Reset Advisory Group Meeting

20 August 2025

SA Power Networks

Empowering South Australia



Acknowledgement of Country



Empowering South Australia, 2023
by **Presten Warren** (b. 2000)

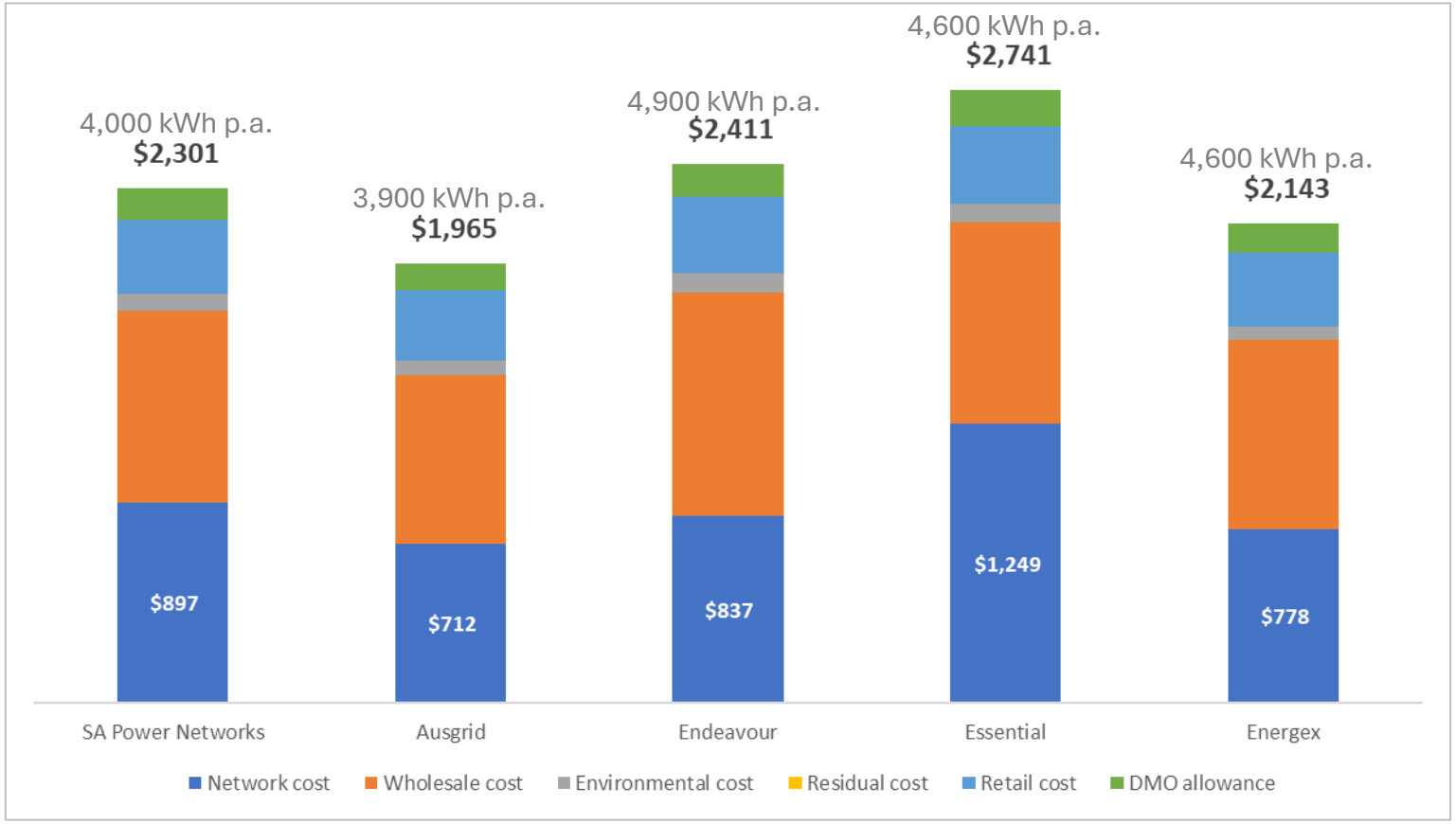
SA Power Networks acknowledges the multiple Traditional Owners of the lands that host the South Australian electricity network and their connections to land, sea and community. We would also like to pay our respects to Elders past and present, and acknowledge that these are living cultures.

2. Comparative Pricing and Customer Profiles

- Helen White



Default Market Offer 2025-26 inc. GST

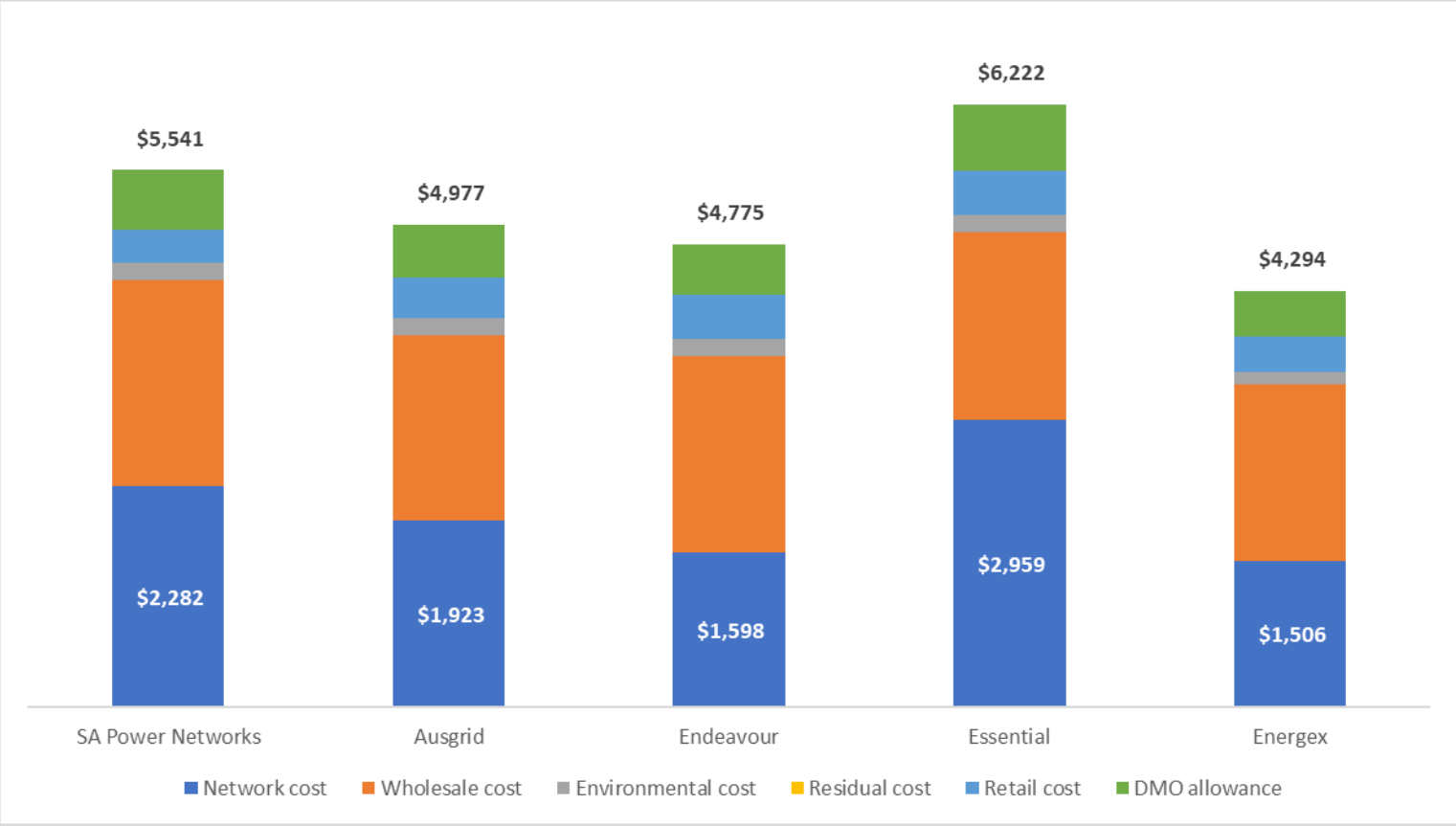


	SA Power Networks	Ausgrid	Endeavour	Essential	Energex
Distribution	$620	$481	$638	$951	$586
Transmission	$194	$123	$71	$145	$112
JSO	$73	$78	$114	$85	$32
Metering	$10	$30	$14	$68	$48
Total	**$897**	**$712**	**$837**	**$1,249**	**$778**

Residential without CL

- SA was the only distributor to have a reduction in total network costs.
- The Energex and Essential distribution networks are most similar/comparable to SA Power Networks, albeit greater customer numbers.
- The AER DMO team engage with distribution networks on usage profiles.

Default Market Offer 2025-26 inc. GST



Small Business without CL

Based on 10,000 kWh annual consumption

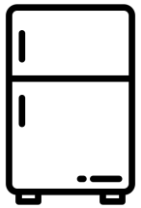
	SA Power Networks	Ausgrid	Endeavour	Essential	Energex
Distribution	$1,544	$1,239	$1,126	$2,326	$1,161
Transmission	$598	$456	$145	$315	$237
JSO	$129	$186	$313	$251	$60
Metering	$10	$42	$14	$68	$49
Total	**$2,282**	**$1,923**	**$1,598**	**$2,959**	**$1,506**

Energy usage by appliances

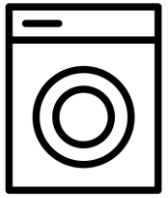


These appliances need a specific calculation:

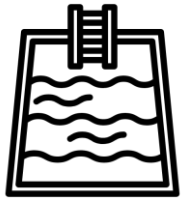
- Heating and cooling appliances
- Oven
- Induction Cooktop



Haier 431L Bottom Mount Fridge
254 kWh p.a.



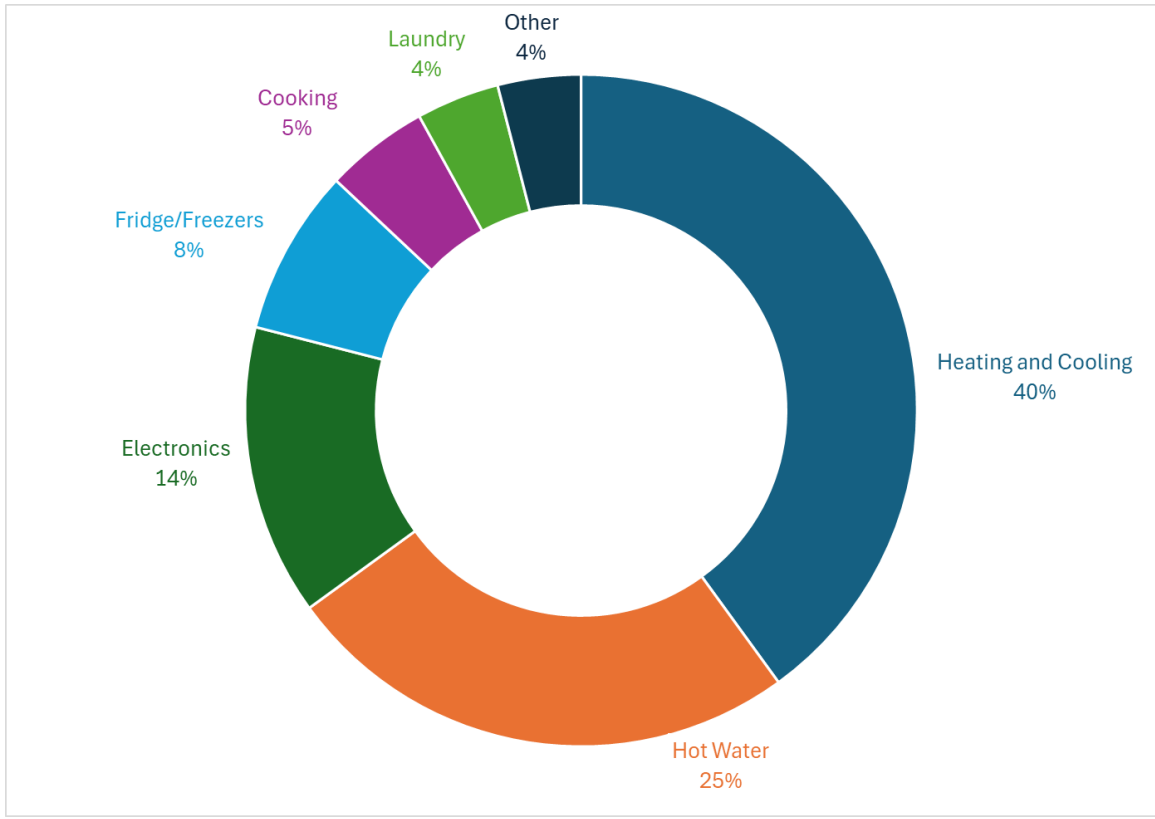
Kogan Washing Machine
132 kWh p.a.
1 use per day



Maytronics Pool Pump
427 kWh p.a.
6 hours per day



Haier Freestanding Dishwasher
285 kWh p.a.
1 run per day



https://www.abc.net.au/news/2024-03-03/what-household-appliances-use-most-electricity/103453326

Residential Usage Data Snapshot



Usage

- Accumulation meter 47%
- Interval meter 53%

2024-25 data



Customers

- Accumulation meter 44%
- Interval meter 56%

As at 30th June 2025



Annual Average Usage

- Accumulation meter 3,771 kWh

2023-24 data

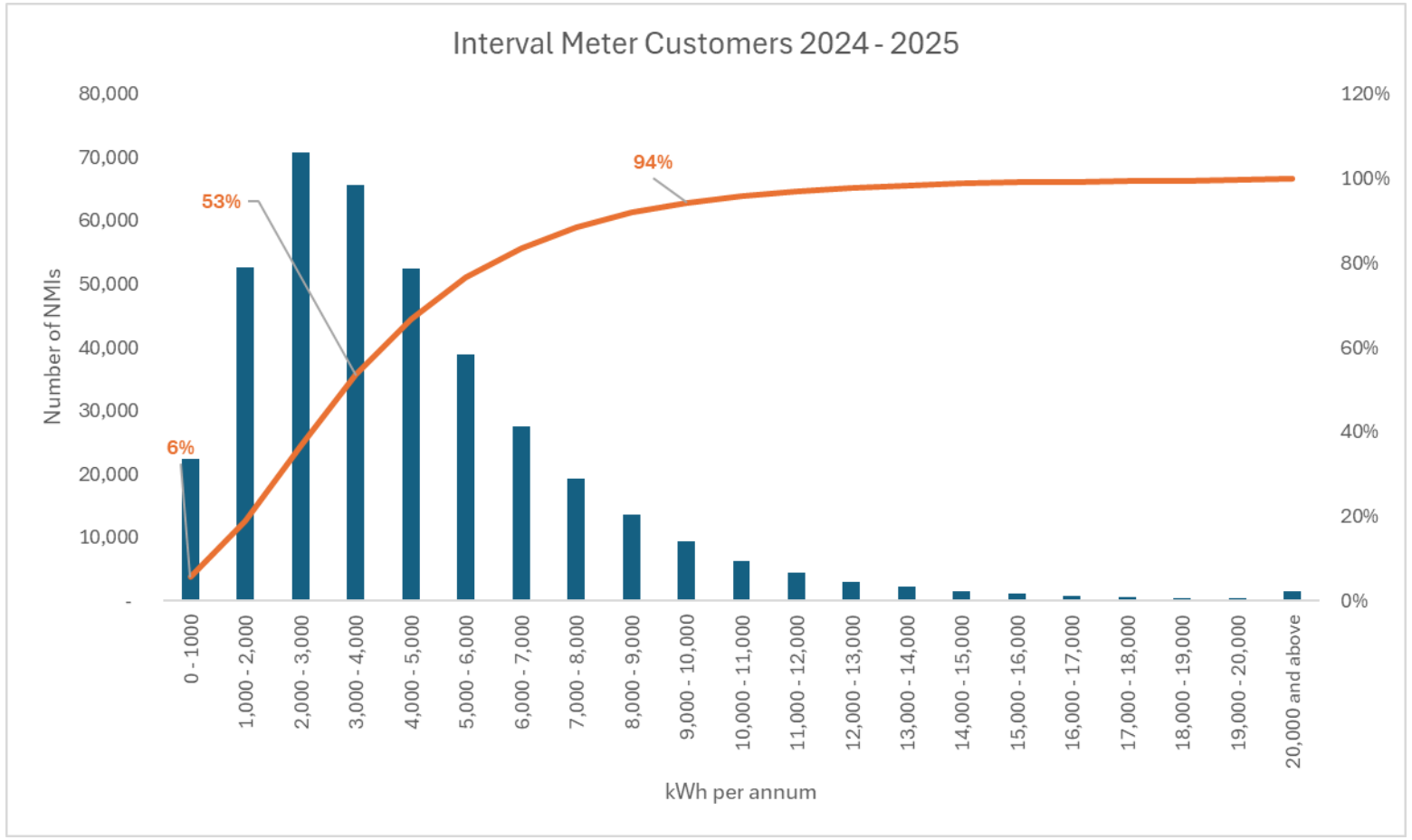


Annual Average Usage

- Total interval meter: 4,513 kWh
- Solar: 4,236 kWh
- Solar and battery: 3,553 kWh
- Non-solar: 4,894 kWh

2024-25 data

88% of interval meter Residential customers' grid consumption is 1 – 10 MWh



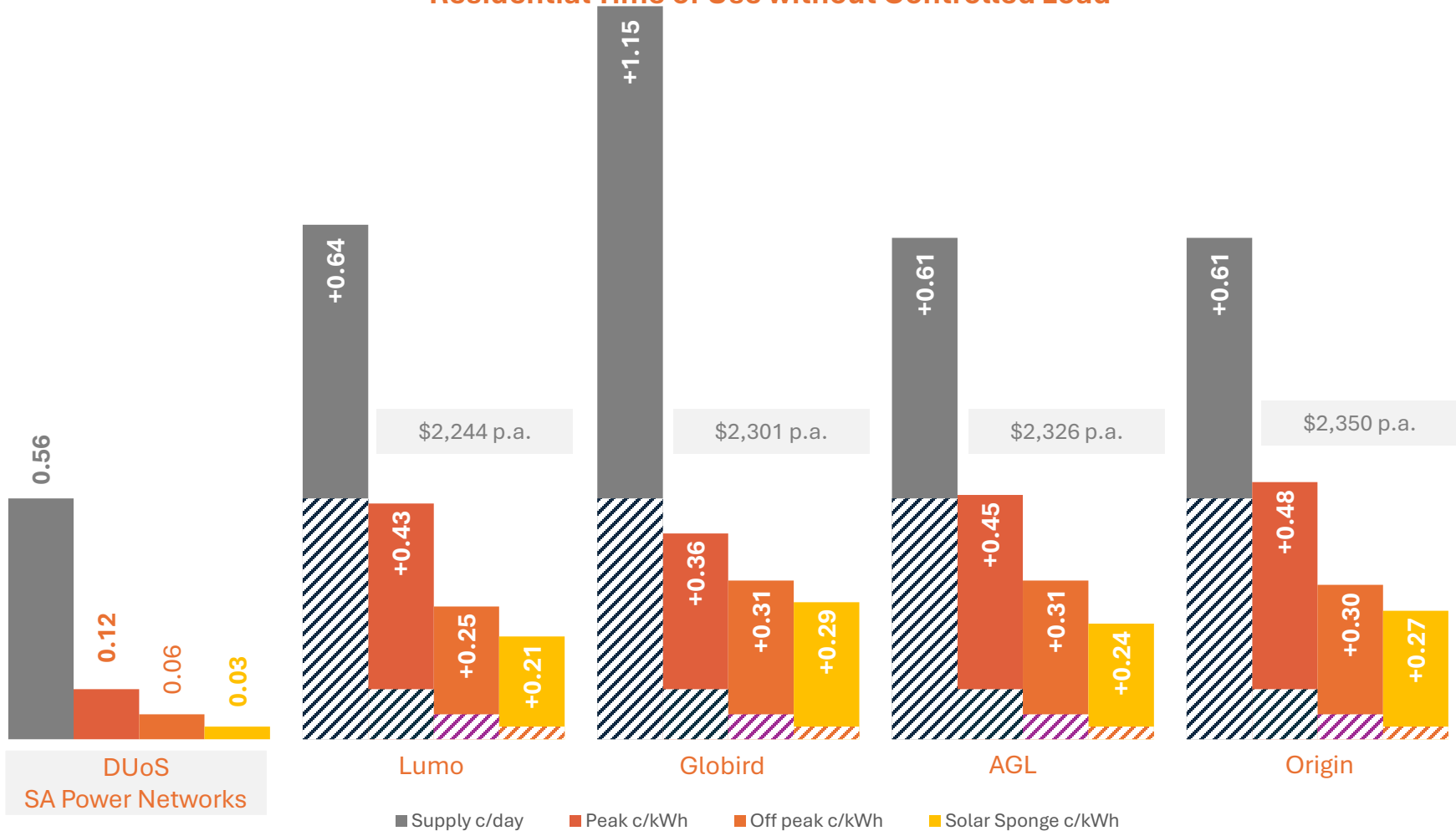
kWh p.a.	2024-25	2022-23	%
25th percentile	2,345	2,514	(7%)
50th percentile	3,779	3,973	(5%)
75th percentile	5,817	6,042	(4%)
Average	4,513	4,815	(6%)

- **464k**: Residential interval meter customers at 30 June 2025
- **395k**: Residential interval meter customers with 12 months of data
- **362k**: Residential accumulation meter customers at 30 June 2025
- **826k**: Total Residential customers at 30 June 2025

Median Interval Meter Customer with 3,779 kWh p.a.

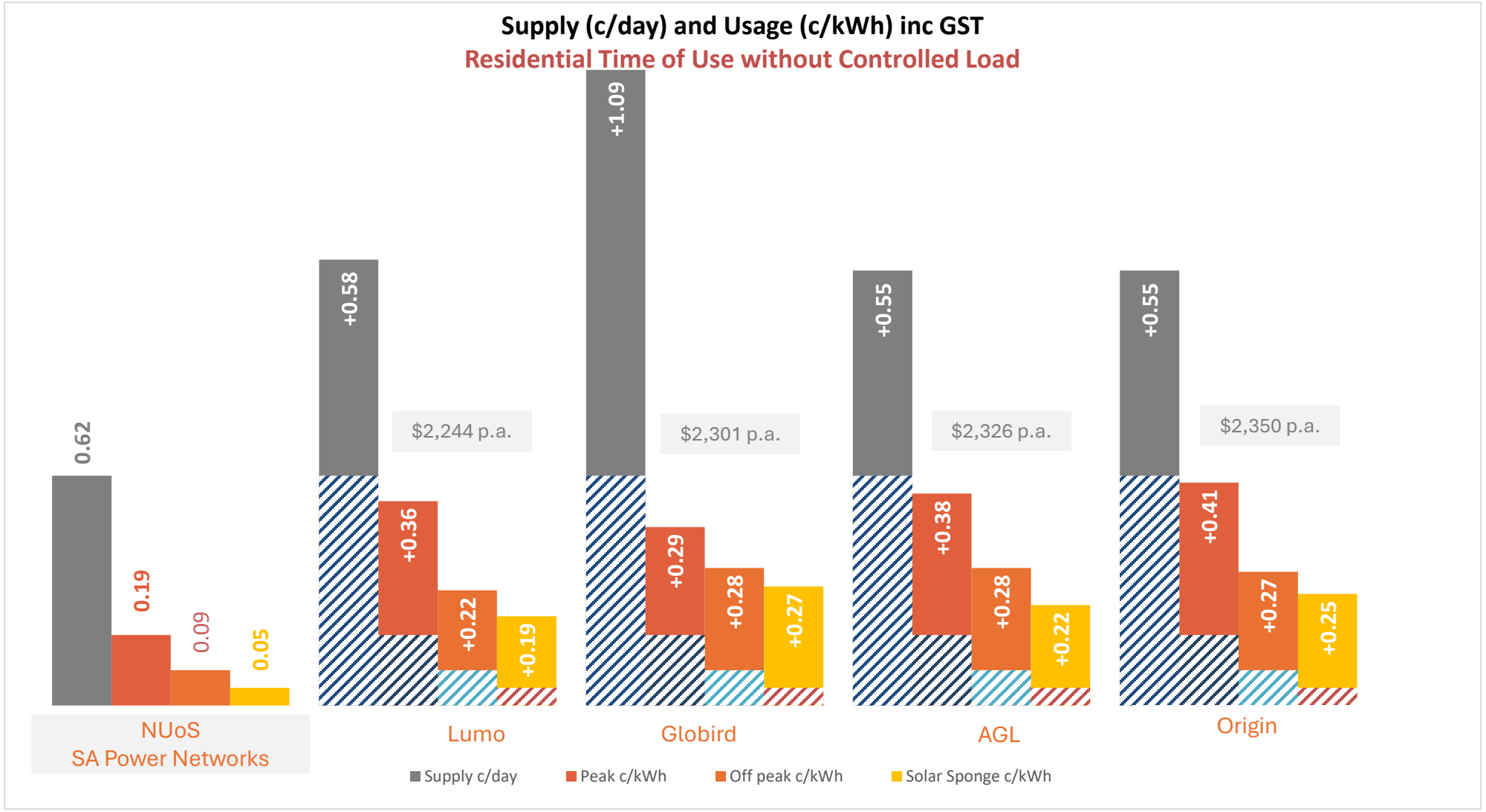
Supply (c/day) and Usage (c/kWh) inc GST

Residential Time of Use without Controlled Load



Source: Residential Standing Offer TOU Energy Made Easy – 14.08.2025
Origin's retail plan is based on the new tariff structure.

Median Interval Meter Customer with 3,779 kWh p.a.



Source: Residential Standing Offer TOU Energy Made Easy – 14.08.2025
Origin's retail plan is based on the new tariff structure.

2024-25 Residential Statistical Analysis | Whole of interval meter population

Solar Customers Usage p.a. kWh

kWh p.a.	2024-25	2022-23	%
25th percentile	2,220	2,407	(8%)
50th percentile	3,541	3,787	(6%)
75th percentile	5,434	5,743	(5%)
Average	4,236	4,655	(9%)

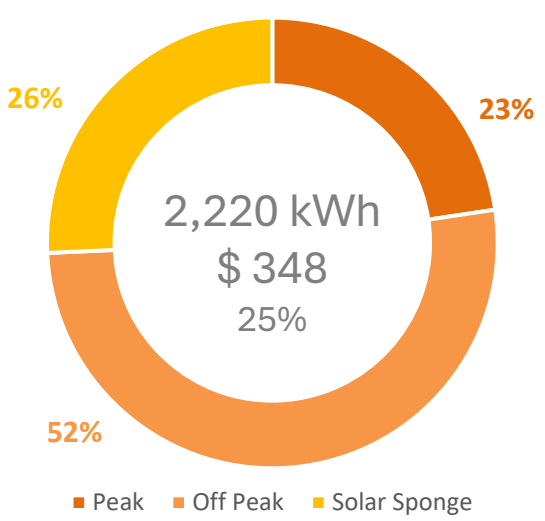
Non Solar Customers Usage p.a. kWh

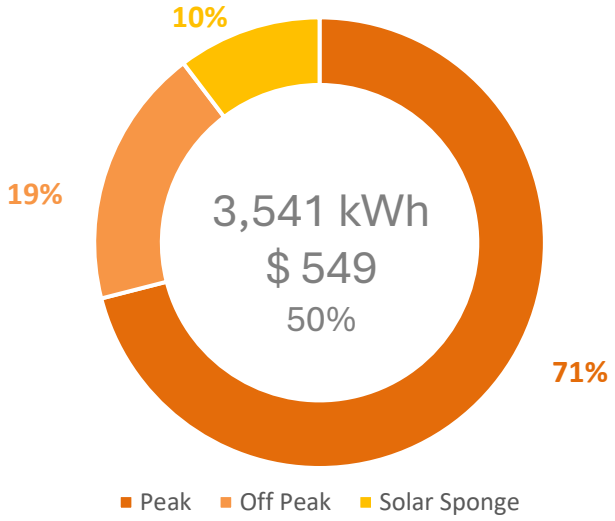
kWh p.a.	2024-25	2022-23	%
25th percentile	2,563	2,714	(6%)
50th percentile	4,137	4,280	(3%)
75th percentile	6,347	6,493	(2%)
Average	4,894	5,056	(3%)

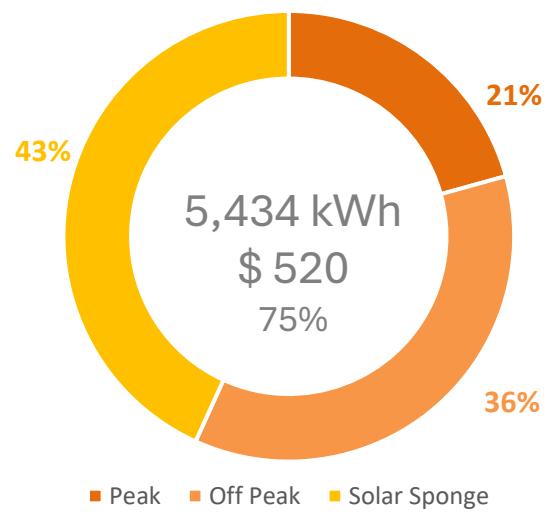
All interval meter residential customers with 12 months data
Tariff Structure Statement used the average of 1 – 10 MWh customers

Annual Distribution bill impacts 2025/2026 | Whole of interval meter population

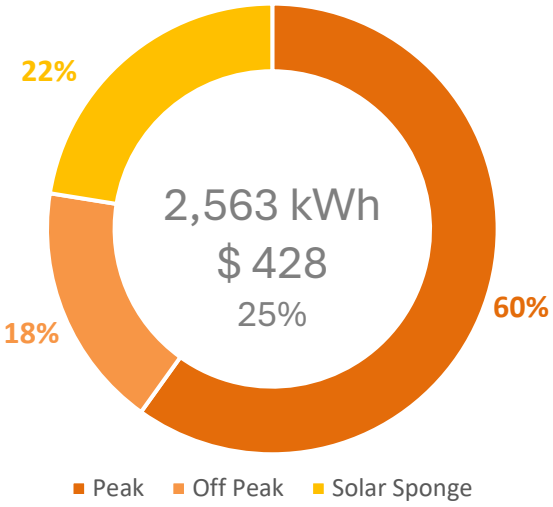
Solar customers

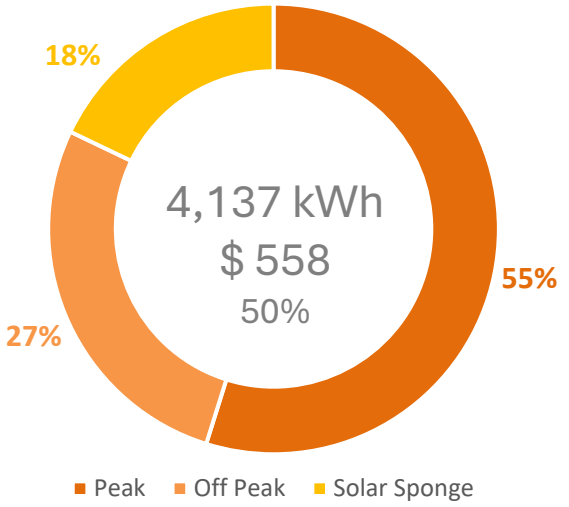


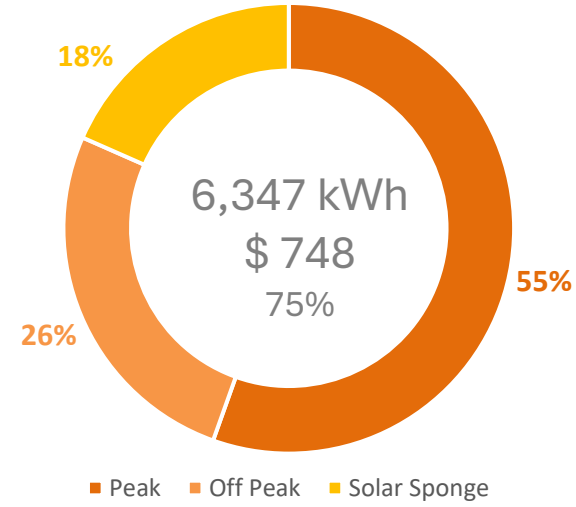




Non solar customers







SA Power Networks analysis using 2024-25 usage data, 2025-26 tariff structure and prices

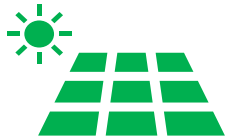
3. Innovation operating model & pathway

Michelle Howie – Innovation Development Manager

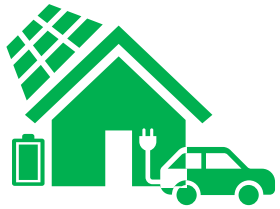
SA Power Networks



Innovation can help solve our biggest strategic challenges



- World's highest solar uptake
- Network and minimum demand challenges



- Electrified homes could double network demand



- Demand flexibility is key to integrating these at lowest cost
- Transition to DSO



- Cost of living pressures
- Growing energy affordability and equity divide



- Increasing customer service expectations (notification, connections, digitisation, AI etc)



- Declining consumer trust in the energy sector



- Oldest asset base in the NEM
- Need to balance safety, reliability, affordability



- Changing climate increasing extreme weather events (e.g. storms, bushfires)



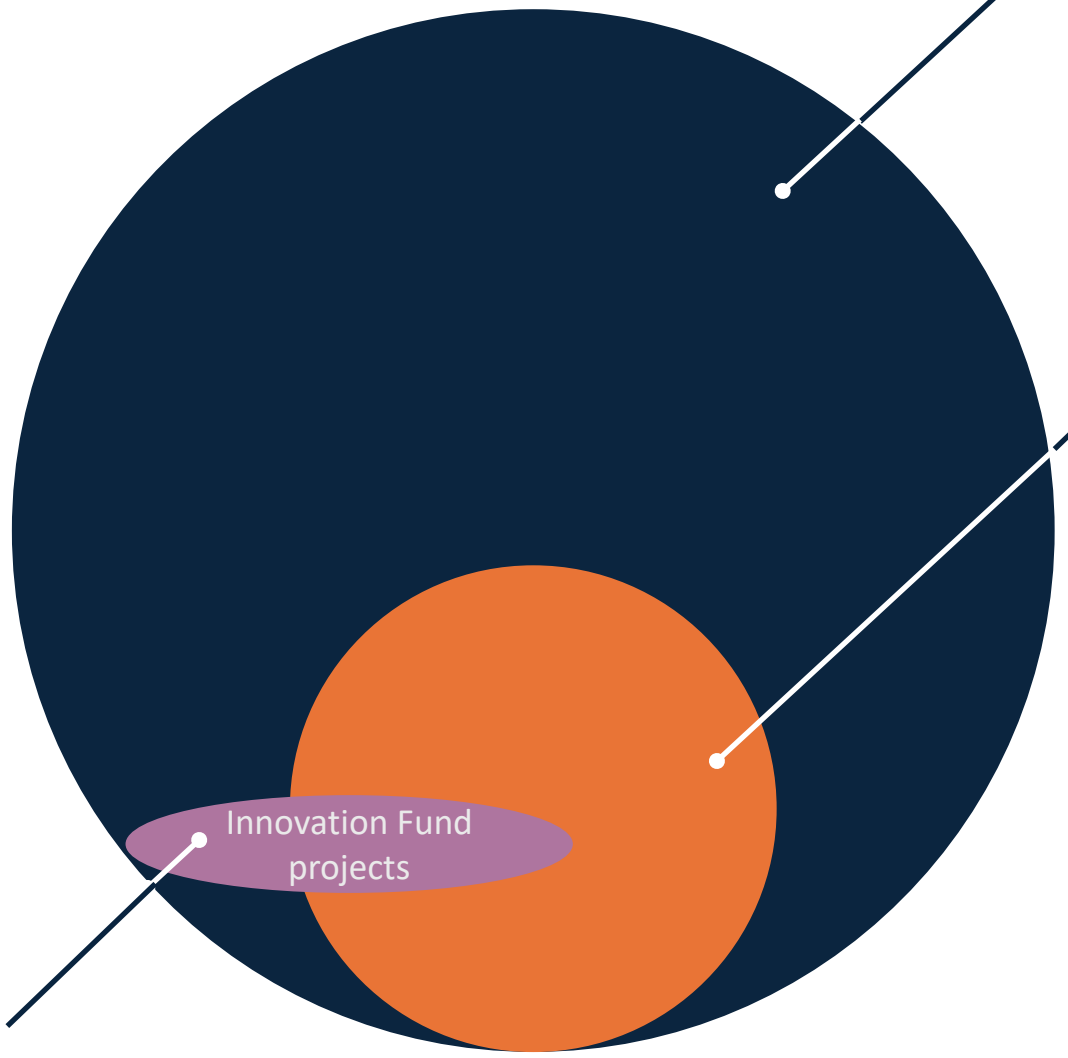
- Increasing pressure to 'do more with less'
- New tech emerging in the industry (e.g. SAPS, drones, digital twins)

Future Networks Innovation

Customer Innovation

Asset Management and Operations Innovation

Enterprise Innovation program



All innovation projects at SAPN

- Tracked and reported on by EI team
- Supported by our innovation toolkit

Strategic Innovation

- Select few ‘game-changing’ initiatives
- Run through the Innovation Pathway, supported by Innovation team
- Access to innovation funding (e.g. DMIA, CER business case, Innovation Fund)

A new additional funding source dedicated to innovation

Allows more rapid exploration of emerging opportunities with higher uncertainty

Innovation fund: how we got here





Aug-Dec 2022

Initial reset engagement

CAB, CAB reset, People's Panel and focussed conversations – innovation topics arose:

- Greater investment in integrating CER & demand flex
- Community resilience
- Improving operational efficiency

Jan 2024

Innovation fund proposal

- New 'use it or lose it' fund proposed
- $16m CAPEX and $4m OPEX
- 3 innovation buckets:
  - Flexibility
  - Resilience
  - Sustainability

Sept 2024

Draft decision

- $0 substitution for the draft Innovation Fund proposal
- AER asked for:
  - Firm list of projects + costs and benefits
  - Stakeholder support for the list

Dec 2024

Revised proposal

- Initial list of 10 costed projects
- Engagement with RAG members, including two workshops to:
  - Our proposed governance model and Innovation Fund principles
  - Initial prioritisation of IF projects

Apr 2025

Final decision

- AER approved the $20m fund in full!
- Final determination cited the revised material and engagement as standout in the proposal

(previously endorsed by CAF - April 2024)

New Innovation Advisory Group

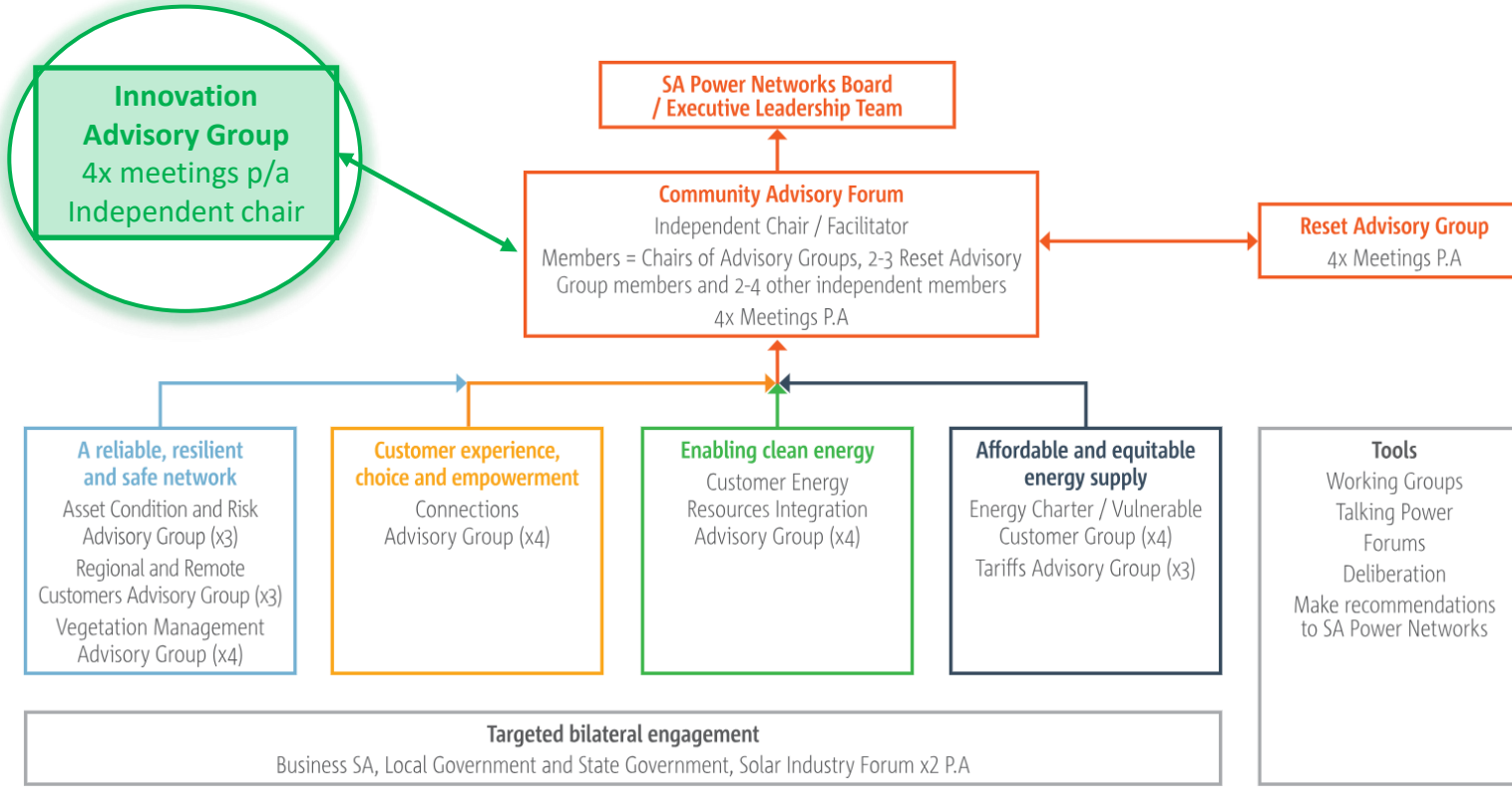
Purpose

Provide customer and industry input to the prioritisation, selection and delivery of Innovation Fund projects*

Key objectives:

1. **Provide input** into project selection, prioritisation and delivery of Innovation Fund activities.
2. **Monitor delivery** and discuss how knowledge from Innovation Fund projects will be shared with industry, consumers and regulators.
3. **Provide input** on customer or industry problem statements or ideas for innovation arising from the other Advisory Groups

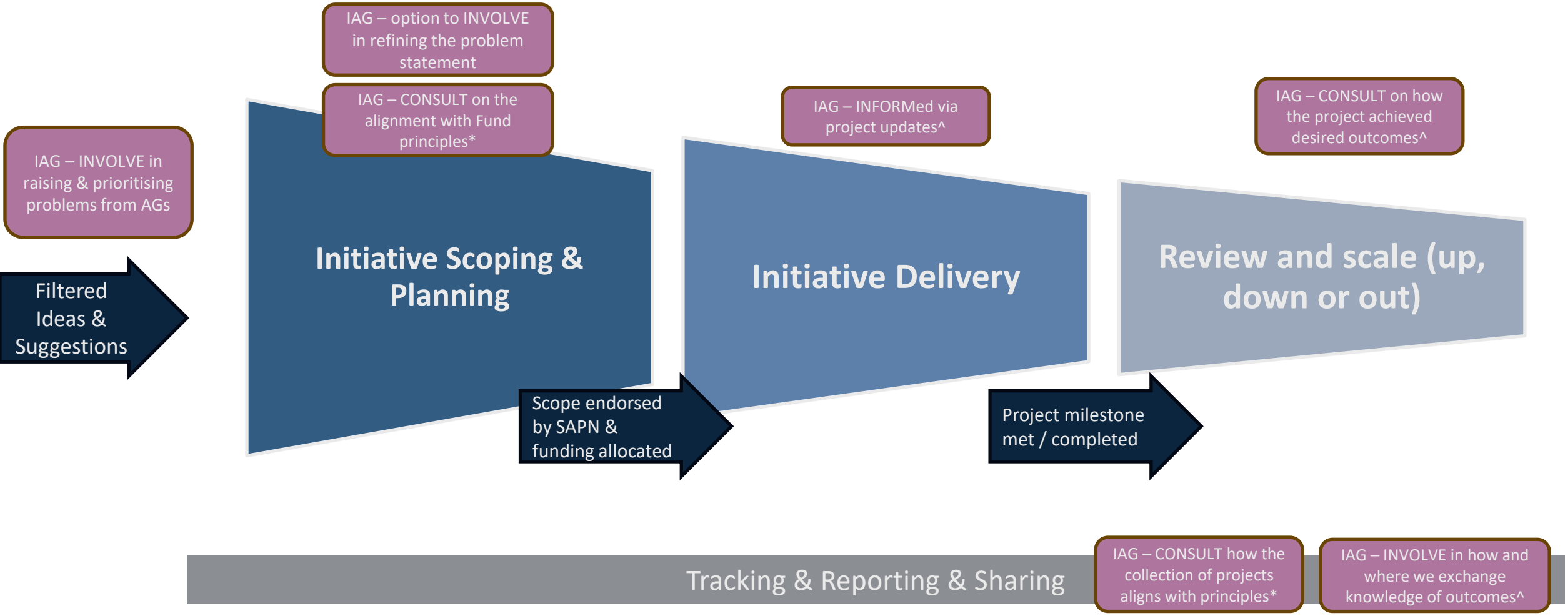
Members: *community & industry representatives from CAF & other AGs*



*To assist holistic prioritisation of Innovation Fund projects, IAG will be provided with visibility of SA Power Networks broader Innovation Framework and other relevant innovation projects that fall outside the Innovation Fund.

SAPN's Innovation Pathway

Led by SAPN portfolio **Innovation Partners,** with targeted input from IAG members



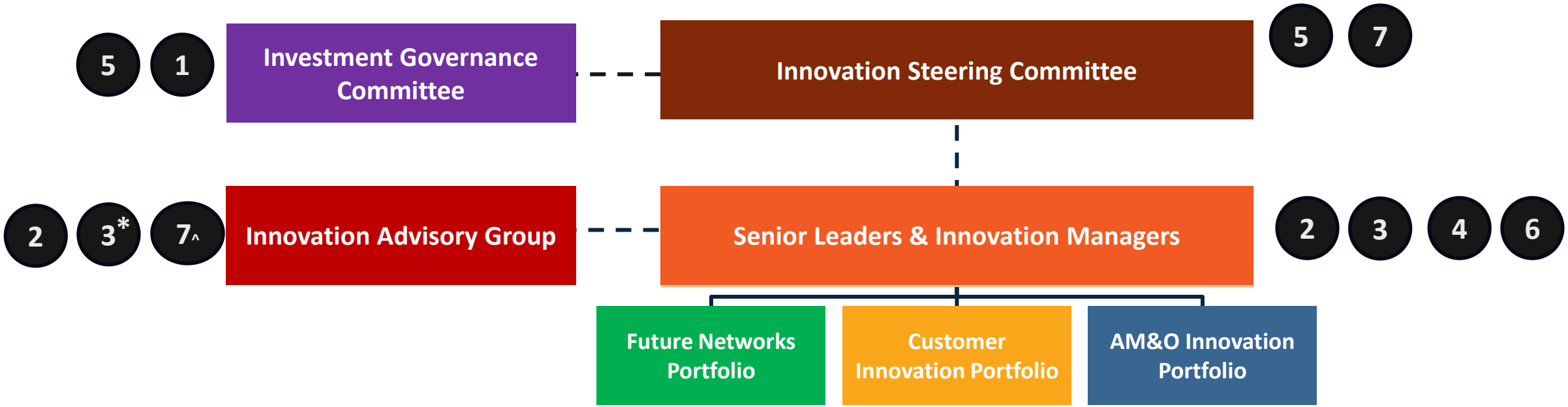
**for projects funded through the Innovation Fund only*

^for projects funded through the Innovation Fund only, or related to the focus areas prioritised by the IAG

Innovation Program Governance

Innovation Pathway Process:

1. Annual innovation funding allocation
2. Unearthing ideas
3. Initial filtering & input to prioritisation
4. Decision to proceed (< *materiality threshold*)
5. Final decision to proceed (> *materiality threshold*)
6. Delivery oversight
7. Oversight of innovation portfolio health & benefits



**Innovation Fund projects*
^Innovation Fund projects, or related to the focus areas prioritised by the IAG

Innovation Advisory Group – progress so far

- First meeting – May
  - Introductions and admin
  - History of SAPN Innovation and context for creation of Innovation Fund
  - Feedback on principles for the Innovation Fund and individual projects
  - Nominations for Chair & Deputy
  - Tour of Network Innovation Centre
- Second meeting – August
  - Ratify ToR
  - Confirm Chair and Deputy
  - Testing Innovation Fund principles with first project – Stand-Alone Power Systems

IAG members	Representing Advisory Group:
Mark Yates	Connections and Tariff
Michael Lee (Deputy Chair)	Asset Condition & Risk
Adam Davidson	Reset & Asset Condition & Risk
Chris Marsden	Reset and Rural & Remote
Andrew Stock	Vulnerable Customer
Emily Gadaleta	CER Integration
Ed Chan (Chair)	CER Integration
Ian Seccafien	Vegetation Management



Morning Tea Break

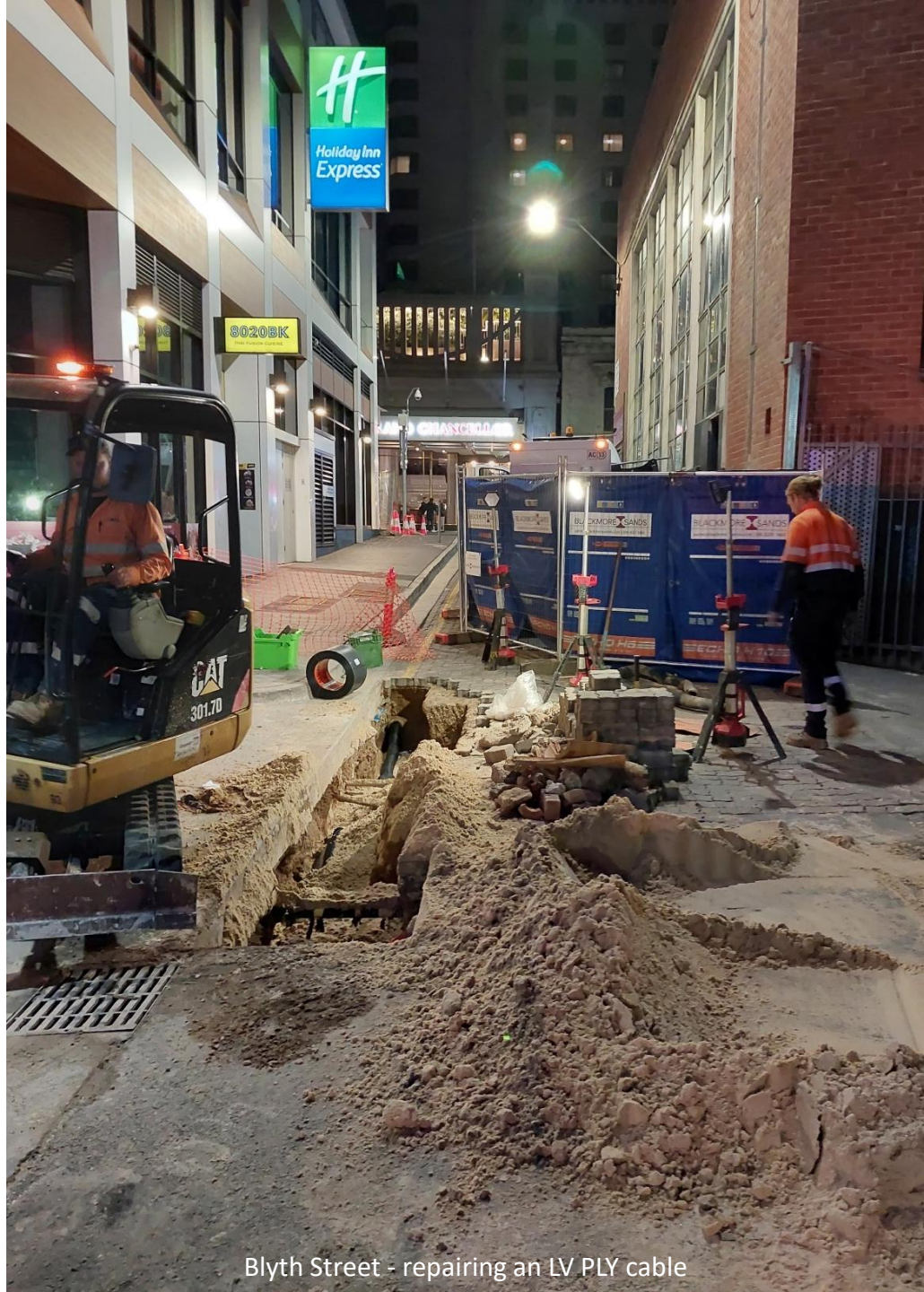
4. Circuit Breakers for Vulnerable Customers

- Georgie Morris



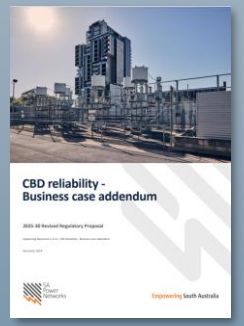
5. AER Recommendations & our approach to CBD reliability

- Elisia Reed, Asset Engineering Manager



Blyth Street - repairing an LV PLY cable

AER Final Determination



Revised CBD Reliability Business Case Proposal	$53.1M
Replace 11.4km of 11kV cable (REPEX)	$30.7M
Installing 0.7km of cable (AUGEX)	$1.8M
Install 35 automated switches (AUGEX)	$20.7M

AER Final Determination:

- Approved all $30.7M for CBD cable replacement
- Did not approve the automation component

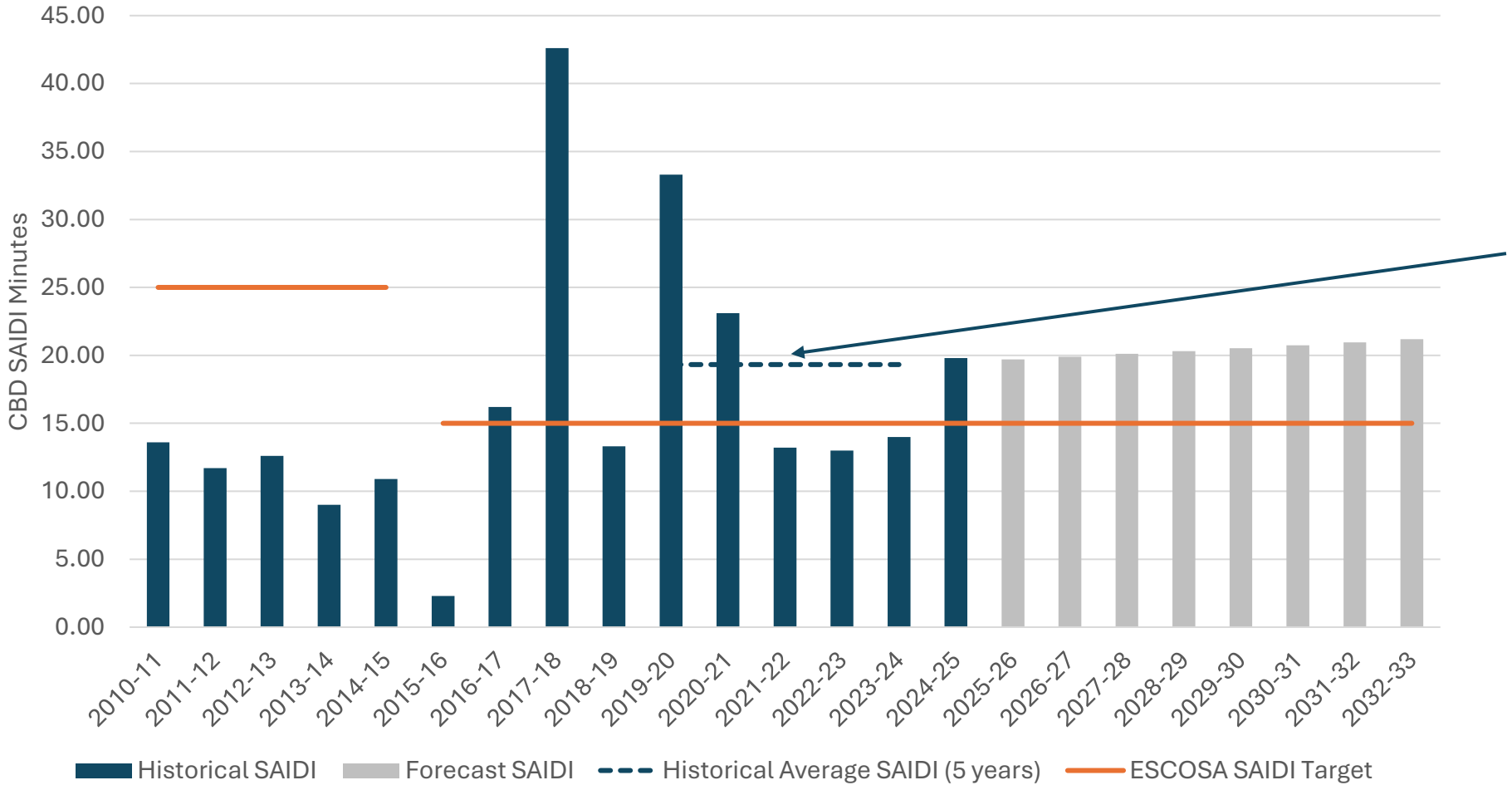
Interpretation of AER Decision:

- CBD reliability augex should be considered within the context of overall reliability augex investment (all feeder categories: Rural Long, Rural Short, Urban, and CBD)

Our Approach:

- Proceed with CBD cable replacement
- Install automation cubicles selectively (i.e. where they provide value in the overall automation mix)
- Minimal CBD automation expected due to low benefit vs cost

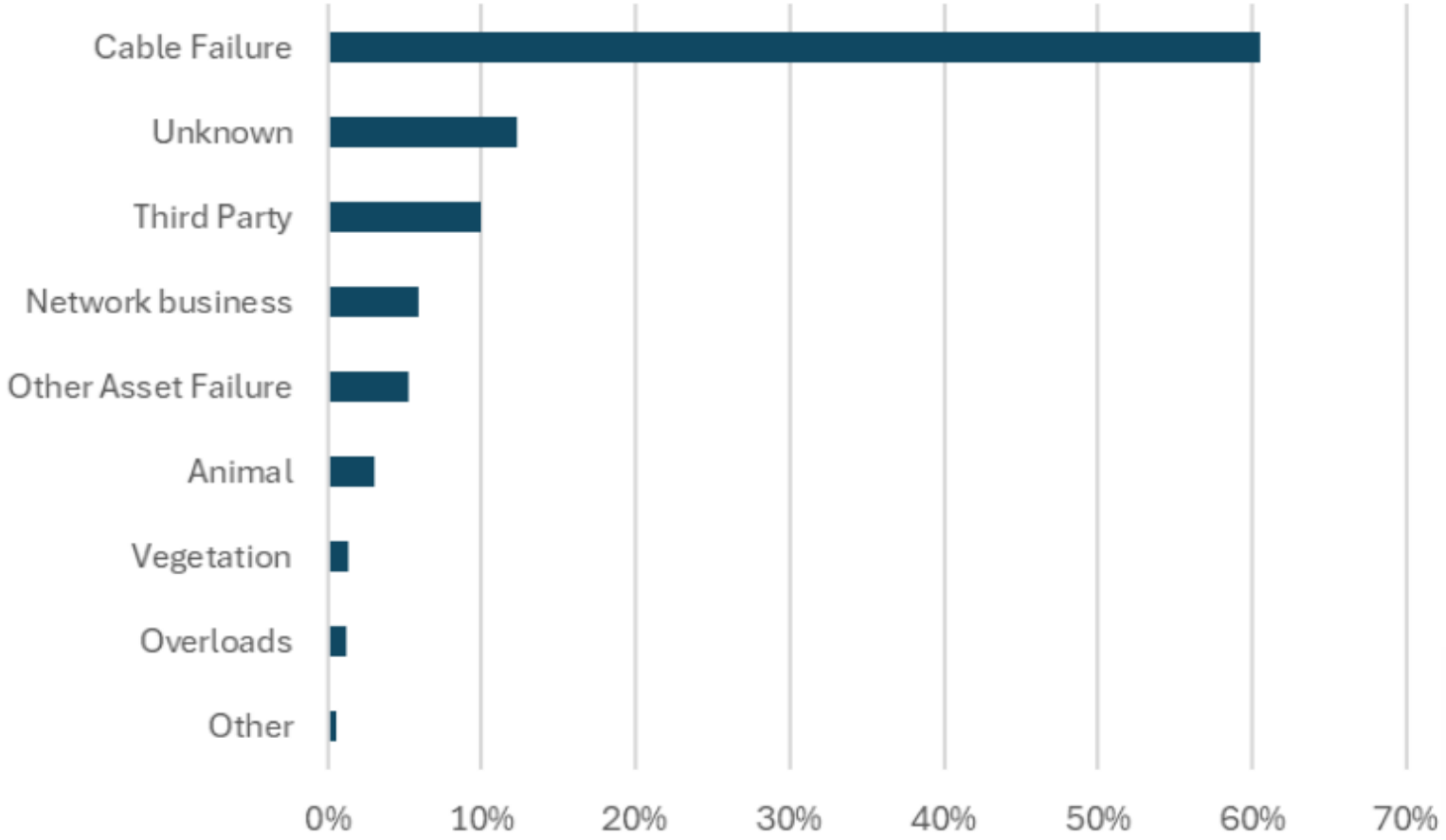
SAIDI performance



The 5-year average SAIDI performance (2019-20 to 2023-24) was 19.3 minutes. This is above the 15 minute target set by ESCoSA

Cable Failures a driver of poor reliability

Contribution to SAIDI by outage cause (From Jan 2017 to May 2023)



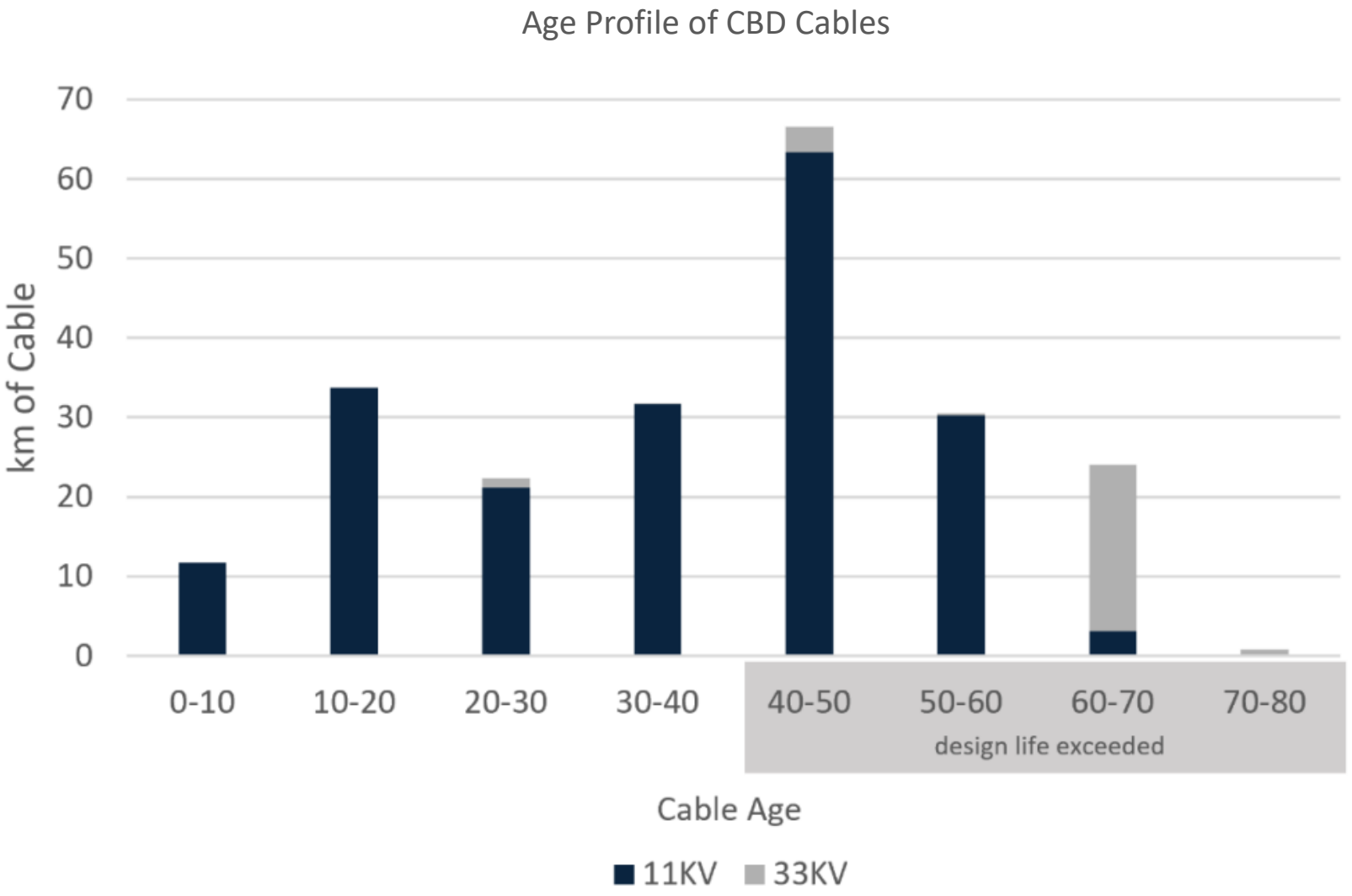
Paper Insulated Lead Covered Cable is identified to be at end of life and we have been experiencing increase in faults in this cable.





- Cable failures are the largest contributor to CBD SAIDI (~60% of the contribution)

CBD Context – Poor condition Cables



11kV paper insulated lead covered Cables
1960's & 1970's



11kV XLPE cables 1980's onwards

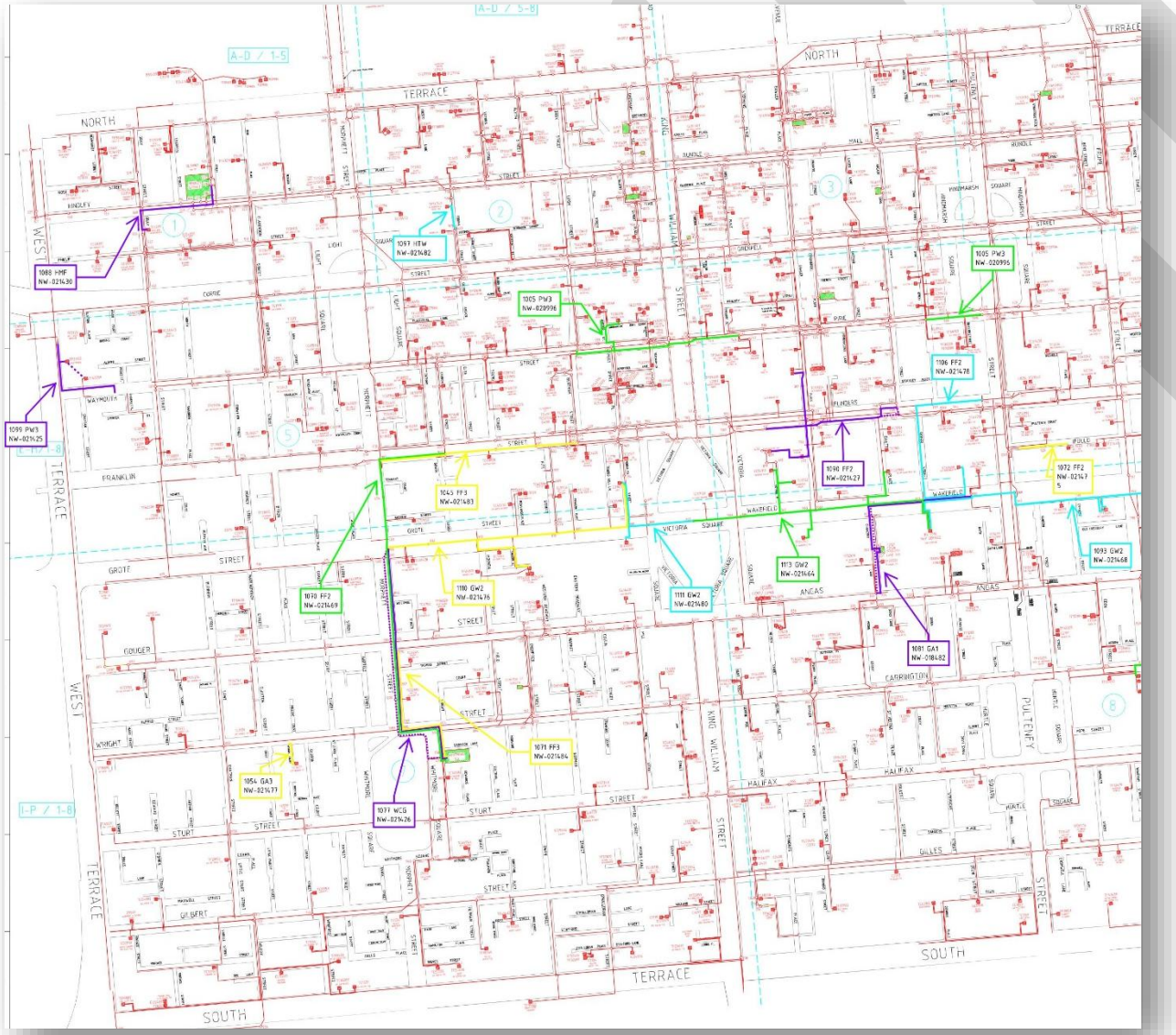


CBD Cable Replacement program

A program of cable replacements has been selected for delivery in 2026.

- **Twenty-one** cable projects
- Replace **approx. 7.2km** of cable
- **$6.2M** budget
- Completed by **31st December 2026**
- Primarily focussing on replacement of bare lead PLY Aluminium cables. This cable type has had the most faults.

0.7 minutes of SAIDI improvement annually forecast from the 2026 program



2026 Delivery Strategy

- Dedicated project team has been assembled.
- Currently progressing the 2026 program through detailed scoping, design and estimate ready for construction in 2026.
- 2027-2030 program is being desktop scoped and prioritised.
- Actively managing risks related to resourcing issues and cable procurement.



Program - Value Adds

- Opportunities to undertaking works ahead of council streetscape projects. (Hindley Street, Gouger Street)
- Rectify manhole defects when accessing holes for cable replacement.
- Use of LIDAR for asset location information in complex manholes.
- Remove redundant cable assets to free up duct space.
- Opportunities to replace assets alongside customer projects.
- Removal of high-risk joints.
  - Removes reliability risk
  - Removes safety driven access constraints to our manholes.



High risk/weeping joints



Collapsing lid support



Structural defects

6. Other Business

- Post Implementation Review
- CAF Update

Next meeting – 19 November Rex Hotel

