

## MEETING MINUTES

<b>Meeting title</b>	<b>Liverpool Range Wind Farm Community Consultative Committee (CCC)</b>		
<b>Attendees</b>			
Michael Silver OAM (Independent Chair)	Leeanne Ryan (Warrumbungle Shire Council)		
Dr Julia Imrie (Community Member)	Maja Barnett, Project Director, Tilt Renewables		
Ant Martin (Involved Landowner)	Martine Holberton, Community and Stakeholder Advisor, Tilt Renewables		
Linda Gant (Community Member)	Matt Stafford, Senior Environment and Development Planner, Tilt Renewables [by video link]		
Greg Piper (Community Member)			
<b>Observers</b>			
Nil			
<b>Apologies</b>			
Graeme Booker (Community Member)	Cr Ron Campbell (Upper Hunter Shire Council)		
<b>Location</b>	Cassilis Bowling Club, Cassilis Road, Cassilis	<b>Date &amp; start time</b>	17 October 2022 at 12.05 pm

<b>Topic</b>	<b>Discussion</b>
<b>1. Welcome</b>	<ul style="list-style-type: none"> <li>The Chair welcomed all to the meeting. Mr Silver particularly welcomed Ms Maja Barnett, Project Director Liverpool Range Wind Farm to her first CCC meeting.</li> </ul>
<b>2. Acknowledgement of Country</b>	<ul style="list-style-type: none"> <li>The Chair acknowledged the Traditional Owners of the land on which the meeting is being held and their continuing connection to land, water, and culture, paying respects to their Elders past, present and emerging.</li> </ul>
<b>3. Declarations of Interest</b>	<ul style="list-style-type: none"> <li>Michael Silver – pecuniary interest – expenses of Independent Chair borne by Proponent.</li> <li>Ant Martin – pecuniary interest – involved landowner.</li> </ul>
<b>4. Minutes of Previous Meeting</b>	<ul style="list-style-type: none"> <li>It was noted that the minutes of the CCC meeting held on 22 March 2022 had been approved on 21 April 2022.</li> </ul>
<b>5. Business Arising</b>	<ul style="list-style-type: none"> <li>Nil</li> </ul>
<b>6. Actions</b>	<p>6.1 That Tilt arrange for the concrete and aggregates contractor to address a future meeting of the CCC, prior to the commencement of construction work, regarding location and operation of the proposed quarries.  <b>Response: Deferred pending confirmation of construction program. DEFERRED</b></p> <p>6.2 That the Chair discuss the level and nature of Council representation on the CCC with the DPE.  <i>The Chair advised that the review of the Community Consultative Committee Guidelines by the Department of Planning and Environment had commenced at the time of the last meeting. The Department had subsequently exhibited draft Guidelines for comment and Mr Silver suggested that Warrumbungle Shire Council should make a submission to the draft Guidelines in relation to the matter.</i> <b>COMPLETED</b></p>

	<p>Linda Gant expressed concern at the overall level of consultation in rural communities given the highly technical and scale of these projects. Ant Martin suggested that it should be made clearer when actual work will commence.</p> <p>6.3 That the Chair formally confirm with EnergyCo that liaison/discussion will occur between GDH and renewable energy development proponents as part of the analyse of impacts on infrastructure in the Hunter Valley due to proposed renewable energy developments in the Central-West Orana Renewable Energy Zone.</p> <p><i>The Chair advised that EnergyCo had indicated that the brief for Central-West Orana Renewable Energy Zone Transmission Project Scoping Report <a href="https://majorprojects.planningportal.nsw.gov.au/prweb/PRRestService/mp/01/getContent?AttachRef=PDA-48312206%2120220908T233216.666%20GMT">https://majorprojects.planningportal.nsw.gov.au/prweb/PRRestService/mp/01/getContent?AttachRef=PDA-48312206%2120220908T233216.666%20GMT</a> would include liaison with renewable energy development proponents. The Chair tabled an extract from the Scoping Report, from pages 46 to 52 detailing undertaken/proposed stakeholder engagement activities. <b>COMPLETED</b></i></p> <p>Maja Barnett indicated that the proponent was not aware of the stakeholder engagement proposals within the Scoping Report.</p>
<p><b>7. Correspondence</b></p>	<ul style="list-style-type: none"> <li>NSW Department of Planning and Environment – Draft Community Consultative Committee Guidelines: The Chair indicated that draft document had been forwarded to CCC members for review. General discussion proceeded amongst the Committee regarding the effectiveness and purpose of the CCC and the guidelines under which it operates.</li> </ul>
<p><b>8. Proponent’s Report</b></p>	<p><i>Matt Stafford lead the presentation of the Proponent’s Report and was supported by Maja Barnett and Martine Holberton (copy attached to minutes).</i></p> <p><b>8.1 Modification Process</b></p> <ul style="list-style-type: none"> <li>Matt Stafford stepped the Committee through the presentation.</li> <li>Mr Stafford advised that the Modification had been placed on public exhibition from 20 September to 17 October 2022.</li> <li>Mr Stafford then advised the process that will be followed.</li> <li>Mr Stafford highlighted the proposed modifications noting a maximum of 220 turbines with a blade tip height of 250 metres above ground level. He advised the modification removes the proposed battery storage, which will be addressed as a separate Development Application in the future.</li> <li>In response to a question from the Chair, Mr Stafford indicated that the modification proposes an adjustment of the micro siting allowance for turbines from 100 metres to 250 metres.</li> <li>Greg Piper sought clarity on whether poles or towers would be used for transmission lines in the wind farm. Mr Stafford advised that due to the terrain there would be some towers used in the wind farm.</li> <li>Dr Julia Imrie asked what consultation had occurred with the Mudgee Local Aboriginal Land Council (MLALC) regarding relocation of the transmission line from one side of the Mudgee Road to the other. Mr Stafford indicated that engagement had been occurring since November 2021, updating intention to remove line from the sensitive land parcel. Dr Imrie considered the proposed new location will still be an issue as it is</li> </ul>

near a Yarning Circle – “moving to the other side of the road doesn’t overcome this”. She indicated the land is considered ‘sacred country’ (Ngayirr Ngurambang) and highlighted a current art project in Mudjee that details the significance of that area. <https://artsoutwest.org.au/ngayirr-ngurambang-sacred-country/>

- Discussion proceeded on the location of the internal and external transmission lines. Ms Gant suggesting there was confusion as to proposed location of the external transmission line, with considerable misinformation causing “a lot of upset”. Dr Imrie questioned the use of “towers v poles”, asking where this is detailed in the Modification. The Chair asked whether the internal transmission line relocation is critical to the modification. Mr Stafford responded that proposed location has not significantly changed from the original consent. The proposed relocation is designed to address community concerns. Dr Imrie responded that the new proposed location is still an issue with the MLALC.
- Mr Stafford advised that the first scope of works to be undertaken would be the road works during the first thirty weeks. Construction of turbines will commence following completion of the road works. Dr Imrie questioned when turbines will be brought on line. Mr Stafford indicated this will occur progressively in clusters with substations. He confirmed that transmission line will be constructed early in the program.

## 8.2 Overview of Mitigation Measures and Management Plans

- Mr Stafford provided explained the mitigation and management plan tables.
- Mr Piper questioned the potential visual impact. Mr Stafford advised there was no change to visual impact on residences. The installation over vegetation screen has been extended from 4 kilometres to 4.9 kilometres.
- Ms Gant questioned the number of residences shown on the mapping, noting in some instances there are three residences on a single property. Mr Stafford was confident all residences were captured in the mapping – Ms Gant highlighted six instances where this may not be correct. Mr Stafford indicated he would review the mapping. **ACTION**
- Mr Piper questioned the method of assessing visual impact on the remainder of a property, apart from the residence. Mr Stafford responded that the assessment had been undertaken in accordance with the Visual Assessment Bulletin.
- Mr Piper suggested the noise assessment standards were out of step with reality. Mr Stafford advised that the assessment had been undertaken in accordance with the relevant standards. Operational noise is monitored on an ongoing basis in accordance with the Noise Management Plan for the project. Mr Stafford added that predictive noise assessment to model likely impacts is a conservative noise assessment.
- Leanne Ryan enquired as to progress in obtaining Biodiversity Offset sites. Mr Stafford confirmed that new sites were under negotiation on a couple of properties located in the Tamworth and Upper Hunter Local Government Areas. Dr Imrie enquired whether the proponent had examined the Biodiversity Credits Supply Fund. Mr Stafford indicated the

proponent was aware of the fund but was currently looking to secure new offset sites.

- Ms Gant questioned the extent of the species identification in the biodiversity survey, particularly the identification of flora and fauna. She noted the project site borders on offset land and National Parks. Mr Stafford responded that the survey work had satisfied the relevant government agencies. Ms Gant advised that the Black Glossy Cockatoo had not been identified in the survey – Mr Stafford indicated he would follow up on her concerns and any omissions. **ACTION**
- Mr Stafford provided an overview of traffic management for the project. The Chair sought an update on the proposed haulage route through the Muswellbrook LGA. Mr Stafford advised that transport route options were still being examined in consultation with NSW Government
- Mr Stafford highlighted discussion regarding possible electromagnetic interference and requirements regarding implications for aviation. He indicated that the CASA default position is that aviation hazard warning lights shall be installed. He advised that consultation will occur with CASA after determination of the Modification. Mr Piper questioned whether the turbine height was an issue for aerial firefighting. Mr Stafford responded that if a fire is in the area the turbines will be shutdown. Fire authorities do not have an issue with the proposal and will utilise the access roads in the windfarm for firefighting access.
- Mr Piper requested advice on progress and possible locations of workers camps. Martine Holberton advised work in this area will start shortly. It is likely there will be workers camps, however in the first instance the intent is to use local established facilities. The broad intent is to reduce the length of travel, number of car movements and locate accommodation close to work sites. Ms Gant noted the chronic shortage of housing locally and questioned where establishing permanent new housing that has a subsequent residual benefit may be an option. Ms Holberton acknowledged the issue and indicated a variety of options are being examined.

*Matt Stafford left the meeting at this point. The time being 2.00pm.*

### **8.3 Public Exhibition and Consultation Update**

- Ms Holberton provided an overview of the public exhibition process.
- Ms Gant made comment regarding a recent community meeting noting its lack of moderation. Mr Piper suggested that much of the discussion was opposed to the project. General discussion followed regarding overall impacts on the community and potential options to further engage with the community. Mr Piper noted the upcoming Touch Football carnival, early in November, which may provide an opportunity for further community engagement.
- Ms Holberton spoke to the Consultation Update and the proposed next steps.
- Ms Holberton confirmed Tilt's commitment to fund benefit sharing programs as part of the delivery of the project and have increased the contributions under the Modified Project. She advised that should all 220

turbines be constructed the financial benefit sharing commitment will amount to approximately \$1.2 million per annum during the construction period (including the VPA), approximately \$1.2 million per year for the first five years of operation (including VPA and other commitments) and approximately \$800,000 per year (through the VPA) for the rest of the life of the project.

*The meeting adjourned at 2.55 pm and reconvened at 3.00 pm.*

#### **8.4 Project Timeline, Procurement, Engineering and Design Update**

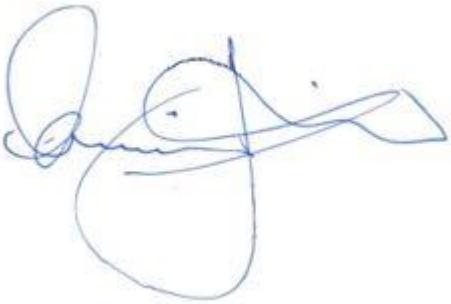
- Maja Barnett provided an overview of the project timeline and the processes and works that will occur in the next two years. She noted the critical financial investment decision regarding will occur in the second half of 2024.
- Ms Barnett advised that tenders for turbine supply had closed and the tenders where being evaluated. No decision on the preferred tenderer has been made.
- Mr Piper questioned how locals can gain employment in the project, particularly regarding long term maintenance work. Ms Barnett advised that local contractors should engage and register with Tilt regarding opportunities. This will also involve 'meet the contractor days' and other registration processes.
- Ms Gant suggested support funding (capital) be provided for local contractors to undertake work on Tilt projects or community enhancement projects through the Community Enhancement Fund. Ms Holberton suggested this needs to be thought through.
- Ms Barnett stepped the Committee through the procurement, engineering, and design update.

#### **8.5 EnergyCo and the Central West-Orana REZ Transmission Line**

- Ms Barnett provided an overview of developments associated with the Central West-Orana REZ Transmission Line (CWO REZ).
- Ms Barnett advised that discussion have occurred with EnergyCo regarding realigning the transmission line. She noted Tilt's concerns over biodiversity and vegetation clearing issues.
- Ms Barnett advised that Tilt is likely to progress an Access Tender in early 2023. Ms Gant expressed concern at the escalating level of infrastructure in the area. Ms Holberton advised that it was part of the expansion of renewable energy – she suggested a presentation on the distribution of renewable energy would be beneficial to the community.

***Chairs Note:*** *Subsequently Tilt have advised that the following considerations and/or actions have or will be undertaken:*

- *Tilt representatives attended the recent Touch Football carnival at Coolah and Tunes on the Turf.*
- *Consideration of a fortnightly advertisement in the Coolah Diary to promote and direct community to CCC the minutes.*
- *Discuss forum type presentation with Cassilis District Development Group.*
- *Consideration of a Wind Farm tour for the community.*

<b>9. Other Agenda Items</b>	<ul style="list-style-type: none"> <li>• Nil</li> </ul>
<b>10. Actions Required</b>	<ul style="list-style-type: none"> <li>• That Tilt to review the number/location of residences identified in the noise survey mapping.</li> <li>• That Tilt review the extent and rigor of the survey work in the Biodiversity Assessment Report.</li> </ul>
<b>11. General Business</b>	<ul style="list-style-type: none"> <li>• Nil</li> </ul>
<b>12. Next Meeting</b>	<p><b>Meeting closed:</b> 3.25pm. The Chair thanked all for their attendance.</p> <p><b>Next meeting:</b> Chair to advise on a future date.</p>
<b>13. Meeting minutes approved</b>	 <p>Michael J. Silver OAM  <b>Independent Chair</b>  16 November 2022</p>



# LIVERPOOL RANGE WIND FARM PROJECT

CCC MEETING  
18 OCTOBER 2022



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**7. PROJECT TIMELINE**

**8. PROCUREMENT, ENGINEERING AND DESIGN UPDATE**

**9. ENERGYCO AND CWO REZ UPDATE**

**10. QUESTIONS/DISCUSSION**





# LRWF UPDATE MODIFICATION PROCESS



## Modification Application:

- Application formally lodged with DPE on 9 September 2022
- Public exhibition process is managed by DPE: commenced on 20 September and concluded on 17 October
- After public exhibition, Response to Submissions (RTS) phase will commence, after which a determination (or further exhibition) will be made by DPE
- DPE will provide all public and agency submissions in due course. We will provide a response to all relevant submissions as part of the RTS phase.
- The proposed modifications to the Development Consent are to enable the project to progress towards construction. The proposed updates include:
  - the use of fewer, larger and more efficient wind turbines; and
  - changes to the project to ensure that the construction and operation of the project is feasible.
- Layout review and design optimisation process was undertaken: constructability assessment, updates to design assumptions based on recent wind farm construction experience, and extensive detailed 3D terrain modelling
- The consenting process can take around 12 months therefore the modification design needs to allow for optionality to ensure that the conditions of the approval being sought will be compatible with the final design.
- The next phase of the wind farm design will reduce this optionality and progress towards a final layout. This will require inputs such as geotechnical conditions of the site and the selected wind turbine model.
- Extensive stakeholder engagement – ranging from community to government departments and agencies.

# LIVERPOOL RANGE WIND FARM

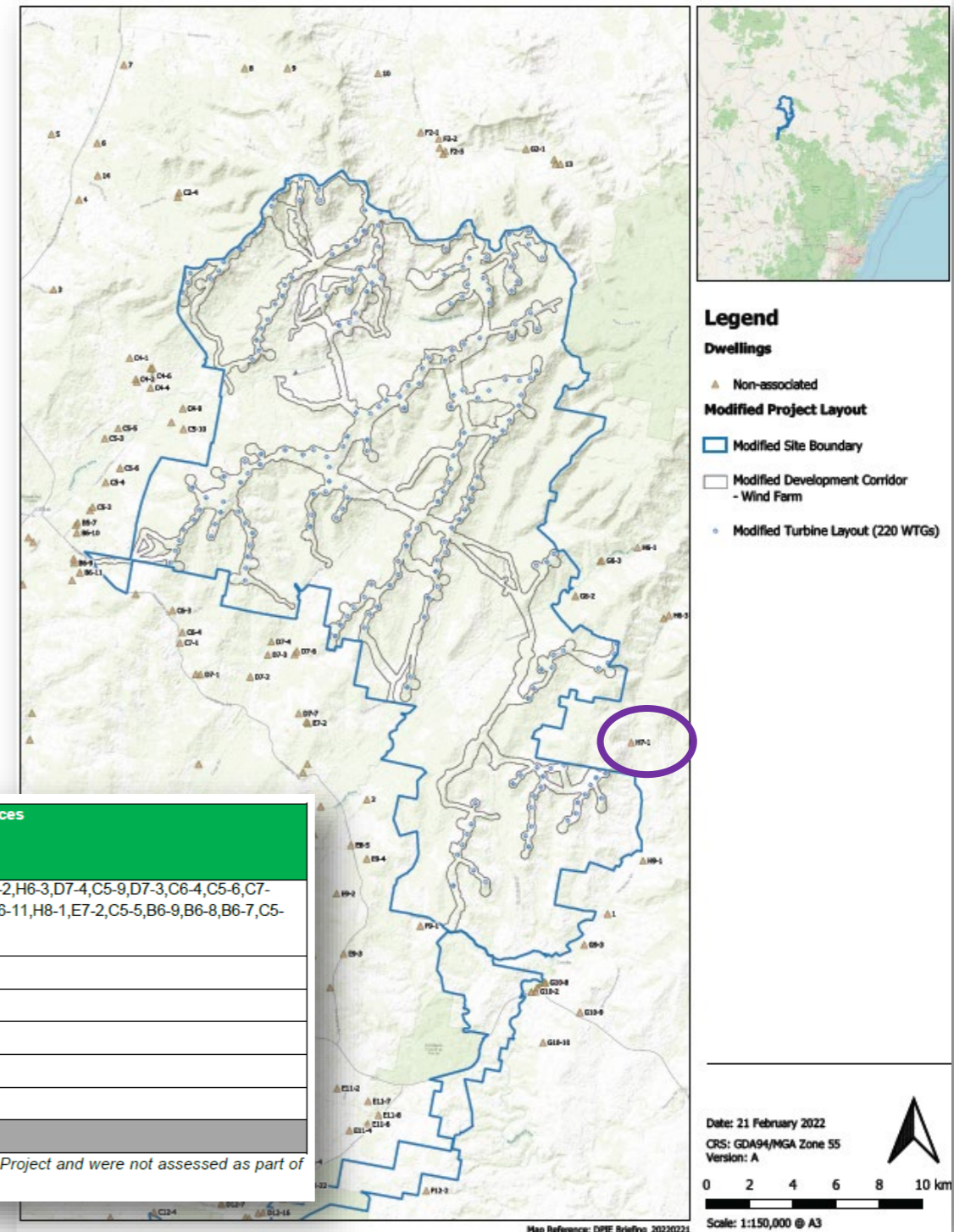
## SUMMARY OF PROPOSED MODIFICATIONS

### Turbine layout and parameters:

- Max. 220 turbines / max. blade tip height of 250 m AGL
- Proposed increase to turbine micro-siting limit to 250 m (currently 100 m)
- Shifting 8 x turbines in the north eastern portion of the site
- 34 x Non-associated residences would be located closer to a turbine than compared to Approved Project (29 are between 1 m - 200 m closer)
- Distance to nearest Non-associated residence (ID: H7-1) increased from 1,803 m to 1,860 m.

Distance closer (m)	Number of Non-associated residences	Non-associated residences
0-99	25	G6-2,G6-4,C6-3,G6-3,H6-2,H6-3,D7-4,C5-9,D7-3,C6-4,C5-6,C7-1,H6-1,D7-7,C5-4,E7-1,B6-11,H8-1,E7-2,C5-5,B6-9,B6-8,B6-7,C5-3,2*
100-199	4	F2-3, F2-4, F2-2, F2-5
200-399	0	N/A
400-799	1	F9-1
800-1599	1	G2-1
1600-1900	3	11*, 12*, 13*
<b>TOTAL</b>	<b>34</b>	

\* Note: these Non-associated dwellings were identified for the Modified Project and were not assessed as part of the Original EIS/RTS.

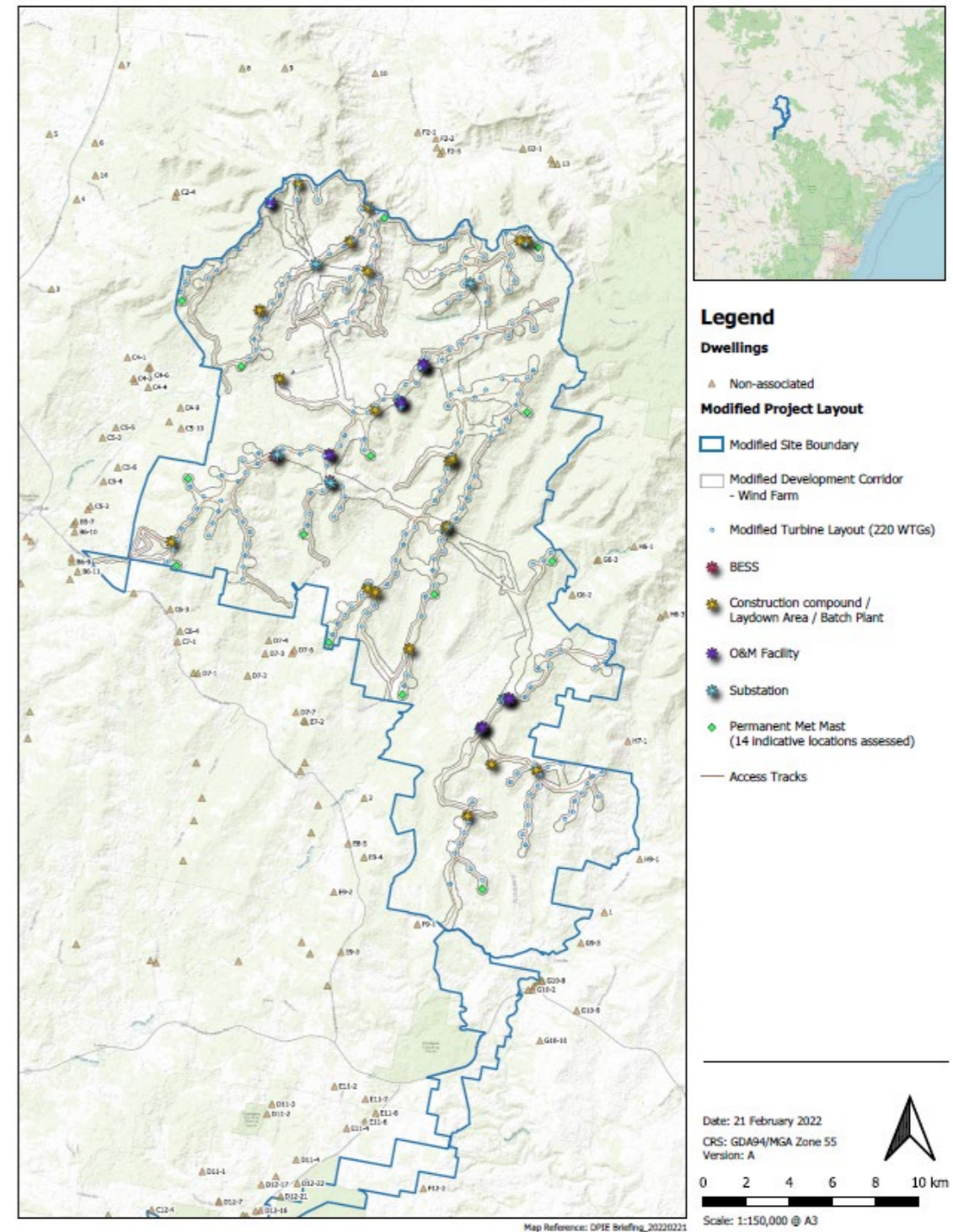




# LIVERPOOL RANGE WIND FARM PROPOSED MODIFICATIONS

## Wind farm infrastructure

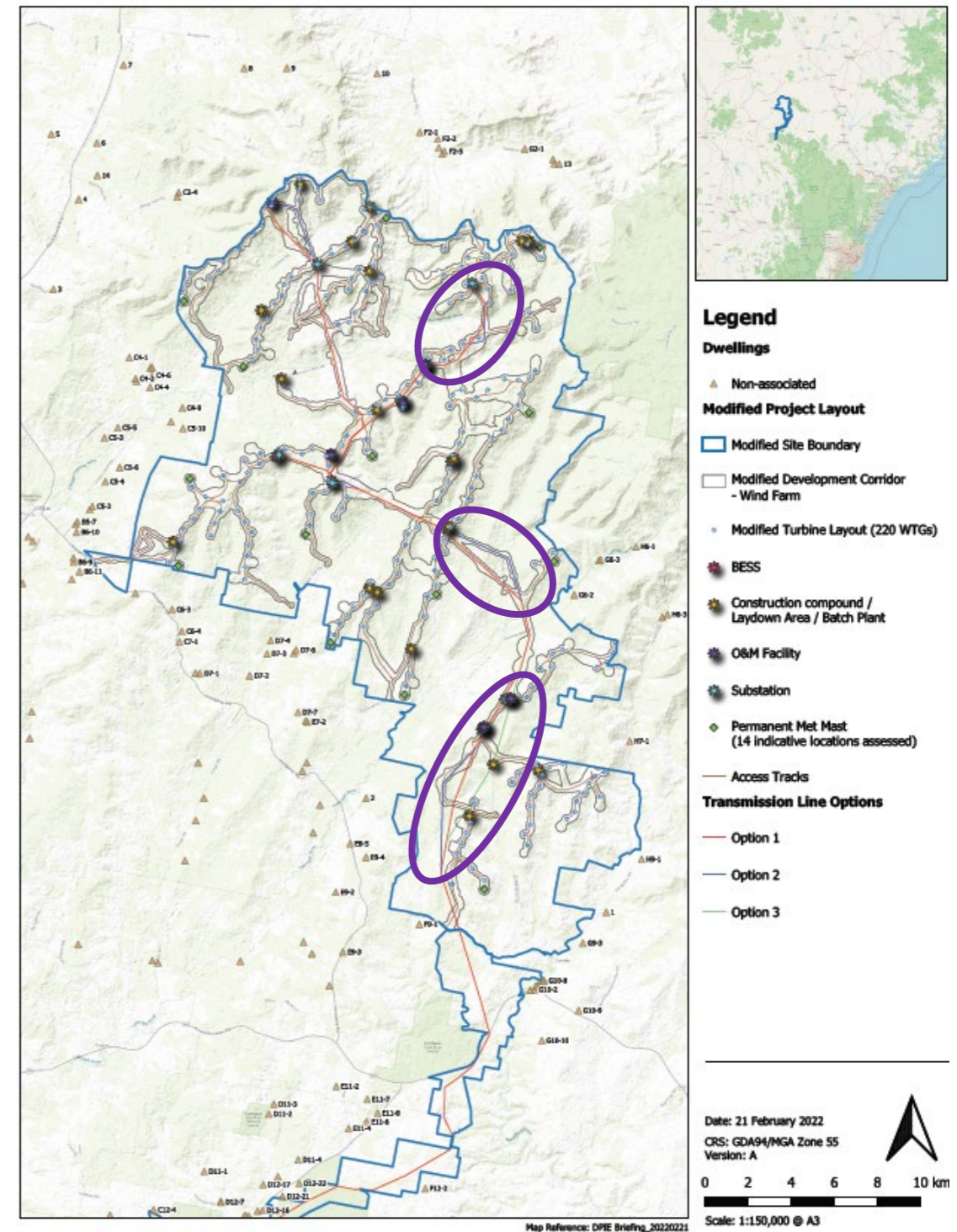
- Up to 14 x permanent metmasts (+4) – 40 x indicative locations
- Up to 7 x collector substations (+3) – 10 x indicative locations
- Up to 3 x O&M facilities (+2) – 6 x indicative locations
- Up to 9 x temporary construction compounds/laydown areas (+3) – 18 x indicative locations within wind farm site
- Up to 9 x temporary concrete batch plants (+5) – 18 x indicative locations within wind farm site
- Relocation of approved construction compound/laydown area/concrete batch plant from point of connection at Ulan to new location off Cliffdale Road, Turrill
- *Utility-scale Battery Energy Storage System (BESS) is no longer proposed as part of Modification Application (if required, would be subject to separate application)*



# LIVERPOOL RANGE WIND FARM PROPOSED MODIFICATIONS

## Internal 330 kV Transmission Line:

- Changes to internal transmission line alignment (+15.7 km)
- Inclusion of multiple transmission line alignment options due to complex terrain
- Most likely a combination of transmission line towers and poles, due to complex terrain and long span distances





# LIVERPOOL RANGE WIND FARM PROPOSED MODIFICATIONS

## External 330 kV Transmission Line

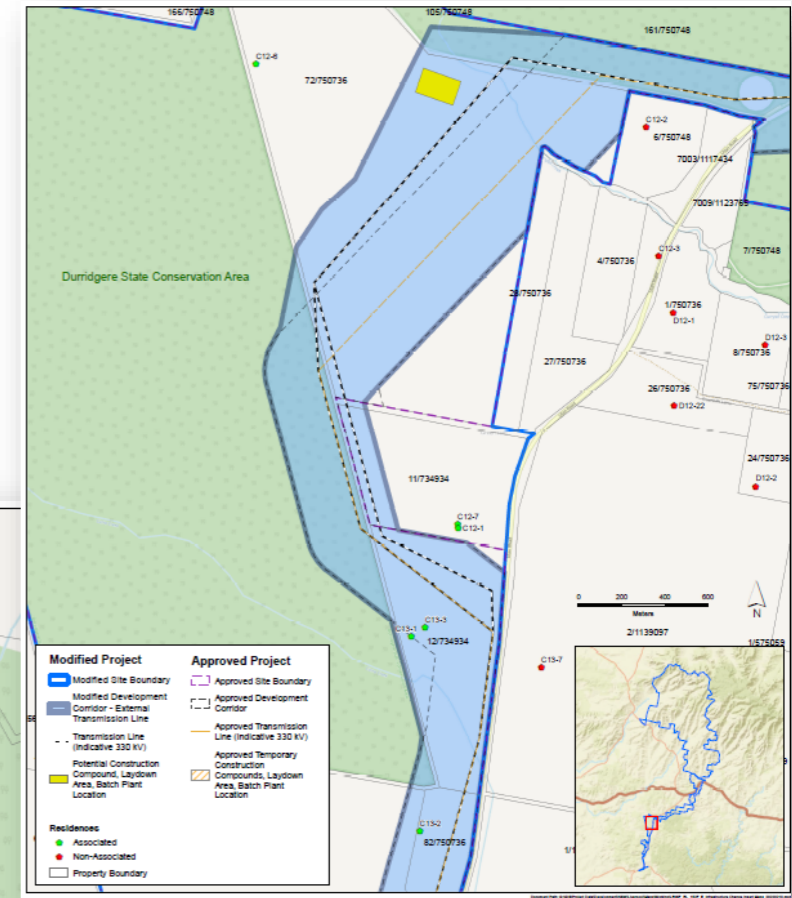
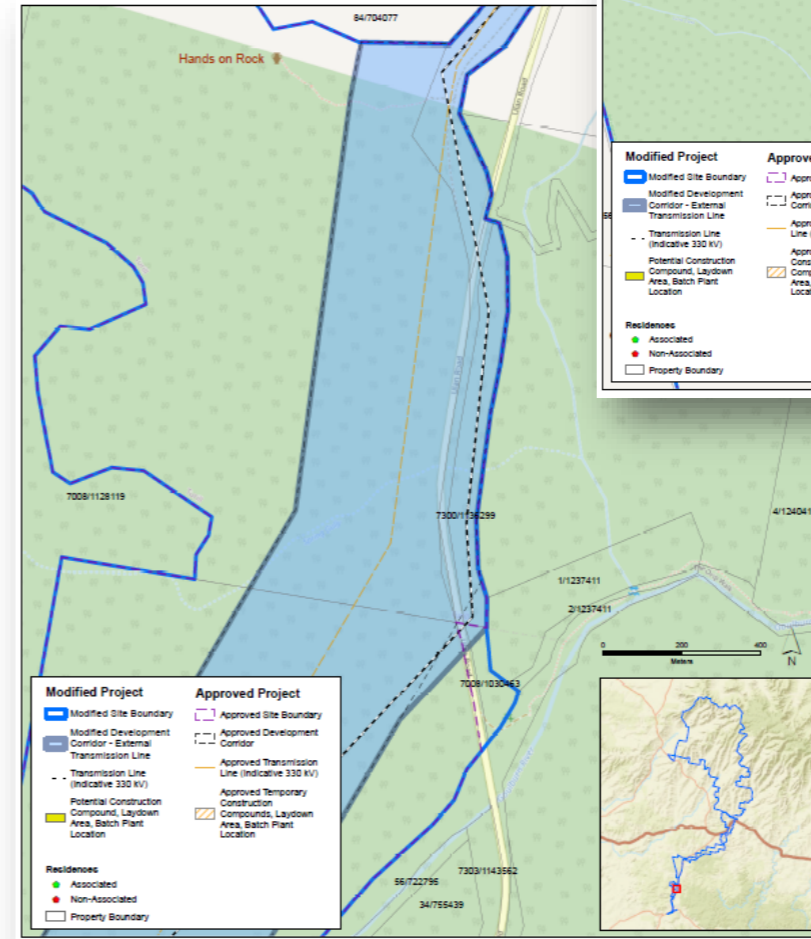
- For the main part approved transmission line alignment has been adopted
- Some minor changes proposed near Durrigere State Conservation Area (near Cliffdale Road) and Hands on Rock cultural heritage site (off Ulan Road)

### Durrigere SCA:

- Shift short section of transmission line west to increase separation to nearby Non-associated residence
- Shift short section east off Durrigere SCA land onto freehold land
- Include a temporary construction compound / concrete batch plant

### Hands on Rock:

- Shift short section of transmission line west to avoid land parcel owned by Mudgee LALC (Lot 751/DP1270886)
- Inclusion of a small portion of Lot 7008/DP1030463 into Modified Site Boundary
- Proposed alignment is ~ 200 m north of The Drip picnic area



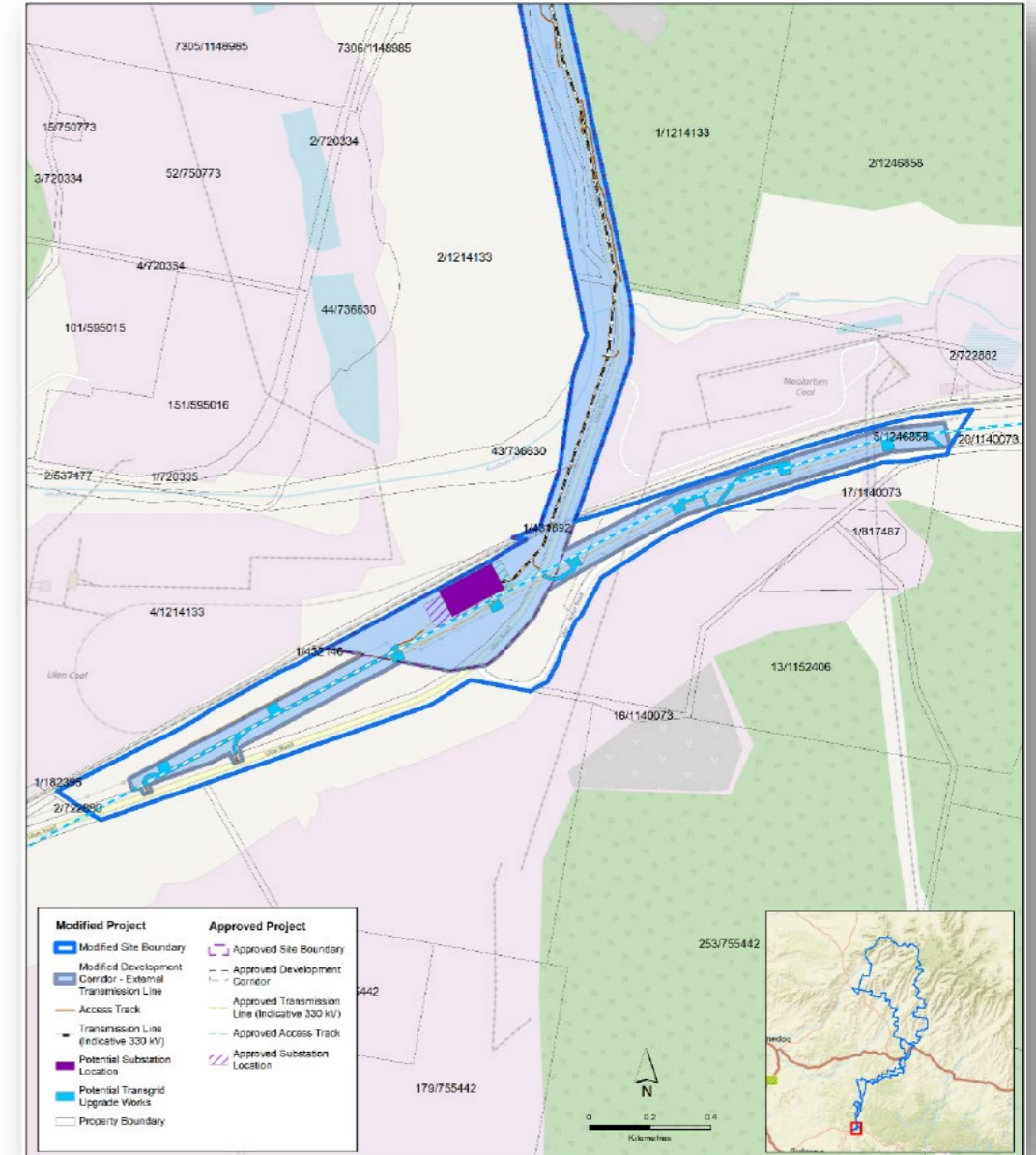


# LIVERPOOL RANGE WIND FARM PROPOSED MODIFICATIONS

## External 330 kV Transmission Line

Inclusion of potential upgrade works to TransGrid Infrastructure at Ulan:

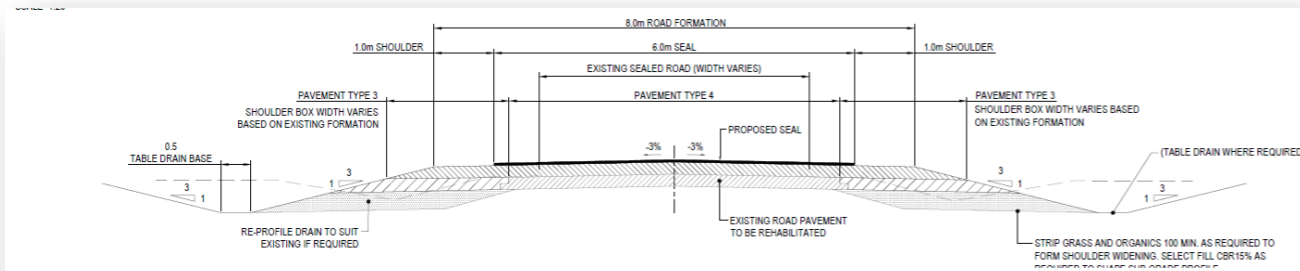
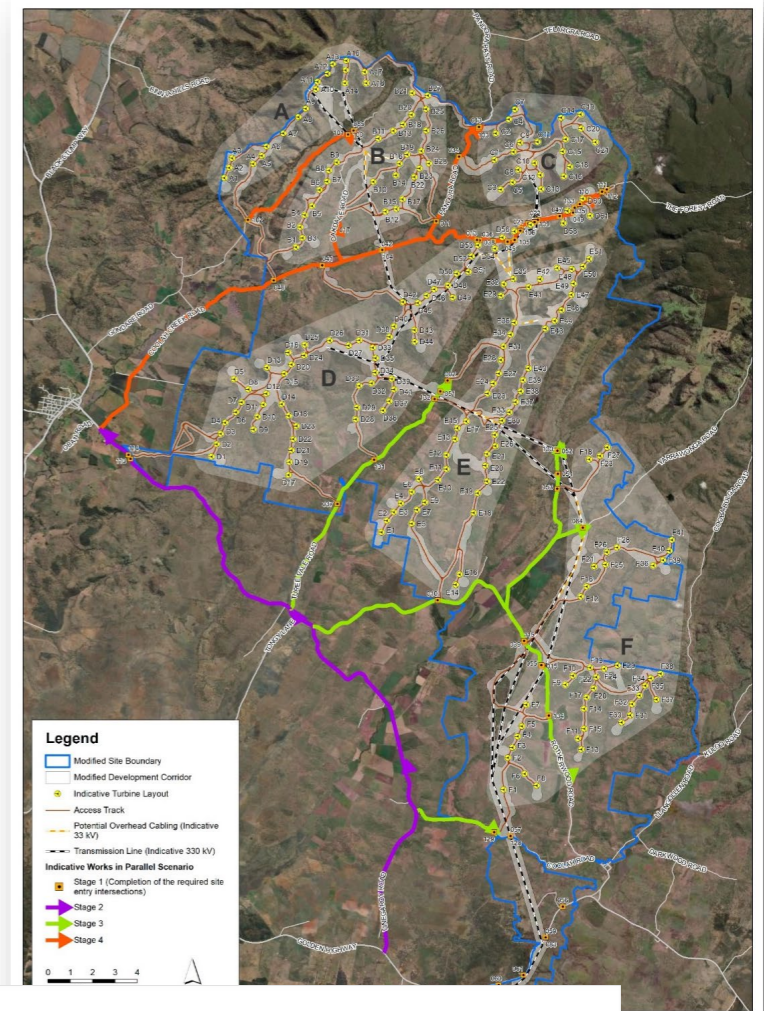
- Tower strengthening works (inc. construction pads)
- Access tracks into easement from Ulan Road and Ulan-Wollar Road
- Stringing of optical ground wire (OPGW) cabling between towers (no ground disturbance)



# LIVERPOOL RANGE WIND FARM PROPOSED MODIFICATIONS

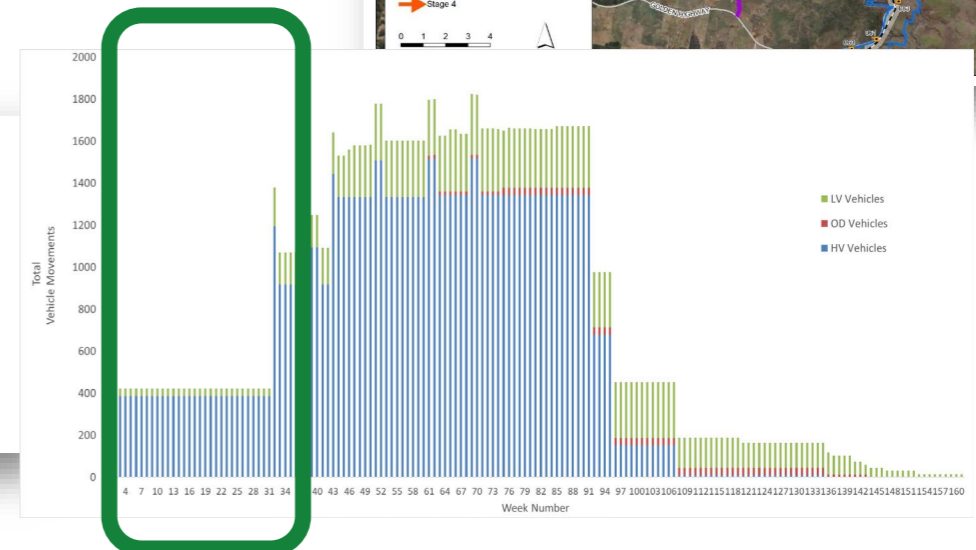
## Public Road Upgrades

- Updated public road upgrade standards, as agreed with 3 x councils
- Additional potential site access points identified (majority along State Forest Rd and off Ulan Rd)
- Inclusion of portion of Gundare Road within Modified Site Boundary for Heavy vehicles to construct short section of transmission line only (i.e. no OSOM movements)
- Inclusion of indicative road upgrade staging strategy/Works in Parallel scenario – approx. 75 additional vehicles per day



PUBLIC ROAD UPGRADE CROSS SECTION - TYPE 3 (SEALED WIDEN AS REQUIRED)

SCALE 1:20



# LIVERPOOL RANGE WIND FARM

## OVERVIEW OF MITIGATION MEASURES AND MANAGEMENT PLANS



Environmental Aspect	Key findings/next steps	Mitigation/Management Actions
Visual Impact	<ul style="list-style-type: none"> <li>- No change in visual impact ratings at any Non-associated residence</li> <li>- Low visual impact at Pinnacle Lookout - no issues raised by NPWS</li> </ul>	<ul style="list-style-type: none"> <li>- Recommend increased distance out to which visual mitigation measures (e.g. vegetation screening) should be offered to Non-associated residences to 4,950 m (increase of 950 m)</li> </ul>
Shadow Flicker	No shadow flicker at any Non-associated residence	<ul style="list-style-type: none"> <li>- Shadow flicker must not exceed 30 hrs / year at Non-associated residences</li> </ul>
Noise	<p><b>Turbine noise:</b></p> <ul style="list-style-type: none"> <li>- Turbine noise is predicted to comply with applicable noise limits at all Non-associated residences</li> <li>- Slight increase in turbine noise levels at 11 Non-associated residences (between 0.1 and 1.7 dB(A))</li> </ul> <p><b>Substation noise:</b></p> <ul style="list-style-type: none"> <li>- Will easily achieve conservatively-reduced noise limit of 30 dB(A) at all Non-associated residences</li> </ul> <p><b>Construction noise:</b></p> <ul style="list-style-type: none"> <li>- 6 x Non-associated residences near potential concrete batch plant off Cliffdale Road may exceed 35 dB(A) and would be considered 'noise affected' <i>for operations outside of standard hours only</i></li> </ul> <p><b>Construction traffic noise:</b></p> <ul style="list-style-type: none"> <li>- No increase noise expected as overall traffic volumes and public roads anticipated to be used remain generally consistent with Approved Project.</li> </ul>	<ul style="list-style-type: none"> <li>- Turbine noise must not exceed criteria 35 dB(A) or existing background noise + 5 dB(A), whichever is greater</li> <li>- Substation noise must not exceed 35 dB(A) at Non-associated residences</li> <li>- Noise Management Plan to be prepared (compliance monitoring, corrective actions, auditing)</li> <li>- Further consultation with residences near proposed concrete batch plant off Cliffdale Rd during construction</li> </ul>



# LIVERPOOL RANGE WIND FARM

## OVERVIEW OF MITIGATION MEASURES AND MANAGEMENT PLANS

Environmental Aspect	Key findings/next steps	Mitigation/Management Actions
Biodiversity Development Assessment Report	<p><b>Native vegetation/habitat:</b> Increased impacts to native vegetation of ~1,248 ha – due to more robust assumptions on reticulation cabling placement (within vs adjacent to access tracks) and change in biodiversity legislation (more vegetation is now defined as ‘native vegetation’)</p> <p>Updates to native vegetation clearance limits:</p> <ul style="list-style-type: none"> <li>- 427.0 ha of <i>White Box Yellow Box Blakely’s Red Gum Grassy Woodland and Derived Native Grassland CEEC</i> under the BC Act (increase of 250.9 ha)</li> <li>- 42.1 ha of <i>White Box Yellow Box Blakely’s Red Gum Grassy Woodland and Derived Native Grassland CEEC</i> under the EPBC Act (increase of 31.7 ha)</li> <li>- 90% of CEEC is in low/degraded condition</li> <li>- DPE/BCS to determine whether SAll is triggered and what additional mitigation measures are required</li> </ul> <p><b>Bird/bat strike risk assessment:</b> Moderate or High risk to 16 bird/bat species:</p> <ul style="list-style-type: none"> <li>- Overall impact of blade strike and barotrauma is considered to be consistent with the Approved Project.</li> </ul>	<ul style="list-style-type: none"> <li>- TLT will continue to look for opportunities to reduced impacts to native vegetation/habitat though detailed design/construction</li> <li>- Further consultation with BCS/DPE</li> <li>- Biodiversity Management Plan (BMP) to be prepared</li> <li>- Bird and Bat Adaptive Management Plan (BBAMP) to be prepared to reduce collision risk (carcass searches/removal/notification triggers, pest control, deterrents or other evidence-based operational measures, annual reporting)</li> <li>- Offsets must be delivered in accordance with NSW Biodiversity Offset Scheme – substantial work is already underway to secure land-based offsets</li> </ul>
Aboriginal Cultural Heritage	<ul style="list-style-type: none"> <li>- 16 x additional Aboriginal cultural heritage places identified</li> <li>- No material changes to management protocols requested by RAPs</li> </ul>	<ul style="list-style-type: none"> <li>- Heritage Management Plan (HMP) to be prepared</li> <li>- Further consultation and surveys to be undertaken with RAPs</li> </ul>
Historic Heritage	<ul style="list-style-type: none"> <li>- Two locally listed items “Yarrowonga” and “Dalkeith” partially intersected by Modified Development Corridor (internal portion of the transmission line)</li> <li>- No direct impacts to heritage places are expected</li> </ul>	<ul style="list-style-type: none"> <li>- N/A</li> </ul>

# LIVERPOOL RANGE WIND FARM

## OVERVIEW OF MITIGATION MEASURES AND MANAGEMENT PLANS

Environmental Aspect	Key findings/next steps	Mitigation/Management Actions
Traffic Impact Assessment	<p><b>Traffic volumes:</b></p> <ul style="list-style-type: none"> <li>- Traffic volumes are similar to Approved Project (~ 300 vpd during peak construction period)</li> <li>- Works in Parallel scenario will result in minor increase in vehicle movements – aimed at reducing construction program/disruptions</li> </ul> <p><b>Site access points:</b></p> <ul style="list-style-type: none"> <li>- Additional potential site access points identified (most along State Forest Road and Ulan Road)</li> <li>- Safe sight distance (SISD/ASD) requirements are satisfied at all site access points</li> </ul> <p><b>Indicative road upgrades staging scenario:</b></p> <ul style="list-style-type: none"> <li>- Additional traffic is minor</li> <li>- Recommend road safety review to identify high priority upgrades and implement community consultation strategy</li> </ul>	<ul style="list-style-type: none"> <li>- Traffic Management Plan (TMP) to be prepared (notification of works and disruptions, traffic controls, emergency repairs on public roads, drivers code of conduct)</li> <li>- Further consultation with councils and TfNSW</li> <li>- Road upgrade design work underway</li> </ul>
OSOM Haulage Route	<ul style="list-style-type: none"> <li>- Some localised upgrades along Indicative OSOM Haulage Route required</li> <li>- Muswellbrook council acknowledge the need to use Local roads to avoid Denman Bridge – are in discussions with State government to reclassify roads</li> </ul>	<ul style="list-style-type: none"> <li>- Traffic Management Plan (TMP) to be prepared (traffic management system, localised intersection upgrades, safe driving procedures)</li> <li>- Further consultation with councils and TfNSW</li> </ul>



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## OVERVIEW OF MITIGATION MEASURES AND MANAGEMENT PLANS

Environmental Aspect	Key findings/next steps	Mitigation/Management Actions
Electromagnetic Interference	<p>Negligible change from Approved Project. Key potential impacts are:</p> <ul style="list-style-type: none"> <li>- <b>NSW Telco proposed P2P communications link:</b> will impact 3 x approved and 3 x modified turbines – Tilt seeking to work with NSW Telco to find alternate pathways</li> <li>- <b>BoM:</b> potential impact to S-span weather radar at Namoi – BOM will pursue a strategic solution involving State Government</li> <li>- <b>Land mobile service:</b> 1 x Non-associated resident (Betrola) may be impacted – mitigation measures are available. Landholder supportive of approach</li> </ul>	<ul style="list-style-type: none"> <li>- Further consultation with NSW Telco, BoM and Betrola to ensure potential impacts are effectively managed</li> <li>- Must make good any disruption to radio communications services caused by the wind farm within 1 month</li> </ul>
Aviation	<p>Negligible change from Approved Project.</p> <ul style="list-style-type: none"> <li>- Aviation Impact Assessment confirms that no aviation lighting is warranted</li> <li>- Minor change to Grid LSALT (100 ft) is required (routine activity)</li> <li>- No issues raised by fire fighting agencies</li> </ul>	<ul style="list-style-type: none"> <li>- Notification to CASA/AirServices Australia and Dept of Defence of the coordinates and heights of turbines</li> </ul>

# LIVERPOOL RANGE WIND FARM

## PUBLIC EXHIBITION – WHAT WE DID

- Widely promoted public exhibition dates and where information is located in the following publications:
  - Mudgee Guardian
  - Daily Liberal
  - Musswellbrook Chronicle
  - Cessnock Advertiser
  - Newcastle Herald
  - Singleton Argus
  - Hunter Valley News
  - Outback Press (Coolah, Merriwa and Dunedoo Diaries)
  - RDA Orana newsletter
- Promotion included printed newsletters, Multiple Owners Designation notices in print publications, printed fact sheets, direct email updates to stakeholder database, and a comprehensive suite of information available on the Project website
- Substantial consultation has also occurred with NSW (DPE (incl. BCS), TfNSW, EnergyCo, NPWS) and Federal Gov (DAWE) departments, local councils (incl. Warrumbungle, Upper Hunter and Mid-western) and councils along the OSOM haulage route



**Tilt Renewables has been advised by the NSW Department of Planning and Environment that the Modification Application to the approved Liverpool Range Wind Farm project has proceeded to public exhibition.**

Please be advised that for 28 days, between **20 September - 17 October 2022**, it's time to have your say on the Modified Project.

The latest newsletter includes information on:

- Key project changes and rationale
- Project benefits
- Benefit sharing
- Modified Project layout
- Where and how to find information on the Modified Project
- How to make a submission

To view the Project on public exhibition, hover over the QR code or visit: [www.planningportal.nsw.gov.au/major-projects/projects/mod-1-turbine-and-infrastructure-changes](http://www.planningportal.nsw.gov.au/major-projects/projects/mod-1-turbine-and-infrastructure-changes)



#### **SIGN UP & STAY INFORMED**

Please subscribe to the newsletter to ensure you receive all Project updates and information. Send us an email to subscribe: [liverpoolrangewindfarm@tiltrenewables.com](mailto:liverpoolrangewindfarm@tiltrenewables.com)

Contact us: [liverpoolrangewindfarm@tiltrenewables.com](mailto:liverpoolrangewindfarm@tiltrenewables.com)  
[www.liverpoolrangewindfarm.com.au](http://www.liverpoolrangewindfarm.com.au) | Phone: 1800 WE TILT (1800 938 458)

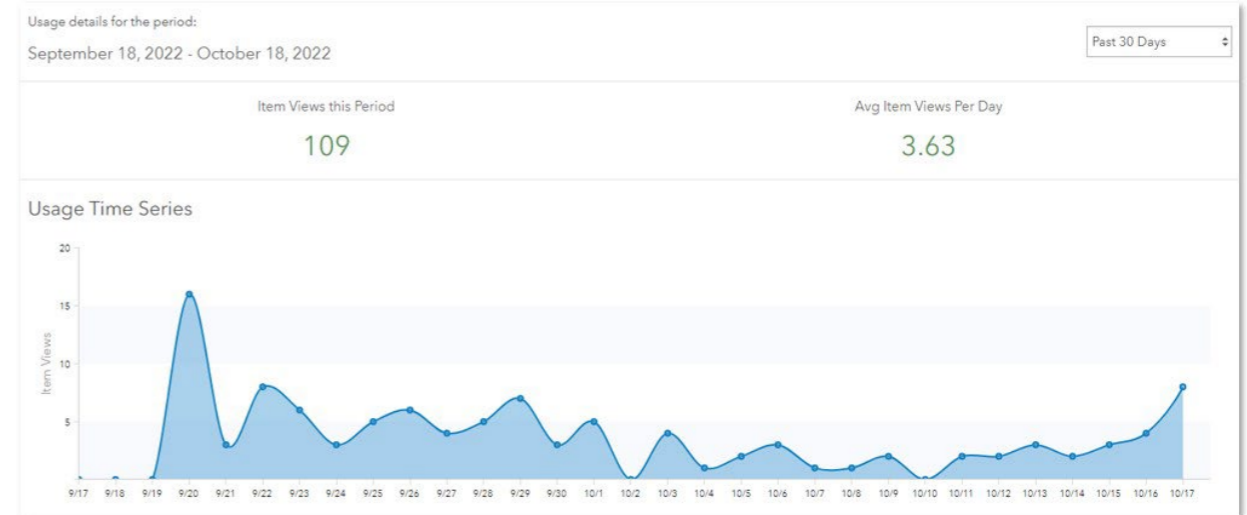


# LIVERPOOL RANGE WIND FARM PUBLIC EXHIBITION – WHAT WE DID

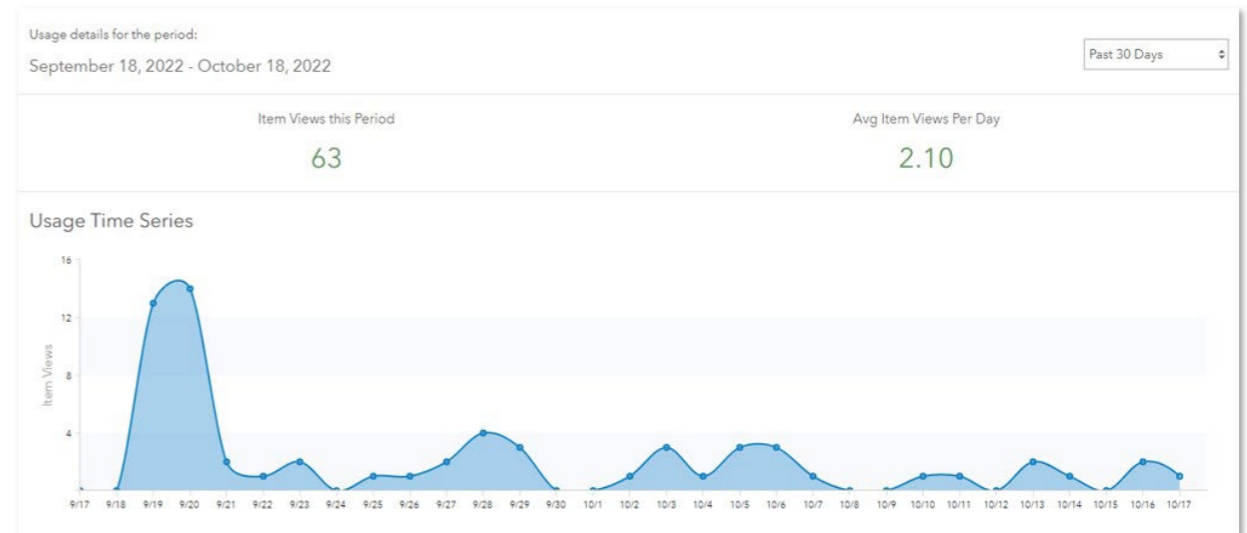


- Shopfront: 50 Binnia Street, Coolah was open Monday – Saturday for the duration of public exhibition
  - Shopfront and a scan of social media sentiment indicated a neutral to negative sentiment – common concerns raised: CWO REZ TXL, visual impact at Pinnacle Lookout, vegetation removal and bird & bat strikes
- Fact sheet display in Cassilis Post Office & newsletter display in Dunedoo Post Office
- 19 different photomontages
- 12 environmental assessment fact sheets
- StoryMap website – Modification deep-dive
- Interactive online map

## LRWF – Interactive Map Views



## LRWF – StoryMap Views



# LIVERPOOL RANGE WIND FARM CONSULTATION UPDATE – NEXT STEPS

- Response to Submissions process
- Newsletter update before the end of the year
- Workshops (dates TBC) with:
  - First Nations stakeholders
  - Cassilis District Development Group
  - Coolah District Development Group
  - Coolah Business Chamber
  - Community representatives on the Liverpool Range Wind Farm Community Consultative Committee
  - EnergyCo representative
  - The CWO REZ Community Reference Group – members local to the LRWF region
  - ETU representative
  - Re-Alliance representative
  - Clean Energy Council representative
  - Farmers for Climate Action representative
- Purpose of the 'human centered design workshops':
  - Appetite, capacity, capabilities in the region
  - Opportunities for traineeships, TAFE, upskilling
  - Workforce transition opportunities from coal in the region
  - Understand the key community challenges, i.e., poor telecommunications coverage, access to health and education, upgrades to local infrastructure
  - Understand the capacity for workers accommodation
  - Try to map the region with options and opportunities to restore facilities for accomm
  - Plan for how local businesses will tender for work on the project
  - Possible project partners
- Report back on workshop findings Q1/Q2 2023





# LIVERPOOL RANGE WIND FARM

## BENEFIT SHARING



Tilt Renewables has committed to funding benefit sharing programs as a part of the delivery of LRWF.

- We have already provided funding for some local projects as we progress our development activities:
  - Funds for Coolah Landcare – Coolaburragundy riverwalk trailer/mower
  - Castlereagh referees uniforms (annual)
  - BlazeAid flood relief
  - Coolah Men's Shed ute
  - Coolah Roo's Rugby Club (annual)

### We have increased benefit sharing contributions under the Modified Project

- Should all 220 turbines be constructed, the financial benefit sharing commitments would equate to approximately \$1.2 million per annum during the construction period (including the VPA), approximately \$1.2 million per year for the first 5 years of operations (including VPA and other commitments), and approximately \$800,000 per year (through the VPA) for the rest of the life of the Project.
- If the Project is staged, so will the programs within the BSP.
- The funding will be shared amongst a range of possible schemes including the council administered VPAs, benefits sharing programs run by Tilt Renewables and contributions made under any REZ access schemes.

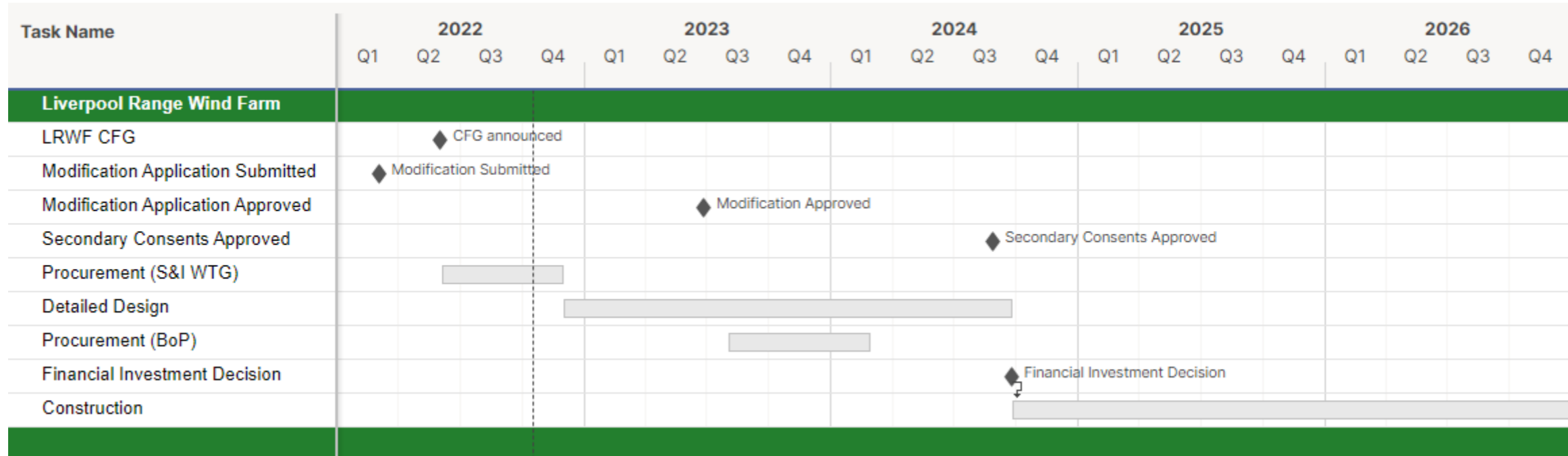




# LIVERPOOL RANGE WIND FARM PROJECT TIMELINE



- The timetable below is indicative, and is subject to further refinement.
- REZ / grid connection timing is a critical factor for our project's overall timing. There remains significant uncertainty around REZ timing.



# LIVERPOOL RANGE WIND FARM

## PROCUREMENT, ENGINEERING AND DESIGN UPDATE



- Tilt Renewables has issued a Request for Proposal (RFP) to wind turbine OEMs active within the Australian market.
- Tilt Renewables expects to have a wind turbine model selected by Q4 2022.
- Tilt Renewables is seeking to partner with a wind turbine OEM early in order to update the Civil and Electrical Balance of Plant (BoP) design with a specific wind turbine model prior to tendering the BoP works.
- This will significantly de-risk the project design, project timing, and financial modelling assumptions.



# LIVERPOOL RANGE WIND FARM

## PROCUREMENT, ENGINEERING AND DESIGN UPDATE

Tilt Renewables is actively progressing engineering and design workstreams to get the project 'construction ready'. These workstreams include the following:

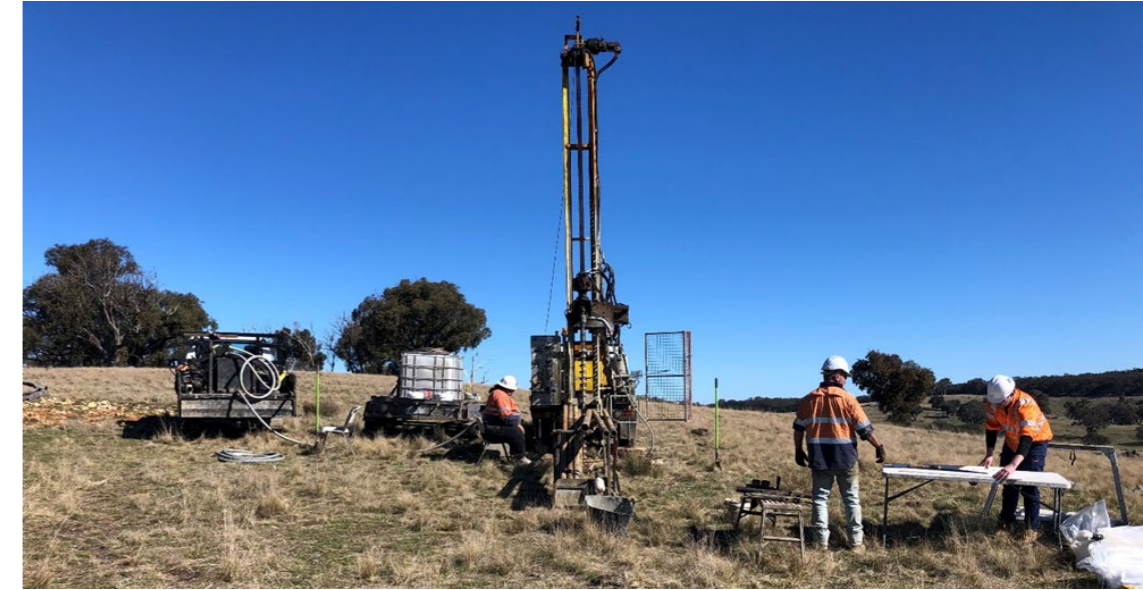
### Geotechnical Investigation

- Informs the design of in-ground infrastructure (foundations, electrical cables, earthing).
- Desktop review has been completed and will inform the on-site intrusive investigation, expected to commence late October (weather permitting). Intrusive investigations predominantly include boreholes and test pits.
- Landowners have been informed of the impending investigations.

### Wind Farm Civil Design

- Civil design work is underway, and the preliminary 3D civil design of the wind farm has been completed. This work will better inform the quantity of earthworks required across the site and enable a greater understanding of design requirements through complex areas. As part of this study a flood modelling assessment has been completed across the site for design rainfall events.
- Once a final turbine has been selected, the preliminary design will be progressed from Q4 2022 onwards by factoring in the specific wind turbine model and recommendations from the on-site geotechnical investigation campaign.

**Example Borehole - Rye Park Wind Farm**



**Example Test Pit - Rye Park Wind Farm**





# LIVERPOOL RANGE WIND FARM

## PROCUREMENT, ENGINEERING AND DESIGN UPDATE

### Wind Farm Electrical Design

- Tilt Renewables is finalising the engagement of an electrical design consultant to progress the Wind Farm electrical design in parallel with the civil design.

### Onsite Quarries and Water

- Tilt Renewables is in the final stages of engaging a contractor to progress opportunities to source appropriate quarry material and water onsite to avoid traffic impacts on local roads.
- It is likely that there will be multiple quarries across the site to avoid traffic impacts on local roads. This work will commence shortly to ensure the appropriate approval timelines
- Early estimates indicate LRWF will require approximately 1,000,000 litres of water per day during summer for civil works construction activities (dust suppression, moisture conditioning of pavement materials & concrete production (if potable)).
- Initial investigations have indicated a large aquifer within the ridgelines, Tilt Renewables will progress investigations with the contractor to confirm this resource

### Public Road Upgrades

- Tilt Renewables has engaged a local consultant, Constructive Solutions to design the local road upgrades. Initial meetings have been held with council to discuss available data and requirements; a site visit is expected to commence in late-October.

**Example Onsite Quarry – Dundonnell Wind Farm**



**Example Solar Powered Water Bore – Dundonnell Wind Farm**



# ENERGYCO AND THE CWO REZ

UPDATE

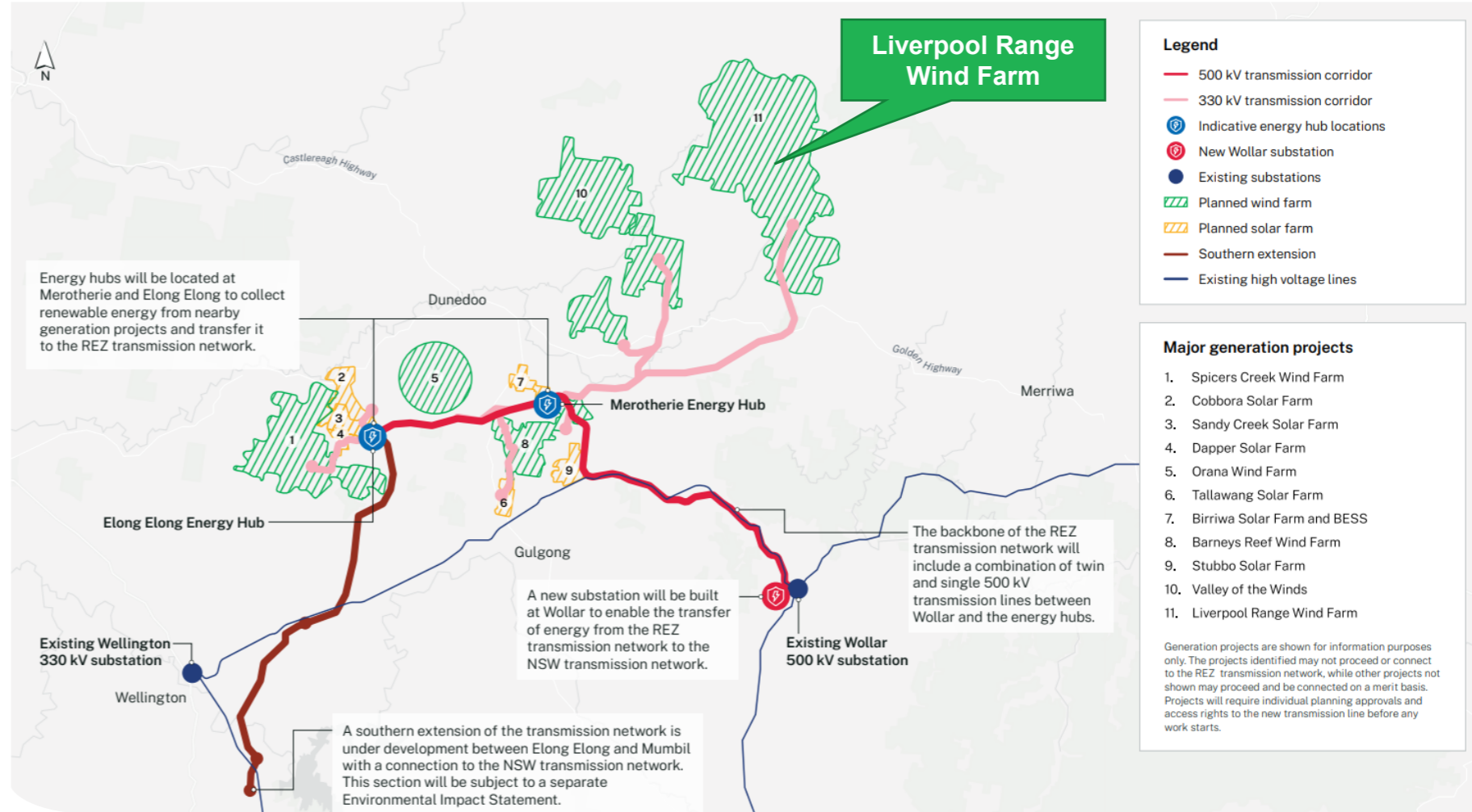




# LIVERPOOL RANGE WIND FARM

## CENTRAL-WEST ORANA REZ (CWO REZ) TRANSMISSION LINE

- September 2022 EnergyCo released revised study area as part of scoping report and conducted community consultation.
- The transmission line currently follows the LRWF alignment and then proceeds west to Merotherie Energy Hub
- We are working closely with EnergyCo to continue to use the existing approved transmission alignment as much as possible, commit to poles for the existing LRWF landowners, and ensure they are no worse off commercially.
- LRWF has had previous success in working with EnergyCo to change the alignment.
- In the interim, and in order to proceed with the Modification Application, we will pursue the approved transmission line option and aim to reduce environmental impacts as far as practicable.



# CWO REZ UPDATE

## ACCESS TENDER



- On 25th May Tilt Renewables / LRWF was shortlisted as a Candidate Foundation Generator. This shortlisting has allowed us to provide feedback to EnergyCo on the final design and delivery of the CWO REZ
- An Access Tender was released by the Consumer Trustee however LRWF has been told to wait until the next round of tenders in mid-2023. This is to ensure that the application will be more meaningful and EnergyCo has done further development work for the CWO REZ.
- This delay in the tender has not slowed down any progress to the LRWF. Design work is still underway and progressing to inform the final construction layout.

**AEMO SERVICES**  
Consumer Trustee

## Market Briefing Note

Competitive tender participants in Central West Orana REZ

### Briefing context

- Competitive tenders are open to all eligible generation and long-duration storage projects throughout NSW. This includes projects in CWO REZ.
- All projects will be competitively assessed against the same proposed price and non-price merit criteria [published here](#).
- The tender process will encourage competition with the aim of achieving optimal value for NSW electricity consumers.

### What can participants bid for?

New REZ transmission infrastructure connections

- LTESA + Access right**
- OR
- Access right only**

Existing transmission connections<sup>1</sup>

- OR
- LTESA Only**

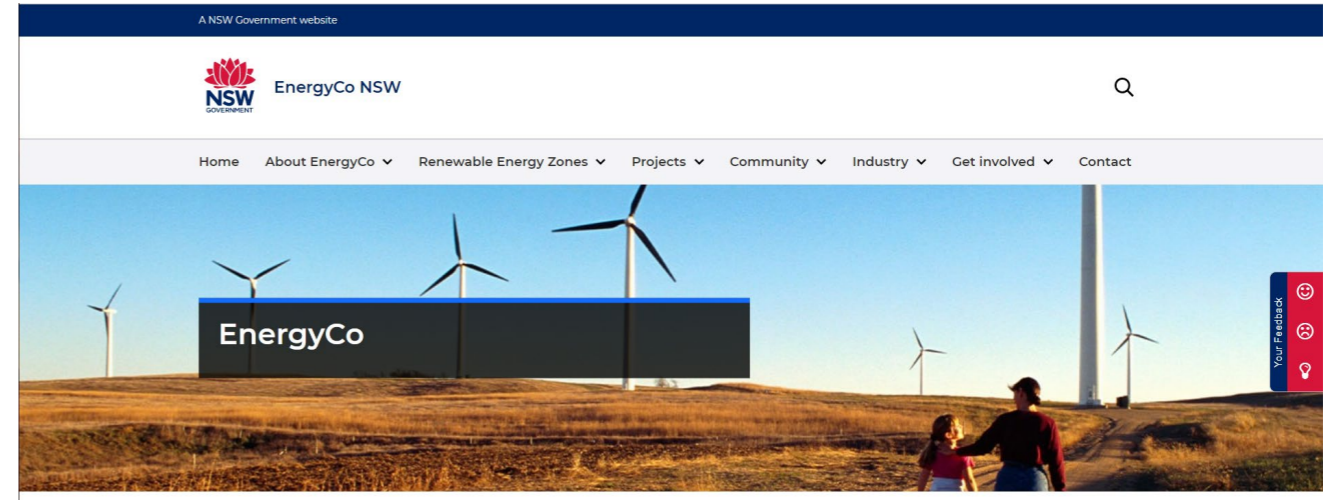
# LIVERPOOL RANGE WIND FARM

## NEXT STEPS WITH ENERGYCO



There are still a lot of details about the CWO REZ for which we have only been given high level information, and there are a lot of things about the CWO REZ that we just don't know:

- Timing
- Access pricing
- Route alignment
- Community engagement
- Benefits sharing and local content
- Recommendations from multiple studies undertaken by EnergyCo



# QUESTIONS / DISCUSSION

THANK YOU

