Transgrid Advisory Council (TAC) Meeting summary and actions

28 June 2023



Meeting title:	TAC Meeting #5 for 2023		
Location:	Level 9, Meeting Room 01, Transgrid, Ultimo and via Microsoft Teams		
Chairperson:	Kate Davies, Acting Executive Gene	eral Manager, Corpo	prate and Stakeholder Affairs
Date of meeting:	Wednesday 28 June 2023	Time:	9.30am - 12.15pm
Attendees:			
Transgrid Advisory Council Members	Andrew Richards, CEO, Energy Users Association Australia (EUAA) Connie Mort, Senior Policy Advisor, Environment, NSW Farmers Gavin Dufty, Executive Manager Policy and Research Unit, St Vincent de Paul Michael Lynch, Senior Policy Officer, Public Interest Advocacy Centre (PIAC) Mitchell Hume, Australian Energy Market Operator (AEMO) Panos Priftakis, Head of Wholesale Regulation, Snowy Hydro Sean Mullins, Director, Australian Energy Regulator (AER) – observer Tennant Reed, Head of Climate, Energy and Environmental Policy, Australian Industry Group (AIG)		
Transgrid representatives	Belinda Ackermann, Stakeholder Relations Advisor Cassie Farrell, Stakeholder Engagement Manager Charbel Lahoud, Senior Engineer Dragana Hele, Senior Engineer Emma Ashton, Government and Stakeholder Relations Manager Jane Deane, Senior Advisor, Stakeholder Engagement Jeremy Roberts, Project Director, HumeLink Michael Johnson, Program Director, Stakeholder Relations Major Projects Stephanie McDougall, GM of Regulation Sumaya Osman, Environmental Planning and Approvals Manager Zainab Dirani, Senior Research Analyst		
Apologies	Christiaan Zuur, Director Energy Transformation, Clean Energy Council Josef Tadich, Senior Manager, Engineering, Tesla Kim Woodbury, Chief Operating Officer, City of Sydney Maryanne Graham, EGM Corporate and Stakeholder Affairs, Transgrid Nathan Rhodes, GM Major Projects Delivery, Transgrid Nicole Ryan, GM Community, Stakeholder and Government, Transgrid Sam Fyfield, GM Grid and SCADA, Goldwind		

1. Meeting summary

1.1. Overall summary of meeting

The meeting opened with a review of actions from the previous meeting. Attendees were invited to participate in a poll at the end of meeting to help us measure our engagement performance.





We presented an overview of proposed engagement with the TAC on our FY23 Energy Charter Disclosure Report, including a review of our self-assessment on delivering against the Energy Charter's five principles. TAC members were invited to provide feedback on this approach.

A Major Projects update on the Powering Tomorrow Together Program (PTT) highlighted key successes including positive engagement with the Australian Energy Regulator (AER), development of best practice standardised documentation, efficiencies through an integrated master program and progress in investigating drone stringing concepts and tackling social issues linked to regional telecommunications.

An EnergyConnect (PEC) update emphasised progress on the installation of transmission towers, completion of earthworks for the Buronga substation expansion and installation of two synchronous condenser transformers and the first 330KV phase shifting transformer.

A VNI West update focussed on route development, referencing exhibition of the *Draft Corridor Options and Evaluation Report* and lodgement of the final Project Assessment Conclusions Report (PACR). A discussion on social licence followed. The team also provided a snapshot of the Hunter Transmission project which saw a discussion on project financeability.

A HumeLink presentation noted final tender negotiations with two Early Contractor Involvement (ECI) partners, 41.5% of land being agreed to in-principle and imminent feedback from the Department of Planning and Environment (DPE) on our EIS (Environmental Impact Statement) submission.

The HumeLink CPA1 (part 2) update referenced lodgement of a further Stage 1 CPA with the AER to enable us to recover costs of purchasing long lead equipment (LLE), maximising cost efficiencies for consumers. The team highlighted that our Stage 2 CPA is on track for lodgement in September 2023 and notes key areas for reducing risk and providing more certainty in the submission.

During the second half of the meeting, we detailed the Biodiversity Offset Delivery Strategy for HumeLink CPA 2 and progress with our offset approach, along with a plan for the next 12-24 months during the delivery stage, linking back to CPA 2 and the next round of budget certainty.

This was followed by an update on our FY23 Transmission Annual Planning Report (TAPR). TAC members were invited to identify any specific areas of interest and join a TAC session on the TAPR.

A Waratah Super Battery (WSB) non-contestable revenue proposal presentation recapped the project and regulatory timeframe, noted submission of the final initial revenue proposal to the AER on 30 June 2023 and discussed the forecast OPEX and CAPEX.

Our Capital Expenditure Sharing Scheme (CESS) position was discussed ahead of the CESS deep dive session with the TAC on 7 July. This was followed by an update on the automatic and non-automatic adjustments reflected in our revenue proposal. TAC member views on these adjustments were sought.

The final presentation, including on the Energy Networks Australia (ENA) rule change, thanked TAC members for their feedback on our rule change position. A government affairs update referenced the inquiry examining the feasibility of undergrounding transmission infrastructure for renewable energy projects and the NSW Independent Electricity Supply and Reliability Check Up (the Check Up).

The meeting ended with a snapshot of Transgrid's System Security Roadmap released during Energy Week, highlighting its three critical pillars of energy reliability, system security and operability.



1.2. Detailed summary of meeting

ltem	Topic presented	Summary of stakeholder comments	Summary of Transgrid response
1.	Welcome and introductions Kate Davies, Acting Executive General Manager, Corporate and Stakeholder Affairs		
2.	Actions from last meeting Kate Davies, Acting Executive General Manager, Corporate and Stakeholder Affairs		All items actioned.
3.	Engagement Update Kate Davies, Acting Executive General Manager, Corporate and Stakeholder Affairs	Tennant Reed AIG: Tennant commented in MS Teams Chat that the Energy Charter consultation seems fine.	
4.	Major Projects (PTT) Update Michael Johnson, Program Director, Stakeholder Relations Major Projects	Andrew Richards, EUAA: It would be good to understand the remaining challenges and the plan to resolve these. Andrew Richards, EUAA: Are the different tower designs due to terrain or ground conditions? Andrew Richards, EUAA: When the original project and CAPEX was approved by the AER, were the more cost-efficient tower designs part of this, or is this something new?	Michael Johnson, Program Director, Stakeholder Relations Major Projects: We will take this as an action item. Jeremy Roberts, Project Director, HumeLink: The terrain - PEC has flat and vast distances with little elevation or vegetation, so the optimal tower type is a guyed tower. HumeLink has alpine areas where large traditional towers that can handle snow conditions are required, along with areas with built-up landscapes where it is inefficient to clear areas for guyed towers. It is dependent on the most efficient outcome for the terrain. We now have a suite of standard towers which allows us to select the right tower and efficiently procure and tender these without the need for re-designing and re-testing each time. Jeremy Roberts, Project Director, HumeLink: It was part of the tender submission to come up with an innovative solution. Cassie Farrell, Stakeholder Engagement Manager: We will take this on notice to confirm this.
		Tennant Reed AIG: Is PEC roughly 5% complete	



(74 towers of 1,500 erected)? Andrew Richards, EUAA: We see social license issues on the Victorian side of the border. How is the north side faring on social license issues and community engagement? Does the situation impact overall timing and how are you dealing with a potential timing misalignment? Do the recent National Electricity (Victoria) Act 2005 (NEVA) orders have the potential to dissolve these timing issues? Andrew Richards, EUAA: If you do see a significant issue, or the Victorian issues create a handbrake, how would you manage that potential is lignment?	Jeremy Roberts, Project Director, HumeLink: This is the portion of towers completed, however the Buronga substation and existing line upgrade is part of the critical path occurring in parallel. Different measures exist when identifying the percentage completed, such as seeking land EIS approval, along with other elements that add to the overall project percentage completed. Michael Johnson, Program Director, Stakeholder Relations Major Projects: We've been engaging with the community and stakeholders north of the border. Early engagement identified some of these social licence issues. Stakeholder reference group comments in early engagement are echoed in some submissions in the Australian Energy Market Operator (AEMO) consultation report. Many of these issues are being addressed through route alignment with starting to move the corridor away from highly sensitive areas. The AER have requested further information on the consultation process, which we have provided for their consideration and compliance reporting. At this stage, we don't expect significant delays south of the border, but we are staying aware. Michael Johnson, Program Director, Stakeholder Relations Major Projects: We are monitoring this. Further
create a handbrake, how	Stakeholder Relations Major Projects:
Gavin Dufty, St Vincent de Paul: Is there anything Transgrid are doing to minimise the spread of noxious weeds and identify sensitive areas of remnant flora and fauna? With farming communities, if trucks spread weeds, it presents another pain point.	place. Jeremy Roberts, Project Director, HumeLink: We have clear biodiversity protocols on all sites in between landowners and there are different levels of requirements in our environmental management plan.
Gavin Dufty, St Vincent de Paul: I am hearing about these types of issues from my members. It may be	Michael Johnson, Program Director, Stakeholder Relations Major Projects: That is a good point. Different construction methodology such as drone stringing and innovative technologies bring benefit for



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worthwhile to prepare for this becoming more of an issue.	biosecurity, with less interaction with landowners and land parcels.
Panos Priftakis, Snowy Hydro: What is the distance north into NSW for VNI West?	Jeremy Roberts, Project Director, HumeLink: VNI extends to Wagga Wagga and connects into HumeLink. We are building a substation 10km east of Wagga Wagga for HumeLink. VNI will connect into that component of it.
Panos Priftakis, Snowy Hydro: There was a discussion that at some point it would connect to PEC, but does it go all the way to Wagga Wagga?	Jeremy Roberts, Project Director, HumeLink: We are connecting at Dinawan on the PEC side. The upgrade from Dinawan east to Wagga Wagga is part of the benefit of VNI. It is interconnected, but the VNI upgrade portion connects it right through to Dinawan. This is where you get the 500 kV from – VNI across Wagga Wagga up through to HumeLink, then through to Sydney. That's how you capture the renewables from south-west up through the flow, whereas PEC is a 330 kV project across to South Australia. The upgrade of PEC from Dinawan to Wagga Wagga at 500 kV is the VNI portion of it.
Andrew Richards, EUAA: When are you likely to start the CPA for this or is it something else as it's in NSW? Andrew Richards, EUAA: Will this sit in the NSW electricity infrastructure roadmap (the Roadmap) process then?	Jeremy Roberts, Project Director, HumeLink: It is not a CPA formal submission. Jeremy Roberts, Project Director, HumeLink: Yes, it will follow the Priority Transmission Infrastructure Project (PTIP) which is equivalent to the Regulatory Investment Test for Transmission (RIT-T) on the Integrated System Plan (ISP) process.
Andrew Richards, EUAA: When is this process likely to commence?	Stephanie McDougall, GM of Regulation: This is going to be a NSW, PTIP authorised project in the same way as the Waratah Super Battery (WSB). The Hunter Transmission project is similar, with contestable and non-contestable elements. The authorisation and Minister's direction will set out timeframes for the revenue proposal, which will be developed in the same way as the five-year revenue reset. For this project, there will be a standalone Regulatory Asset Base (RAB) for the non- contestable elements, and the timing and stages will be set out in the ministerial direction. Following a draft AER decision,
Andrew Richards, EUAA:	uneonon. I onowing a trait AER decision,



		Can we have a more detailed conversation on this when you are ready? Does this mean it wouldn't be covered by the financeability rule change with a separate RAB? Andrew Richards, EUAA: What you are saying is that under the NSW scheme, you will seek to recover more costs earlier on as part of financeability? Andrew Richards, EUAA: Do you know approximately, what the CAPEX is likely to be?	 we will submit a revision then the AER will make a final decision. It is different to a contingent project. Stephanie McDougall, GM of Regulation: Yes we can. The NSW framework enables change to the depreciation schedules to ensure the project is financeable. We have set out our preferred approach which is in line with the Energy Networks Australia (ENA) rule change. That will be considered by the AER as part of its revenue determination process for WSB. Stephanie McDougall, GM of Regulation: Yes. The rules themselves make some provision for that, more so than the current rules for the NER. Stephanie McDougall, GM of Regulation: No, though there will be a maximum cap set by the Consumer Trustee, which will set the CAPEX.
5.	HumeLink Project engagement, HumeLink Project Update, Jeremy Roberts, Project Director HumeLink HumeLink CPA1, part 2 update, Stephanie McDougall, GM of Regulation and HumeLink CPA2 update – biodiversity, Sumaya Osman, Environmental Planning and Approvals Manager	Andrew Richards, EUAA: How are you tracking against the goals you set to justify early work and your hopes to reduce risks for consumers and get a better understanding of costs? It would be good to take this as an action item. I am interested to hear how this is tracking and your experiences in that market of procurement (particularly LLE items and things we don't make here like 500 kV transformers).	Stephanie McDougall, GM of Regulation: This CPA 1 (part 2) LLE is about getting costs as firm as possible - fixing the price now so we know with a high level of certainty what we will pay. WSB and HumeLink showed a reluctance by the market to enter fixed price contracts. We aren't getting suppliers in a heated inflationary market willing to do that with a Producer Price Index (PPI) of 12% over the past year and other events driving up material and labour prices. We have agreed on a more flexible approach for our projects, with some fixed and some reimbursable prices - pain share/gain share. For instance, on the reimbursable portion, if we underspend on the first 5%, it is shared 50/50 with the contractor and us, and above that is shared 70% in our favour, 30% in the contractors favour and that's symmetrical. We then propose to hand back financing costs on the underspend if the Capital Expenditure Sharing Scheme (CESS) is removed. As we don't have certainty and are pushing the contract market to go in with a lower cost in recognition of the current operating environment, the contract structure is



Andrew Richards, EUAA: Things like land acquisition is in Transgrid's control and unaffected by global supply constraints. It would be good to understand the elements in your control and where we are tracking to get to the Class 2 estimate, so we are reducing risk to consumers on overspend. It sounds like you will be building this and it's not a Class 2 project – a lot of uncertainty will still flow through. Andrew Richards, EUAA: What are the outer limits of potential costs on these projects? If costs continue to increase despite heat offerte	different and they're not pricing in that risk, but there is the reimbursable component which means customers will be better off for an underspend. Equally, we propose to wear the financing cost if there is an overspend, but not the CESS itself. Stephanie McDougall, GM of Regulation: It will be on certain elements only, such as land acquisition. For HumeLink, we have a certain amount where we have an execution, a certain amount where we have agreement in principle for the option to be paid, and a certain amount not there (which may not be for some time). So, when we submit our CPA 2 for delivery, we won't know the costs of acquiring the land as we will be negotiating those through the project. For that one specifically, there will not be the Class 2 estimate as we haven't executed the option. Jeremy Roberts, Project Director, HumeLink: Through valuations, we will have a good understanding of the limits we should apply, so it is lower risk. We are pushing
increase despite best efforts, and the financeability rule change gets through, then increased return of capital in the first 10-15 years, plus the overruns, begins to look unfavourable for those paying Transmission Use of System (TUOS). If the rule change comes in, your overrun risk is somewhat mitigated as you are recovering more capital much faster in that period.	early ordering of equipment and minimising disruptions in biodiversity areas through construction methodologies and acquiring stewardship agreements to ensure the most efficient path through the biodiversity offset management. We are best placed to wait until construction to determine our offset liabilities, rather than paying into a trust upfront.
Andrew Richards, EUAA: We hope it will be an offset.	Stephanie McDougall, GM of Regulation:
Those building wind and solar and connecting into grid are facing the same supply chain issues, so we may not see super low-cost renewables entering the system. The increase in TUOS is guaranteed, the decrease in wholesale prince isn't.	Our TUOS will increase, however, we are undertaking this investment as the wholesale price will decrease. Before we submit our CPA 2, we will have a solid understanding of what we need to deliver this project, with an all-encompassing cost, as if the CESS is not removed, we are exposed to overruns. AEMO will review that cost with the suite of Integrated System Plan (ISP) projects and benefits



			arising from that investment, and pass that cost through the feedback loop if it demonstrates a clear net benefit to consumers through offsetting wholesale market price. So, while the TUOS will increase, it will be offset by cost reductions in other parts.
			Stephanie McDougall, GM of Regulation: AEMO's analysis is helpful. They factor all cost increases from the entire supply chain and look at savings from the fuel itself. We could ask AEMO to further explain this.
		Tennant Reed AIG: Do you have concerns around the procurement of manufactured input side, or are those supply chains robust enough so you are confident the keen prices agreed would be met?	Jeremy Roberts, Project Director, HumeLink: Our transformer and reactor suppliers have been selected so each party can provide the alternate, should one fail. While costs would be involved for this, we have certainty that both can provide, and step in on the other one.
		Tennant Reed AIG (via MS Teams Chat): We may need to judge this against double counterfactuals, not what we thought costs might be before the combined-buying project, but what they might have turned out to be given all that's subsequently happened with clogged order books and stretched global supply chains.	Jeremy Roberts, Project Director, HumeLink: We need to better understand what the counterfactual would be if we ordered 6-12 months later. It would be interesting to see timing blowouts from what we were told, to what happens. The next equipment we will closely consider ordering earlier is high voltage circuit breakers, and if equipment wasn't used for this project, it could be transferred to others.
		Tennant Reed AIG: Is \$1 billion still the amount for biodiversity costs?	Sumaya Osman, Environmental Planning and Approvals Manager: It's just over \$800 million. It would have been lower, however in late 2022, there were some changes to the <i>Biodiversity</i> <i>Conservation Act</i> on how credits were retired and threatened species credit costs.
6.	Transmission Annual Planning Report (TAPR) FY23 Dragana Hele, Senior Engineer	Tennant Reed and Andrew Richards expressed interest in participating in the TAPR engagement. Michael Lynch advised that he will be on leave, however Craig Memery may attend.	



7.	Waratah Super Battery (WSB) Non- contestable Revenue Proposal Stephanie McDougall, GM of Regulation	Tennant Reed AIG: Do you know approximate costs of what these elements would have been for a greenfield location?	Jeremy Roberts, Project Director, HumeLink: We are raising conductor and strengthening existing lines, so it is a different style of project to compare. For the transmission line, we could provide an order of magnitude of a new greenfield line for comparison.
		Tennant Reed AIG: That would be good. There are many people praising the benefits of undertaking creative things with old coal power station sites, it would be great to understand how extensive these benefits are.	Stephanie McDougall, GM of Regulation: The System Integrity Protection Scheme (SIPS) that controls the battery is new.
		Tennant Reed AIG: Yes, the SIPS is the novel bit and a small component of these numbers.	Stephanie McDougall, GM of Regulation: Yes, it is like the protection scheme and then we have the pair generator and the battery itself that was done under the contestable framework, so there were different revenue proposals for each.
		Andrew Richards, EUAA: When you discuss building new power lines to connect more renewables, and a wholesale price reduction which hopefully occurs, ultimately, consumers don't pay the wholesale price - they pay the total bill. The service of WSB used to be provided by thermal generators. We are seeing a range of different costs entering the energy system that consumers need to pay. The way the Roadmap works is that costs are recovered by a distribution network bill, so the cost isn't obvious. When you talk about wholesale price benefits but bills are going up, consumer trust is compromised. Be cautious in the narrative around costs and benefits and don't inadvertently provide consumers with the perception that their bills will	Stephanie McDougall, GM of Regulation: That is good advice. We need careful consideration around the messaging. Jeremy Roberts, Project Director, HumeLink: The other component is what the alternative is. Despite bills not decreasing, the alternative is far less positive if we don't proceed with this.



		drop dramatically. We need a more holistic conversation with consumers as prices rise.	Kate Davies, Acting EGM, Corporate and Stakeholder Affairs: We are developing a key message document and will ensure the message we use across the business is consistent internally and externally.
		Andrew Richards, EUAA: Explaining counterfactual scenarios is a big challenge as most of the community do not understand what this is.	
		Andrew Richards, EUAA: Will the AER be involved in the deep dive? We rely on the AER to provide in-depth analysis and they should be asked to attend the deep dive and have some numbers ready so we can understand how the benefits materialise for consumers. Sean Mullins, AER, confirmed in MS Teams chat that the AER will attend.	Cassie Farrell, Stakeholder Engagement Manager: Yes, they will attend.
8.	Regulatory Policy and Government Relations Update Stephanie McDougall, General Manager of Regulation Emma Ashton, Government and Stakeholder Relations Manager	Andrew Richards, EUAA: In several ways, the ENA request undermines Transgrid's rationale and unique position.	Stephanie McDougall, GM of Regulation: A good point. The Minister states the AER should have discretion; the ENA states there should not be. We support a formulaic approach to remove that discretion. This should be managed by ensuring on a case-by-case basis, that enough revenue is pushed forward to meet credit metrics each year of the revenue period. We have included this in our Post- Tax Revenue Model (PTRM) revenue proposal for WSB. Our view is that it needs to meet that for each project.
		Andrew Richards, EUAA: What level of gearing do you anticipate in each of these?	Stephanie McDougall, GM of Regulation: We assume the benchmark level gearing of 60%.
		Andrew Richards, EUAA: If you changed the gearing levels and equity took on more of the responsibility, then the financeability aspect from a debt perspective is diminished. Are you saying you will still	Stephanie McDougall, GM of Regulation: Equity must earn the prevailing market rate and won't invest if it doesn't achieve a RoR comparable with market RoR. Equity looks to invest globally and if the prevailing rate earned by investing in these projects is lower than the prevailing rate available



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		have a credit rating issue because as equity, you are not getting the rate of return (RoR) you need?	globally, it will invest elsewhere. We need equity to invest in these – the prevailing rate needs to be commensurate with the market rate.
		Andrew Richards, EUAA: If those benchmarks are for like-for-like regulatory outcomes, you receive a guarantee RoR on equity too. It would be good to see some of that benchmarking.	
		Andrew Richards, EUAA: Relating to the Inquiry: I argue there is an efficient level of transmission investment where consumers hopefully get a net benefit, and undergrounding in some points is a 'public good' rather than a net benefit for consumers. If deemed to be 'public good' by the Government, they should fund that gap.	Emma Ashton, GM of Regulation: I will send a copy of our submission and am happy to talk about it offline. Transgrid will be represented at the hearings.
9.	Summary and next steps Kate Davies, Acting Executive General Manager of Corporate and Stakeholder Affairs		

2. Action items

Action	Responsible	Due date/ status
Powering Tomorrow Together Program (PTT): provide the TAC with a more detailed overview of the remaining challenges and a resolution action plan.	Nathan Rhodes	20 July 2023
Powering Tomorrow Together Program (PTT): confirm if the cost-efficient towers formed part of the original project and CAPEX approved by the AER or were added later.	Nathan Rhodes	20 July 2023
Powering Tomorrow Together Program (PTT): provide more information on the NSW Electricity Infrastructure Roadmap (the Roadmap) and the Priority Transmission Infrastructure Project (PTIP) process.	Stephanie McDougall	20 July 2023
HumeLink: Provide more information on how Transgrid is tracking against the goals you set to justify early work,	Jeremy Roberts Stephanie McDougall	20 July 2023



your hopes to reduce risks for consumers and get a better understanding of costs and your experiences in that market of procurement (particularly LLE items and things we don't make here like 500 kV transformers).		
<i>HumeLink:</i> Provide further information on the elements in Transgrid's control and where we are tracking to get to the Class 2 estimate, so we are reducing risk to consumers on overspend.	Jeremy Roberts Stephanie McDougall	20 July 2023
Waratah Super Battery (WSB): provide an order of magnitude for the transmission line (greenfield line compared to brownfield).	Stephanie McDougall	20 July 2023
Waratah Super Battery (WSB): provide information around how extensive the benefits are of undertaking creative things with old coal power station sites.	Fiona Orton	20 July 2023
Share benchmarking information around our formulaic approach to financeability.	Stephanie McDougall	20 July 2023
Provide a copy of Transgrid's submission on the Inquiry examining the feasibility of undergrounding transmission infrastructure for renewable energy projects.	Emma Ashton	20 July 2023

3. Next meeting

The next meeting will occur on **Thursday 20 July 2023**, in person at The Grace Hotel, 77 York Street, Sydney, or online via MS Teams.

4. Contact details

If you require any information on this summary or in relation to TAC meetings, please contact:

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