AusNet

TRR 2027-32

Transmission Stakeholder Advisory Panel (TSAP)

Summary Notes for Meeting #5 – Capex

Details	Members	AusNet Staff
9am to 4pm Thursday 5 June 2025 **In-person & Online (MS Teams)** **Chair:** Glenn Orgias **Secretariat:** AusNet prepared draft, finalised by Chair Glenn Orgias	• Glenn Orgias, *Chair* • Alex Crosby, *Multiworks* • Andrew Richards, *Energy Users Association Australia* • Rebecca Xuereb, *Independent customer advocate* • Richard Robson, *Citipower / Powercor / United Energy* • Roy Unny, *Independent customer advocate* • Theodora Karastergiou, *Jemena* (joined virtually from Asset replacement onwards) **Other attendees:** • Tim Sheridan, *DEECA* **Observers:** • Kirk Zammit, *Australian Energy Regulator (joined virtually)* • Rabi Islam, *Australian Energy Regulator (joined virtually)* • David Prins, *Consumer Challenge Panel* • Mike Swanstorm, *Consumer Challenge Panel* (joined virtually for Major Stations agenda item) **Apologies**: • David Markham, *Australian Energy Council (TSAP member)* • Gavin Dufty, *St Vincent De Paul (TSAP member)* • Harshal Patel, *Beca (TSAP member)* • Tennant Reed, *AI Group (TSAP member)*	**AusNet Staff:** • Liz Ryan, *EGM Transmission* • Tom Hallam, *GM Strategy & Regulation (Transmission)* • Laura Walsh, *GM Network Management (Transmission)* • Aaron McArrich, *GM Project Delivery (Transmission)* • Martin Cavangh, *GM Security & Network Operations* • Mario Ellaz, *GM Cyber Security* • Ross Dunbar, *Head of Strategy & Partner Management* • Melanie Tan, *Director Network Development & Planning (Transmission)* • Michael Larkin, *Price Review Manager* • Stuart Dick, *Manager Asset Management (Transmission)* • Ruan de Witt, *Transmission Strategy Manager* • Cameron Yates, *Asset Risk Strategy Lead* • Dom Holden, *Strategy Lead* • Khai Ling Chan, *Strategy Lead* • Charlie Qin, *Regulatory Economist* • Emma Ferrie, *Engagement Specialist* • Nicholas Gathercole, *Business Graduate* • Eleyna Pisani, *Business Graduate*

Key outcomes

The group was presented with a comprehensive overview of AusNet's capital expenditure (capex) proposal for the 2027–2032 Transmission Revenue Reset (TRR).
This included AusNet's proposed investments across several key areas aimed at maintaining reliability, enhancing resilience, and supporting the energy transition:

- **Deliverability Strategy** – addressing labour, materials, outages, and planning approvals to ensure project execution
- **Major Stations Program** – including transformer replacements at Keilor and South Morang Terminal Stations
- **Asset Replacement Programs** – covering lines, towers, secondary systems, and compliance-driven upgrades
- **Digital Investments** – focused on resilience, cybersecurity, and advanced energy management systems
- **Other capex (including Physical Security)** – to meet compliance obligations and mitigate operational risks

Attendees indicated that they were generally comfortable with AusNet's approach, acknowledging the thorough justification for the proposed investments and the importance of transparency in communicating customer impacts. The panel expressed support for the direction of the proposal, while noting that final prudence and efficiency assessments rest with the AER.

Purpose & Agenda

Agenda item	Purpose	Lead/s	Timings
Welcome, introduction & expectations for engagement		Glenn Orgias & Tom Hallam	**9:00am** | 10 mins
VTP overview	Share AusNet's perspectives on the draft Victorian Transmission Plan, and discuss its implications for the TRR	Laura Walsh	**9:10am** | 30 mins
Scene-setting: key capex drivers for the TRR	Recap the key drivers of expenditure for the next regulatory period and provide an update on our deliverability analysis	Tom Hallam, Michael Larkin, Ruan de Witt & Dom Holden	**9:40am** | 60 mins
Current period capex	Share AusNet's current period (2022-2027) capex to provide context for later discussions		Taken as read
MORNING TEA			**10:40am** | 15 mins
TRR capex - summary	Provide an overview of AusNet's TRR capex forecasts to give an understanding of the overall scale	Michael Larkin	**10:55am** | 15mins

TRR capex – Major stations	Share AusNet's latest Major Station Projects capex forecasts and consult on the proposed expenditure	Melanie Tan and Tushar Mehta	**11:05am** | 75 mins
LUNCH			**12:20pm** | 30 mins
TRR capex - Repex	Share AusNet's latest Asset Replacement capex forecasts, and consult on proposed expenditure	Stuart Dick and Cameron Yates	**12:50pm** | 30 mins
TRR capex - Digital	Share AusNet's latest Digital capex forecast and consult on proposed expenditure	Ross Dunbar, Mario Ellaz and Martin Cavanagh	**1:20pm** | 45 mins
TRR capex – Other capex	Share AusNet's latest capex forecasts for other minor categories (including security, property & environment), and consult on proposed expenditure	Jessica Sharpe	**2:05pm** | 30 mins
Afternoon tea			**2:35pm** | 15 mins
Revenue forecast	Gauge an initial response to the price impacts from the capex program	Michael Larkin	**2:50pm** | 15 mins
Engagement on capex decisions	Understand TSAP's initial views on AusNet's capex proposal	Glenn Orgias	**3:05pm** | 40 mins
Engagement on draft proposal	Understand TSAP's initial views on AusNet's engagement approach for its draft proposal	Glenn Orgias	**3:45pm** | 5 mins
Wrap up		Glenn Orgias	**3:50pm** | 10 mins
			4:00pm end

Summary of discussion

Topics	Discussion points
Welcome & introduction	Glenn Orgias, Chair of the TSAP, introduced the session and flagged that AusNet would not go through every slide in the deck, and instead focus on discussion. Glenn did an acknowledgment of country, went through the agenda and flagged some of the key topics for the day, and encouraged the TSAP members to test assumptions. The non-AusNet participants in the room then introduced themselves and the organisations and communities they present Tom Hallam, GM Strategy and Regulation (Transmission) at AusNet then introduced that CAPEX drives a material proportion of future costs for Victorians, and recognised the need to engage on this.

Tom shared that today's session would set the foundation for future discussions on the Victorian Transmission Plan and customer value. Tom called for lots of questions, input, and discussion, and encouraged the TSAP to stop the discussion when needed to challenge or clarify any points.

Tom provided a recap of previous TSAP discussions and distributed a summary of proposed projects for inclusion in AusNet's 2027–2032 Transmission Revenue Reset (TRR) proposal.

Discussion

- A TSAP member asked why AusNet was not providing a deep dive on the VTP now, and why it needs to be later, on 27 June. AusNet responded that it is still working through the implications on the VTP, and that the session today was intended to provide the context for future discussions.

VTP overview

Laura Walsh, GM Network Management (Transmission) at AusNet introduced the Draft Victorian Transmission Plan (VTP), released in May and developed by VicGrid. Laura explained that the VTP is one of several planning documents for Victoria and has been modelled using three scenarios, similar to AEMO's Integrated System Plan (ISP). Rather than optimising for a single future, the VTP outlines development pathways that perform well across all scenarios to minimise poor outcomes in an uncertain future.

Laura highlighted that Renewable Energy Zone (REZ) development is a key focus of the plan. The VTP identifies seven new REZs, which are more targeted than previous plans and incorporate land use assessments. Overall, the VTP includes seven transmission programs and 19 specific projects.

Laura presented a map of VTP projects, noting that AusNet's version includes a more detailed overlay of transmission lines than VicGrid's public release. Laura emphasised that Victoria requires significant transmission development and described the plan as ambitious but necessary. She noted that the VTP prioritises upgrades to existing infrastructure, which AusNet views as more cost-effective and less disruptive.

Laura also addressed the interaction between the VTP and AusNet's Transmission Revenue Reset (TRR) plans, acknowledging areas of overlap. She explained that some TRR projects, such as low span rectifications, tower strengthening, and major station upgrades, may be superseded by VTP initiatives. Laura shared that AusNet is working closely with VicGrid to manage this overlap.

Discussion

- **AusNet's approach to VTP and TRR Alignment:** A panel member asked if there was anything in the VTP that surprised AusNet, and expressed concerns that too much may be removed from the TRR in an attempt to address overlaps. AusNet responded that it has been in discussions with VicGrid about the VTP for a long time, and continues to do so. AusNet also assured that before removing projects from the TRR, the costs and benefits are considered on a case-by-case basis so that projects would be retained if the economic justification still stacks up even with a known future upgrade of the same assets. AusNet emphasised the importance of joint planning with VicGrid in making the right decisions in this space.
- **Managing uncertainty in TRR planning**: A panel member asked if AusNet will have enough detail on the Victorian Transmission Plan to meaningfully inform the Draft Proposal for the TRR. AusNet responded saying that while this cannot be guaranteed, it would be transparent about any areas of uncertainty and would explore options for dealing with this uncertainty with the TSAP – such as contingent projects.
- **Project contestability in the VTP:** A panel member asked about the contestability of projects within the Victorian Transmission Plan (VTP). AusNet responded, noting that some projects are closely integrated with the existing network, while others, such as new loops in Gippsland, are more independent. However AusNet acknowledged that VicGrid has not yet publicly shared its stance on contestability.

- **VTP integration on workforce planning:** A panel member complimented the analysis that had been done on resource constraints to deliver the work and asked if the VTP projects had been fed into that analysis. AusNet confirmed that it had been fed in, but that its not yet ready to share the outcomes of this analysis. The panel member flagged that the resource constraint could be even more acute than expected depending on VTP outcomes which AusNet agreed with.
- **Navigating uncertainty in collaboration with VicGrid and the draft VTP: A** panel member asked whether AusNet anticipates any uncertainty in working with VicGrid for the first time, given VicGrid's new role and the overall uncertainty surrounding the Draft Victorian Transmission Plan (VTP). AusNet responded that it has been engaging with VicGrid at multiple levels well before the Draft VTP's public release. It explained that the current view of the Transmission Revenue Reset (TRR) should be seen as a baseline, providing a reference point for tracking future changes as Victoria's broader plans evolve. AusNet also noted that it will continue to incorporate new information throughout the TRR process, and further updates may be included in the revised proposal.
- **Leveraging existing easement and enhancing landholder engagement:** A panel member expressed support for the Victorian Transmission Plan's (VTP) use of existing easements, noting it would improve productivity given the scale of upcoming work. AusNet agreed, stating this approach aligns with its proposed enhancements in landholder engagement, anticipating that this capability will be heavily relied upon.
- **VTP's holistic approach to meet Victoria's energy needs:** A panel member shared their positive impression of how the VTP aims to deliver an overall system that meets the needs of Victoria, in contrast to plans in NSW that focus on maximising capacity and the ability to export.
- **ISP and VTP alignment:** A panel member questioned if AEMO's Integrated System Plan (ISP) projects were included in the VTP. AusNet responded that specific AEMO RIT-Ts had been included, such as the Western and Eastern Metropolitan upgrades, but that broader ISP projects (which tend to focus on interstate pathways) had not been included. The panel member expressed interest in seeing a view of total capex for transmission in Victoria.

Scene setting: Key drivers for the TRR

Tom Hallam briefly outlined the value that end customers would receive from AusNet's Transmission Revenue Reset (TRR) proposal. He explained that the core objective is to maintain reliability, helping customers avoid outages and minimising the broader economic impact of transmission failures. He also highlighted AusNet's focus on building a more resilient network, not just replacing ageing assets, but strengthening the system to withstand natural disasters such as high winds and bushfires.

Tom noted that transmission plays a critical role in ensuring Victorians access the lowest-cost generation, keeping overall energy dispatch costs down. He emphasised AusNet's commitment to health and safety, citing the risks posed by heavy infrastructure like conductors. Additionally, the TRR helps manage environmental risks, including noise and smoke impacts from transmission assets.

Tom reminded the TSAP of the three key drivers for this TRR:

1. The ageing network
2. Rising unit rates
3. Deliverability challenges.

AGEING NETWORK

Tom Hallam presented a graph showing the age profile of the transmission network, highlighting a large cohort of assets built in the 1950s and 1960s that are now reaching end of life. These assets are linked to major station rebuilds at South Morang (SMTS), Keilor (KTS), and Sydenham (SYTS), which are among the most valuable and costly parts of the network. Tom

explained that Victoria was one of the first regions globally to build 500kV stations, and is now the first in Australia to undertake their rebuild.

Tom also noted that there has been limited investment in network growth over the past 40 years, but that significant spikes in investment are now expected. AusNet is the first network in Australia to reach end of life on some of its original line constructions, meaning towers, insulators, and conductors are being replaced for the first time.

He cautioned that deferring replacement increases risk and may become uneconomic. AusNet uses the Value of Customer Reliability (VCR) to assess customer willingness to pay, helping determine the optimal timing for investment. Michael and Laura added that longer deferrals increase both risk and replacement costs.

UNIT RATES

Charlie provided insights into recent trends in unit rates, referencing AEMO's draft 2025 network expansion report. He explained that the methodology has been revised due to real-world experience of high cost escalations, with increases of 50–70% since the last ISP. This is largely driven by global demand for electricity network inputs outpacing supply.

Charlie noted that while AusNet's past project estimates were closely aligned with actual costs, this is no longer the case. Some estimates from the previous TRR were made before the recent escalation, and re-estimations now show significant increases in equipment costs. He acknowledged that scope changes have also contributed to cost increases, making it harder to isolate the impact of escalation alone.

DELIVERABILITY

Ruan de Witt, Transmission Strategy Manager at AusNet, and Dom Holden Transmission Strategy Lead at AusNet, introduced themselves and outlined the focus of their session is on understanding the deliverability challenge and AusNet's approach to navigating the challenge. They emphasised their intent to seek feedback and input from the TSAP throughout the process.

Ruan de Witt explained that AusNet has developed a model based on three key questions to support its view of deliverability:

1. What needs to be delivered – the full pipeline of future work.
2. What could be delivered today – a constrained view based on current settings and no uplift.
3. What could be delivered with improvements – a view of potential capacity if certain actions are taken.

Ruan acknowledged that AusNet does not yet have all the answers but is actively working with delivery partners, including TSAP member Alex Crosby, to refine its approach.

Dom Holden then outlined the four major challenges impacting deliverability, and stepped through how AusNet is thinking about each challenge:

1. Labour availability
2. Material supply
3. Outage scheduling
4. Planning approvals.

Discussion

AGEING NETWORK:

- **Considering electrification in the TRR context:** A panel member questioned why electrification wasn't identified as a key driver in AusNet's Transmission Revenue Reset (TRR). AusNet responded that while electrification is a significant theme in the broader transmission context, particularly through the Victorian Transmission Plan (VTP), it is less

directly relevant to the TRR, which is predominantly focused on repair and replacement of existing assets. AusNet did acknowledge that electrification indirectly influences the TRR by increasing the market impact of outages, thereby strengthening the case for asset replacement. The panel member encouraged AusNet to more explicitly consider electrification and incorporate the customer perspective on this issue. AusNet agreed to respond on detail on the VTP in a later session.

- **Investment in the Victorian transmission network over time:** A panel member asked how much investment had occurred in the Victorian transmission network over time. AusNet emphasised that rather than the total value, it is the proportion over time that tells the story, however provided a rough estimate of $9B.
- **Asset replacement and technology flexibility in AusNet's network**: A TSAP member referenced ElectraNet's experience with ageing infrastructure, noting that outdated technology limits network flexibility and that asset replacement can enhance performance. They asked if the same applies to AusNet. AusNet responded that while some performance improvements are possible, its role differs from other states where the transmission company is also the network planner. In Victoria, AusNet is not the planner and typically must replace assets like-for-like. Any upgrades to technology require consultation with the network planner.
- **Asset age and factors influencing replacement timing:** A panel member asked if the assets in need of replacement have met their design life. AusNet replied that the assets generally had met their design life, however the technical life is only an average estimate, citing some other factors like corrosivity in certain areas that causes faster deterioration.
- **Need for investment following the long-term use of SECV assets:** A TSAP member asked if it would be correct to say that we have been making do with SECV assets for many years, and there is now no more "fat" in the system, meaning we need to invest. AusNet confirmed that was correct and indeed exacerbated by changes in the mix of generations.

UNIT RATES:

- **Confidence in capex forecasting despite past disruptions:** AusNet addressed a pre-submitted question from a TSAP member regarding the accuracy of its capex forecasting, noting concerns about delays in the previous TRR potentially recurring in the current plan. AusNet acknowledged this risk but explained that delays in the last period were largely due to unforeseeable events such as COVID and major supply chain disruptions, which affected the economic timing of projects. AusNet stated that it does not expect similar shocks in the upcoming period, giving it greater confidence in its current forecasts.
- **Request for cost estimate breakdown – scope and unit change impacts:** A panel member noted the desire to see a breakdown of how scope changes and unit changes have driven upwards revisions in cost estimates. AusNet agreed to provide this.

DELIVERABILITY:

- **Capital Expenditure Sharing Scheme:** There was a robust discussion of the Capital Expenditure Sharing Scheme (CESS), which incentivises AusNet to spend capex efficiently. Panel members and observers expressed concerns over customers paying "twice" for the same work, whether AusNet is sufficiently incentivised to avoid gold plating, who bears the risk of cost escalation, and interaction with other incentive schemes. AusNet provided an overview of the CESS and answered these questions from TSAP members.
- **Impact of RIT-T timing on TRR forecast:** A panel member asked about the timing of Regulatory Investment Tests for Transmission (RIT-Ts) and how they impact the certainty

of the TRR forecasts. AusNet responded that RIT-Ts for larger projects like the Major Station Projects can take a long time, and that RIT-Ts tend to shift the timing of projects rather than causing them to be cancelled.

- **Ex-post reviews AER's reassessment of historical capex**: There was a discussion on ex-post reviews – where AusNet explained how the AER can "reopen" CAPEX and reassess historical dollars. If the AER is not happy with AusNet's use of funds, they can "zero out" the RAB value of certain investments.
- **Concern on uncertainty in customer-initiated works and its impact on deliverability analysis:** Multiple panel members and an observer expressed concern about the uncertainty of customer-initiated works, and the impacts of this uncertainty on the deliverability analysis. AusNet shared that they are working to develop reasonable estimates based on forecasts for electrification, connections and data centres, which enables robust deliverability analysis to be completed. There were also questions about AusNet's obligation to connect customers, including the potential for transmission license requirements and access requirements to be changed, which AusNet answered.
- **Discretionary capex:** There was discussion about which sources of CAPEX were more discretionary and could be deferred by AusNet. AusNet shared that the most discretion sits with the TRR, as customer initiated projects are subject to regulated timelines.
- **Equipment lead times:** A panel member asked what lead times AusNet has experienced for equipment orders. AusNet shared that for some equipment, such as transformers and reactors, it is up to 24 months between ordering and arriving on site due to global supply chain challenges. Panel members furthered asking if AusNet could pre-order equipment to mitigate these lead times, and AusNet confirmed that this was something its already looking at.
- **Planning approval and social license risks in TRR projects:** A TSAP member asked which projects in the TRR were most likely to face planning approval and social license challenges. AusNet responded that lines work tends to face the most scrutiny from planning approval processes, as opposed to work within existing stations or sites. AusNet further shared that the assessment of planning approval and social license challenges was in progress and being done at a project-by-project level by an internal SME.
- **Recognition of AusNet's transparency in deliverability challenges:** Panel members commended AusNet for their transparency in sharing the deliverability challenge, and for conducting the analysis to this level of detail. One panel member noted that they had not seen such analysis conducted in other states. Another panel member shared that they had works on market capacity analysis for electricity transmission in 2021, and that they would share that with AusNet.
- **Consideration of funding constraints in TRR analysis:** A panel member asked if funding would be a constraint, and if so why it was not included in AusNet's analysis presented. AusNet agreed that funding (debt & equity) may be a constraint, but that it was an ongoing discussing being had between AusNet and its shareholders, which represent large global financial institutions. Hence funding constraints are being considered within the business, but are not the focus of this analysis.
- **Exploring collaborative and targeted approaches to workforce training at AusNet:** A TSAP member asked whether AusNet had considered industry-wide solutions to the challenge of training staff. AusNet shared that this was being considered, alongside AusNet-specific investments like the South Morang Training Centre. AusNet furthered that it is uniquely placed because it could also support distribution and WRL through that facility, allowing it to be jointly funded.
- **Balancing planned outages and customer reliability:** A panel member raised concerns about the potential for customers to pay more while experiencing lower levels of service in the future. They questioned whether the TRR process adequately considers the cost to customers of not having power, and how service reliability might

change over the next five years. AusNet acknowledged this concern and explained that its outage application process includes a network risk assessment. When planned outages increase risk, additional controls are implemented. AusNet shared that planned outages are designed to avoid direct customer impact, and typically achieve this objective. Rare incidents have occurred, such as in Bendigo multiple years ago, where a secondary fault during planned works led to customer supply loss.

- **Types of works and outage implications:** A panel sought clarification on which types of works typically attract outages. AusNet responded that station upgrades generally allow for power rerouting and are less likely to cause outages. In contrast, line works and connection activities are more outage-prone. AusNet shared that for example, taking a line or transformer out of service at South Morang may limit capacity or increase network risk, but emphasised it would never fully shut down a major terminal station, but instead take an outage on a particular component of the station.
- **Deliverability planning:** There was discussion on how AusNet is managing deliverability challenges, including internal staffing and infrastructure constraints. AusNet noted that many of these costs are captured as capex and are being addressed proactively. AusNet highlighted that it is not waiting for TRR approval to scale up; workforce expansion is already underway. AusNet also shared that outage constraints are considered during project scoping, and solutions are built into the capex to support deliverability.
- **Labour risks and resource planning:** A panel member asked about the risk of not securing sufficient skilled resources, particularly with SMEs approaching retirement. AusNet acknowledged this challenge and confirmed it is factored into its delivery risk planning. AusNet shared its actively building internal capability and recruiting internationally to secure the necessary expertise.

Forecast TRR capex (2027-2032 period)

Michael Larkin, Price Review Manager (Transmission), provided an overview of AusNet's capex forecast for the TRR 2027-2032, highlighting that AusNet is forecasting a significant increase. Michael shared that while AusNet believes this large step-up is justified on an economic basis, it acknowledges that it bring about serious challenges including:

- If its realistic for AusNet to be able to deliver this much capex in the 5-year period.
- The AER will likely scrutinise such a large increase in capex.
- Customers will face higher bill impacts.

Michael outlined the distribution of forecasted capital expenditure, highlighting the approximate proportion allocated to each major investment are:

- Major Stations – 56%
- Asset Replacement – 25%
- Digital – 8.5%
- Other 10%

Discussion

- Nil

Major stations

Tom Hallam, GM Strategy and Regulation (Transmission) at AusNet, introduced the Major Stations section of the Transmission Revenue Reset (TRR) 2027–2032 capex proposal. He reminded the panel that AusNet had previously provided a detailed overview of its cost-benefit analysis methodology, and therefore would not be covering all 14 proposed projects in depth during this session. Instead, AusNet would present two of the largest projects in detail, while encouraging panel members to ask questions about any of the projects or raise broader, systematic issues that may apply across the portfolio.

Melanie Tan, Director of Network Development & Planning (Transmission), outlined the full list of 14 major station projects proposed for inclusion in the TRR. She reiterated that while only two

projects would be presented in detail, panel members were welcome to ask questions about any of the projects.

Tushar Mehta, Senior Planning Engineer, then presented the following two projects in detail:

- **Keilor Terminal Station (KTS):** 500/220kV Transformer Replacement
- **South Morang Terminal Station (SMTS):** 500kV GIS and F2 Transformer Replacement

Melanie provided a recap that all major station projects will be assessed under the Regulatory Investment Test for Transmission (RIT-T). She noted that three of the 14 projects have already commenced the RIT-T process.

Finally, Melanie explained AusNet's approach to determining the economic timing of major station projects, outlining the criteria and rationale used in the planning process.

Discussion

- **Resilience component in major station projects:** There was discussion around resilience in the major station projects. AusNet confirmed that the South Morang Terminal Station (SMTS) project has a resilience component but resilience is not a factor in the other major station projects.
- **Clarification on RIT-T and TRR Analysis:** A panel member asked for clarification on how the RIT-T integrates with the broader analysis and stakeholder engagement AusNet undertakes during the Transmission Revenue Reset process to determine the optimal solution for major station projects. AusNet responded saying that it's the same test and cost benefit analysis, but noted that there is a slightly different framework and emphasis between the two processes.
- **RIT-T timeframe:** A panel member asked how long a RIT-T takes from start to finish. AusNet responded by saying it varies for each project but usually takes approximately 1 year.
- **Supply risk and replacement timeline for 500kV transformers:** A panel member asked about the supply risk associated with 500kV transformers and the potential consequences of an outage at Keilor Terminal Station. In response, AusNet explained that such an outage could lead to blackouts in Victoria, depending on the timing and severity of the failure (i.e. if there are multiple or critical failures). The panel member then asked how long it would take to replace a 500kV transformer. AusNet responded that if a spare is available, replacement could take approximately one month. However, without a spare, the process could take up to two years. The panel member followed up by asking whether it has always taken two years to replace a 500kV transformer. AusNet noted that supply chain pressures have worsened in recent years and that it is actively reviewing its procurement strategies to address these growing challenges.
- **Large load connections and supply impacts:** A panel member raised a question about the growing interest in large load connections (particularly data centres) and how these emerging loads factor into AusNet's planning and augmentation decisions. AusNet responded that while there is significant activity in this space, many of these loads are not yet committed and therefore are not included in current demand forecasts or driving augmentation decisions at this stage.

  The panel also asked whether these loads contribute to network costs. AusNet explained that while data centres are not directly charged for transmission augmentations, they do contribute indirectly through demand charges applied via distributors. If a specific augmentation can be clearly linked to a new load, a direct capital contribution may be required. However, this becomes more complex when large-scale upgrades (e.g. 1000 MVA transformers) cannot be easily attributed to individual customers. AusNet noted that while direct cause-effect relationships are easier to establish in distribution networks, the ripple effects of large loads are increasingly influencing transmission-level planning. The cost recovery for such

impacts is managed through the distributor, who ensures appropriate customer contributions through their own charging mechanisms.

AusNet shared that if a new terminal station is build specifically for a data centre, the data centre customer would typically fund 100% of the associated costs under current arrangements. A panel member acknowledged the contrast with generators, noting that generators are not subject to the same cost responsibilities.

KTS 500/220kV Transformer Replacement:

- **Risks and replacement challenges for 500kV transformers:** A panel member asked about the supply risk for the 500kV transformers and what it would mean to have an outage at the Keilor terminal station. AusNet responded by saying it could cause blackouts in Victoria, but explained that it would be dependent on when the outage happens and the extent of the damage (i.e. if there are multiple or critical failures). The panel member furthered by asking how long it would take to replace a 500kV transformer. AusNet responded saying that if it has a spare transformer available, it could replace the transformer in approximately 1 month, but if there are no spare transformer available, it could take up to 2 years. A panel member followed up by asking if it has always taken two years to replace 500kV transformers. AusNet responded by saying that the supply chain is becoming more difficult, and is working on its procurement options to help reduce these challenges.
- **Need for transformer replacement:** During the discussion of the presented options, a panel member inquired whether AusNet currently has a spare 750 MVA transformer. AusNet confirmed that it does but noted that the spare is the same age as the unit being replaced, and therefore a new transformer will need to be built.
- **Value increase in transformer upgrade options:** A panel member asked if the big increase in value between option 1 with replacing the A transformers with 750 MVA transformers and option 2 with replacing the A transformers with 1000 MVA transformers is due to the increase in flexibility. AusNet responded saying that having the additional capacity would help to reduce the supply risk and provide extra buffer if there is a failure in the network. There was further discussion on how this would allow for extra capacity on the network.
- **Aligning timeframes with regulatory periods:** A panel member asked how AusNet determined the timeframe for evaluating the different options. AusNet explained that the timing aligns with the 5-year regulatory periods. Therefore, deferring transformer replacement (as proposed in Option 3) would push the project into the next Transmission Revenue Reset (TRR) period.
- **Accuracy of AusNet's capex numbers:** A panel member asked AusNet how certain it is on the accuracy of its capex numbers. AusNet responded saying that the capex numbers presented for this project are P(75) estimate figures, meaning there is a 75% confidence that the final cost will not exceed this amount. This level of confidence can be roughly interpreted as having an accuracy range of ±15% of the cost at completion.
- **Economic timing analysis for transformer replacement:** A panel member observed that the economic timing graph for the KTS 500/220kV Transformer Replacement project appeared very flat, making it difficult to draw clear conclusions, as the differences in timings seemed within the margin of error. AusNet explained that the flat appearance may be due to the graph's scale and clarified that economic timing is determined by identifying the point where the benefits intersect with the annual capital costs.
- **Confirmation of the number of projects that are economically justified for the TRR 2027-2032:** A panel member asked whether AusNet had excluded any major station projects from its proposal to avoid excessive capital expenditure, or if the listed projects were the only ones economically justified for the TRR 2027-2032 regulatory

period. AusNet confirmed that the 14 projects presented are all the projects that are economically justified within that timeframe.

SMTS 500kV GIS and F2 Transformer Replacement:

- **SF6 Management at the South Morang Terminal Station:** A panel member asked how AusNet plans to manage the removal of SF6 gas in its proposal for the South Morang Terminal Station, noting that SF6 cannot be disposed of and poses environmental risks. AusNet responded that SF6 can be recycled. The panel member emphasised that if SF6 removal is included as a value in the business case, AusNet must ensure it is not simply relocating the environmental risk elsewhere. AusNet acknowledged this and noted that removing SF6 from transformers helps to reduce the risk of leaks.
- **Project timing and spend alignment with economic delivery:** A panel member asked why the spend is falling outside of the regulatory period, and if that is because the project won't be completed by 2032 and needs to be finished in 2033. AusNet clarified that it is looking to start the SMTS 500kV GIS and F2 Transformer Replacement project this year, so some of the expenditure will occur earlier. AusNet furthered by explaining the economic timing reflects when a project should be completed, so for projects that will take 4-5 years to complete, work should begin earlier (if its deliverable) so that the completion aligns with the optimal economic timeframe.

Continued discussion across all major station projects:

- **Scope of Geelong Terminal Station (GTS) 220/66kV transformer and circuit breaker replacement:** A panel member asked for clarification on the proposed project for the Geelong Terminal Station. AusNet shared that for this project, it is proposing to replace 1 220/66 kV transformer, 5 220kV circuit breakers and 1 66kV circuit breaker and remove 1 220kV circuit breaker and 2 66kV circuit breakers. The panel member followed up by asking whether asset removal is necessary to enable other planned works, or if it is simply part of site clean-up. AusNet responded that the assets in question are ageing and are no longer required, so they will be removed without replacement.
- **Stakeholder consultation for the GTS 220/66kV transformer and circuit breaker replacement:** A panel member asked whether the relevant stakeholders are being consulted on the proposed project. AusNet responded that they have already engaged with AEMO and, as they move into the business case stage, will begin discussions with the distribution businesses.
- **Request for overview of high-cost projects:** A panel member requested that AusNet provide an overview of other proposed projects estimated to cost over $100 million. AusNet agreed and proceeded to discuss two such projects: the Newport Power Station D (NPSD) 220kV Indoor GIS Replacement and the Kerang Terminal Station (KGTS) transformer and switchgear replacement.
- **Contingency of Newport Power Station D 220kV Indoor GIS Replacement project:** There was discussion on the proposed Newport Power Station D (NPSD) 220kV Indoor GIS Replacement project. A panel member noted that this project would be highly contingent if the Newport Power Station continues to operate. AusNet shared that due to the value of the land that the Newport Power Station operates on, if the station is retired, a new generator or storage facility will be constructed there. AusNet noted that it is obliged to maintain its service whilst there is a commitment for the power station to continue operating.
- **Kerang Terminal Station (KGTS) transformer and switchgear replacement project:** There was discussion on the scope of the of the proposed project in replacing 2 B transformers and rearranging the 22kV switchyard and a new control room. A panel member asked whether space limitations would pose planning issues and if AusNet intends to fit the new transformers within the existing site footprint. AusNet responded that it is looking at options to replace the transformers in situ, but due to limited space,

the switchyard will need to be reconfigured, contributing to the project's estimated cost of over $100 million. AusNet is still assessing alternative options to rearranging the switchyard. Once this is confirmed, the economic timing of the project can be finalised. A panel member requested that AusNet provide an update to the panel on the economic timing results once it has been confirmed.

- **Impact of transformer age on maintenance and risk of failure:** A panel member asked whether AusNet is experiencing increased maintenance costs or faults in transformers older than 50 years. AusNet confirmed that maintenance costs are rising for ageing transformers but emphasised that the greater concern is the increasing probability of the asset failing.
- **Customer cost implications and integration of the TRR, VTP and ISP plans:** A panel member expressed interest in understanding the efficiencies that could result from aligning AusNet's Transmission Revenue Reset (TRR) plans with the Victorian Transmission Plan (VTP) and the Integrated System Plan (ISP), acknowledging that this topic would be addressed in a future session. The panel member shared that they feel reasonably well informed and view AusNet's major stations proposal as reasonable.

  The discussion then turned to the impact of these plans on customer costs. A panel member highlighted that customers are primarily concerned with the total cost, rather than how it is split across the TRR, VTP, and ISP. They suggested it would be valuable for AusNet to provide the Transmission Stakeholder Advisory Panel (TSAP) with a clear picture of the total cost impact, especially for large directly connected customers who bear a significant portion of transmission charges. The panel member recommended that AusNet engage directly with this customer subgroup to discuss potential price implications.
- **Consideration of counterfactual scenarios in project planning:** An attendee asked how thoroughly AusNet considers the counterfactual – i.e. what would happen if individual projects weren't completed, particularly regarding impacts on safety, security, and the environment. AusNet responded that it consistently assesses each project against a "do nothing" scenario. AusNet explained that delaying or not proceeding with projects reduces customer benefits and increases operational risks. The projects themselves are designed as risk mitigation measures, and if funding is not secured, AusNet would review its entire portfolio to determine which risks it can reasonably accept. AusNet also noted that it assumes these risks on behalf of customers, such as the increased likelihood of blackouts.
- **Prioritisation of major station projects:** An attendee asked how AusNet prioritises it's major station projects. AusNet responded saying that the projects are sequenced based on economic timing, as well as additional criteria including deliverability, which it is still determining for the TRR 2027-2032.

Repex

Tom Hallam introduced AusNet's asset replacement capex forecast proposal, and reminded attendees that AusNet will be presenting some of the key programs in this proposal, but encouraged questions and comments on any of the asset replacement forecasts.

Stuart Dick, Manager of Asset Management (Transmission) at AusNet shared that AusNet is proposing 7 categories of asset replacement programs, which are driven by asset condition, compliance and resilience. Stuart outlined that the 7 asset replacement programs are:

1. Lines asset replacement
2. Low span rectification
3. Other lines compliance
4. Tower strengthening
5. Stations replacement
6. Secondary replacement
7. Communications replacement

Stuart provided an over of how AusNet's asset replacement forecast is split up into the 7 programs, and noted that there is a forecasted increase across all programs, with a significant uplift in lines replacement.

Cameron Yates, Asset Risk Strategy Lead at AusNet provided an overview of the risk methodology which informs AusNet's costs benefit analysis for asset replacements, which ultimately informs its capex proposal. Cameron shared that AusNet's risk methodology is made up of two main components being:

- Probability of Failure (PoF) - which is driven by construction type, operational context, performance history and measurements
- Consequence of Failure (CoF) – which is driven by the likelihood of consequence (LoC) and the Cost of Consequence (CoC), which in turn are driven by reliability, safety and environment

Tom Hallam provided a summary of AusNet's asset replacement proposal, noting that while some new compliance programs (such as the low span rectification initiative) are being introduced, the overall volume of work in this category remains relatively stable and in line with historical spending. The primary driver of increased capex is rising unit costs. Tom also highlighted that the introduction of line replacement, which is appearing in the program for the first time, is contributing significantly to the overall increase in capex.

Discussion

- **Use of historical data in Cost of Consequence (CoC) analysis:** A panel member asked if AusNet has any data from previous issues to build up the CoC, or if AusNet just uses an estimate. AusNet responded sharing that it does have data on the market impact component cost when previous assets have failed.
- **AusNet's Probability of Failure analysis:** A panel member asked if AusNet's analysis to determine the Probably of Failure is a standard analysis, or if its something AusNet has built. AusNet responded saying that its Probability of Failure analysis methodology is largely based on the CIGRE transformer condition assessment paper (technical brochure 761). The panel member furthered asking if this type of analysis will be new to the AER, or if they would have seen something similar before. AusNet responded sharing that they have used a similar methodology in previous TRRs which the AER has accepted.
- **AER familiarity on key assumptions:** A panel member asked if the key assumptions that AusNet uses as part of its critical input value in its analysis are things the AER would have seen before and been comfortable with. AusNet responded that the values have been tested and are now well known to the AER.
- **Feedback on methodology and critical value inputs:** A panel member expressed support for AusNet's overall approach to estimating the probability of asset failure, describing the methodology as reasonable. However, they raised concerns about endorsing specific input values used in the analysis without greater transparency and public benchmarking to validate how those critical assumptions were determined.
- **Distinction between condition-based replacement and resilience program:** A panel member asked how the proposed investment in transmission line structures under AusNet's condition-based replacement program aligns with its resilience program. AusNet clarified that the condition-based program targets assets that show signs of deterioration and need replacement, while the resilience program focuses on strengthening assets to withstand extreme events, even if those assets are currently in good condition.
- **Low span management including legal obligations and risk-based enhancements:** A panel member asked whether AusNet is legally required to notify landholders about low line spans or to raise the height of those spans. AusNet clarified that its legal obligation is to inform landholders. The panel member then noted that AusNet appears to be exceeding its legal duties by proposing to raise the lowest spans, which they viewed positively. AusNet confirmed that, in addition to its legal obligations,

its safety management scheme requires a risk assessment, and the outcome of that assessment supported raising the height of the lowest spans to mitigate safety risks.

- **Clarification on low span assessment:** An attendee asked why AusNet assessed every low span under 7.5 meters. AusNet explained that this was done in response to a directive from Energy Safe Victoria.
- **Cost and feasibility of low span rectification:** A panel member noted that addressing low spans is a costly undertaking for AusNet. The panel member furthered, asking if the high cost implies that AusNet will need to focus on modifying the overhead wires themselves rather than adjusting the ground level. AusNet confirmed this was correct.
- **Timing of low span rectification:** An attendee asked for clarification on what low spans would be rectified in this current regulatory period and what would be rectified in the next regulatory period (Reg year 2028 – 2032). AusNet responded saying that out of the identified 114 low spans, it has 6 low spans that need to be rectified as soon as possible and will be completed in this regulatory period. AusNet shared that the remaining low spans will be rectified in the next regulatory period.
- **Fall arrest system program and compliance:** An attendee asked whether AusNet's proposed program to install fall arrest systems and racks on towers, would be required regardless of cost-benefit analysis due to obligations under the Worksafe Act. AusNet clarified that there is a cost benefit to the program, it is not a specific directive from Worksafe.
- **Clarification of 'Benefit' in AusNet's Cost-Benefit Analysis:** A panel member asked what AusNet's definition of 'benefit' is in its cost benefit analysis. AusNet clarified that it defines a benefit as a reduction in risk or avoidance of a consequence. There was further discussion around the benefit being seen as the consequence of not doing the project.
- **Comfort with asset replacement proposal:** A panel member shared that they agree that there is a need for AusNet to undertake the asset replacement projects in its proposal and shared that they are comfortable and feel that AusNet has been thorough in trying to minimise costs. However, the panel member noted that the AER will ultimately have to decide if the proposal is prudent and efficient in mitigating the risks.

Digital

Ross Dunbar, Head of Strategy & Partner Management at AusNet, provided an overview of AusNet's Digital program proposal for the TRR 2027-2032. Ross highlighted that AusNet is proposing the following programs within it's totex digital proposal:

- Digital resilience – applications
- Digital resilience – infrastructure
- Cybersecurity
- Advanced Energy Management System (AEMS)
- Metering Systems
- Asset Management & Field Enablement
- Customer Engagement

Ross explained that AusNet's digital proposal is presented using a total expenditure (totex) approach. This is due to many digital investments involving ongoing costs such as licensing, services, and support. Ross furthered that combining both capex and opex components under the totex framework helps provide transparency and enables a comprehensive cost-benefit analysis.

Ross noted that AusNet's historical digital investment has remained relatively flat, particularly in maintenance spending. Ross shared that since 2018, there has been minimal investment in new capabilities, with most systems in use being legacy platforms with only minor upgrades.

Ross explained that this underinvestment forms the basis for AusNet's proposed step-up in capability-focused digital expenditure.

Mario Ellaz, General Manager Cyber Security at AusNet, provided an overview of 3 strategic options AusNet has identified to be credible approaches to address risks to achieve AusNet's cyber security objectives. The options are:

1. Option A: Retain existing capabilities – sustain current level of maturity in cyber security
2. Option B: Partial uplift to capabilities – partially reduce material risk exposure whilst maintaining required compliance levels in cyber security.
3. Option C: Full uplift to transform – reduces all material risk exposure and provides a sustainable cyber capability that adopts to evolving threats and regulatory requirements.

Mario shared that AusNet's preferred option is it's 'Option C'. Mario noted the increasing importance of Cyber security as AusNet's processes are evolving and digitalising.

Discussion

- **Coordination of digital investments between AusNet and AEMO:** A panel member acknowledged the need for AusNet to uplift it's digital capabilities, particularly as the network becomes more complex and harder to manage. However, the panel member questioned what digital upgrades AEMO is making, and if any of AusNet's proposed investments will duplicate with AEMO's. AusNet responded sharing that its proposed digital investments and AEMO's digital investments are aligned and coordinated, tailoring to the specific roles each organisation plays. AusNet noted that there is a slight duplication in functionality which AEMO needs a back-up facility, where each region is able to maintain power system security with the absence of AEMO.

  An attendee challenged that AusNet's response to how its digital investment interlinks with AEMOs seems too simple and straightforward. The attendee raised concerns about the potential for duplication, especially since AusNet's expenditure is subject to AER approval, while AEMO's is not, placing the responsibility on AusNet to manage alignment. In response, AusNet explained that coordination occurs through the National Electricity Market Operations Committee (NEMOC) and its sub-working groups, which help define functional boundaries between organisations. This understanding has been incorporated into AusNet's TRR proposal. AusNet shared that the summaries from the NEMOC meetings are published, but the working groups are not.

- **Advanced energy management system and digital investment drivers:** A panel member asked for clarification on AusNet's proposal of new digital capabilities needed to manage the energy transition and asked whether this is referring solely to the Advanced Energy Management System or if additional capabilities are included in the proposed investment. AusNet clarified that the Advanced Energy Management System (AEMS) is not a single initiative but a collection of capabilities designed to support the energy transition. These include managing emerging risks such as rooftop solar integration, voltage oscillations, fault levels and the integration of batteries. There was further discussion that roughly half of the digital investment is driven by the energy transition, while the other half supports digital resilience and cybersecurity.

- **Inclusion of AEMO operating component in AusNet's draft digital proposal:** A panel member asked if AusNet's digital proposal included the operating component that AEMO is currently doing, which may transition to AusNet depending on the VTP. AusNet responded that is included in its draft forecast.

- **TNSP capability comparison:** A panel member questioned whether AusNet's comparison of capabilities across different Transmission Network Service Providers (TNSPs) was subjective. AusNet confirmed that the analysis is based on its own

assessment, but expressed confidence that the results would not differ significantly if conducted by other TNSPs.

Another panel member added that both AusNet and the broader energy industry are facing challenges in adapting to the evolving electricity system. They noted a general lack of real-time visibility, particularly due to the complexity of rooftop solar and the increasing number of system connections.

A panel member suggested it would be helpful to understand how AusNet's proposed digital investment would change the position its capabilities compared to other TNSPs.

A panel member inquired whether there are benchmarks for each capability AusNet plans to enhance, to help guide expectations around the level of uplift. AusNet responded that each ranking has a justification and could provide a practical example, such as managing a minimum system load event, to illustrate how it would handle it with and without the proposed digital investments, thereby demonstrating the value of the uplift.

A panel member asked if AusNet is looking at implementing similar software systems that other TNSPs are already using. AusNet confirmed that it is, noting that's its proposing to invest in access management and switching management software that PowerLink is using, and invest in wide area monitoring software that ElectraNet is using. AusNet responded that it is looking to implement solutions to build on existing capabilities, or implement solutions that peers are using.

- **Rooftop solar and impacts of customers:** A panel member raised that they are unsure how customers would see value in the investments, as although the system is becoming more complicated, from an end use customer perspective, its still working fine. Another panel member furthered, sharing that they are aware of large solar generators being economically strained due to a lack of coordination of roof top solar flooding the market and constraining bulk energy suppliers.

  An attendee questioned why issues caused by end-use customers connected to the distribution network are becoming a transmission-level concern. AusNet explained that the actions of these customers, particularly the influx of rooftop solar, are affecting the stability of the transmission system. The attendee then asked whether it should be the responsibility of the distribution network to manage these impacts. AusNet responded that while some solutions lie within the distribution network, others must be addressed at the transmission level. AusNet emphasised the importance of strong communication between the distribution and transmission networks, especially for the transmission network to identify and relay issues that distribution networks need to resolve.

- **Managing network constraints:** A panel member highlighted that a major challenge for generators around managing constraints is the lack of data and asked if AusNet's proposal would help address and improve constraint management. AusNet responded that the investment in access management would help to optimise access to the network. The panel member noted that helping to provide generators with more data to better understand and mitigate network constraints is a clear value proposition for this proposal.

- **Request for further information on AusNet's non-recurrent spend:** A panel member suggested it would be helpful to understand how much of AusNet's proposed non-recurrent spending is driven by routine operations versus how much is driven by the energy transition.

- **Feedback on cyber security proposal:** A panel member asked if AusNet is going fast enough with its investment to uplift its cyber security capabilities.

- **Number of cyber security threats encountered:** A panel member asked how many cyber threats AusNet encounters every day. AusNet responded that they respond to 50–60 alerts daily, however, many are benign or do not meet the threshold for a material incident. Common threats include malicious bots, script kiddies,

and automated scanning tools. More serious examples include malware via USB and business email compromises. AusNet furthered, sharing that there is a rising trend in confirmed breaches, with more than 20 incidents reported in a recent ACSC report, indicating increased cyber activity and risk across the sector.

Other capex

Jessica Sharpe, Manager Physical Security at AusNet, provided an overview of physical security proposal. Jessica shared that there are a number of legislative acts and rules that AusNet must comply to, these include:

- Security of Critical Infrastructure Act 2018
- Security of Critical Infrastructure Rules 2023
- ISO 22340, Security and Resilience – Protective Security
- IENA DOC 015-2022 National Guidelines for Protective Security of Electricity Networks

Jessica shared that AusNet has conducted security risk assessments to identify threat sources, vulnerabilities, and review past incidents.

Jessica presented two options for AusNet's physical security proposal:

1. No action - which risks non-compliance, reputational damage, and increased government oversight, especially as Home Affairs moves toward enforcement in the coming year.
2. Compliance through uplift - involving capital expenditure to mitigate risks and build operational resilience.

Jessica shared that the proposed program of works would be program up into the following areas:

- Physical security – including padlocks, servers, mobile surveillance units and replacement of broken assets.
- CCTV – including the deployment and modernisation of fixed and pole-mounted surveillance systems, forming a layer of security through deterrence, real-time observation and evidence collection
- Fencing – Installation and upgrades to security fencing such as welded mesh, palisade and electric fences.
- Other – including lighting, sub-component protection, signage, window reinforcement, gate installation and paving and access control systems.

Michael Larkin invited panel members to raise questions on any of the remaining topics listed under the 'Other Capex' agenda item, which includes:

- Premises
- Vehicles
- Metering
- Environment
- Other (such as tools and measurement equipment)

Discussion

- **Level of physical security investment:** A panel member asked if the investment proposed is to maintain AusNet's level of security for its existing assets, or if it will be upgrading it. AusNet responded saying that it categorises its critical assets into three tiers:
    1. Tier 1: Most critical assets

2. Tier 2: Assets with lower levels of protection
3. Tier 3 – Assets with minimal security

AusNet furthered, sharing that its proposed investment is focused on uplifting physical security for its Tier 1 and Tier 2 assets, and will continue providing a similar level of security to meet requirements for Tier 3 assets.

- **New fencing:** A panel member asked how many sites need new fencing. AusNet responded that there are 18 sites that need either new, or improved fencing. There was further discussion around the standards changing and requiring a high level of protection to provide the best possible delay which is relevant to the risk.
- **Clarifying site responsibility between AusNet and Power stations:** A panel member asked where AusNet's responsibility begins and ends in relation to power stations. AusNet explained that during project establishment, it conducts a site assessment and, based on access requirements, sections off the AusNet side of the declared shared transmission network. The customer's site is then assessed according to the customers' requirements. The panel member noted that this setup could lead to potential miscommunication or misalignment. AusNet responded that it seeks to mitigate this through the design process and ongoing engagement with the customer. While each site has unique circumstances, AusNet typically sections off its area to clearly define responsibility.
- **Cost-Benefit Considerations for Physical Security Investments:** A panel member asked if there is no need for AusNet to conduct a cost benefit analysis for physical security, as it will be forced to spend money on it anyway. AusNet responded that it is still looking at what the best expenditure rate for control to find the best security solutions, at the lowest cost to protect its assets.

TRR revenue forecast & Draft proposal approach

Tom Hallam introduced the agenda item on AusNet's TRR revenue forecast and draft proposal, reminding the panel that the capex proposal is still in development, with several months and revisions ahead. AusNet encouraged panel members to share any concerns, highlight potential issues, and whether they believe there is an overall value proposition for customers in the proposal.

Michael Larkin provided an overview of AusNet's estimates on the impacts its capex proposal will have on customer electricity bills. Michael noted that AusNet will cover this in more detail with the TSAP in July, but wanted to understand the panel's reaction and initial responses to the price impacts.

Michael presented a graph illustrating long-term price trends for the transmission network, noting that the TRR 2027–2032 proposal would result in a material price increase above CPI for the first time since the privatisation of Victoria's energy network.

Michael shared that energy usage is expected to increase in the next regulatory period due to electrification and increase in electric vehicles, which will increase the total energy dispatched in Victoria. Michael noted that delivering more electricity will create a downward pressure on prices for the transmission network.

Discussion

- **Feedback on communication of price impact:** A panel member raised concerns about how the price impact of the proposal was being communicated, cautioning that the current framing might appear to downplay the effect on customer bills. They emphasised the importance of presenting the information transparently and in a way that aligns with how customers perceive their electricity costs. The member also noted that most people do not have an electric vehicle and do not associate electric vehicle usage with their electricity bill. AusNet responded saying that it can present the impact it's proposal will have on a standard electricity bill.
- **Understanding impact for customer battery owners:** A panel member suggested including an analysis of how the proposal might affect customers who own batteries.

AusNet responded that battery adoption is currently low but shared it would explore this further.

- **Caution on framing WACC-driven price changes:** A panel member reflected on past industry narratives, noting that when interest rates and the Weighted Average Cost of Capital (WACC) were low, the sector took credit for falling prices without significant productivity improvements. The panel member cautioned against now attributing rising prices solely to WACC increases, as this could appear inconsistent. The panel member advised maintaining a balanced narrative that also highlights ongoing productivity efforts, warning that long-standing advocates will scrutinize such claims over time. AusNet responded saying that it believes Victoria has a slightly different narrative, as it's kept pricing low for decades, and cut expenditure as well as WACC in the last TRR.
- **Concerns about price impacts on large directly connected customers:** A panel member acknowledged the reasons behind rising electricity prices but highlighted that major customers directly connected to the transmission network, such as aluminium smelters, are unlikely to respond positively. The panel member suggested that AusNet should engage with these customers separately to explain the changes. The was discussion on the broader implications for these businesses, particularly the challenge of staying internationally competitive amid rising energy costs. It was noted that addressing these impacts may ultimately require government involvement once the full effect on electricity prices is understood. The panel member furthered saying they understand AusNet has to complete the work to keep the transmission network reliable and keep the lights on, and there are additional variables that will increase prices which AusNet has no control over such as the ISP and VTP, but emphasised that AusNet needs to provide those customers with all the information so that they can make the right decisions.

  There was robust discussion around conceptually, there may be no viable alternative to the current approach if avoiding price increases could lead to greater outage risks. Panel members emphasised the importance of transparency, advising AusNet to help customers understand the full picture so they can make informed decisions, particularly as many businesses are planning well beyond the five-year regulatory period.

  Panel members raised the need for AusNet to clearly communicate whether the current price rise is a one-off or part of a longer-term trend. Panel members stressed that large customers require this insight to guide long-term investment decisions, including whether to pursue electrification or alternative energy sources.

  AusNet confirmed that it understands it has an important role in providing transparency around developments in the Victorian transmission network and the impact on customers, even in areas beyond its direct control.
- **Seeking clarity on the definition and connotations around panel members 'endorsing' AusNet's proposal:** A panel member raised that they are not entirely comfortable around the wording around being asked to endorse AusNet's proposal. The panel member furthered saying they felt confident they had received sufficient information, understood the proposal, and accepted its rationale, they noted that endorsement implies a deeper level of agreement. In response, AusNet clarified that it will clearly outline the specific feedback it is seeking and does not expect panel members to endorse individual elements or projects. Instead, it will ask whether the proposal appears reasonable and whether AusNet has demonstrated customer benefit. The panel member reiterated that the term "endorse" carries a distinct connotation that should be used carefully.

Engagement on capex decisions	Tom Hallam asked the panel members if they would feel comfortable with the case that AusNet is putting forward in its draft proposal is reasonable and will elicit the responses needed, regardless if those responses are favorable or unfavorable towards the suggested proposal.

Discussion

- **Feedback on AusNet's draft proposal:** A panel member shared that they believe AusNet has clearly laid out:
    - the need for investments in the proposal
    - the consequences of not making the investments – which are very significant,
    - the action needed to avoid those consequences
    - mechanisms for justifying the investment.

  The panel member shared that the case AusNet is putting forward seems reasonable, fair, well researched and based in reality. The panel member furthered saying that the prudence and efficiency of the costs is not something they can comment on, noting that is the AERs job.
- **Feedback on AusNet's draft proposal:** Another panel member shared that they believe AusNet's case for its TRR draft proposal is reasonable. The panel member noted that they are finding it hard to clearly understand how the numbers stack up perfectly, because they don't know the numbers well enough, but shared that they think the methodologies AusNet are using are understandable, transparent, and have been clearly communicated to the panel.
- **Independent report written by TSAP:** There was discussion around an independent report that the TSAP will submit a report on AusNet's draft proposal. The report will be authored by Glenn Orgias, but will incorporate the voices and opinions of all the panel members.
- **Communicating cost impacts in the broader context:** A panel member highlighted the importance of acknowledging that AusNet's proposed costs are just one part of a broader set of cost increases driven by the Integrated System Plan (ISP) and the Victorian Transmission Plan (VTP), which will ultimately affect customers' electricity bills. AusNet responded noting the risk of its costs being overshadowed when presented alongside these larger cost drivers. AusNet emphasised that this could unintentionally suggest its costs are insignificant, which is not the case and should be carefully avoided in the proposal narrative. The panel member furthered by saying that sharing the 3 components being; the TRR, ISP and VTP would provide completeness of the picture in costs for the transmission network.
- **Considering timing of cost impacts in project delivery:** A panel member suggested that AusNet should consider how pricing impacts will unfold at specific points in time throughout the project delivery. They noted that the Victorian Transmission Plan (VTP) often schedules multiple projects to be delivered within the same periods, which could lead to significant step changes in customer bills.
- **Support for the proposal with acknowledgement of future considerations:** A panel member expressed support for AusNet's proposal, describing it as reasonable and well-presented, particularly appreciating the bottom-up approach used to build the TRR case for the TSAP. However, they also noted that if the AER does not approve the proposal in full, further discussion and prioritisation will be necessary.
- **Increasing clarity on the VTP impacts:** Another panel member raised that the meeting AusNet has scheduled in June where it will discuss the implications of the VTP on its TRR proposal will help provide more clarity and help panel members understand the bigger picture for the Victorian transmission network.

Engagement on draft proposal

Tom Hallam provided an overview of the key focus areas AusNet will address in its draft proposal, along with the primary stakeholders it intends to engage directly with, throughout the engagement process on its draft proposal.

Discussion

- **Discussing big picture context:** There was discussion on how much AusNet should focus on the bigger picture and how the TRR fits into that when engaging on its draft proposal. A panel member shared that they don't think AusNet should put that in its revenue proposal, but suggested it will be an important conversation to have when engaging on its proposal with customers and stakeholders.
- **Focus on major expenditure:** A panel member observed that while AusNet has dedicated considerable time to engaging on its digital expenditure, this component represents a relatively small portion of the overall proposal. They recommended that AusNet place greater emphasis on the areas of major expenditure to provide clearer context on where the bulk of investment is being directed.
- **Narrative for proposal:** A panel member highlighted the importance of emphasising the expenditure is being driven by the need to maintain system security and ensure a continuous energy supply. The panel member noted that much of the infrastructure is aging and that this investment is essential to prevent system failure and to keep the lights on.
- **Deliverability:** A panel member raised that AusNet has indicated that it can't deliver everything, and suggested AusNet could indicate how it's going to prioritise customer value out of what it will and won't deliver.
- **Impact of VTP:** A panel member raised that AusNet could start flagging how the VTP will impact its draft proposal including projects where there will be overlap. AusNet responded by saying it can do that.
- **Key stakeholders AusNet should engage with:** In addition to the list of customers and stakeholders AusNet suggested, panel members raised AusNet should engage with:
    - Australian Industry Group
    - Victorian Chamber of Commerce and Industry
    - Energy Consumers Australia
- **Aim for a no surprises approach:** A panel member raised the importance of AusNet keeping the Energy Minister's office in the loop on its TRR proposal, and strive for a no surprises approach.

Wrap up and next steps

Tom Hallam provided an overview of what is coming up in AusNet's engagement program for its TRR 2027-2032 proposal.

Discussion

- There was discussion among panel members acknowledging the transparency and journey of the engagement process. It was noted that while some outcomes may not be universally liked, they were seen as well justified. Panel members also praised the quality of the presentation materials and slides, describing them as high quality and effective. The slide pack was noted as a valuable resource for revisiting topics not fully covered during the session. Additionally, panel members appreciated the clarity in distinguishing between content intended for discussion and background information.

Glenn Origias updated the panel on the next steps for the TRR 2027-2032 engagement program and closed the meeting.

Action items

	Action from TSAP Meeting #5	Assigned to	Status	Due
1	AusNet to provide a breakdown of how scope changes and unit changes have driven upwards revisions for cost estimates for its major station projects capex proposal.	Major projects	In-progress	September
2	AusNet to provide a clear picture of the total cost impact of the TRR, VTP and ISP for customers, including large directly connected customers.	Reg	In-progress	September
3	AusNet to provide greater transparency on public benchmarking to validate how its critical assumptions are determined in its asset replacement proposal.	Asset management	In-progress	September
4	AusNet to provide an example showing how it would respond to an event, such as a minimum system load event, both with and without its proposed digital investments, to highlight the value of the digital uplift.	Digital	In-progress	September
5	AusNet to provide an updated analysis on how its digital capabilities would compare to other TNSPs if its able to implement its proposed digital investments.	Digital	In-progress	September
6	AusNet to provide a breakdown of its proposed digital non-recurrent investment, showing how much is driven by routine operations and how much is driven by the energy transition.	Digital	In-progress	September
7	AusNet to present the impact it's TRR proposal will have on a standard electricity bill	Reg	In-progress	July
8	AusNet to explore how its TRR proposal will impact electricity bills for customers who own batteries	Reg	In-progress	September
9	AusNet to engage separately with major energy user customers	Engagement	In-progress	July
10	AusNet to emphasise the expenditure in its TRR is being driven by the need to maintain system security and help ensure a continuous energy supply.	Reg	Complete	July
11	AusNet to flag how the VTP will impact its draft TRR proposal, including where projects might overlap.	Reg	Complete	June
12	AusNet to keep the Energy Ministers office in the loop on its TRR proposal	Government Affairs	In-progress	July