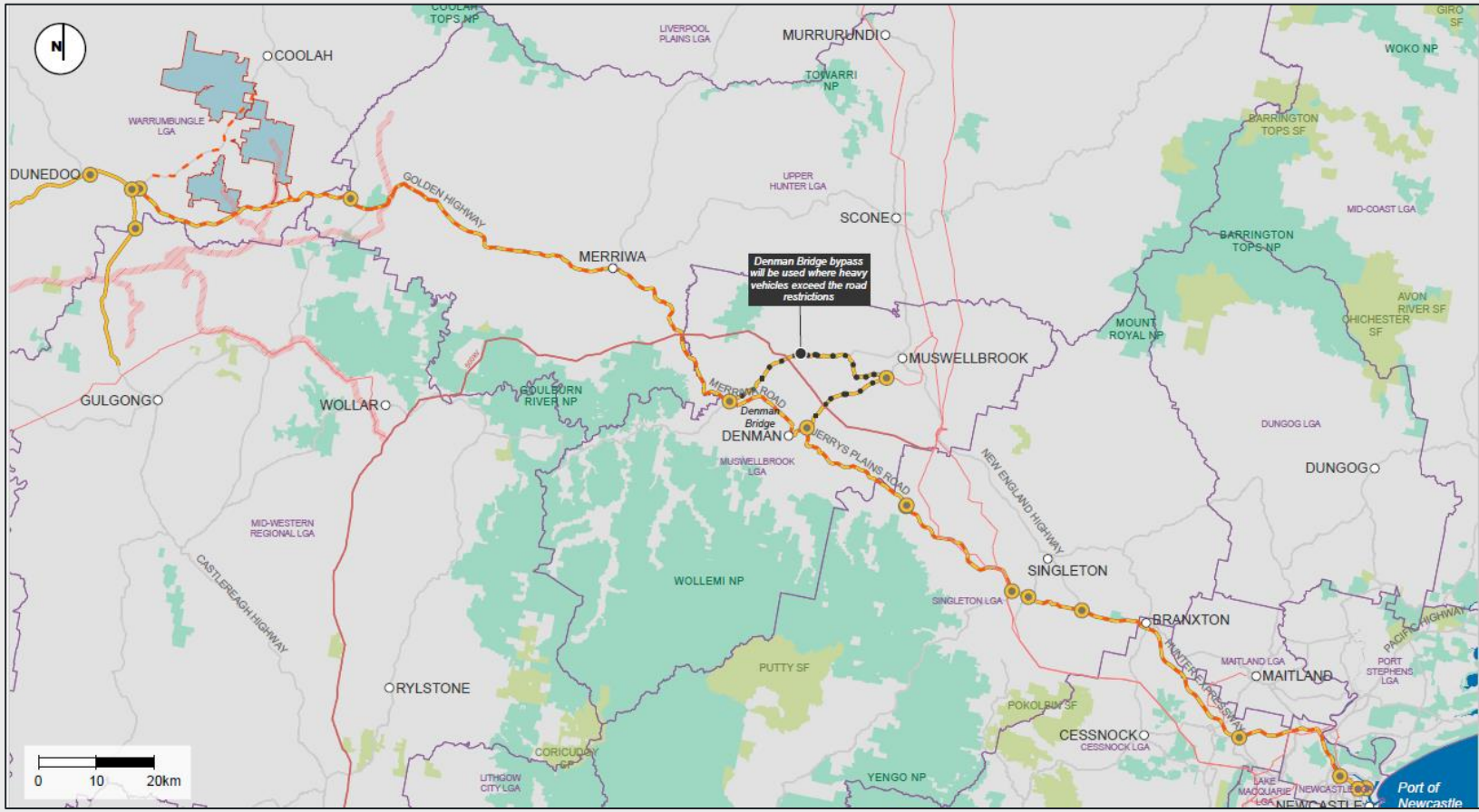
R497

2.11 km from nearest turbine

Visual Impact – South-eastern cluster

Traffic and Transport

- From Port to REZ -route aligns with EnergyCo Port to REZ upgrades
- 2 routes proposed between Port of Newcastle and Site
- Access from Golden Highway and access points:
  - 2 along Golden Hwy,
  - 1 on Black Stump Way,
  - 1 from Moorefield Road west, via Black Stump Way (light vehicles only)
- Condition requiring TMP and repair of damage on public roads at crossing points
- Transport Strategy for OSOM larger than 6.3 m in height and 5.8 m in width



Biodiversity

- Approximately 650 ha of native vegetation clearance, including 140 ha of woodland and 509 ha of DNG.
- 299 ha of threatened ecological communities (TEC) would be impacted, including:
  - 294.30 ha of Box Gum Woodland (CEEC)
  - 4.71 ha of Inland Grey Box Woodland (EEC)
- SAII not likely - Box Gum Woodland estimated to represent an impact of 0.004% - 0.11% of the total remaining area in NSW
- ACEN committed to conserving 282 ha of BGW within a Biodiversity Stewardship Agreement or conservation agreement

Fauna

- Offsets generated for 14 species (5 known to occur and 9 assumed present)
- No breeding habitat recorded for SAII entities: large bent-winged bat and large-eared pied bat. ACEN has designed the project to avoid cliff line and cave habitat and has committed to micro-site all turbines to be at least 200 m from these habitat features

Conditions

- Applicant to carry out detailed monitoring of the bird and bat strike impacts of the project and adaptive management if the impacts are higher than predicted.
- Offset requirements : 6,307 ecosystem credits and 2,928 species credits.

Other Matters

- Aviation safety
- Bushfire
- Quarrying and accommodation facilities
- Water resources
- Cumulative impacts
- Decommissioning

Aviation

- One turbine would affect the lowest safe altitude (LSALT) which ACEN has committed to arranging a commercial agreement to amend the air route with Airservices Australia prior to construction
- The project is located in proximity to two private airstrips – Tongy Aerodrome (1.4 km away) and Turee Aerodrome (2.4 km away)
  - No turbines or met masts represent obstacles for take-off or landing at these aerodromes
  - Wind data indicates easterly and southeasterly winds are dominant (70% of the time) and under these winds no turbulence impacts would be experienced by either airstrip
  - Westerly winds (which occur 20% of the time) could result in light turbulence from 6 turbines being experienced at the western edge of the standard circuit area for both aerodromes. Light turbulence is considered manageable
- Department engaged aviation expert that concluded ACEN's assessment addresses the risks and mitigation measures associated with wind turbulence and obstacles
- Condition requiring an Aviation Management Plan, including safety procedures and mitigation measures for the management of impacts and hazards

Bushfire

- A large proportion of the project site is mapped as bushfire prone land.
- ACEN to establish and maintain a 10 m asset protection zone (APZ) at turbine and wind monitoring masts, and the compound for the operation and maintenance facilities, including substations in accordance with RFS's *Planning for Bushfire Protection 2019*.
- ACEN to prepare a Bushfire Management Plan and Emergency Response Plan
- ACEN committed to the development and distribution of operational guidelines regarding water-bombing setbacks from wind turbines to fire authorities, and the provision of water supplies during construction
- Department has recommended a condition requiring operational procedures in the event of a bushfire in its Emergency Plan

Quarrying and Accommodation Facilities

- Three on-site quarries proposed
- Extraction of up to 548,000 tonnes of material
- No significant groundwater interactions are expected
- Noise is predicted to be below the ‘noise affected’ management level for non-associated receivers
- Airblast overpressure and estimated ground vibration levels at all non-associated receivers would be below the criteria for all blasts
- ACEN would prepare a rehabilitation management plan to ensure the quarry sites are rehabilitated as soon as practicable after the cessation of quarrying activities.
- Workforce accommodation camp located on Moorefield Road
- ACEN provided additional information regarding the design, services, noise and social impacts
- Condition requiring the implementation of a workforce accommodation camp

Water Resources

- The project requires around 1,110 ML of water for construction plus additional requirements for crushing operations at quarries.
- Water will be sourced from:
  - Farm dams under agreement with relevant landowners
  - Groundwater purchased from associated or adjacent landowners or Council
  - Purchasing and transporting water to site by tanker
  - Treated wastewater
- Water demands from the operational phase will be limited to amenities usage sourced from rainwater captured in water tanks and purchasing and transporting water to site by tanker
- Unlikely that the project would intercept an aquifer given the depth to groundwater
- Not within an area of flood prone land

Cumulative Impacts

- The Department is undertaking cumulative impact studies for the Central-West Orana REZ, identifying actions and plans that can be implemented to alleviate pressure on local and regional infrastructure services
- Focus on key issues including housing and workforce accommodation, social infrastructure and services, water security and waste management
- The Transport Assessment conducted a cumulative impact review of adjacent approved developments using common traffic routes
- The review found that there is ample spare capacity on the Golden Highway to cater for estimated future traffic volumes

Decommissioning

- The Department has developed standard conditions for wind farms to cover decommissioning, including clear decommissioning triggers and rehabilitation objectives.
- Additionally, the Department has provided guidance on how host landowner agreements should consider refurbishment, decommissioning and rehabilitation in the NSW Wind Energy Framework's Negotiated Agreement Advice Sheet.
- Project infrastructure would be suitably decommissioned, either at the end of the project life or if the project is not operating for more than a year, and the site appropriately rehabilitated to a standard that would allow the ongoing productive use of the land.

Recommended Conditions

- Condition Approach
  - Outcomes focused
  - Role of Compliance and EPA through Environment Protection Licence
- Micro-siting
  - Turbines at least 250 m from battery storage
  - Turbines at least 200 m from cliff lines (microbat breeding habitat)
- Electrical hazard study - For works near or over Central Ranges high pressure gas pipeline (parallel to Black Stump Way)
- Accommodation Camp Management Plan in consultation with Western NSW Local Health District and Council

Evaluation

- Suitably located in the CWO REZ, with good wind resources and connection to the CWO REZ transmission line
- Changes made in response to community concerns and to have reduced impacts
- Impacts can be managed through the recommended conditions of consent
- Assists in transitioning the electricity sector from coal and gas, consistent with NSW policy
- Has capacity for 943 MW of clean electricity generation, powering 519,000 homes saving over 1,990,000 tonnes of greenhouse gas emissions per year
- Achieves an appropriate balance between efficiency of the wind resource and minimising potential impacts on surroundings
- Stimulates economic investment, providing flow-on benefits to the local community