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Electricity Distribution Network
Asset Management Plan 2025 to 2029

AMS 01-08-20

17 January 2025

Issue number:	**1.0**	**Approver:**	**Rod Jones (GM Network Management)**
Status:	**Approved**	**Date:**	**30 January 2025**

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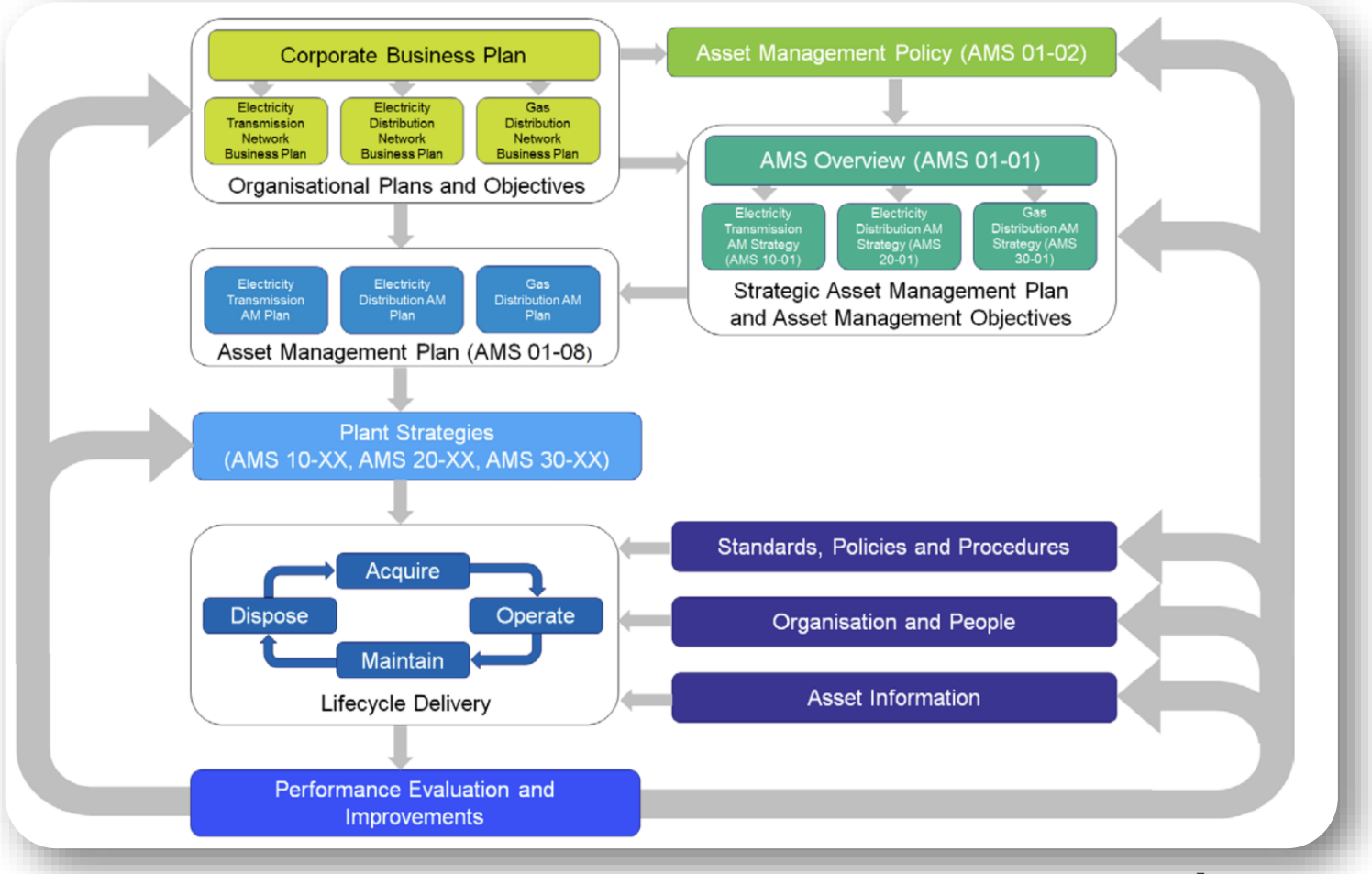
01 Asset Management Framework

1. Asset Management Framework

1.1. Overall Framework



Components of AusNet's Asset Management System (AMS)

AusNet uses a formal AMS to ensure that objectives are aligned throughout all levels of the business

1. Asset Management Framework

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1.2. Corporate Drivers

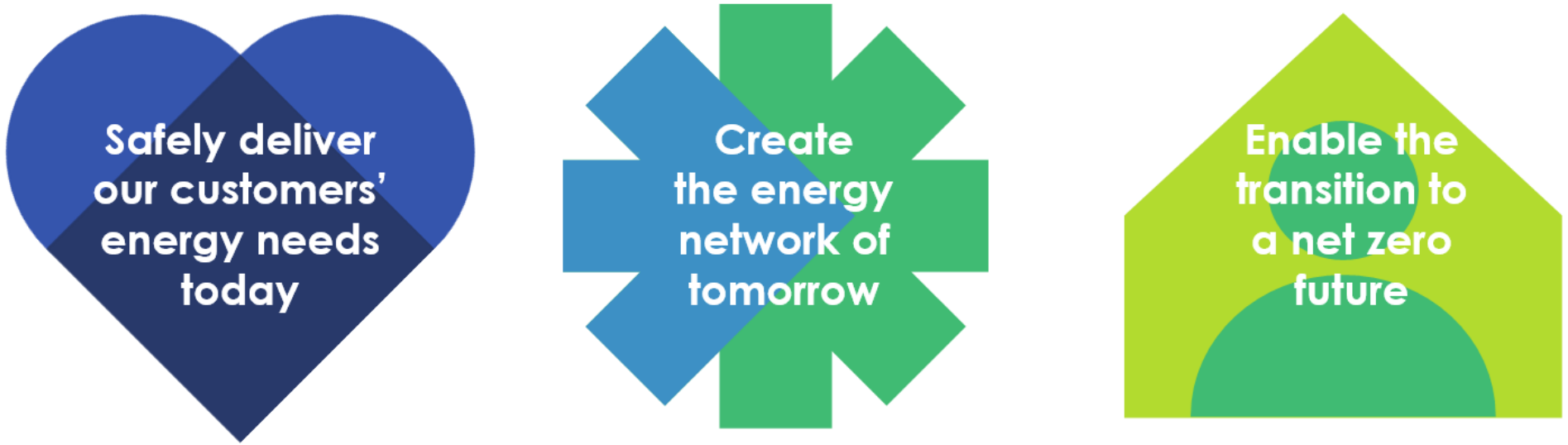
Our Purpose is to:

Connect communities with reliable, affordable and sustainable energy.

Our Vision is to be:

Trusted to bring the energy today and build a cleaner tomorrow.

Our three Strategic Pillars are:



02 Distribution Network Context

2. Distribution Network Context

2.1. Key Internal Factors

Benchmarking

- Distribution network productivity and cost performance remain challenged
- Refinement of unplanned reliability KPI ‘s with the focus on customers per outage, outage duration and number of outages

Network Condition

- Risk-based asset management process and use of advanced analytics and automation
- Targeted replacement programs on poor performing assets
- Major EHV asset replacements on 5 to 10-year horizon
- Defined business rules for asset replacement programs
- Cyclic Inspection Programs

Data and Information

- Not all asset data is captured centrally
- Data accuracy uplift
- Regular reporting on network performance and safety
- Automation of operational processes during outage events
- Increasing demand on communications network with increasing complexity and interaction with protection and control systems

2. Distribution Network Context

2.2 Key External Factors

Customers

- Acute cost of living pressures
- Desire for improved services - better reliability, resilience & customer experience
- Facilitate customer energy choices – connect more customers to PV, enable electrification of transport and gas
- Support safety programs
- Pro-active customer engagement & research through EDPR & BAU

New technologies

- SAPS, GESS, batteries (LV and MV), Statcoms
- EV Pole-top chargers
- Solar PV impacting power quality
- Energy efficient appliances
- Electrification of homes and businesses
- Residential batteries
- Demand Response Enabling Devices (DRED)
- Open Charge Point Protocol (OCPP)
- Flexible Exports and Solar Emergency Backstop
- Increased Electric Vehicle EV uptake

Changing use of networks

- Victoria's renewable energy and emission reduction targets
  - Continuous growth of CERs
  - Rapidly growing pipeline of large renewables and storage (more than 4.3GW)
- Electrification of transport and gas industry
- Customer and community expectations continue to rise
- Resilience - More reliable and resilient networks in the context of more frequent and more severe extreme weather events
- Minimum system load continues to reduce

Economic Regulations

- New EDPR regulatory period commencing 1 July 2026
- Regulator focus on prudency/efficiency, robust asset management practices, network utilisation, tariff response and non-network solutions, to mitigate investment needs
- Customer engagement processes continue to expand in depth and scope
- Addressing new investment drivers and demonstrating robust forecasting approaches and customer value – resilience, reliability, large renewables integration, DSO
- Demonstrating ability to deliver increased capital program

Safety Regulations

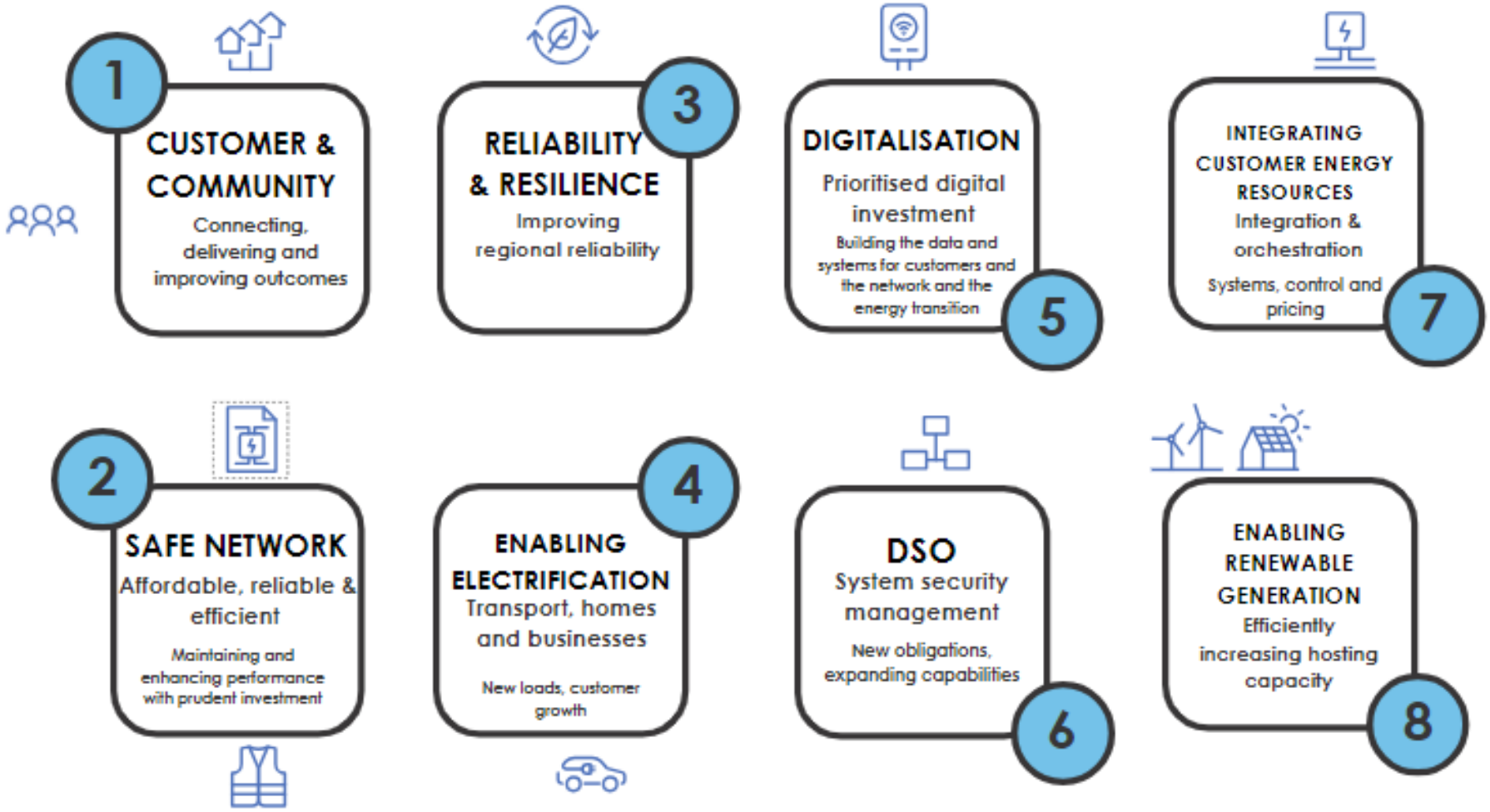
- Transitioning REFCL operation to meet Energy Safe policy
- Energy Safe increasing monitoring, auditing, compliance and enforcement activities
- Business risk due to cost recovery processes
- Gas and Electricity Safety Case renewal & commitments

Changing energy environment

- Power Station Closures
- Transition to Renewables: Government commitments target 95% renewable energy by 2035 and net-zero emissions by 2045.
- Increasing Distributed Generation Growing rooftop solar and small-scale generators introduce challenges like reverse power flow.
- Residential Gas Connection Ban: From 2030, new homes cannot connect to gas, creating demand for electrification.
- Uncertain Future of Natural Gas: Policy debates and declining reliance on gas influence energy planning.
- Minimum Demand Challenges: Low electricity demand during peak solar generation risks grid stability.
- Electric Vehicles (EVs): Increased EV adoption raises electricity demand and requires charging infrastructure upgrades.
- Extreme Weather: More frequent events due to climate change demand resilient networks.
- Regulatory Changes and new frameworks

2. Distribution Network Context

2.3 Network Investment themes

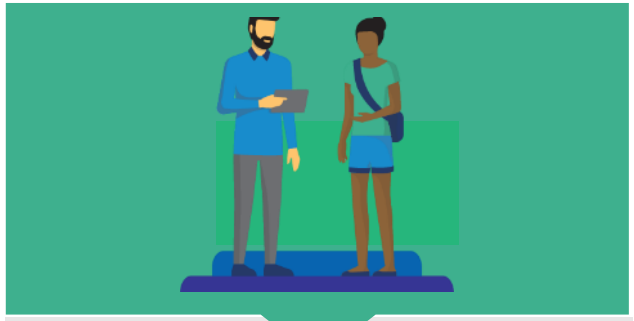


03 Key Risks & Issues

3. Risks Status

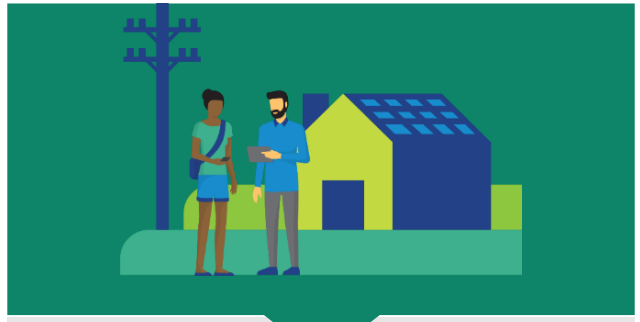
Safety

- REFCL is transitioned to BAU and will reduce bushfire risk
- R&D programs targeting safety improvements, including EFD devices
- Equipment replacements that optimise asset risk, cost & performance
- The potential for explosive asset failures included in the critical risk program



Failure to supply

- Major risks mitigated by spares & contingency plans for key assets
- Extreme weather events including windstorms and bush fires planned for and managed through Network Resilience
- More extreme peak loads as warmer weather patterns return, and during winter, increasing reliability risk



Network capacity

- Existing infrastructure requires significant investment on upgrades to accommodate additional load growth from renewables
- Evolving maximum and minimum demand patterns due to uptake of CER

Our Asset Management Plan aims to maintain risk in line with AusNet Services' Risk Appetite Statement

3. Issues Status

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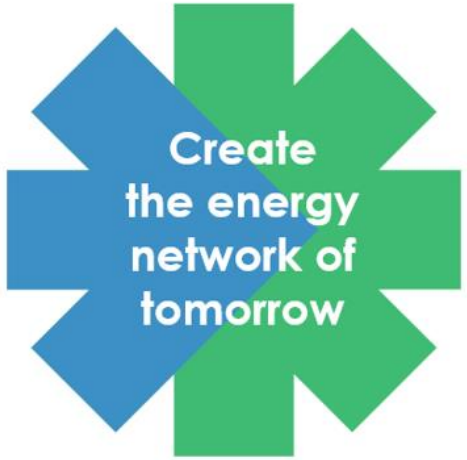
Customers	• Not delivering on commitment made to customers through EDPR Customer Forum process results in significant negative reputational impact • Increasing customer experiences around service and experience • Increasing customer solar connections and expectation of unconstrained export, supported by Government • Cost of living pressure changes to demand and customer's reliance on electricity, inability to manage r-payments or bill-shock
Reliability	• Performance in 2020-2024 period over target (after removing exclusions like major storm events) • Directly impacting customers and financial incentives • Focus on understanding the causes of outages to better implement measures to address both the frequency and duration
Regulations	• F Factor scheme placing greater weight on Codified Areas • No appeal process after AER's final EDPR determination • ESV plan has developed enhanced oversight and auditing
Benchmarking	• Distribution network is most expensive in Victoria and is under further pressure due to expenditure required for REFCLs and Poles • High-cost network will be a target for alternative technology suppliers • Underperforming against peers on reliability.
Bushfire Strategy	• Use of consistent risk approach • Focus inspection and maintenance to address highest risk areas • Consider network redesign to eliminate high-risk spans and comply with relevant regulations
REFCL Program	• Significant technical complexity and stringent timelines to maintain Compliance • REFCL Compliance dictating Augmentation Works overload Considerations • Unpredictable emergent issues due to new Technology • Limited Knowledge within Business, low availability in Market
Poles	• Poles & pole top structures are the largest capex program • Osmoss truss and pole splicing seeking to be put into use • Alternative staking and pole-base replacement techniques is going to be introduced later in the year • Bow wave of pole replacements on near horizon.
Condition Assessment	• Asset risk modelling significant step forward in visualising condition and criticality of assets • Use data and modelling to refine maintenance and replacement programs • Move to predictive modelling • Risk-based asset management improvements
DER Proliferation	• DER Growth: Networks not designed for high residential solar penetration; causes voltage rise and export constraints. • Battery Impact: Unclear if storage will significantly boost solar hosting capacity • Flexible Connections: Dynamic export limits could balance grid needs and support more solar customers. • EV Growth: Rising EV uptake to drive peak demand; requires smart charging and LV network upgrades. • DER Management and targeted LV upgrades to support DER, and EVs and electrification • LV planning, building LV models for visibility, optimisation and monitoring

04 Focus Areas

4. Focus Areas

4.1.Distribution Strategic Priorities

- Improve visibility and control over our Distribution network
- Delivered targeted customer service outcome improvements
- Elevate the voice of the customer



- Use digital to uplift our operations

- Shape our operating environment to support an orderly transition
- Secure the people and funding to deliver our network programs

4. Focus Areas

4.2.Distribution CY25 Initiatives

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Improve visibility and control over our Distribution network

- Implement a new service delivery model
- Create a consolidated works program for the distribution network
- Deliver ADMS Phase 2 and Phase 3

Elevate the voice of the customer

- Deliver major customer engagement programs (major customers, community & councils)

Shape our operating environment to support an orderly transition

- Future-ready network (Innovation, long term planning) including roll-out of flexible exports

Delivered targeted customer service outcome improvements

- Establish Network Resilience & Reliability improvement programs
- Deliver network outage review recommendations
- Deliver business improvement program
- Re-baseline and improve CSAT
- End to End Delivery of customer connections through RiCC
- Network voltage compliance uplift

Use digital to uplift our operations

- Deliver New Mobility solutions for Asset Inspection, Storm Response/Faults, Mobile Switching

Secure the people and funding to deliver our network programs

- Deliver EDPR proposal
- Secure the people and develop the programs to deliver on our future ambitions (workforce capacity, training yard, trainee program)
- Develop a long-term plan for strategy, investment and the future of the distribution business

05 Distribution Network Performance Targets

5. Performance Targets

Electricity Distribution Network Objectives	Measure	Regulatory Target FY24-25
Reduce Fire Risk	**F-factor**	**127.0**
Maintain long-term network reliability	**Network reliability** - USAIDI (minutes) - USAIFI (interruptions) - MAIFI (interruptions)	**≤ 164.56** **≤ 1.62** **≤ 5.13**

* Regulatory targets based on regulatory period (1 July 24 to 31 June 25)

06 Overview of Major Programs

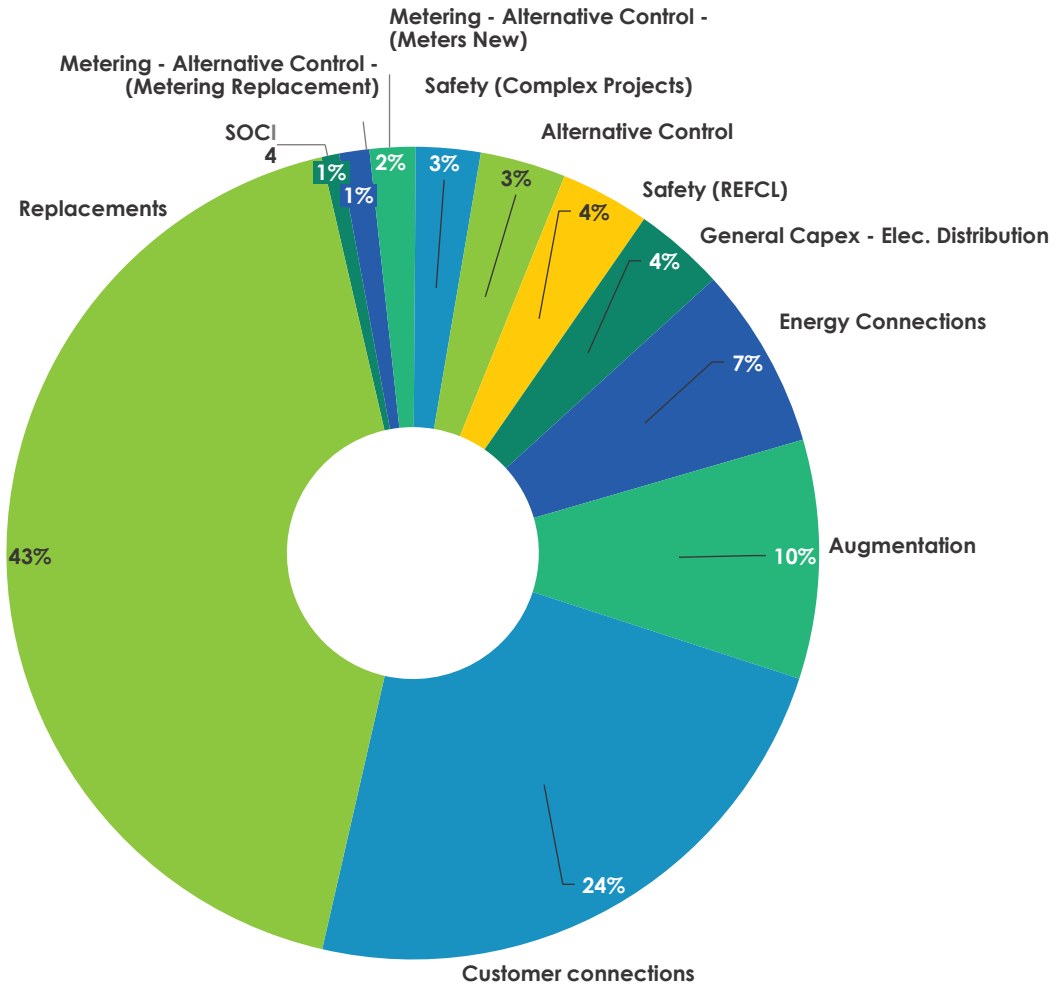
7. CY25 Major Programs

PERFORMANCE	Meet customer reliability objectives	**Voltage Management and Reliability** • The STPIS provides financial incentives for DNSPs to maintain and improve service performance, specifically reliability of supply and customer service. • Outwork proactive voltage management to enhance hosting capacity of residential solar
GROWTH	Enable customer energy choices	• **New asset types on the network**: Stand-Alone Power Systems (SAPS), Battery Energy Storage Systems (BESS) • **Connections**: Connection enablement program to reduce sub-transmission network constraints • Various network augmentation projects increase capacity
RISK	Operate to our risk appetite and reduce safety risk	• **Bare Conductor Replacement**: replacement is estimated at $37.2m for the current EDPR • **Refurbishing zone substations**: Major station works to commence at MFA and WGL
COMPLIANCE	Meet our compliance obligations	• **Contract Management**: new incentive-based contract to deliver improved compliance • **Vegetation Management**: the clearance assists in maintaining reliability by reducing supply interruptions caused by trees and other vegetation contacting lines, reducing the fire risk from trees contacting network assets.
EFFICIENCY	Achieve our outcomes for the optimal cost	• **ARM**: Data analytics around asset risk has covered high value asset classes and Investigating/ trialing systemised tools

07 Planned Expenditure

8. Planned Expenditure

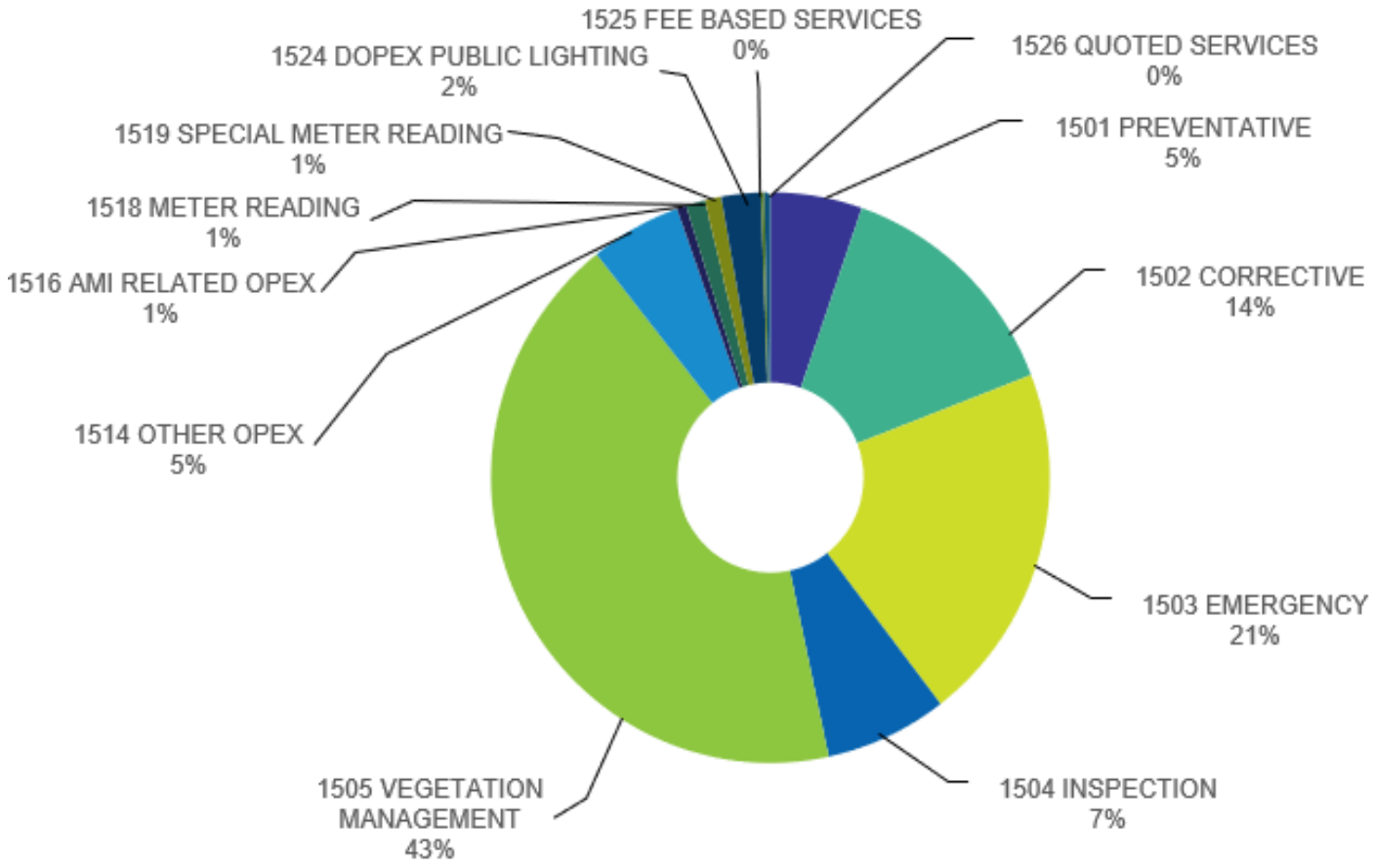
8.1. CY25 CAPEX forecast by category



Category	Program
Replacement	HV Distribution Poles Replacement (Maintenance)
	Bare Conductor Replacement (Complex Projects)
	Transformer/ Regulator Replacement (Maintenance)
	WGL ZSS Rebuild
	Bayswater ZSS Rebuild
Customer Connections	Medium Density Housing
	Business Supply Projects
Augmentation	Network Augmentations
	Connections Enablement
Energy Connections	Hybrid Generator – Fulham Solar Farm and Barnawartha Solar Farm & BESS
	Large Embedded Generators – Laceby Wind Farm and Gellendale Solar Farm
Safety	REFCL- Augmentation
	Proactive SWER replacement

8. Planned Expenditure

8.2. CY25 OPEX Program by category



08 Document Information

9. Document Control & Approvals

Version	Status	Description	Author(s)	Approver	Approval Date
1	Approved	Previously included in AMS 01-08 Initial draft, document now split by energy network	Tim Baumgarten, Janadhi Mudiyanselage Mathieu Durox	Rod Jones	30 January 2025
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09 Appendix A: Asset Management Policy

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Asset Management Policy

27 May 2024 | Rev 0.1

To own and operate the best energy networks, growing through connecting people with new energy

This policy directs the content and implementation of asset management strategies, objectives, and plans for AusNet's energy delivery networks. It provides employees, contractors, suppliers, and delegates with guiding principles to underpin asset management decisions.

Our approach to Asset Management is centred on enabling AusNet to own and operate the best energy networks, to grow through connecting people with new energy. Our strategic priorities include delivering safe, reliable, resilient, and affordable energy to our customers; building trust with key decisions makers and stakeholders; efficiently investing in the modernisation of our networks; executing major growth projects; attracting and retaining the best talent by embedding our employee value proposition; and partnering with our shareholders to align funding for future investment opportunities.

To achieve this, we will:

- Minimise risks to the safety of any person and their property as far as practicable.
- Place customers at the centre of our decisions to support their evolving needs and the changing energy landscape.
- Engage with our customers and stakeholders to understand and integrate their requirements in asset management decisions.
- Comply with legislation, regulation, relevant Standards, and industry codes and actively contribute to the development of amendments that will benefit our customers and stakeholders.
- Use a risk-based approach to manage the energy networks and balance the environmental, economic, and social needs of today without sacrificing the interests of future generations.
- Use innovation, information, and technology to facilitate a sustainable whole of life cycle approach to asset management to deliver value to our customers, communities, and partners.
- Continually develop the skills of our people to ensure asset management activities are performed efficiently and effectively.
- Align and continuously improve our asset management processes and capabilities to embed cost, risk performance, compliance & quality in our work.

David C Smales

David Smales

Chief Executive Officer