



# Revenue Reset Reference Group

TUESDAY, 24 MARCH 2026



# Acknowledgement of Country

ElectraNet acknowledges the Traditional Owners of the land and waters on which we operate.

We pay our respects to their Elders past, present and emerging and extend that respect to all other Aboriginal and Torres Strait Islander people of Australia.



# Agenda, Overview of session and Standing items

Leanne Muffet

# Executive Summary

The below Executive Summary serves as a concise and comprehensive overview of the presentation that follows. The primary purpose of the Executive Summary is to provide the RRRG a quick and clear understanding of the key essential points and findings contained in the full presentation.

Date	24/03/2026
Meeting Name:	RRRG Meeting 6
Agenda Item:	Capex 1 – Repex Deep Dive
Purpose:	PRP engagement
Division:	Assets
Presenters:	Brett Rickell

## 1. Introduction:

- This session will engage the RRRG early in our proposed approach to replacement expenditure, explain how decisions are made, why costs are increasing and test where consumer views can influence trade-offs

## 2. Summary of Objectives:

- Explain why replacement expenditure is increasing and how it is driven by asset condition, safety, risk and cost pressures.
- Demonstrate how ElectraNet makes replacement decisions, including where there is flexibility AND where risks cannot be compromised.
- Engage early on framing, so trade-offs and optionality can be explored before positions are locked in.
- Ensure the PRP is shaped by consumers perspectives where there is opportunity to do so.

## 3. Key Findings / “So what?” messages:

- The increase in replacement expenditure reflects ageing infrastructure and rising unit costs, not discretionary or unnecessary investment.
- Not all expenditure is equally flexible where safety, system reliability is at stake.
- ElectraNet is considering optionality where feasible.

## 4. Recommendations or Conclusions:

- Insight on whether the ‘right’ risks and consumer issues are being explored.
- Identify where further evidence, explanation or framing could strengthen consumer understanding and confidence.
- Help shape a PRP that demonstrates engagement and responsiveness to consumer concerns, informing the RRRG’s future independent report..

# Meeting Agenda

Agenda Item	Engagement (IAP2)	Time	Presenter
Acknowledgement of Country		10:00 to 10:15	Leanne Muffet
Minutes & actions		10:00 to 10:15	Leanne + All
Capex 1 Deep Dive Repex Session 1 – forecasting methodology	Inform	10:15 to 11:00	Brett Rickell
Break		11:00 to 11:20	All
Capex 1 Deep Dive Repex Session 2 – sample of key projects	Consult/Involve	11:20 to 12:20	Brett Rickell
Other <ul style="list-style-type: none"> <li>• Current regulatory period summary</li> <li>• Framework &amp; approach update</li> <li>• Preliminary Proposal 1<sup>st</sup> observations</li> </ul>		12:20 to 12:45 Deferred to July	Sonya Battersby/ Rohan Fernandez
Pulse check, meeting actions, AOB		12:45 to 1:00	Leanne Muffet

\*this was business narrative

# PRP content at March Dashboard

	PRELIMINARY REVENUE PROPOSAL	COMMENTARY
<b>Capital Expenditure</b>	<b>\$2.9b</b>	<b>For discussion today, May, ongoing</b>
Operating Expenditure	\$810m (162m p.a).	For discussion April
Rate of Return	Expected 5.9% - 7.24%	For discussion Sep
Total Revenue	\$3.3b	For discussion Sep
Opening RAB	\$4.3m	This is an outcome of Capex excl NtX For review Sep
Closing RAB	\$5.8b	As above
Transmission Pricing (p0)	30%	For discussion Sep

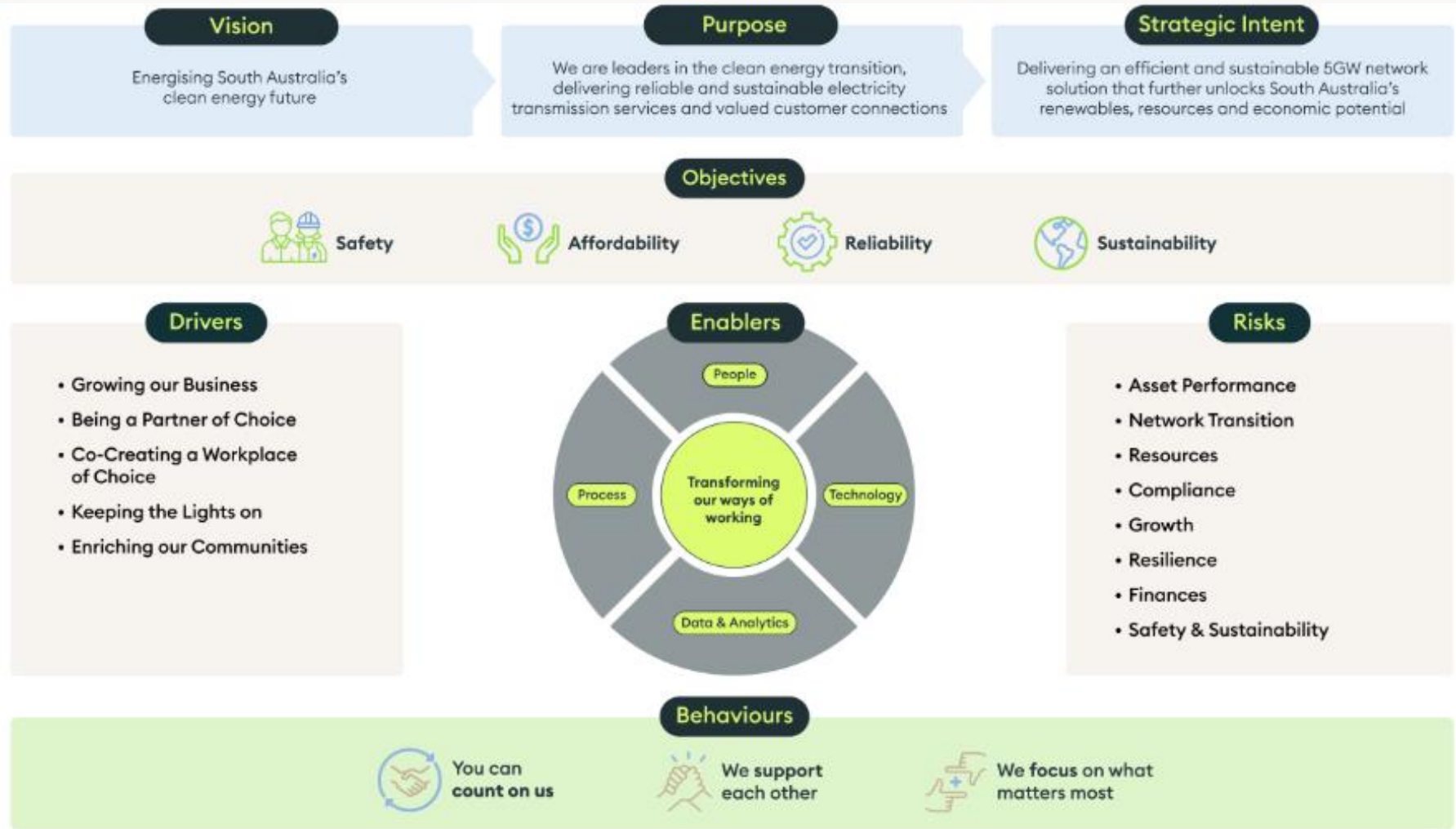


# Capex 1 Deep Dive Repex

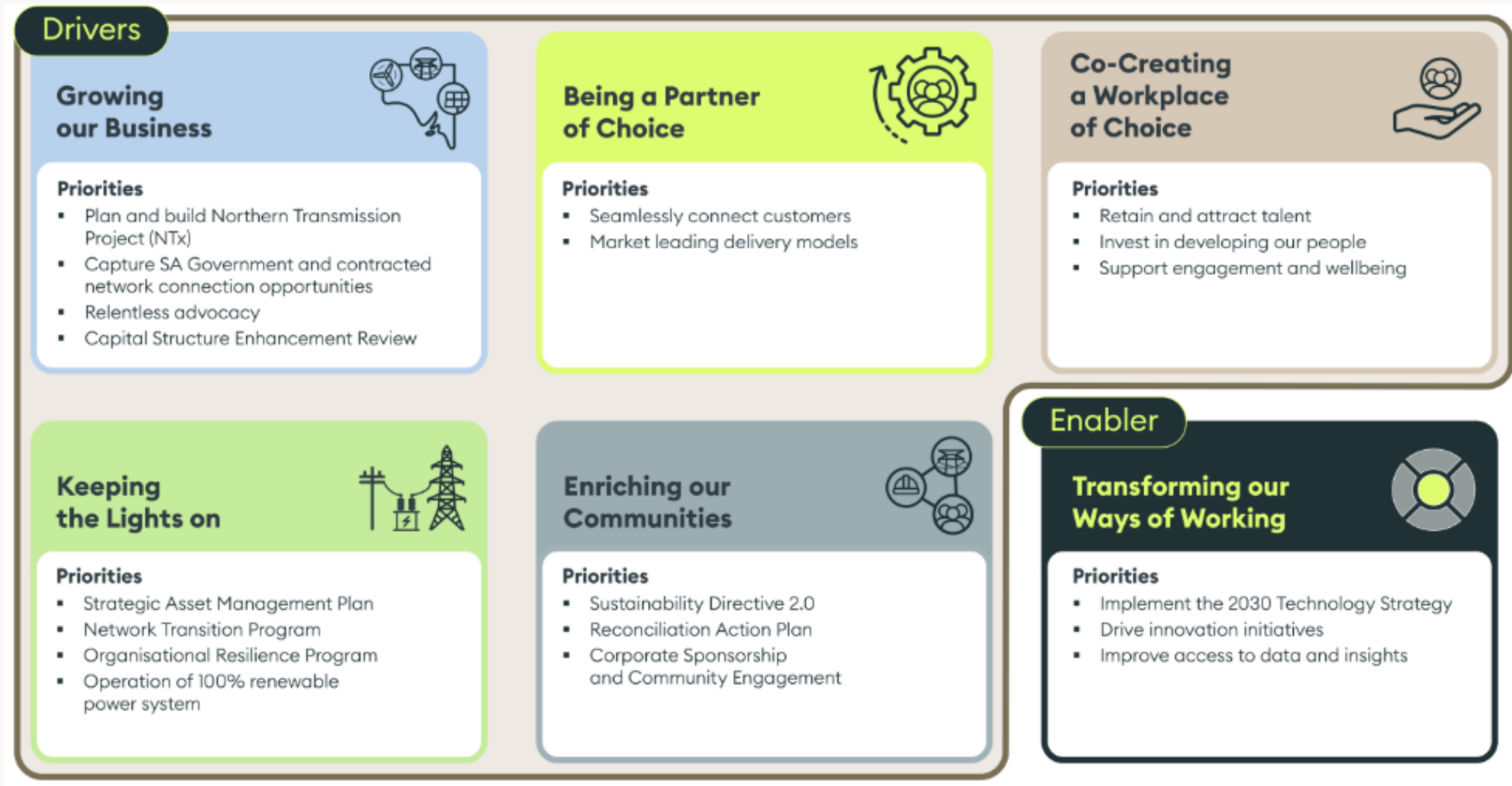
## Session 1 Forecasting Methodology

Brett Rickell

# ElectraNet Strategy



# ElectraNet Drivers



# Repex Overview

Why the Repex no. is what it is?

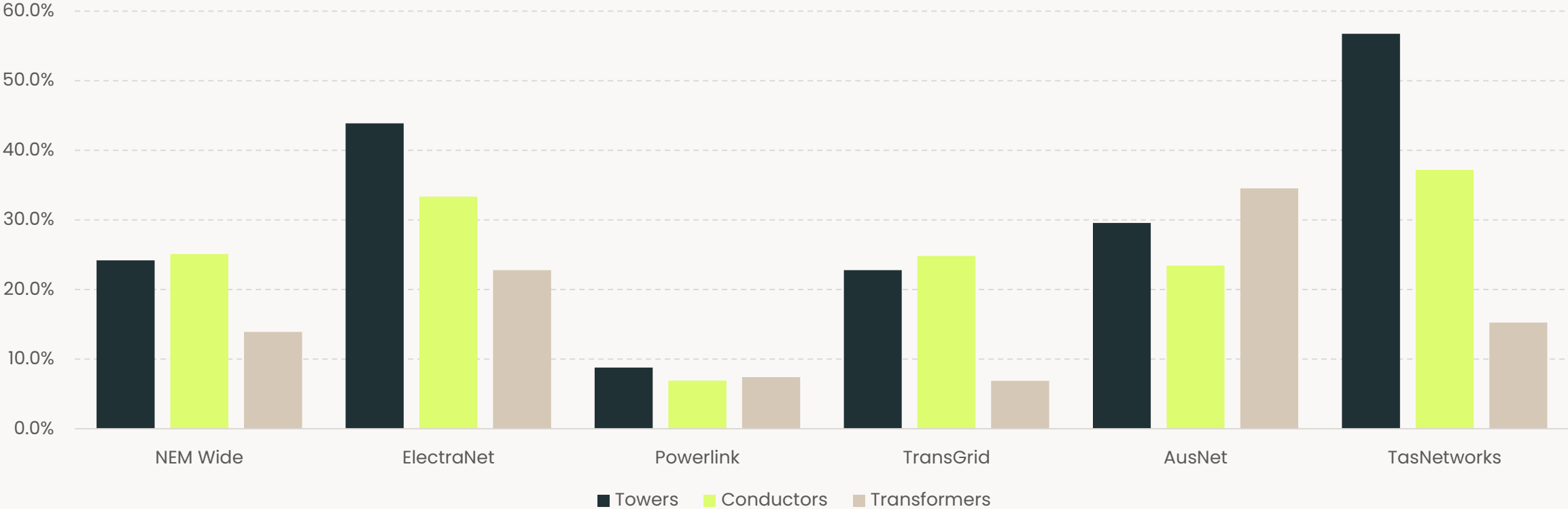
ExAnte	2023-2028	2028-2033	Var	%
Assets	523.6	875.2	351.6	67%

- Asset Age
- Unit cost increases
- Other drivers incl
  - Compliance
  - Resilience

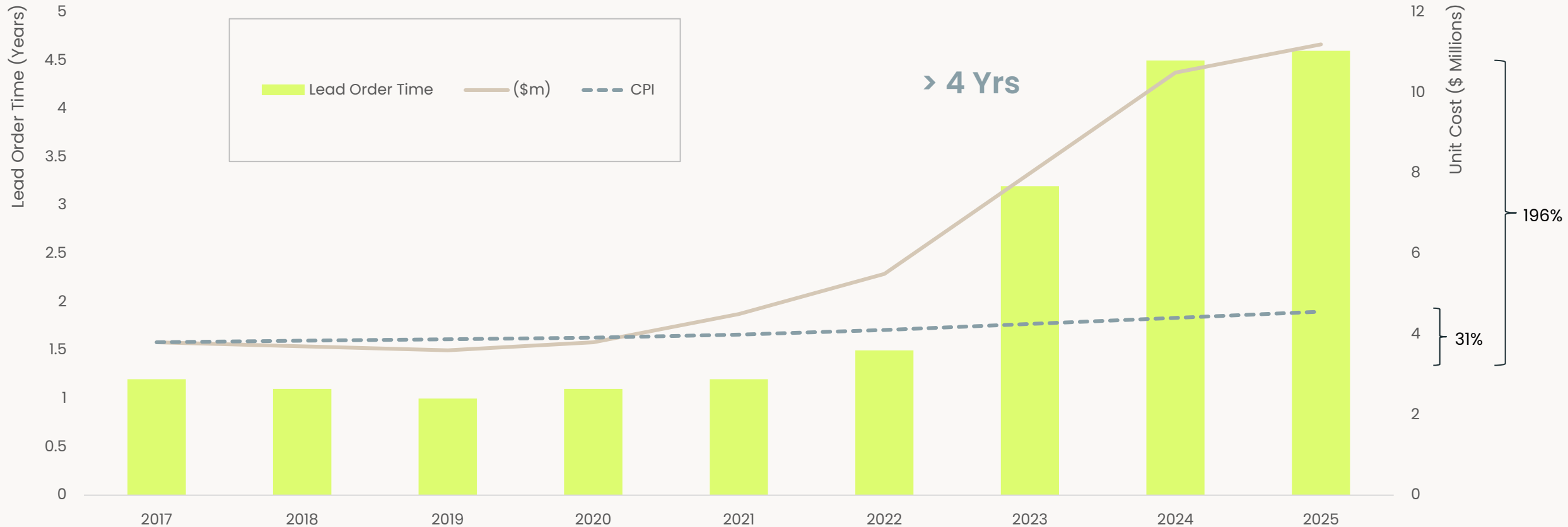
ExAnte	TOTAL	Assets	Network	Facilities	Tech
Augmentation	1,042.1	10.8	1,031.3	-	-
Connection	45.0	-	45.0	-	-
Easements/Land	42.0	-	42.0	-	-
Replacement	661.1	661.1	-	-	-
Refurbishment	39.7	39.7	-	-	-
Security/Compliance	542.1	138.7	401.4	-	2.0
Information Technology	286.8	-	-	-	286.8
Inventory/Spares	24.9	24.9	-	-	-
Facilities	237.8	-	-	237.8	-
<b>Total</b>	<b>2,921.5</b>	<b>875.2</b>	<b>1,519.7</b>	<b>237.8</b>	<b>288.8</b>

# Proportion of Assets Beyond Useful Life by TNSP

Proportion of Assets Beyond Useful Life by TNSP



# 275kV transformers – time and cost (Tx network)



Source: EN26 Powered b Connection – Hardwired for Change: Regulation, innovation, action  
Paul Simshauser AM

# Asset Investment Drivers

## 1. Risk Management & Safety

- Ensuring critical assets do not pose safety risks to staff, customers, or the community.
- Compliance with regulatory safety requirements.
- Managing environmental and reputational

## 2. Asset Condition & Performance

- Monitoring asset health, deterioration, and performance indicators.
- Using inspections, sensors, and condition assessments to predict end-of-life.
- Benchmarking performance against service standards or industry

## 3. Lifecycle Cost Optimisation

- Balancing the cost of maintenance vs. replacement.
- Considering whole-of-life cost, including acquisition, operation, maintenance, and disposal.
- Minimising total cost of ownership (TCO) rather than just upfront capital

## 4. Service Reliability & Customer Outcomes

- Ensuring assets continue to meet agreed service levels.
- Minimising unplanned outages and disruptions.
- Aligning with customer expectations for reliability and quality.

## 5. Regulatory & Compliance Drivers – EPA / NER / ETC / AS/NZ Standards

- Adhering to legislation, standards, and codes of practice.
- Regulatory requirements for service reliability, reporting, or replacement cycles.
- Justifying replacement programs to regulators for cost recovery.

## 6. Technological Change & Obsolescence

- Replacing assets that are no longer supported by manufacturers.
- Leveraging modern technology to improve efficiency, monitoring, and control.
- Adapting to digital transformation (e.g., smart sensors, IoT, AI-based monitoring).

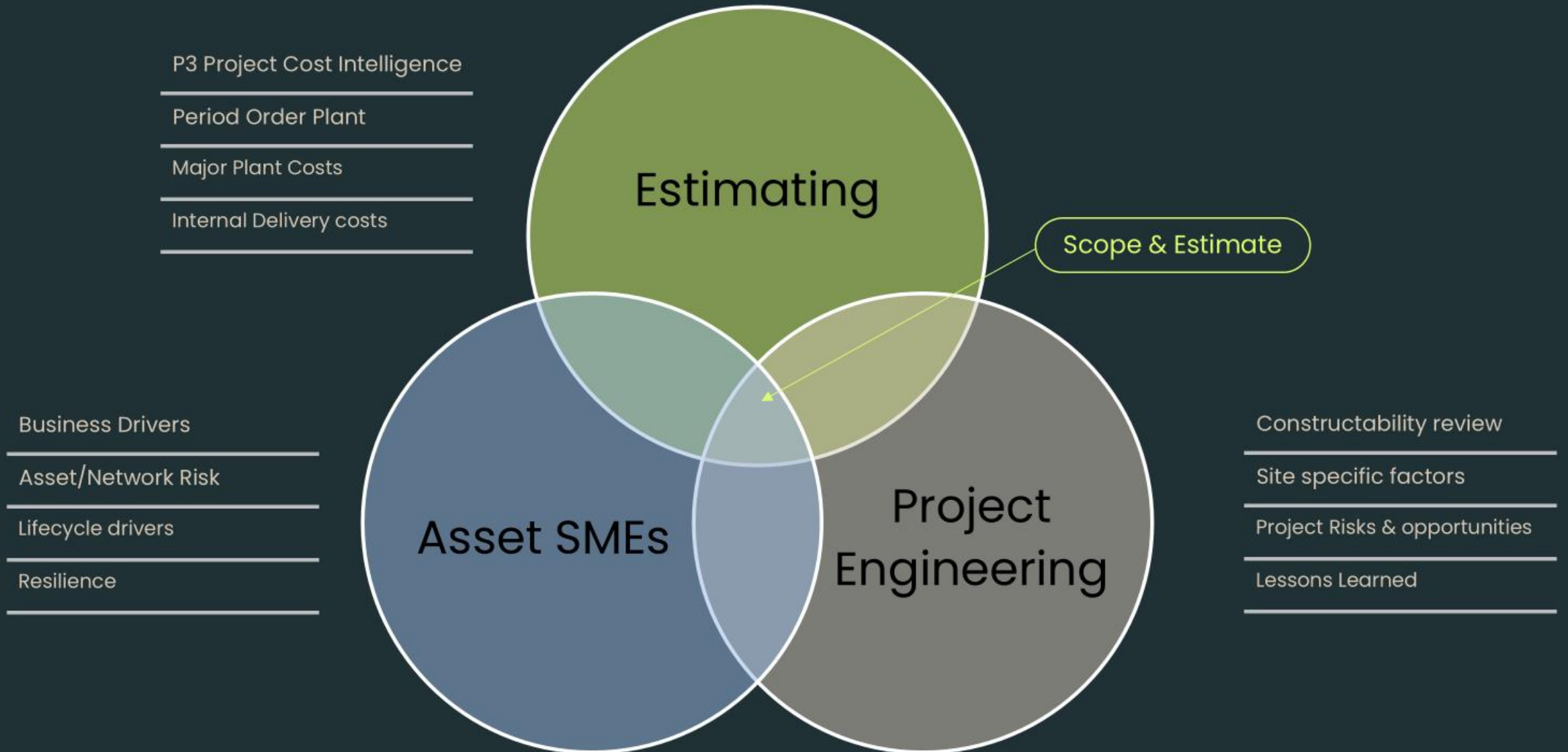
## 7. Sustainability & ESG Considerations

- Reducing environmental impact of aging or inefficient assets.
- Transitioning to low-carbon, energy-efficient alternatives.
- Alignment with corporate sustainability or net-zero commitments.

## 8. Strategic Alignment & Growth

- Ensuring replacement plans align with organisational strategy and long-term planning.
- Supporting future capacity, demand growth, and network expansion.
- Enabling flexibility and resilience against emerging risks (e.g., climate change).

# Collaborative Estimating Approach



# Break

10 minutes

# Capex 1 Deep Dive Repex

## Session 2 Sample of key projects

Brett Rickell

# How the RRRG Can Influence Replacement Expenditure

Not all repex decisions are the same – this session focuses your input on where it matters most.

## Where repex is non-negotiable (safety/compliance)

- Some assets must be replaced to meet safety, legal and licence-to-operate obligations.
- These investments are not discretionary.

### Your role:

- Test whether reasoning is clear, credible and understandable from a consumer perspective.
- Advise whether the explanation would feel fair and reasonable to consumers

## Where repex has already been optimised (planning-led decisions)

- In many cases ElectraNet has already minimised cost and risk, for example by:
  - Replacing only part of an ageing fleet.
  - Using strategic spares to extend asset life and sweat assets safely.
  - Replacement of a higher spec equipment from of integrated Network & Assets planning

### Your role:

- Sense-check whether the optimisation approach feels proportionate.
- Test whether the balance between cost, risk and long-term outcomes is clearly explained.

## Where genuine optionality exists (consumer influence is strongest)

- Some repex decisions involve choices around timing, scope or sequencing.
- These choices involved trade offs between near-term costs and future risks.

### Your role:

- Provide views on acceptable trade-offs from a consumer perspective.
- Help identify where flexibility should or should not be exercised.

# EC.15660 – Hummocks Substation Replacement 2029–2033



# EC.15660 – Hummocks Substation Replacement 2029–2033

## Scope Overview

**Replacement of substation (circa 1952) at a greenfield site immediately adjacent existing substation.**

- New 132kV switchyard (change from problematic ‘stacked bus’ to ‘breaker and a half’)
- New transformers (In 2028, existing TFs will be 55 years old)
- Provision for future expansion to two complete diameters at 132kV voltage
- Strategic land acquisition for the above and future 275kV expansion

## Business Case Description

**The need for this project is driven by:**

- **Compliance:** Requirement to meet the service standards outlined in the SA ETC.
- Unable to comply with requirements for category 4 loads in the Southern and Eastern parts of the Mid North Region.
- **Risks:** Significant safety risks to ElectraNet operational staff & contractors exist:
  - 132 kV high voltage infrastructure: Safety critical equipment design & condition provides low integrity (high risk) operations. Bus configuration restricts access and complicates maintenance.
  - Electrocution risks (AC S/Bds & related infrastructure is circa 1952, exposed terminals & non-AS3000 compliant)
  - Protection Systems are obsolete
  - Fire Spread risks. Oil containment risks.
- **Reliability:** Hummocks Substation currently is a high risk, low reliability, high maintenance cost substation that has reached the end of its technical and economic life.
  - Condition assessments for the site and the majority of assets identify that a significant proportion of the assets no longer meet acceptable standards for reliability, maintainability, and operational safety. In addition, the secondary systems obsolescence presents increasing challenges in maintaining compliance with current technical standards and applicable regulatory frameworks.

## STRATEGIC INTENT ALIGNMENT

- 1 **Growing our Business**
- 2 Becoming a Partner of Choice
- 4 **Keeping the lights on**
- 3 Co-Creating a Workplace of Choice
- 5 Enriching our Communities

## ASSET MANAGEMENT OBJECTIVES

 <b>Safety</b>	 <b>Affordability</b>	 <b>Reliability</b>	 <b>Sustainability</b>
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## EC.15251 – Transmission Line Insulation Unit Asset Replacement 2029–2033

### Scope Overview

Replace 4599 insulation systems, across 796 structures, located on 39 transmission feeders.

### Business Case Description

This program of works is the recommended option as it provides the lowest long-run cost to secure a 20-year life extension for the overall line asset. It directly and systematically mitigates the catastrophic failure risks associated with the aged insulators, representing the most efficient use of capital to ensure long-term safety and reliability.

Electranet’s asset management strategy dictates intervention when an asset class becomes unsafe, its performance becomes unacceptable, or when it is economic to refurbish it to extend its life. Assets were identified through Transmission Asset Life Cycle (TALC) assessment process and have been identified as reaching the end of their technical life, presenting an unacceptable level of risk.

The significant drivers creating this risk are two distinct insulator populations:

**Aged Porcelain Insulators:** Units older than 40 years are exhibiting poor electrical performance as evidenced through volt drop tests, and are at a high risk of catastrophic mechanical failure. Unlike other insulator types, this failure mode can cause the conductor to drop to the ground, creating a significant public safety hazard and fire-start risk, particularly in high-consequence areas.

**First-Generation Non-Ceramic Insulators (NCI):** These assets, now either reaching or surpassed their 30-year approximate end-of-life, are showing visible degradation. Their surfaces have lost hydrophobic properties, which reduces insulation performance, increasing electrical tracking which can lead to accelerated deterioration, sudden flashover or mechanical failure, causing unacceptable network reliability issues.

Proactive intervention is necessary and justified to manage safety and network performance.

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### ASSET MANAGEMENT OBJECTIVES



A 3 month assessment of Dec – Feb flashed insulators revealed that of the 85 instance Zero were on recently installed insulators. All flashed insulators were on old insulators, typically porcelain long rods installed between 1982 and 1990.

## EC.15253 – F1844– Cultana Stony Point 132kV Line Replacement

### Scope Overview

Replace the F1844- Cultana Stony Point 132kV Line with like to like capability on a new easement.

### Business Case Description

TALC assessments have identified the following minimum replacements are required: Conductor, earthwire and insulation systems for the full length of the F1844 line.

- Evaluations have identified full like for like replacement provides the best scenario for the business and the customer: Pt Bonython gas processing facility.
- Lifecycle team considered part replacement but after consideration for generation costs required to undertake this approach it was of little difference to cost.

**Significant consequences exist in the event of conductor failure along these lines.**

- Primarily, the consequences relate to network availability and safety, but also include: reputation, environment and financial.

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### ASSET MANAGEMENT OBJECTIVES



# EC.15762 – Isolator Unit Asset Replacement 2029–2033



## ElectraNet has a fleet of 1640 isolators:

- OEM parts are unavailable for 50% of isolators
- 900 isolators are motorized
- 50% have integral earth switches
- 24 different makes and models across the 11kV - 330kV network.
- Intended life is 40 years.
- Average age is 25 years old.
- 32% are > 40 years old in 2028.

## EC.15762 – Isolator Unit Asset Replacement 2029–2033

### Scope Overview

Targeted isolator replacements and isolator removals (24 of) as follows:

- Replacement of isolators to create inventoried spare parts. (Manufacturer supplied parts are unavailable).
- End of life asset isolator replacements. (4 of.)

### Business Case Description:

ElectraNet has a fleet of high voltage isolators (1640 of) that provide safety critical functions (high voltage 'isolation points' and 'main earths' by their associated earth switches). While these isolators typically have a service life of > 40 years, manufacturers seldom supply spare parts for units older than 25 years. As isolators age, the demand for replacement components generally increases.

ElectraNet's isolator strategies for maintenance, refurbishment, inventoried spare parts and selective replacements, keep spare part holdings and therefore enable life extensions well past the assets intended life. Significant asset lifecycle cost savings occur from prompt and cost-effective repairs and when replacement occurs from augmentation, rather than unit replacements.

This project continues the work of projects EC.14034 and EC.15397.

% of assets past their initial intended life (40 yrs) that are being kept operational by this strategy = 32% (2028)

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### ASSET MANAGEMENT OBJECTIVES



# EC.15737 – Robertstown 275/132 kV Transformer 1 Replacement



# EC.15737 – Robertstown 275/132 kV Transformer 1 Replacement

## Scope Overview

Replacement of Transformer 1 at Robertstown substation.

## Business Case Description

The replacement is required to:

1. **Maintain transfer capability to the Riverland Region.**
2. **Provide reliability of supply as the TF is at end of life.**
  - This Transformer has already had extensive refurbishments to extend life, and replacement is now the most effective solution technically and economically.
  - Integrated planning has identified that Robertstown Transformers will be overloaded in the next 10 years informing the replacement to be a higher rating to avoid further replacements in the future.

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## ASSET MANAGEMENT OBJECTIVES

 Safety	 Affordability	 Reliability	 Sustainability
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# EC.15639 – Para Substation Stormwater & Oil Containment Systems Replacement 2029–2033



At the large circa 1965 Para substation, failing infrastructure has triggered site specific risk assessments and independent condition assessments that have identified significant parts of the stormwater, water supply and oil containment systems that are at end of life or have unacceptable risks of fire spread or non-compliance with the South Australian Legislation: Environmental Protection (Water Quality) Policy.

# EC.15639 – Para Substation Stormwater & Oil Containment Systems Replacement 2029–2033

## Scope Overview

The scope of this project is to redesign, replace and refurbish parts of the oil containment, stormwater, fire hydrant system and amenities water systems at Para substation.

## Business Case Description

The redesign will ensure the integration of the site’s water supply, hydrant system, amenities water, and oil containment systems to achieve the following:

- Ensure compliance with relevant legislation and standards
- Fulfill all functional requirements
- Minimize asset lifecycle costs
- Mitigate environmental risks and reduce the potential for fire spread

### Risk details:

#### 1. Environmental damage:

- Pollutants: Underground oily water pipework design is unsuitable geotechnically and has age related defects (for 4 of TFs) creating a risk of polluting waters.
- Erosion: Dam catastrophic failure risk due to poor detention designs & age related defects. Stormwater system design & age related defect are causing erosion issues.

#### 2. Risk of unauthorised access due to erosion that leads to security fence failures:

- Western side fence is being undermined due to poor stormwater collection system.

#### 3. Risk of fire spread:

- TF 1, 2 & 8 bunds have no fire rating. Risk of fire spread from a TF fire to other high-cost assets is high.
- Fire hydrant system is unreliable. (Unused by CFS for 2 fires)

#### 4. Risk to safety:

- All water on the large Para site is non-potable

## STRATEGIC INTENT ALIGNMENT

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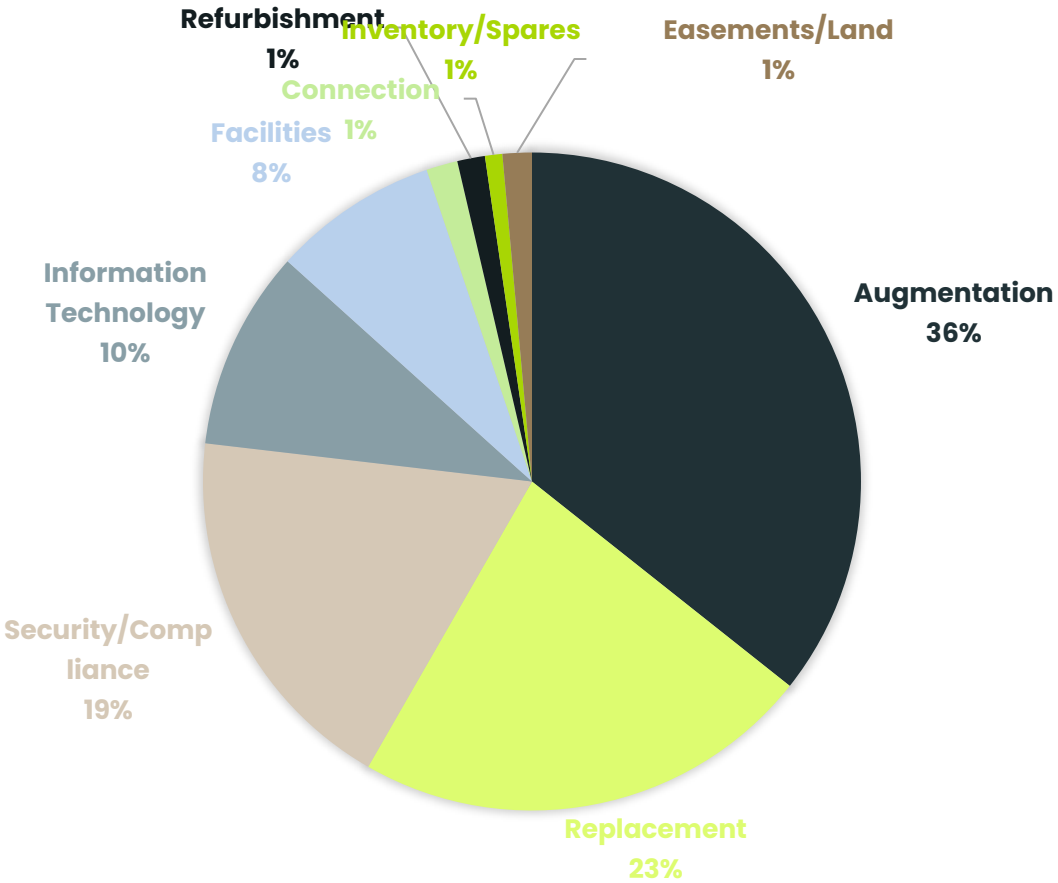
## ASSET MANAGEMENT OBJECTIVES

 Safety	 Affordability	 Reliability	 Sustainability
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# Preliminary Revenue Proposal Checklist

# PRP Analysis - Indicative Capex Forecast by Category

Category	2028-33 (\$m)	Driver
Augmentation	1042	Demand driven investment
Connection	45	
Easements/Land	42	Minimal strategic land acquisition
Replacement	661	BAU capital expenditure program, required to refurbish and replace ageing assets
Refurbishment	40	
Security/Compliance	542	Significant investment required to maintain physical, cyber and power system security & network safety
Information Technology	287	Investment to maintain capability and harness modern technology
Inventory/Spares	25	Ongoing investment requirements to maintain spares and facilities
Facilities	238	Investment required to replace end of life accommodation
<b>Total</b>	<b>2,922</b>	



\*PSA update in progress, March RRRG meeting will have updated no's including land, new building and technology & no's will be reviewed by the Reset Committee.

\*Early engagement high-level planning assumption assumes opening WIP = closing WIP.

# Feedback loop

# Pulse Check, Meeting Actions, AOB



# Thank You

For more information please contact:

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