AusNet

TRR 2027-32

Transmission Stakeholder Advisory Panel (TSAP)

Summary Notes for Meeting #3 – Asset Replacement & Major Project Capex

Details	Members	AusNet Staff
1pm to 4pm Thursday 13 February 2025 **In-person & Online (MS Teams)** **Chair:** Glenn Orgias **Secretariat:** AusNet prepared draft, finalised by Chair Glenn Orgias	Glenn Orgias, *Chair* Alex Crosby Rebecca Xuerub Theodora Karastergiou Harshal Patel Gavin Dufty David Markham *(joined virtually)* Richard Robson *(joined virtually)* Tennant Reed *(joined virtually)* Roy Unny *(joined virtually)* **Apologies**: Andrew Richards	**AusNet Staff:** Tom Hallam, *GM Strategy & Regulation (Transmission)* Laura Walsh, *GM Network Management (Transmission)* Stuart Dick, *Manager Asset Management (Transmission)* Michael Larkin, *Price Review Manager* Lucy Holder, *Customer Engagement Manager* Herman De Beer, *Principal Engineer Strategy Network Plan* Tushar Mehta, *Engineer – Network Planning* Charlie Qin, *Regulatory Economist* Emma Ferrie, *Engagement Specialist* **Observers:** David Prins, AER CCP Steve Spencer, AER *(joined virtually)*

Key outcomes

The panel left with a better understanding of AusNet's capex program, with some key slides to be updated throughout the process to keep them informed of how the case is progressing.

There was general agreement that the way AusNet had identified and assessed options was appropriate. The panel was generally comfortable with Options 1 (procure a new transformer and keep the existing as spare) & 2 (retire the current transformer and procure two new, with one spare) and suggested AusNet reassess Option 2 for economic feasibility as it looks like the more obvious choice for long-term efficiency. The panel also broadly supported 2031 as preferred timing, consistent with the economic timing using 100% of VCR as the base case (pending an assessment of overall deliverability when the proposal case is more complete).

The panel generally supported AusNet's capex forecasting process and approach, and AusNet taking the same approach to engagement on capex in future sessions – that is, making a case for the capex project, sharing options considered (and an AusNet view if it has one), and agreeing on an option to take and preliminary view on timing with the TSAP.

Purpose & Agenda

Agenda item	Purpose	Lead/s	Timings
Introduction and progress update	• Build TSAP members' understanding of the current status and key milestones in developing the TRR 2027-2032 submission	**Tom**	**1.00pm** | 5 mins
Capex 101	• Build TSAP members understanding of capex forecasting and key external influences	**Michael**	**1.05pm** | 10 mins
Capex approach for Asset Replacements & Major Station Projects	• Build TSAP members understanding of how AusNet arrive at the capex proposal for asset replacement and major station projects.	**Michael**	**1.15pm** | 10 mins
Asset Replacement Program overview	• Build TSAP members understanding of AusNet's asset replacement program	**Stuart & Laura**	**1.25pm** | 35 mins
Major Station Projects overview	• Build TSAP members understanding of AusNet's Major Station Projects	**Herman & Laura**	**2.00pm** | 35 mins
Afternoon tea			**2:35pm** | 5 mins
Case study: Dederang Terminal Station Transformer & Circuit Breaker Replacement Project	• Collaborate with the TSAP on the method for developing and assessing options for the Dederang Terminal Station upgrade (which will be applied to other capex projects) • Involve the TSAP on the selection of the option to be included in AusNet's TRR 2027-2032 proposal	**Herman & Laura**	**2:45pm** | 45 mins
Wrap up and next steps	• Agree on an approach for future capex discussions, building on feedback on this meetings' engagement approach	**Glenn**	**3:30pm** | 30 mins
Close			**4.00pm**

Summary of discussion

Topics	Discussion points
Welcome & progress update	Tom Hallam from AusNet provided an overview of the session's purpose, which was to discuss: • How AusNet develops its capex proposals overall, including critical internal and external inputs • How AusNet's asset replacement and major station projects forecasts are developed • A case study for major station projects. **Discussion included:** • There was no discussion on this agenda item.
Capex 101 & capex approach for	Michael Larkin from AusNet provided an overview of how AusNet forecasts its capex, which included: • The framework used to calculate and forecast capex

asset replacements & major station projects

- Governance processes
- External influences which may impact capex
- Outputs which AusNet present to the Australian Energy Regulator, and
- AusNet's procurement processes which help keep its delivery costs competitive.

Discussion included:

- Panel members asked how AusNet's forecasts are built and benchmarked. AusNet responded by clarifying that it has standard estimation procedures which are broadly built off a database of similar completed transmission projects.
- A panel member asked about AusNet's approach to cost-benefit analysis and decision-making. AusNet explained that it assesses both the benefit stream and the cost stream to determine the most balanced and effective outcome.
- Panel members agreed that AusNet's capex approach makes sense, however, noted that there is some subjectivity to the approach. AusNet shared that the framework they use has been used for a long period of time, noting the AER has a document on asset replacement that also guides asset replacement approaches.
- There was a discussion on whether AusNet does or should consider other transmission projects (in its jurisdiction or others') in its planning and opportunities for greater coordination of transmission capex spending to lower costs and make sure suppliers are available. AusNet confirmed this would be assessed in the deliverability stage of the project, and at a higher level when it assesses deliverability of the overall capex program in the TRR 2027-32 process. AusNet noted that historically, transmission projects competing against each other hasn't been a significant issue, but may become a more common problem particularly for large greenfield projects. AusNet also noted costs have been changing significantly in recent years highlighting the need for deliverability to be considered nearer to the time the project is delivered.
- A panel member asked at what stage in the project AusNet considers innovation and explores new, more efficient solutions. AusNet responded by saying that they consider and explore the most efficient solution for a project during the initial concept planning phase. As the delivery of the project continues, AusNet conducts design reviews to identify areas that could be done more efficiently whilst taking audit requirements into account.

Asset replacement program overview

Stuart Dick from AusNet provided an overview of AusNet's asset replacement program.

Stuart explained that spending will continue increasing up to and from 2026-27, primarily driven by the replacement of transmission lines, including replacing 500kV towers whilst keeping customers on supply.

Discussion included:

- A panel member asked how AusNet can overspend the allowance for a project. AusNet responded by saying they can spend what they need, but there are penalties in place if they do overspend – AusNet pays 30c to the dollar and customers pay 70c (if the AER deems the spending prudent). Likewise there are rewards available if AusNet finds more efficient ways to do things – AusNet keeps 30c to the dollar of the savings, and customers get 70c.

  There was discussion on what situation overspending may occur given it doesn't sound commercially sensible. AusNet clarified that if additional spending is required for safety or reliability reasons, they will proceed with it. AusNet also noted that the AER has the authority to conduct a detailed review of the expenditure. If the review determines that the spending was not efficient, AusNet may be required to cover the full or a higher proportion of the costs.
- A panel member asked whether AusNet could provide a trend line to demonstrate how its spending impacts asset age profiling, particularly if age is considered a benefit. AusNet responded that age is not the determining factor in decision-making;

instead, condition-based assessment and likelihood of failure is used. Nonetheless, older equipment is more likely to be in poorer condition.

- A panel member raised how AusNet is addressing the increasing risk of extreme weather events and the impact it is having on its asset replacement program. AusNet explained that assets are upgraded to modern standards when they are replaced (in the repex program), and modern standards take increased resilience into account.
- A panel member asked if there is an incentive for innovating and designing more resilient towers. AusNet responded by saying that a key part of resilience for the transmission network is innovating on construction solutions so much of the upgrades can occur whilst the wires are live and can avoid network plant outages. AusNet furthered explained that managing outages is where a lot of the increasing expense is in upgrading lines on the transmission network.
- There was discussion around why AusNet is upgrading the Dederang terminal station, given it is only 50 years old. AusNet noted there will be more discussion in the case study agenda item, and explained the transformer itself is in poor condition and it has done a risk assessment and determined that it is more economic to replace it, rather than risk network users not being able to use it, and the location in the network on the NSW interconnector also makes Dederang particularly critical.

Major station projects overview

Herman De Beer from AusNet provided an overview of AusNet's major station projects. This included an overview of the projects AusNet expects to complete within the current regulatory period, as well as those planned for the next. It also highlighted any projects that may be deferred to the next period due to delays or changes in project scope.

Discussion included:

- There was discussion around AusNet's joint planning with AEMO and looking at the demand forecast to determine the need for capacity and where it is more efficient to replace with larger transformers.
- There was a discussion about economic timing and the potential for projects to exceed AusNet's initial cost forecasts. AusNet noted that if a project becomes significantly more expensive, it may consider deferring it provided an analysis supports the decision by justifying the risks associated with postponement.
- There was discussion on the difficulties forecasting demand for data centres. AusNet took an action to share its written response to AEMO's draft electricity demand forecasting methodology consultation with panel members.

Case study: Dederang Terminal Station Project

Herman from AusNet provided an overview of the Dederang Terminal Station Project, the options AusNet has identified and assessed to address the need for a transformer upgrade, and potential project timing.

Key outcomes:

There was general agreement that the way AusNet had identified and assessed options was appropriate. The TSAP was generally comfortable with Options 1 (procure a new transformer and keep the existing as spare) & 2 (retire the current transformer and procure two new, with one spare) and suggested AusNet reassess Option 2 for economic feasibility as it looks like the more obvious choice for long-term efficiency. The TSAP also broadly supported 2031 as preferred timing, consistent with the economic timing using 100% of VCR as the base case (pending an assessment of overall deliverability when the proposal case is more complete).

Discussion included:

- Whether it would be more efficient for AusNet to get a new transformer as a spare, rather than use the old H3 transformer as a spare. This sounded like the logical choice to some. AusNet said it has looked for more efficient solutions but will reassess whether purchasing two new transformers is the best option over the longer-term.

- If the existing transformer became the spare and then was needed in service, AusNet would need to purchase a second new transformer anyway.
- The difficulty refurbishing transformers. AusNet clarified it can refurbish some elements like bushings but not the key internal parts.
- The overarching risk of the network, and understanding when broader factors may impact the timing of network upgrades. AusNet shared that overlaying the deliverability aspect may shift the timing of a project to help it fit in with AEMO's or DNSPs' upgrade plans.
- Opportunities for transmission networks around Australia to share large transformers. AusNet explained that transmission networks generally work to different voltages but there are some opportunities to share, including with distribution networks. We hold spares for our high population transformers (e.g. 220/66kV connection transformers)
- What would happen if AEMO identified a factor that AusNet had not accounted for in its modelling. AusNet responded that any such factor would be incorporated into its modelling as an updated demand forecast. AusNet also noted that, in this case study, a regulatory test would still be required. Additionally, AusNet highlighted the existence of an annual planning process that allows all relevant parties to stay informed and raise concerns, ensuring coordinated planning. Regular meetings with AEMO and DNSPs further support this collaboration. However, the upcoming VTP provides significant uncertainty around augmentation plans outside the usual planning processes. Regarding Dederang, AusNet explained that it had presented various options and discussions with AEMO and the DNSPs had led AusNet to propose its current preferred option.
- Whether AusNet considers addressing nearby issues while crews are already onsite, even if the timing isn't economically optimal – i.e. whether the benefits of bundling multiple upgrades are factored in. AusNet confirmed it takes this into account but noted that replacing one transformer often reduces overall risk, meaning it may not always be cost-effective to replace both at the same time.

Wrap up

Glenn Orgias, TSAP Chair asked panel members for feedback on the information that had been presented to them in today's session, as AusNet will be preparing materials for a number more capex sessions and wants to make sure the TSAP has the information it needs to engage in the way it wants to engage.

Key outcomes:

The panel generally supported AusNet's capex forecasting process and approach, and AusNet taking the same approach to engagement on capex in future sessions – that is, making a case for the capex project, sharing options considered (and an AusNet view if it has one), and agreeing on an option to take and preliminary view on timing with the TSAP.

AusNet took an action to lock in future meeting dates as soon as practical.

Discussion included:

- There was general consensus amongst the panel members that they were comfortable with the methodology AusNet presented in today's meeting. Key points panel members raised included:
- Panel members discussed their role and the complimentary roles of the Australian Energy Market Operator (AEMO) and the Australian Energy Regulator (AER). The AER's Consumer Challenge Panel representative shared that panels have an important and unique role, and the AER wants them to look at costs but does not expect them to be experts in every area.
- A panel member shared that they appreciated the case study, and asked if case studies can be incorporated in future sessions to help increase understanding and transparency.

- A panel member said seeing a list of all projects AusNet had considered would help them understand why specific projects are chosen over others for the upcoming regulatory period from 2027-2032.
- Following this feedback, AusNet shared that it will present projects for the TRR 2027-2032 in a similar way for future meetings. It will also provide the big picture for the capex case so the panel can see overall cost and delivery impacts and how different projects may interact.
- There was broader discussion on AusNet's engagement approach, with panel members recommending that AusNet go wide and outside the box for its broader engagement plan. AusNet agreed and shared that it will likely clarify this in the engagement-focussed Deep Dive in late April.

Action items

	Action	Assigned to	Status	Due
1	AusNet will share its written response to AEMOs data centre forecasting with panel members.	AusNet Reg Team	Complete	February 2025
2	AusNet will hold a part 2 session following up from the New Connections Deep Dive held in November.	AusNet	In-progress	March 2025
5	AusNet to share a comparison between its last TRR's step changes and actual expenditure.	AusNet Reg Team	Not started	April 2025
6	AusNet to provide data points on large step changes from previous Transmission Revenue Resets as a reference for panel members.	AusNet Reg Team	Not started	April 2025
7	AusNet to invite landholder representatives to TSAP meetings when social license is covered.	AusNet Engagement Team	Not started	April 2025
8	AusNet to provide the full list of projects AusNet considered for TRR 2027-32, and which were chosen and which were not, and why	AusNet Network Management Team	Underway	April 2025
9	AusNet to test dates and schedule upcoming TSAP meetings, noting some dates may need to change nearer the time.	AusNet Engagement Team	Underway	February 2025
Ongoing actions				
	AusNet to be clear when presenting on capex what is AusNet initiated and what is ISP initiated.	AusNet Reg Team	In-progress	Ongoing