



# Transgrid Advisory Council

## Meeting #5

Wednesday 28 June 2023

People. Power. Possibilities.

# Acknowledgement of Country

*We would like to acknowledge the Gadigal people as the custodians of the lands and waters of the Eora Nation, on which we meet today.*

*We pay respect to Elders past and present.*





# Agenda



**Please note:** today's workshop is being recorded

No.	Time	Agenda item	Presenter
1.	9.30am	Welcome and Acknowledgement of Country	Kate Davies, Acting Executive General Manager, Corporate and Stakeholder Affairs
2.	9.40am	Actions from last meeting	Kate Davies, Acting Executive General Manager, Corporate and Stakeholder Affairs
3.	9.50am	Engagement update	Kate Davies, Acting Executive General Manager, Corporate and Stakeholder Affairs
4.	10.05am	Major Projects (Powering Tomorrow Together) update	Michael Johnson, Program Director Stakeholder Relations, Major Projects
5.	10.15am	HumeLink Project engagement <i>HumeLink project update</i> <i>CPA 1 part 2 update</i> <i>CPA 2 update on biodiversity</i>	Jeremy Roberts, Project Director, HumeLink Stephanie McDougall, General Manager of Regulation Sumaya Osman, Environmental Planning and Approvals Manager
6.	10.45am	Transmission Annual Planning Report FY23	Kevin Hinkley, Manager System Planning
7.	10.55am	Waratah Super Battery (WSB) Non-contestable Revenue Proposal	Stephanie McDougall, General Manager of Regulation
8.	11.05am	Regulatory Policy and Government Relations update	Stephanie McDougall, General Manager of Regulation Emma Ashton, Government and Stakeholder Relations Manager
9.	11.20am	Summary, next steps and close	Kate Davies, Acting Executive General Manager, Corporate and Stakeholder Affairs

# Tracking meeting satisfaction

## We will launch a short poll at the end of each meeting to ask:

To what extent do you feel you had an opportunity to effectively engage today?



not effective



very effective

Do you have further feedback on any of the following topics discussed today?

- Energy Charter Disclosure engagement
- Major projects updates
- HumeLink CPA1 part 2
- HumeLink CPA2 Biodiversity Offset Delivery Strategy
- Waratah Super Battery Non-contestable Revenue Proposal
- TAPR
- Financeability update
- Government Relations update

**We appreciate your feedback.**

# Actions from last meeting

Action	Status
Provide TAC with a high-level summary of last year's reputational survey results.	Sent on 1 June 2023.
Advise TAC on the name of the government department underwriting the Rewiring the Nation federal government funding.	Advised in TAC meeting #4 notes - The Commonwealth of Australia as represented by the Department of Climate Change, Energy, the Environment and Water (Commonwealth) (DCCEEW).

# Engagement update – The Energy Charter

Kate Davies, Acting Executive General Manager,  
Corporate and Stakeholder Affairs





# The Energy Charter



## Energy Charter Principles

- A coalition of like-minded energy organisations who are working together to deliver better energy outcomes for customers and communities
- Launched in January 2019 and now involves 21 signatories
- Five principles guide customer-centric culture change
- #BetterTogether initiatives focus on delivering tangible customer and community outcomes

# Accountability process

2020 ● 2021 ● 2022 ●

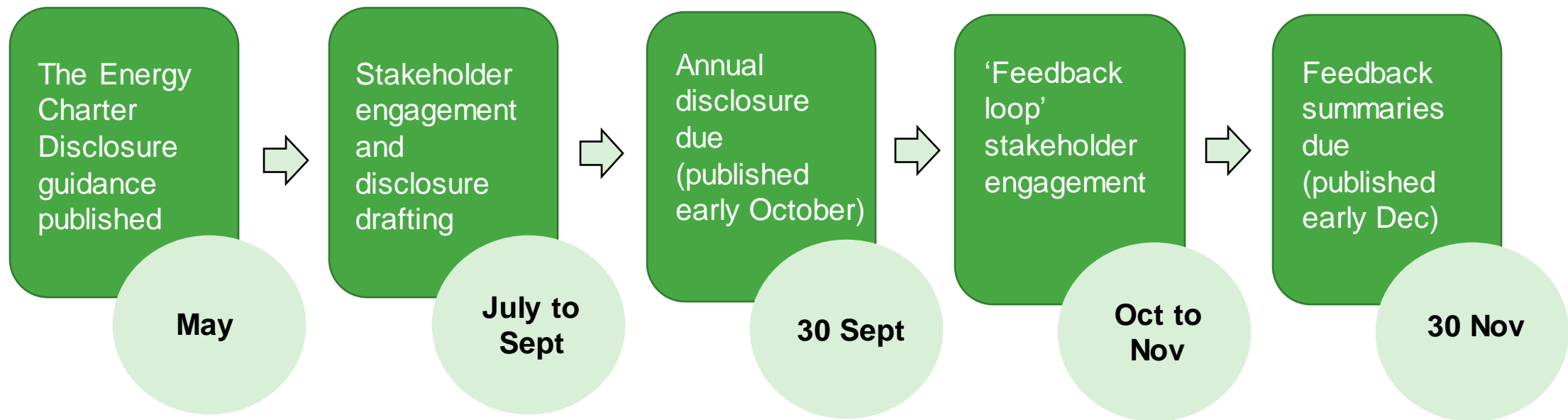
FY21 Maturity Self-Assessment					
Tracking Transgrid's improvement over time towards achieving Energy Charter principles					
	Elementary Lowest maturity	Emerging	Evolved	Empowered	Exceeding Highest maturity
Principle 1: We will put customers at the centre of our business and energy system		●	●		
Principle 2: We will improve energy affordability for customers		●	●		
Principle 3: We will provide energy safely, sustainably and reliably					
➤ Safety			●	●	
➤ Environment		●	●		
➤ Shift to cleaner energy system			●	●	
➤ Connection, service and reliability			●	●	
Principle 4: We will improve the customer experience					
➤ Fair customer outcomes		●	●		
➤ Customer communication		●	●		
➤ Complaints	●	●			
Principle 5: We will support customers facing vulnerable circumstances	●	●			

- Annual public disclosure reports on how we are delivering against the Energy Charter principles
- 'Energy Charter Disclosure Guidance' sets out the content and process for preparing annual disclosures
- We use the Energy Charter Maturity Model to self- assess our maturity against the 5 principles and track progress over time, evidenced by appropriate metrics and measures
- Stakeholder engagement is an important component of preparing and validating the annual disclosure

Above: Transgrid FY22 maturity self-assessment overview



# FY23 Disclosure timeline



# Proposed TAC engagement approach

## Before lodging FY23 Disclosure

*Share, validate self-assessments and understand improvement opportunities*

When	What
28 June	TAC meeting - review of disclosure process and engagement approach
20 July	TAC meeting – review of FY22 disclosure and maturity self-assessment process
24 August	TAC meeting- review of maturity assessment
21 September	TAC meeting – review of final draft disclosure document
30 September	FY23 Disclosure due to be submitted

## After lodging FY23 Disclosure

*Create a feedback loop and look forward*

When	What
10 October	TAC meeting – review of final disclosure and how previous feedback has/is being considered. Review and discuss engagement process.
30 November	Feedback summary due to be submitted

### Collaboration point:

What do you think of this engagement approach? Any suggestions for improvement?

# Major Projects Powering Tomorrow Together (PTT) update

Michael Johnson, Program Director Stakeholder Relations, Major  
Projects





# Key successes

1		2		3		4		5		6		7	
<b>AER workshops</b> <ul style="list-style-type: none"> <li>Four workshops have been held</li> <li>AER very engaged and provided positive feedback on procurement model approach to social license and CESS</li> <li>Securing meetings to discuss key matters – next is biodiversity offsets</li> </ul>		<b>Land acquisition practices</b> <ul style="list-style-type: none"> <li>Standardised documentation and engagement approach considered best practice</li> <li>Sending TG personnel to TAS for land access officer training</li> <li>Early engagement with landowners produced higher acceptance and negotiation outcomes for easement acquisition</li> </ul>		<b>Interface projects</b> <ul style="list-style-type: none"> <li>Program wide integration - Wagga Wagga sub for VNI, Bannaby and Sydney Ring interface</li> </ul>		<b>Integrated Master Program</b> <ul style="list-style-type: none"> <li>All projects in P6</li> <li>Transformers and reactors secured with future options</li> <li>P6 capability transfer project initiated with a fast-tracked staged approach</li> </ul>		<b>Drone stringing concept review</b> <ul style="list-style-type: none"> <li>Pressure test workshop held with project directors</li> <li>Moved into technical due diligence and physical testing phase</li> </ul>		<b>Regional telecommunications</b> <ul style="list-style-type: none"> <li>Engagement with key stakeholders and government informed need for mobile and emergency services connectivity</li> <li>One priority area has been identified and surveyed in the HumeLink corridor</li> <li>Meetings being held with NSW Telco and network service providers to assist in a staged approach to delivering benefit to community sooner</li> </ul>		<b>Tower and foundation standardisation</b> <ul style="list-style-type: none"> <li>Standardisation for towers and foundations completed on HumeLink which is being applied to HTL and VNI west</li> <li>Investigating other structure types and constructability methods to gain construction efficiency</li> </ul>	

# EnergyConnect (PEC)

## Transmission lines

- Erected first of more than 1,500 transmission towers required for the 700km alignment of EnergyConnect in March 2023
- These are 330kV transmission towers on Line 1 from Buronga to SA Border
- Towers are a mix of traditional self-supporting towers and guyed towers (*top right*)
- Guyed towers comprise a centre mast supported by four steel cables, require about 15 per cent less steel and 25 per cent less concrete, achieving a reduced carbon footprint
- On Line 1, we have assembled 63 towers on ground for lifting and erected 22 out of 291 towers on the line (as at 31 May)
- Erected 52 out of the 79 220kV steel monopoles (*bottom left*) on Line 4 to Red Cliffs to upgrade and replace existing line to Victoria (*also pictured*)

## Buronga substation

- Completed the earthworks for the 16-hectare bench for the Buronga substation expansion and commenced foundations for substation plant
- Two synchronous condenser transformers transported from Port Kembla and installed at substation (*bottom right*)
- First 330kV Phase Shifting Transformer delivered from Port Adelaide and installed. Second PST expected early June





# VNI West

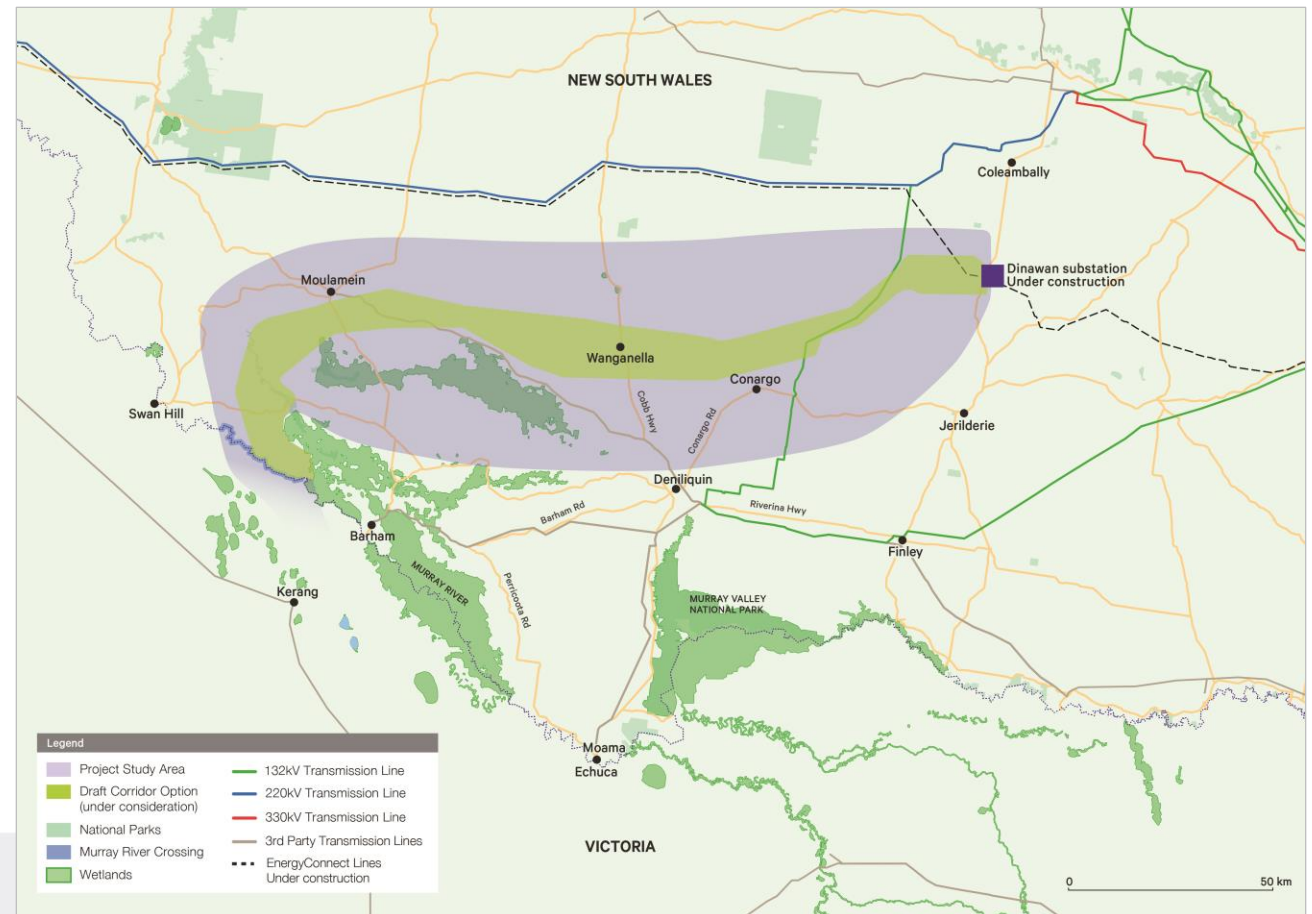
## Route development

- Draft Corridor Options and Evaluation Report on exhibition throughout July
- Preferred corridor aligns with AEMO VP and avoids large areas of high value irrigation land
- Consultation with landholders starts now to gather detailed on ground feedback and develop the best route for VNI West
- Dedicated landholder liaison teams will be in place throughout route development and project delivery

## RIT-T update

- Final PACR Compliance Report lodged 23 June
- PACR dispute period closed Monday 26 June

## Key project dates

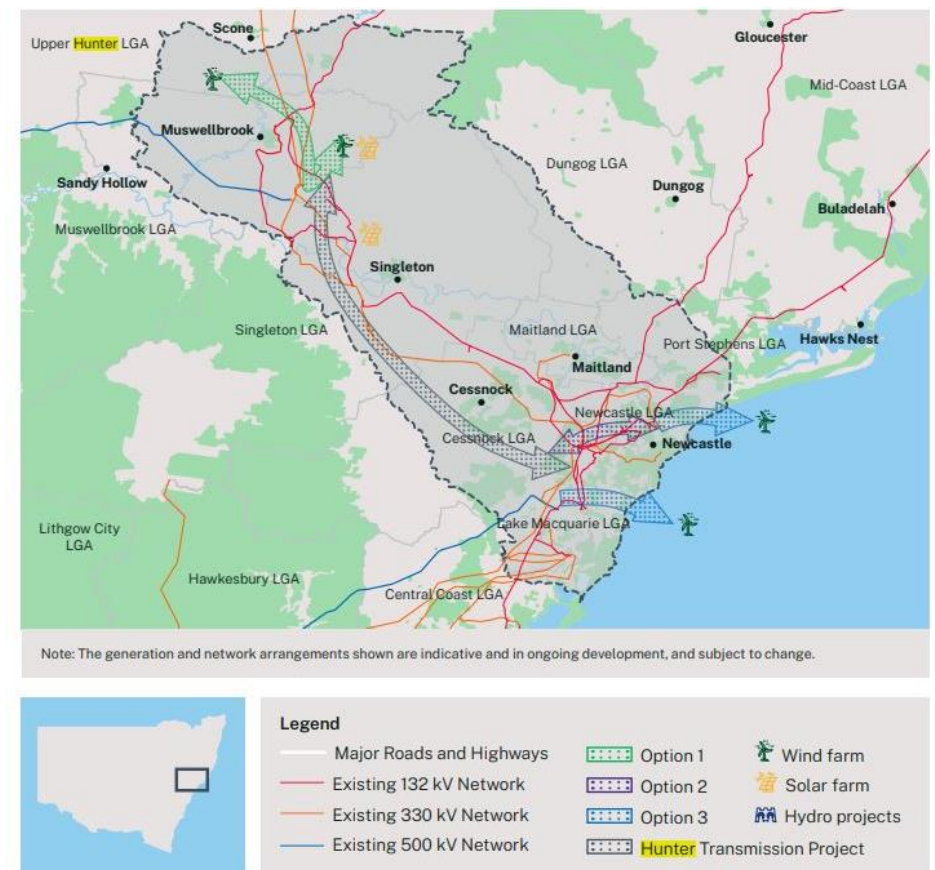




# Hunter Transmission Project

- HTP 1.0 is required to be in place to allow the connection of Central West Orana (CWO) REZ and New England REZ renewable generation to the Sydney, Newcastle, and Wollongong (SNW) load centres to mitigate against future coal power station closures
- It has been identified as an actionable project in the AEMO's 2022 Integrated System Plan (ISP)
- Currently in project initiation and early development works with the Energy Corporation of NSW (EnergyCo)
- EnergyCo has indicated a preferred Alignment – A (Greenfield) that makes use of State Forest areas west of Eraring and exits nearby the open cut mining areas of the Hunter Valley close to Broke. From Broke, Alignment A continues via a corridor to the east of existing mining areas making use of Transgrid's existing 330kV line corridor
- Completed joint network planning work with EnergyCo in identifying the overall future network needs and an initial network option
- Continue technical development and early planning work with EnergyCo to ensure alignment on project objectives and outcomes, and project roles and responsibilities
- Preparatory works progress on a draft proposal for the development and delivery of the project as a Priority Transmission Infrastructure Project (PTIP)

## Hunter Transmission indicative project location



Source: EnergyCo Network Infrastructure Strategy

# HumeLink project update

Jeremy Roberts, Project Director, HumeLink





# HumeLink– Status of CPA1 activities and spend

## Procurement

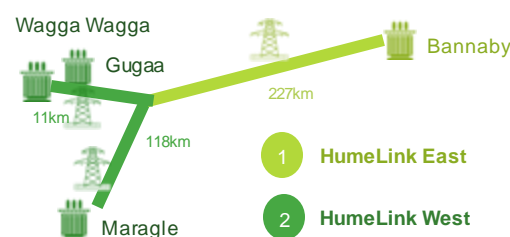
*Implementing a procurement strategy that provides certainty of equipment and optimises costs*

- ✓ Tender confirmation submission received from the HumeLink East Contractor (AKG)
- ✓ Tender confirmation submission expected from the HumeLink West Contractor (UGL) in June
- ✓ Purchase order for transformers executed while purchase order for reactors is being finalised
- ✓ Evaluation of tenders for conductors in progress

## Technical

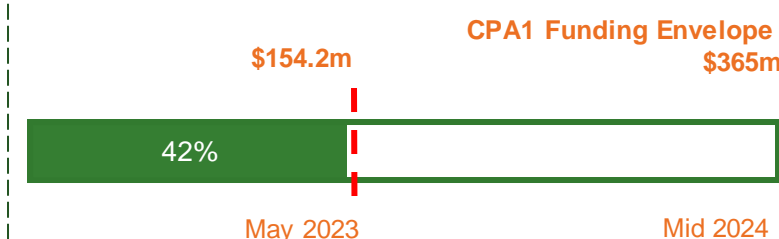
*Reducing risk and uncertainty through well progressed design*

- ✓ Geotechnical investigations completed
- ✓ Concept Designs completed to enable the Delivery Partners to commence detailed designs.



## CPA1 Funding Status

Actuals to end of Aug-22 (Pre-CPA1 Approval)	\$66.4M
Total (since CPA1 approval)	\$87.8m
Total cost to date as at end May 2023	\$154.2m



## Land Acquisition

*Focusing on progressing activities on the critical path to achieve completion as planned*

- ✓ Consent to enter: 69.5% of line length
- ✓ 99.6% offers of compensation issued to landholders
- ✓ 41.1% compensation agreed in principle (includes Gugaa substation)
- ✓ 10.7% Option Deed fully executed

## Environmental Approval

*Ongoing biodiversity risk assessment to drive down Project costs*

- ✓ EIS remains on the critical path
- ✓ Soft lodgement of the EIS chapters to DPIE for 'adequacy review' submitted 7 June
- ✓ Desktop assessment of the Green Hills alternative route option completed

## Community & Stakeholder

*Strong and early to ensure positive social, community and Project delivery outcomes*

- ✓ 10 community information sessions held in locations along the HumeLink alignment
- ✓ Combined CCG held in Gundagai in May to address community concerns

- ✓ CPA-1 amendment to cover LLE costs (above the currently approved funds) submitted to the AER.
- ✓ Large payments expected in June/July with ECI payments post contract award. This is expected to accelerate spend in FY24.
- ✓ Delivery Partner cashflows are to be capped at the NTP1 Works Price (fully funded by CPA-1).



# HumeLink Project CPA1 (part 2) update

Stephanie McDougall, General Manager of Regulation



# CPA-1 Part 2 lodged with AER on 23 May 2023

- On 23 May 2023, we lodged our CPA-1 (Part 2) with the AER to enable us to recover the costs of purchasing LLE as part of early works.
- Purchasing LLE as part of our Stage 1 activities maximises benefits to customers by:
  - providing greater cost certainty for customers by locking in prices now
  - protecting against future inflationary pressure to ensure the Project is delivered at lowest sustainable cost, and
  - securing supply-chain availability, in a competitive global market, in order to meet AEMO's target delivery date of July 2026.

LLE	Booking fee CPA-1 Part 1	Full cost of LLE	CPA-1 Part 2	Basis of forecast
	(A)	(B)	(B)-(A)	
Transformers and Reactors	27.2	253.9	226.7	Agreements with suppliers, which contain the number of transformers and reactors as well as the associated unit rates
Steel and Conductors				Rates and quantities contained in a report from Fission, who has been appointed as the independent estimator for the Project during the ECI process

**We are on track to submit our Stage 2 CPA in September 2023**



# HumeLink Project CPA2 update Biodiversity

Sumaya Osman, Environmental Planning and  
Approvals Manager





# Biodiversity Offset Delivery Strategy

## Essential

*HumeLink is an essential project that will result in unavoidable biodiversity impacts*

- ✓ HumeLink is essential to deliver a cheaper, more reliable and more sustainable grid
- ✓ This can only be achieved by developing a new transmission line which will result in impacts to biodiversity
- ✓ AVOID – MITIGATE – OFFSET hierarchy integral to our approach
- ✓ Offsetting is the right response to unavoidable impacts on our biodiversity
- ✓ Balancing our responsibility to biodiversity and obligations to our customers is our priority

## NSW BOS

*The NSW Biodiversity Offsetting Scheme is scientifically rigorous but conservative, complex and expensive*

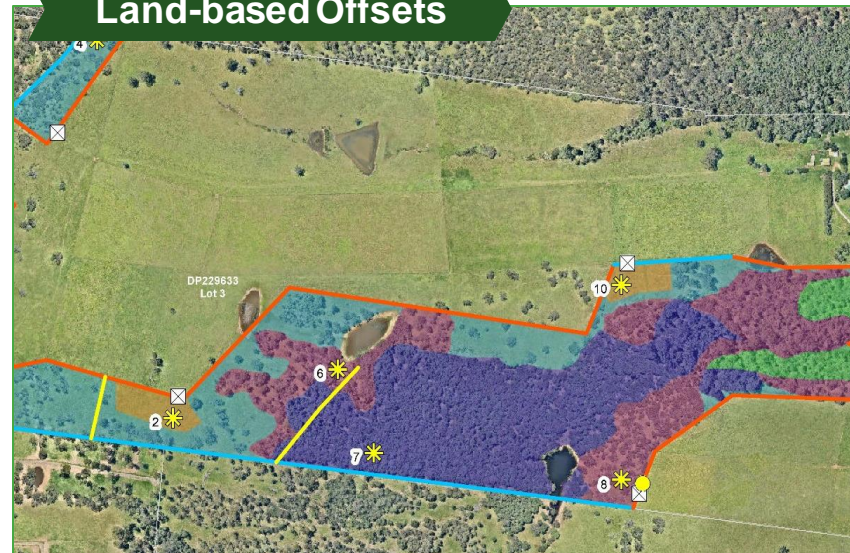
- ✓ Conservative nature of BOS requires assumed presence of threatened species at sites not surveyed, driving offset cost estimate higher – further survey to confirm their absence is planned
- ✓ Some biodiversity values disproportionately drive offset obligation and costs – we plan to target their acquittal first
- ✓ Our approach is to balance the acquittal of our offset obligation at acceptable costs through an assessment of the value for money each offset acquittal option offers

## Approval Conditions

*HumeLink is seeking approval conditions that will support our biodiversity and customer objectives*

- ✓ Seeking approval conditions that will minimise cost to project delivery:
  - ✓ extending the offset acquittal date by two years (biodiversity offset bond) to give us time to source sites with the right values (i.e. avoid BCF)
  - ✓ further reducing the offset obligation (through avoidance) during construction benefits both biodiversity and project costs
- ✓ The right approval conditions will allow HumeLink to go beyond simple compliance (paying into the BCF) to achieve tangible conservation outcomes at reduced costs to the project

## Land-based Offsets



## Avoid

route selection approach and design criteria to minimise impact footprint

## Mitigate

management measures that reduce impacts (connectivity strategy, partial clearing etc.)

## Offset

securing and enhancing biodiversity values on biodiversity offset sites, with funded conservation actions, in perpetuity, to offset unavoidable impacts

# Biodiversity Offset Delivery Strategy

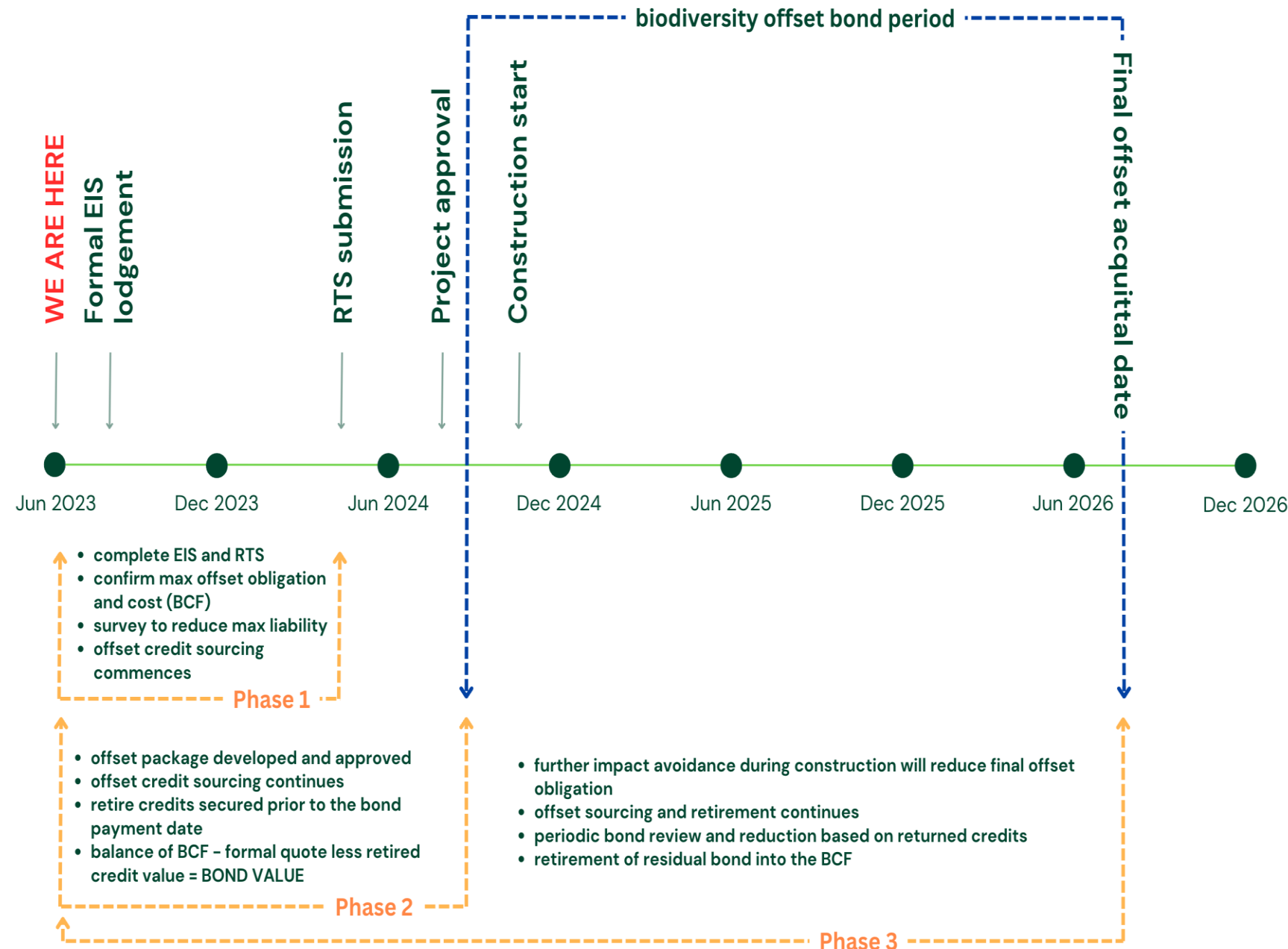
## Delivery Strategy

### Strategies to reduce the offset obligation (pre and post construction)

- ✓ Seek appropriate approval conditions
- ✓ Reduce offset obligation (minimise reliance on assumed presence prior to approval and further reduce impacts during construction)
- ✓ Pursue maximum offset supply through lowest cost option (establishment of new offset sites)
- ✓ Employing ancillary rules (conservation actions) to support local conservation of highly localised biodiversity values (some orchids for example)

## Expected outcomes and benefits to customer

- ✓ A compliant approach to build a necessary project
- ✓ A strong biodiversity outcome that exceeds simple compliance
- ✓ Reduced offset costs through impact reduction and efficient offset supply generation





# Transmission Annual Planning Report FY23

Kevin Hinkley, Manager System Planning





# Transmission Annual Planning Report (TAPR) FY23

## TAPR Message

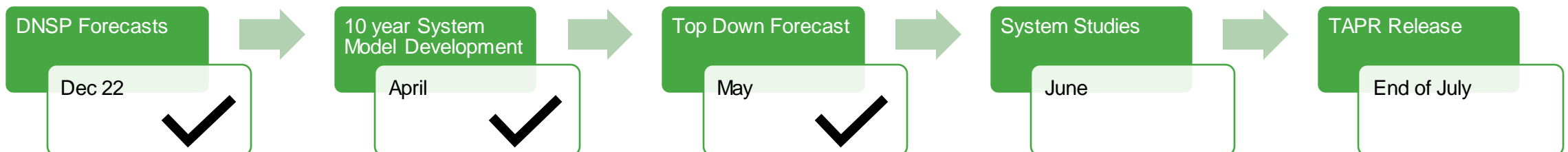
*Leading the transition to Australia's clean energy future*

- ✓ NSW is moving to uncharted territory
- ✓ Grid will be radically different
- ✓ Accelerate delivery of transmission backbone
- ✓ Keep the grid secure through the transition
- ✓ System Security the heartbeat of the Power System

## TAPR Content

*Whole of NSW Plan – bringing together all projects in NSW*

- ✓ All NSW Projects
- ✓ Network support opportunities
- ✓ 10-year Forecast
- ✓ Assessment of Power System Security
- ✓ Transmission line utilisation
- ✓ Transmission Constraints



### Collaboration point:

Would you like to be part of a focussed TAPR engagement session?

# Workshop & logistics for TAPR specific engagement

## Background

- Transgrid is preparing the 2023 Transmission Annual Planning Report (TAPR) to be launched end of July

## Workshop and logistics

- Transgrid would like to invite the TAC to attend a workshop in the week beginning 10<sup>th</sup> July 2023 to share key aspects of the 2023 TAPR and identify specific areas of the TAPR that the TAC members may have particular interest in;
  - Ahead of the workshop, the TAC are invited to outline agenda items / questions on the TAPR that they would like explored at the workshop. Requests for agenda items / questions are invited by 5<sup>th</sup> July;
  - After the workshop, Transgrid will prepare presentation materials for the TAC meeting on 20 July 2023 that are focussed on responding to areas of interest discussed at the workshop

### Collaboration point:

Would you like to be part of a focused engagement session on the TAPR?

# Anticipated TAC workshop focus areas for engagement for the TAPR

Sector	TAPR / transmission general focus area
<b>Market bodies</b>	<ul style="list-style-type: none"> <li>• REZ development and connection progress and future activity</li> <li>• Interconnection asset progress, cost impacts</li> <li>• Strategies to provide wide-scale system-strength, synthetic inertia, voltage and other system services from inverter-based devices (non-synchronous)</li> <li>• Accelerating grid connection process, timing and actively managing risks</li> <li>• Grid connection requirements/standards including for batteries and grid-forming inverters</li> <li>• Progress and benefits realised through “Powering Tomorrow Together” procurement strategy (EnergyConnect, HumeLink, VNI West)</li> <li>• Analytical and operations investment program for enhanced situational awareness</li> </ul>
<b>Consumer Advocates</b>	<ul style="list-style-type: none"> <li>• Consumer network pricing impacts in short/medium term and as transition unfolds (impact on consumer electricity bills)</li> <li>• Assessment of the cost benefit analysis of wholesale energy benefits (lower from renewables) versus network costs, i.e the “insurance” benefits</li> <li>• Social licence and community and stakeholder engagement on the development and construction of transmission in socially and ecologically sensitive regions</li> <li>• Land use, development and planning especially in sensitive heritage locations</li> <li>• Construction timeframes (network, generation and storage)</li> <li>• How the “Powering Tomorrow Together” strategy is delivering for consumers</li> <li>• Transgrid’s views on the optimisation between grid supply and DER and potential risks either way</li> <li>• Impact on network tariffs from consumer access to self-supply from DER and greater flexibility options</li> </ul>
<b>Industry/Consumers</b>	<ul style="list-style-type: none"> <li>• Grid connection process/risk and timeframes for large-scale renewables</li> <li>• Connection cost implications from rapid growth in renewables connections</li> <li>• Strategies to provide wide-scale system-strength, synthetic inertia, voltage and other system services from inverter-based devices (non-synchronous)</li> <li>• Views from the perspective of solar installers on the impact from greater transmission and REZ development on the market for rooftop solar and storage and electric vehicles</li> </ul>
<b>Large consumer</b>	<ul style="list-style-type: none"> <li>• Changes/increase in network charges including peak/demand pricing tariffs</li> <li>• Access to wider system security market opportunities</li> <li>• Impacts of energy reliability and reserve levels</li> <li>• Access to network and renewables contracting opportunities</li> </ul>
<b>Industry</b>	<ul style="list-style-type: none"> <li>• Network pricing impacts on industry</li> <li>• Industry access to low-cost renewables</li> <li>• Industry access to flexible load/connection products and initiatives</li> <li>• Impact of curtailment and risks to supply on critical industry</li> <li>• Transmission and connection interest for emerging industry eg green hydrogen, green commodities, renewable energy industrial precincts</li> </ul>

## Collaboration point:

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# Anticipated TAC workshop focus areas for engagement for the TAPR

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Industry	<ul style="list-style-type: none"> <li>• Network pricing impacts on industry</li> <li>• Industry access to low-cost renewables</li> <li>• Industry access to flexible load/connection products and initiatives</li> <li>• Impact of curtailment and risks to supply on critical industry</li> <li>• Transmission and connection interest for emerging industry eg green hydrogen, green commodities, renewable energy industrial precincts</li> </ul>
Industry	<ul style="list-style-type: none"> <li>• Access to provide system / network services</li> <li>• Grid connection process</li> <li>• Opportunities for non-network solutions in support of reliability and security</li> <li>• Opportunities to provide wide-scale system-strength, synthetic inertia, voltage and other system services</li> </ul>
Industry	<ul style="list-style-type: none"> <li>• Forward capex program and operating cost structure</li> <li>• Revenue determinations/outlook</li> <li>• Financial position of Transgrid under a range of stress-cases</li> </ul>
Energy producers	<ul style="list-style-type: none"> <li>• Connection process, timetables, costs and risks</li> <li>• Hybridisation of wind with batteries at connection points</li> <li>• Access for wind generators to wider system security markets</li> </ul>
Energy producers	<ul style="list-style-type: none"> <li>• Timeframes for Transgrid's transmission and connection assets to Snowy 2.0</li> <li>• Social licence for transmission related to Snowy 2.0</li> <li>• Impact of the transmission and connection costs of Snowy 2.0</li> </ul>
Decision making and policy delivery	<ul style="list-style-type: none"> <li>• How Transgrid is supporting REZ development</li> <li>• Progress by Transgrid on interconnector development and construction programs</li> <li>• Development planning and risks assessments around environmental impact statements</li> <li>• Social licence matters relating to transmission build-out</li> <li>• Transgrid's renewables growth outlook and connection enquiry and interest</li> <li>• Strategies to provide wide-scale system-strength, synthetic inertia, voltage and other system services from inverter-based devices (non-synchronous)</li> </ul>
Finance and funding	<ul style="list-style-type: none"> <li>• Forward capex program to deliver the transition and funding needs</li> <li>• Impacts on Transgrid operating risks from the transition including from providing wider system services</li> <li>• Revenue determinations of Transgrid and forward credit metrics</li> <li>• Revenue and contracting models for transmission and connection assets related to REZ network development (regulated or competitive)</li> </ul>

## Collaboration point:

Would you like to be part of a focused engagement session on the TAPR?

# Waratah Super Battery (WSB) Non-contestable Revenue Proposal

Stephanie McDougall, General Manager of Regulation

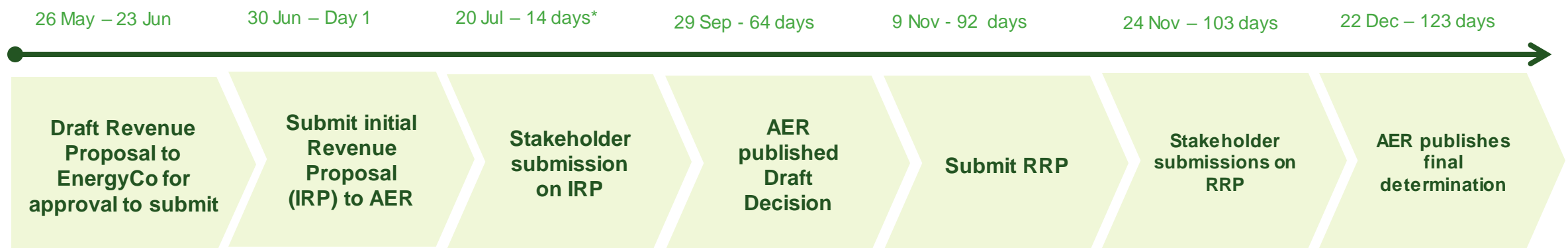


# Overview of WSB project and regulatory timeline

## Timeframes

- Our WSB non-contestable Revenue Proposal is subject to the EII regulatory framework
- **It is the first non-contestable Revenue Proposal under the EII regulatory framework and the first Revenue Proposal for the WSB project**
  - Draft Revenue Proposal is provided to EnergyCo by 26 May, and
  - Draft Revenue Proposal to the AER on 8 June
  - Final Initial Revenue Proposal is due to the AER by 30 June 2023

## WSB regulatory timeline:



Days means business days from submission of IRP to AER on 30 June 2023



# Forecast opex

This shows our total forecast opex of c. \$24.9 million by category and overviews the approach we have used to forecast it.

Opex category	\$ Million Real 2022-23	Basis for Opex forecast
Maintenance costs (excluding labour escalation)	2.1	Current and proposed maintenance activity unit rates multiplied by projected volumes of activities
Operating costs (excluding labour escalation)	20.2	Projected labour requirements multiplied by labour rates for each resource type and expected annual external audit expenses
Insurance	1.7	Based on independent report from Aon
Real input cost escalation	0.6	Labour escalators as set out in the AER's 2023-28 Revenue Determination
Debt raising costs	0.5	These costs are calculated in the EII PTRM by multiplying the opening RAB value for each year by a debt raising cost benchmark
<b>Total forecast opex<sup>1</sup></b>	<b>24.9</b>	

Notes: 1. Totals may not add due to rounding

Based on a bottom-up build and reflects:

- (a) the number and cost of permanent and casual staff needed to operate and/or maintain the assets
- (b) the cost of external contractors, consultants and other service providers providing operating and/or maintenance services
- (c) insurance and other ongoing expenses exclusively associated with the regulated network assets.

# Forecast capex

- This shows our total forecast capex of c. \$255.5 million by category and overviews the approach we have used to forecast it
- We expect that at least 70.9 per cent of the capex for WSB will be based on market prices obtained through competitive tender processes

**Total forecast capex for WSB by category (\$M, Real 2023-24)**

Capex category	Forecasting method	Market tested	Capex \$M
<b>Transmission lines</b>	Design & Construct contract	Yes	68.3
	Rates from our procurement panels for key equipment	Yes	1.4
	Other Construction Costs	No	0.1
<b>Substations</b>	Design & Construct contract	Yes	97.7
	Rates from our procurement panels for key equipment	Yes	9.6
	Other Construction Costs	No	1.1
<b>SIPS control</b>	Forecast capex internal bottom-up build	No	8.0
	Quotation from communications service provider for new fibre optic link	Yes	1.3
	Rates from our procurement panels for key equipment	Yes	2.5
	Future Paired Generation	No	6.2
	Other Construction Costs	No	1.3
<b>Labour and indirect costs</b>	Actual capex reflects records in Ellipse.	No	3.5
	Forecast capex internal bottom-up build.	No	53.5
<b>Real input costs</b>	Internal bottom-up build using AER's forecast real labour cost escalators	No	0.3
<b>Equity raising costs</b>	Benchmark calculation using the AER's assumptions	No	0.7
<b>Total capex</b>			<b>255.5</b>

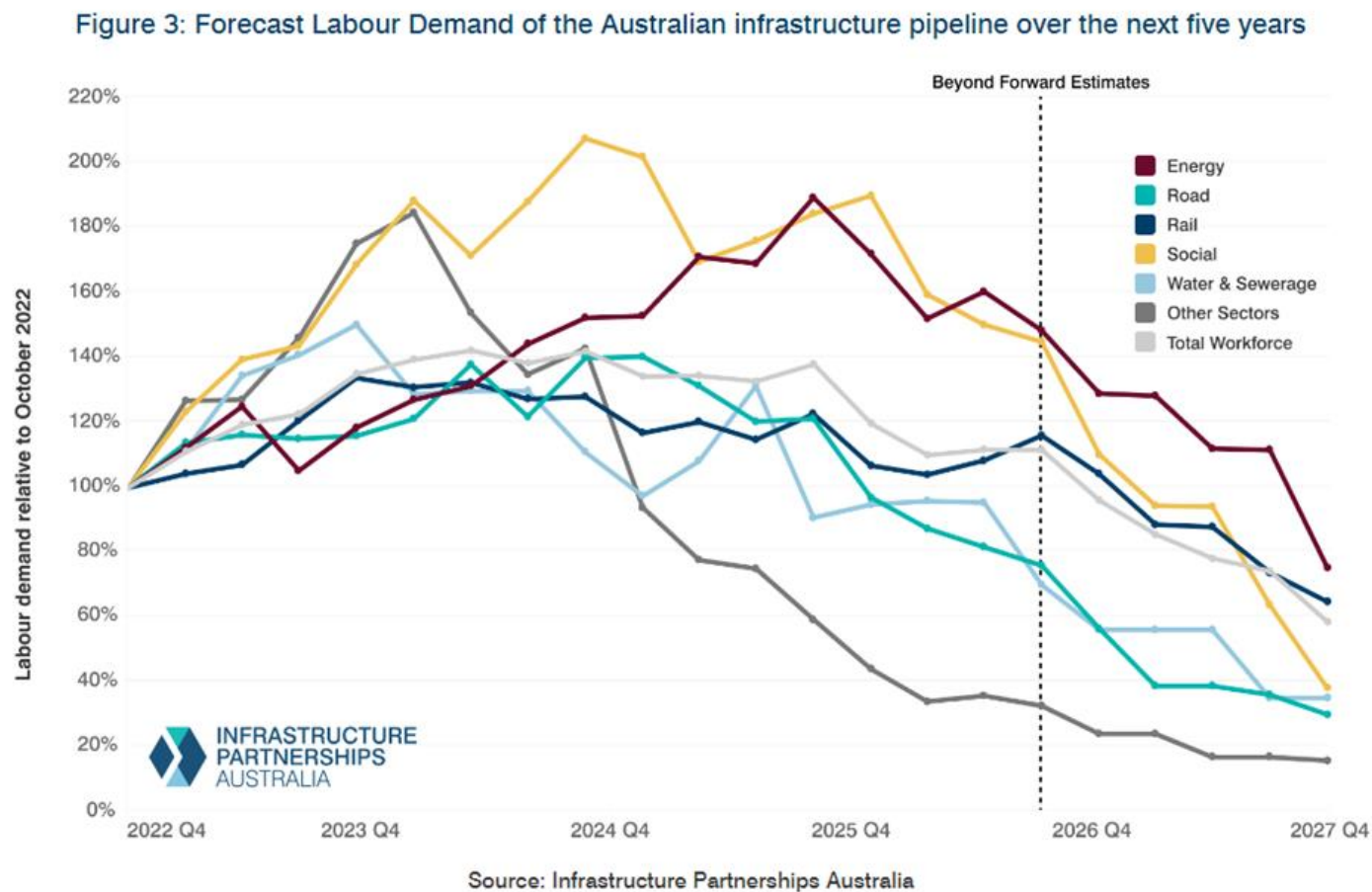
# Application of the CESS

- Capex for NSW Roadmap and ISP projects is extremely challenging to accurately forecast due to the scale, complexity of each project
- Probability of overspending against the AER's allowance is greater than the probability of underspending – risk is asymmetric
- With NSW projects, no ability to reprioritise capex – this means the CESS penalties could be large
- If faced with large CESS penalties, the project would generate less than the return that investors would reasonably require to invest
- The characteristics of ISP projects and the current market conditions that give rise to the asymmetric risk are:
  1. **Increasing labour costs** – labour costs are increasing due to the surge in construction activities / demand for construction workers
  2. **Increasing materials costs** – the cost of materials required to build ISP projects are also soaring and volatile due to surge in construction activity globally, supply chain disruptions resulting in materials shortages, the war in Ukraine driving up fuel costs, and fluctuations in global commodity market prices for raw materials
  3. **The inflation outlook remains uncertain** - actual inflation over the 12 months ending June 2022 –
    - headline CPI increased by 6.1% **highest year-ended CPI inflation since early 1990s**
    - RBA forecasts CPI inflation of 6.3% for 12 months to June 2023, **which is even higher**
    - **Producer Price Index (PPI)** for the manufacturing sector increased by **17.7% over 12 months to June 2022**
  3. **Contractors are unwilling or unable to offer fixed price contracts** – They are presently offering contracts with flexible pricing and risk-sharing arrangements to accommodate changes and unforeseen circumstances and safeguard against potential losses



# Application of the CESS

The IPA forecasts that the infrastructure labour force in NSW will be required to grow by 56 per cent by 2024 to deliver the pipeline of infrastructure projects across NSW and Australia.



## Labour costs are increasing due to the surge in construction activities

Commonwealth and State Government infrastructure programs - hospitals, roads, bridges and water infrastructure projects

- large transmission projects on AEMO's ODP, NSW Roadmap and state government agendas:
  - > Project EnergyConnect, VNI West, Marinus Link, Sydney Ring
  - > NSW Government's REZs such as Central-West Orana REZ, New England REZ or Hunter-Central Coast REZ, and
  - > CopperString which is supported by the Queensland Government and is being built by Powerlink in north Queensland

Source: Infrastructure Partnerships Australia (IPA), Infrastructure Election Monitor NSW – Red Book, Figure 3

# Application of the CESS, continued

- There is currently no provision in the NER to adjust the capex allowance to address the difference between forecast and actual labour, materials and other price costs.
- We would need to fund the gap in financing the investment for the remainder of the period and would be penalised under the CESS for any overspend (net of that financing cost), even when the higher levels of expenditure are prudent and efficient.
- *This means that we may not have a reasonable opportunity to recover the efficient costs of delivering the project*

## Three options to address this problem:

1. a fixed price contract that protects investors against the risk of cost overruns and therefore the CESS penalty. No contractor is currently willing to offer this without building in a 'premium' for the risk of cost overruns, which would be passed through to the TNSP,
  2. a sufficiently high risk cost allowance that restores the symmetry between over and underspending against the AER's allowance. This is not possible under the AER's 2022 RoRI and the AER has not previously allowed general contingency or risk cost allowances.
  3. the CESS to be removed during the construction phase of ISP projects—which the AER has stated it is willing to consider.
- *We recommend removing the CESS as a means of providing investors with appropriate incentives to commit capital to ISP projects that would promote the long-term interests of consumers by allowing us to invest in these Projects which are required for the urgent energy transition.*

### Collaboration point

Which of these three options do you support and why? Are there alternative solutions to address the problem, if yes could you please elaborate on these? **We also have an additional session to discuss further on 7<sup>th</sup> July if you would like more collaboration.**

# Revenue Adjustments

- The EII regulatory framework provides that a revenue determination may include provision for the adjustment
- These adjustment mechanisms are additional to the pass-through provisions.
  - In some cases these are automatic, AER not be required to review them – annual debt and inflation updates
  - In other cases, these are not automatic, AER would be required to review them

## Automatic adjustments

We propose three non-automatic adjustments:

1. Actual inflation
2. Return of debt update to the allowed rate of return
3. Additional contractual payments to EnergyCo

## Non-automatic adjustments

We propose three non-automatic adjustments:

- Paired Generation Cost – actual costs for future rounds of paired generation
- Unavoidable Contract Variations including:
  - Changes in the final design of the Project
  - Changes in civil works costs, which result in the contractor incurring higher costs than those reflected in the construction contract
- Contractor Force Majeure event - which disrupts the contractor during construction phase and results in additional construction costs

## Collaboration point

Do you support these adjustments? If not, could you please elaborate on why you do not support them? Are there other adjustments that we should consider?

***We also have an additional session to discuss further on 7<sup>th</sup> July if you would like more collaboration.***



# Regulatory Policy and Government Relations update

Stephanie McDougall, General Manager of Regulation

Emma Ashton, Government and Stakeholder  
Relations Manager



# Regulatory Policy update - financeability

- The AEMC commenced consultation on the Commonwealth rule change on Thursday 8 June 2023, along with the Commonwealth concessional finance rule change.
- The rule change proposes changes to allow the AER to vary the depreciation profile of ISP projects and allows TNSPs to recover depreciation for biodiversity offsets on an as incurred basis.
- The ENA lodged a subsequent rule change on Friday 9 June 2023.

## ENA rule change

### Issue

Current regulatory arrangements do not provide investors with sufficient confidence to support actionable ISP projects given its impact on investment grade credit rating.

### Proposed solution outlined in the rule change

AER would be required to set the depreciation allowance for an actionable ISP project using a *'financeability formula'* specified in the Rules that ensures that the actionable ISP project, on a discrete basis, is able to achieve at least the benchmark credit rating (BBB+) at the benchmark level of gearing (60%) in each year of the regulatory period.

A formulaic approach to financeability should be adopted so that a predictable and transparent approach is adopted.

### **Collaboration point:**

What is your view on the ENA rule change and AEMC consultation?

# Government Relations update



## Nationals urge inquiry on renewables impacts

Farmers are concerned that prime agricultural land is being turned over to renewable energy projects.

*Party Leader of the National Party of Australia, David Littleproud and Australian farmers address the media at Parliament House in Canberra.  
Source: The Australian, 14 June 2023*

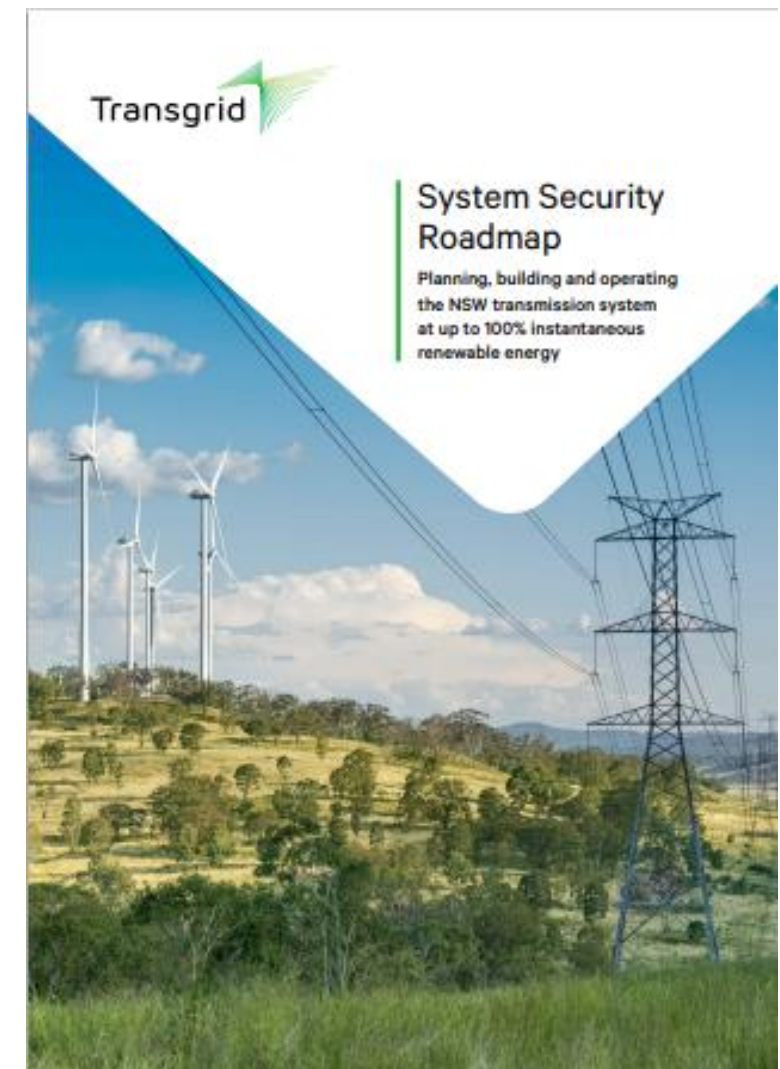
## Key updates

- NSW Treasurer gave an Economic Update to Parliament
- NSW Independent – Electricity Supply and Reliability Check-Up. Transgrid to meet with Cameron O'Reilly
- Federal Nationals campaigning on impact of transition on land use conflict – Motion for Inquiry was defeated in the Senate.
- Continuing to meet with Corridor MP's and new members of Parliament.



# System Security Roadmap

- Our plan to grow the state's power system and ensure the secure operation of the grid at up to 100 per cent instantaneous renewables over the next decade.
- Details our major program of works across three critical pillars to build and operate a safe, reliable and low emissions power system:
  - **Energy Reliability:** investing \$14 billion to build a 2,500km energy superhighway of essential transmission lines and infrastructure to connect new largescale renewable energy and storage to the grid, integrate five renewable energy zones, and expand transmission interconnection between regions and states;
  - **System Security:** deploy an estimated \$2.2 billion in new power system strength technologies and services to maintain the secure operating envelope of the grid without the operation of coal generation; and
  - **Operability:** a step-change in analytical and operational capabilities and capacity to operate an increasingly complex power system, with a \$300 million program to strengthen Transgrid's technology tools, workforce and training.

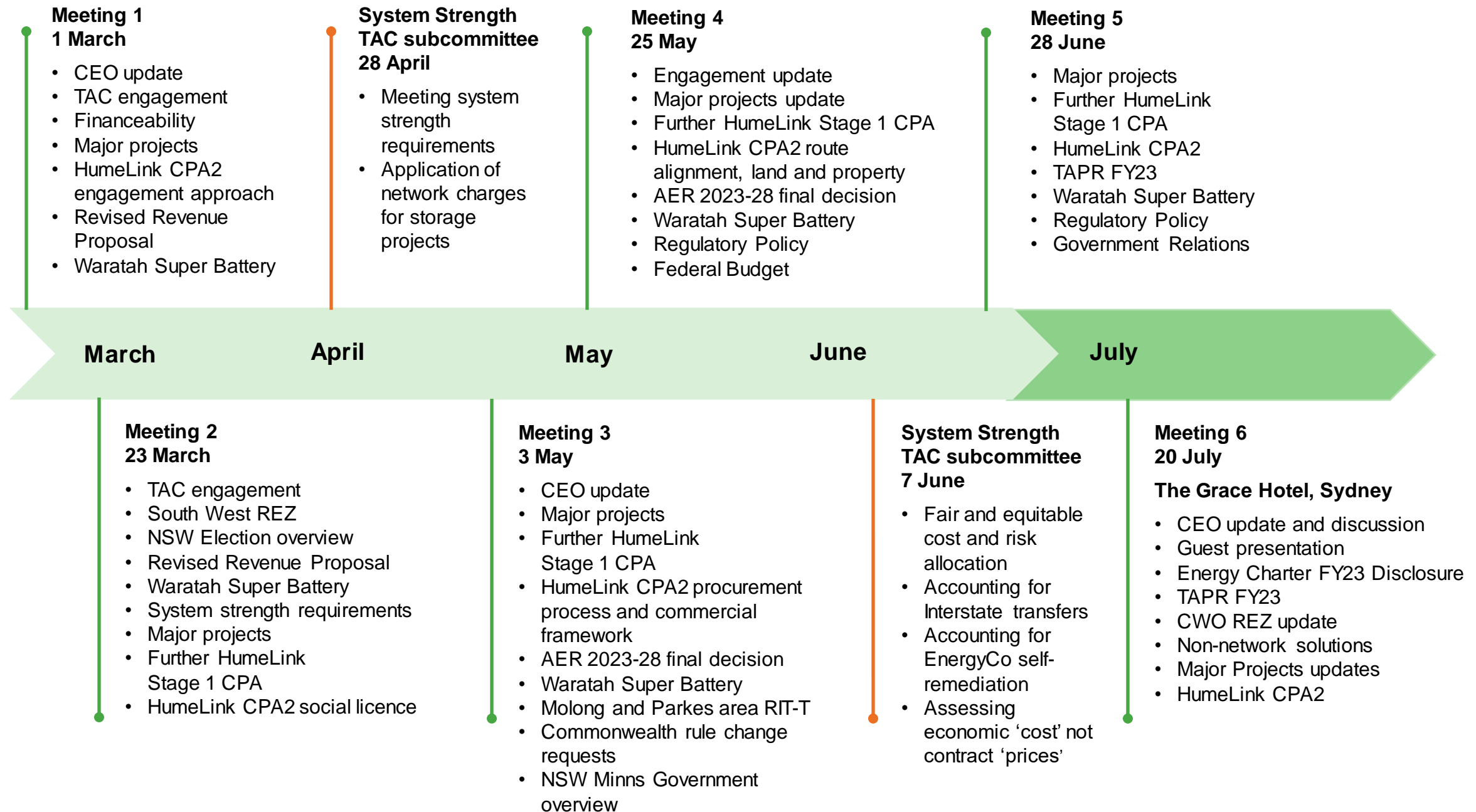


# Summary and next steps

Kate Davies,  
Acting Executive General Manager,  
Corporate and Stakeholder Affairs



# TAC meeting program





# Next TAC meeting – 20 July 2023, The Grace Hotel

## Proposed agenda items for in-person meeting at The Grace Hotel, Sydney

- CEO update and group discussion
- Guest presentation on Social Licence – Sabiene Heindl, Executive Director, The Energy Charter
- Energy Charter FY23 Disclosure
- Transmission Annual Planning Report FY23
- Non-network solutions
- Major projects update
- HumeLink CPA2 update

### **Collaboration point:**

What are your thoughts on the proposed meeting agenda?

# Thank you

## Contact details

For further information or discussion, please contact:



Cassie Farrell, Stakeholder Engagement Manager

0448 377 497 // [cassie.farrell@transgrid.com.au](mailto:cassie.farrell@transgrid.com.au)



Jane Deane, Senior Advisor - Stakeholder Engagement

0437 546 540 // [jane.deane@transgrid.com.au](mailto:jane.deane@transgrid.com.au)



Belinda Ackermann, Stakeholder Relations Advisor

0448 746 434 // [belinda.ackermann@transgrid.com.au](mailto:belinda.ackermann@transgrid.com.au)

