

# TRANSMISSION NETWORK STAKEHOLDER FORUM

Classification: Public  
Distribution: Stakeholder Forum

21 September 2016

# TODAY'S AGENDA

- Welcome
- The transition to a low-carbon economy
- Our customer engagement program
- Our Preliminary Revenue Proposal
- Discussion



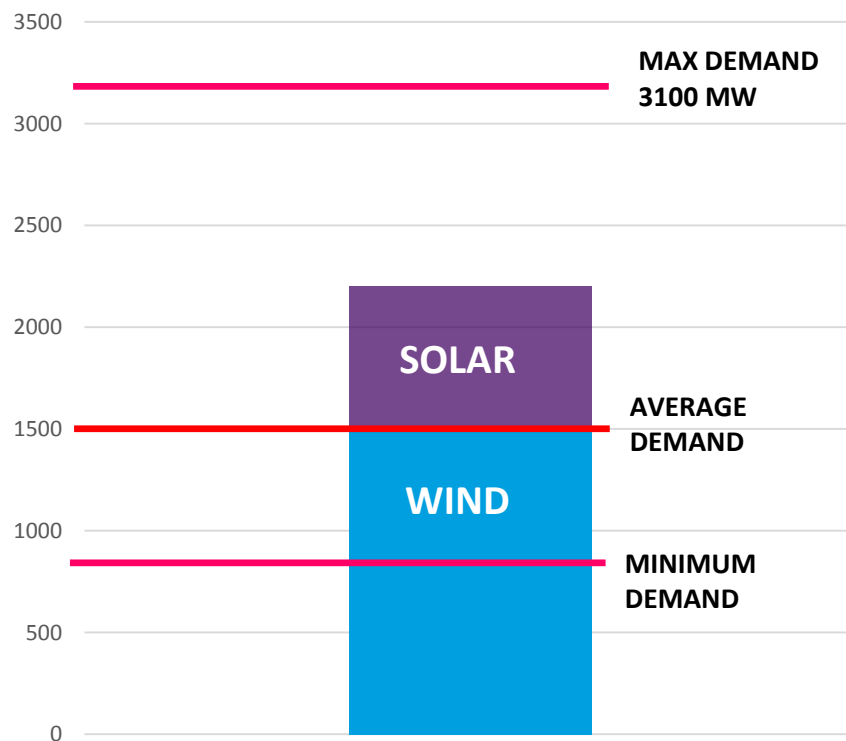
# **WE'RE AT THE FOREFRONT OF GLOBAL CHANGE IN THE ENERGY SECTOR**

# TRANSITIONING TO A LOW-CARBON ECONOMY

- South Australia has reached world-leading levels of renewable energy penetration
- Challenges are increasing from higher levels of intermittent renewable energy and less conventional thermal generation operating on the power system

ElectraNet has a key role to play in responding to these challenges

South Australian renewable generation capacity relative to demand





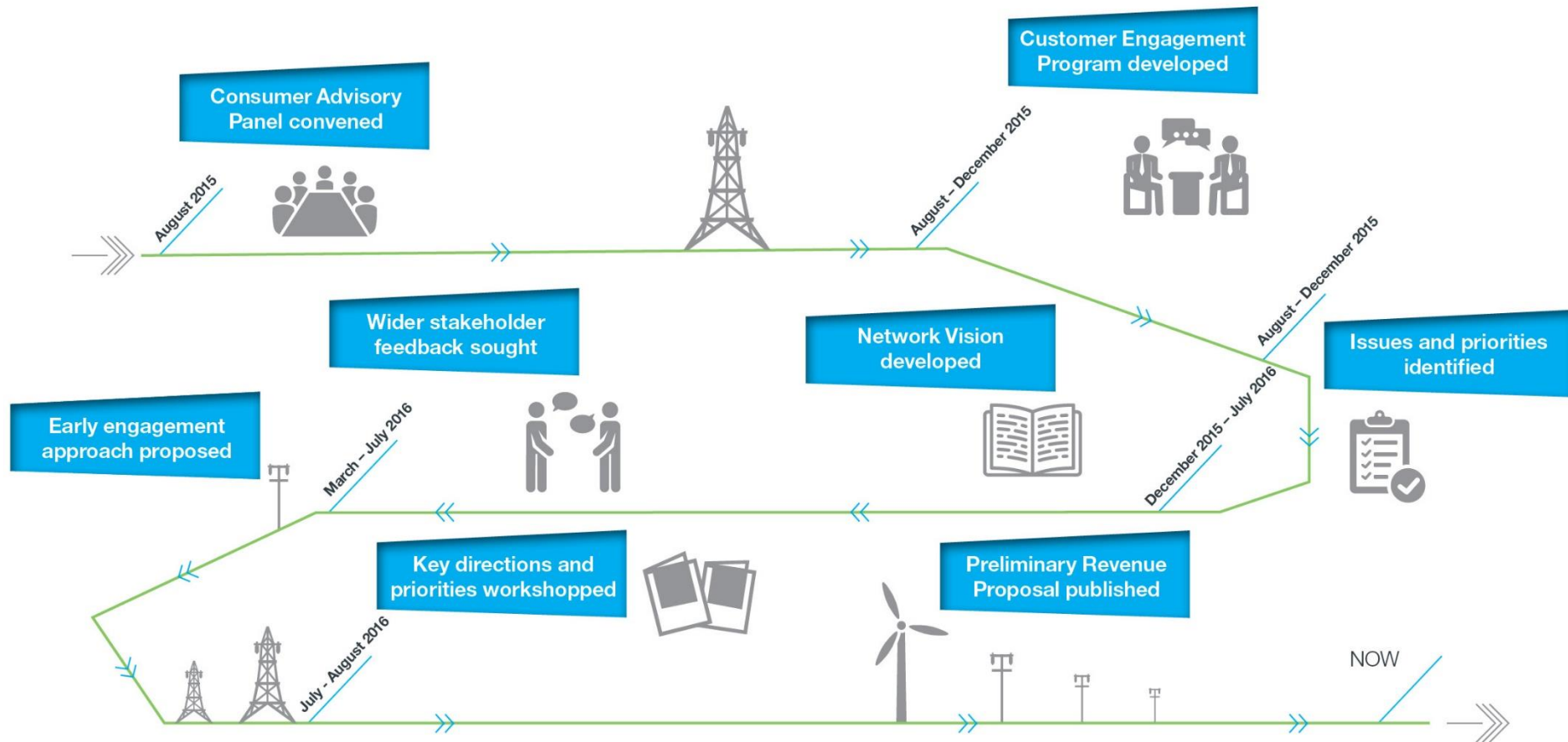
- The transmission network can help the nation meet renewable energy targets
- A strong, reliable and more interconnected transmission network is more important than ever
- While transmission charges are only a very small part of the electricity bill – less than 10% for the average household – we continue to work hard to drive down our costs while maintaining the reliable network expected in a modern digital society



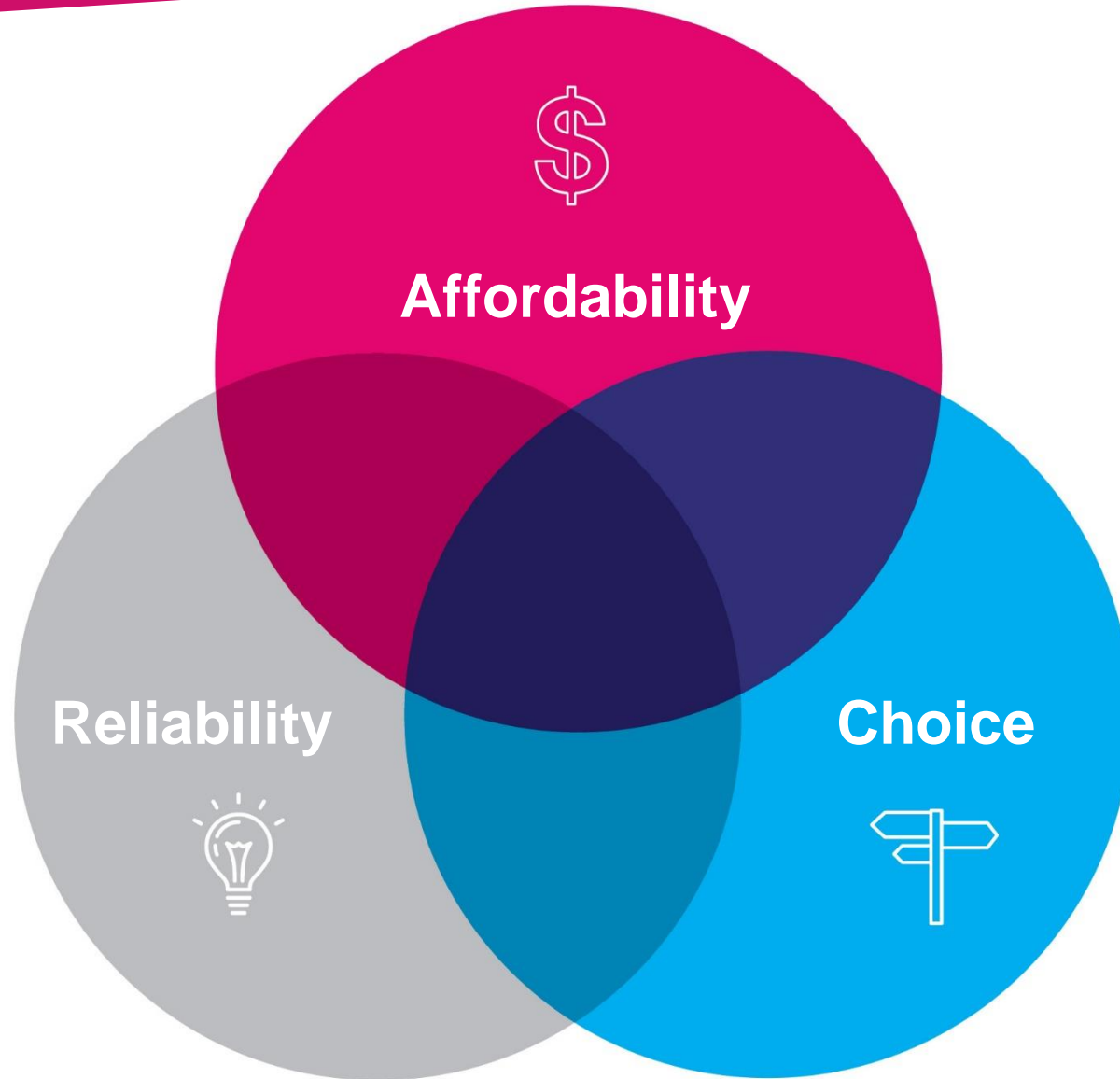


# OUR CUSTOMERS VALUE AFFORDABILITY, RELIABILITY AND CHOICE

# OUR CUSTOMER ENGAGEMENT STORY



# CUSTOMER FEEDBACK INFORMED OUR DIRECTIONS AND PRIORITIES







## NETWORK VISION

**ElectraNet's vision for South Australia's transmission network is that it will deliver affordable and reliable power supplies that support customer choices for a sustainable future.**

The transmission network will continue to play an important role into the future to support safe, reliable and affordable electricity supply.

The ongoing uptake of distributed energy resources by customer is changing the role of the grid.

The generation mix is changing, creating new challenges for the secure and reliable operation of the grid.

New technologies are changing the way some network services can be delivered.





# WE'RE LEADING THE INDUSTRY WITH OUR EARLY ENGAGEMENT APPROACH



## THE PRELIMINARY REVENUE PROPOSAL

- The PRP presents our indicative expenditure plans, based on current assumptions which may change over the coming months
- The PRP is not an early submission of our revenue proposal
- It's about promoting effective early engagement, and giving customers and stakeholders an opportunity to provide feedback that we can take into account in our formal submission
- The early engagement approach, is an ElectraNet initiative, and a first for the industry and the AER
- It has the support of our Consumer Advisory Panel and the AER

# TIMELINE AND PROCESS

Preliminary  
Revenue  
Proposal

6 Sep 2016

Formal Revenue  
Proposal

By 31 Jan 2017

AER Draft  
Determination

Sep 2017

AER Final  
Determination

Apr 2018





# THE PRELIMINARY REVENUE PROPOSAL



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This Preliminary Revenue Proposal is intended to promote effective early engagement with ElectraNet's customers and stakeholders, develop shared understanding, and give customers and stakeholders an opportunity to provide feedback. It is not an early submission of ElectraNet's revenue proposal, either in whole or in part. ElectraNet will submit a formal revenue proposal to the Australian Energy Regulatory under Rule 6A.10.1 of the National Electricity Rules by 31 January 2017.

# THE HEADLINES

## Electricity Transmission Prices

↓ **13%**

drop in indicative transmission prices in the first year of the 2019-2023 regulatory period to around 2.5c/kWh.

↓ **\$19 & \$38**

in annual savings for the average residential household and small business customer respectively



## Maximum Allowable Revenue

↓ **14%**

lower in the first year of the 2019-2023 regulatory period at \$306m



## Capital Expenditure

↓ **46%**

lower than the expenditure allowance in the 2014-2018 regulatory period at \$407m

## Operating Expenditure

↓ **10%**

lower than trend expenditure allowance in the 2014-2018 regulatory period at \$434m



## Rate of Return

**7.5%**

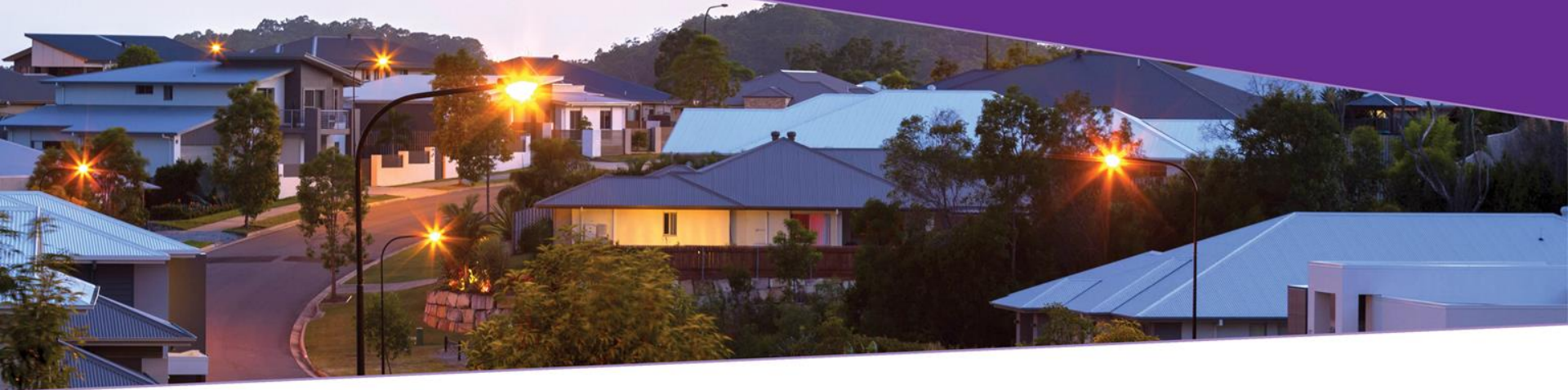
in the 2014-2018 regulatory period  
indicative rate based on current market data

↓ **to 5.75%**



**WE PERFORM  
WELL DESPITE  
THE UNIQUE  
CHALLENGES OF  
OUR NETWORK**

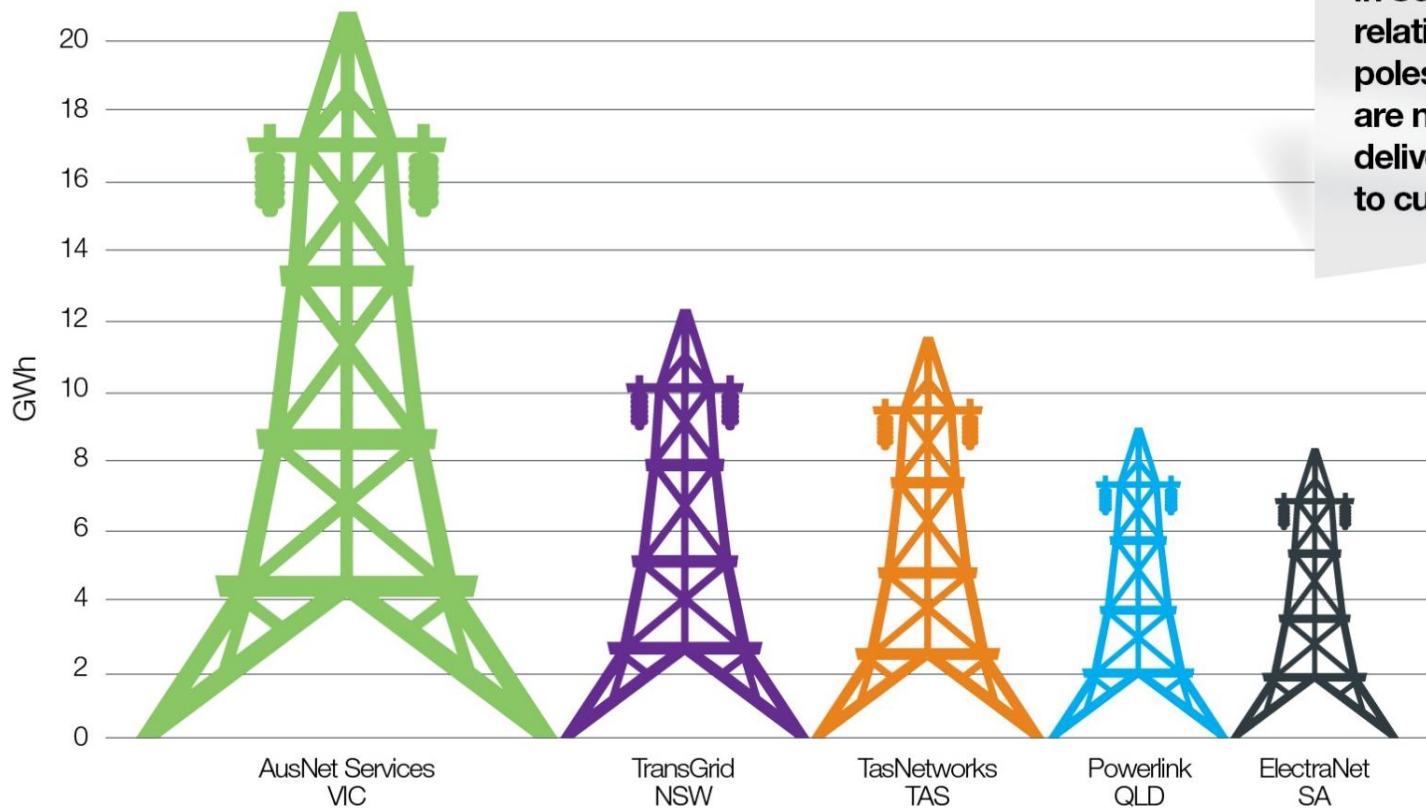




- Our network has lower economies of scale, the peakiest demand, the lowest customer density and among the oldest assets
- We have achieved significant operating and capital expenditure savings already, which result in lower costs and price outcomes for South Australian electricity customers
- We will have to continue to work hard to achieve further efficiencies
- These savings are significant given the unique challenges of the South Australian network

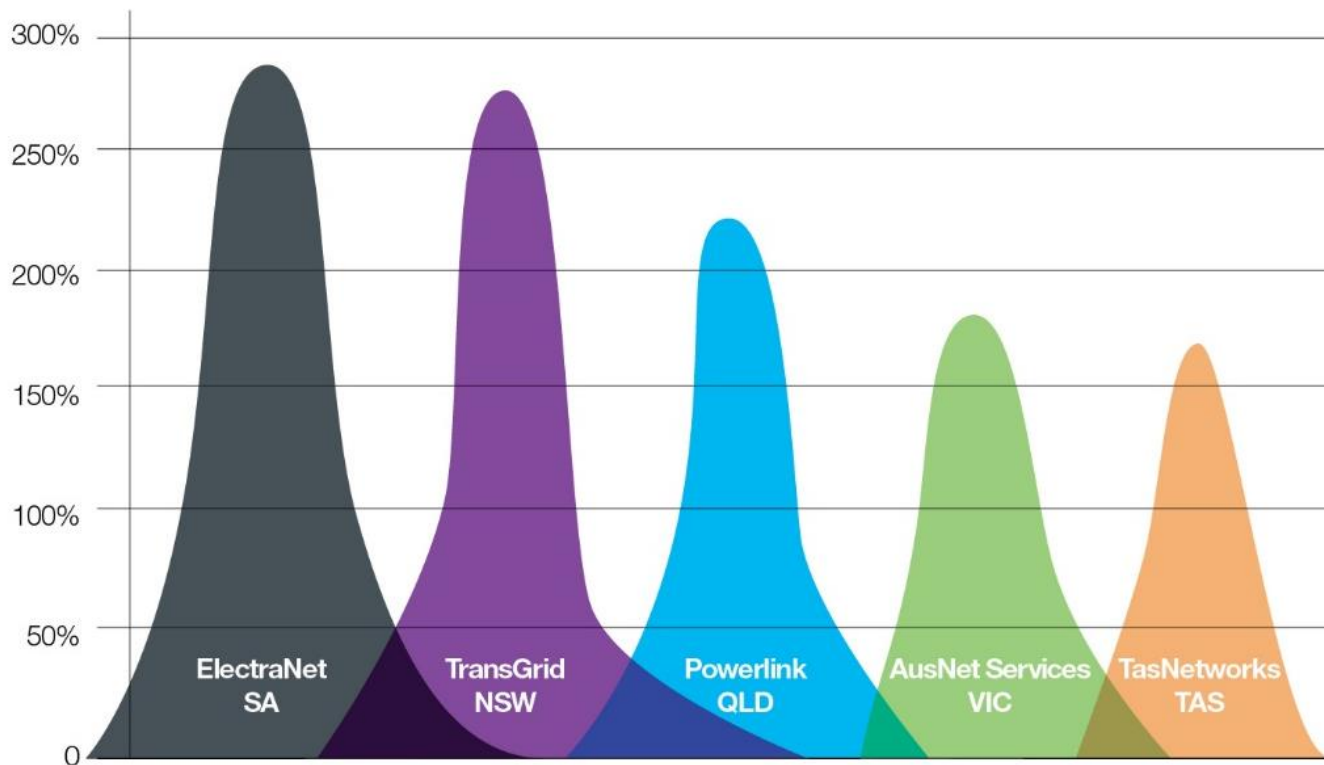
# ELECTRICITY TRANSMITTED PER \$1M OF ASSETS

This means that in South Australia, relatively more poles and wires are needed to deliver electricity to customers.



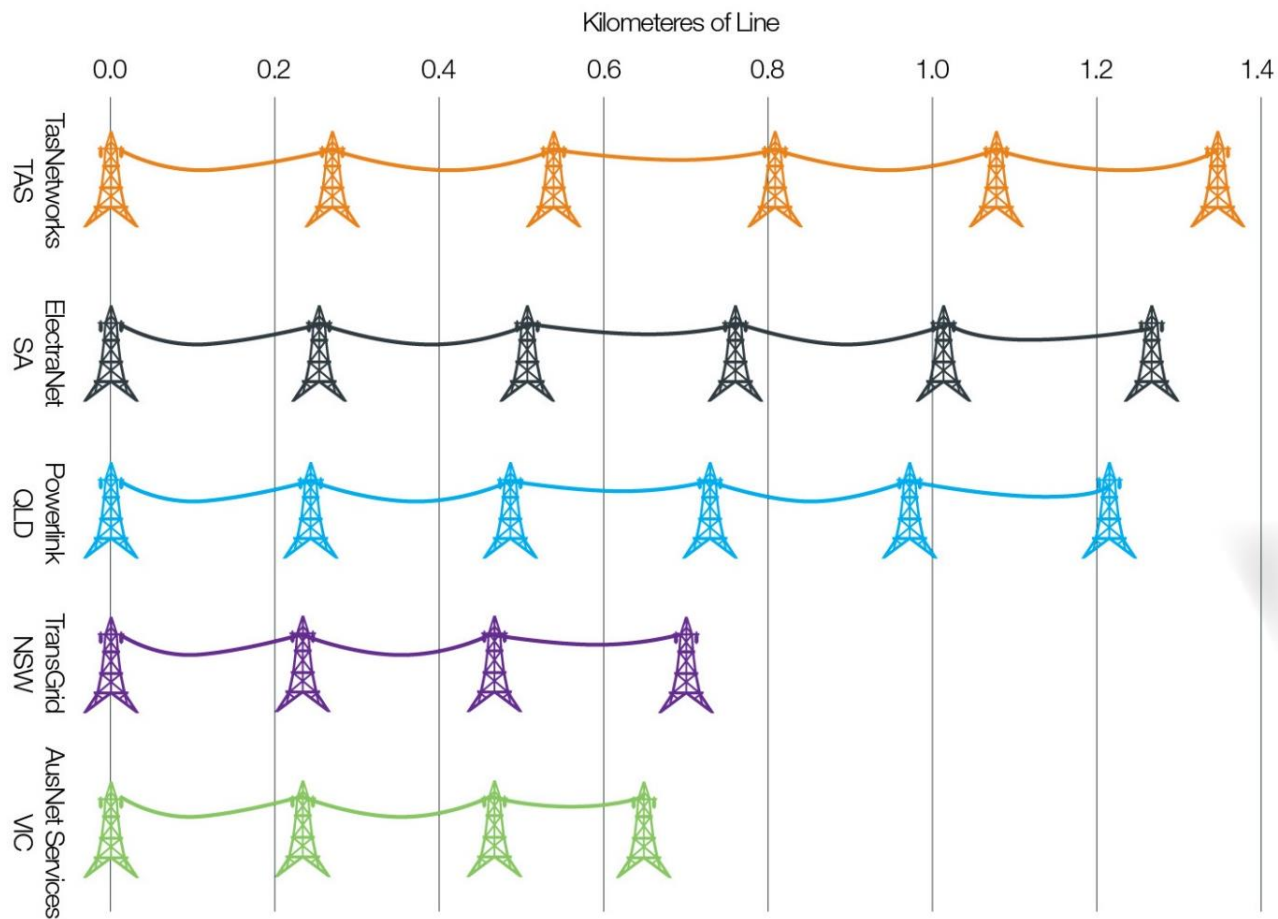


# VERY 'PEAKY' DEMAND



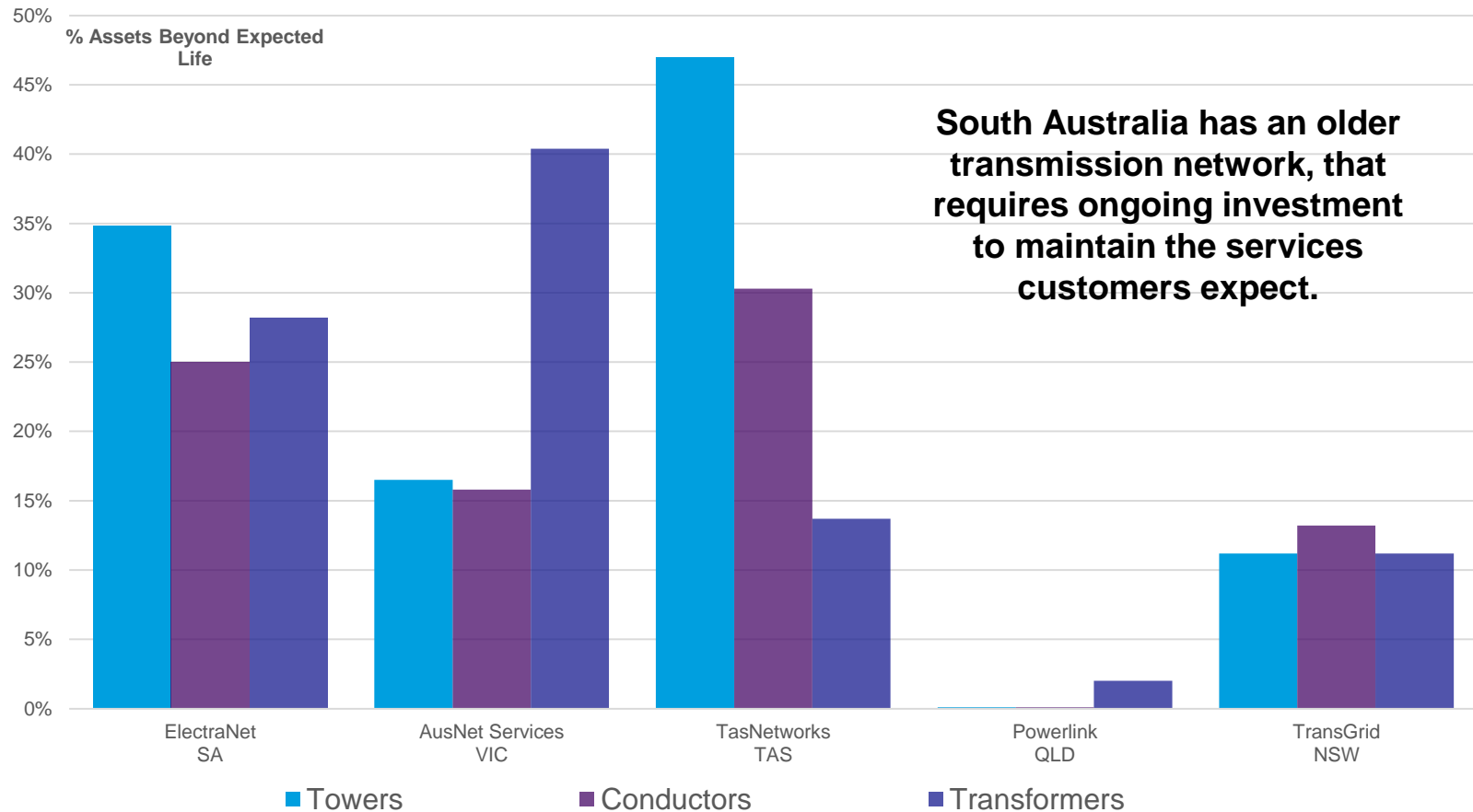
A higher peak to average demand ratio requires more network capability and increases the unit cost of electricity in South Australia.

# MORE ASSETS ARE REQUIRED TO MEET PEAK DEMAND

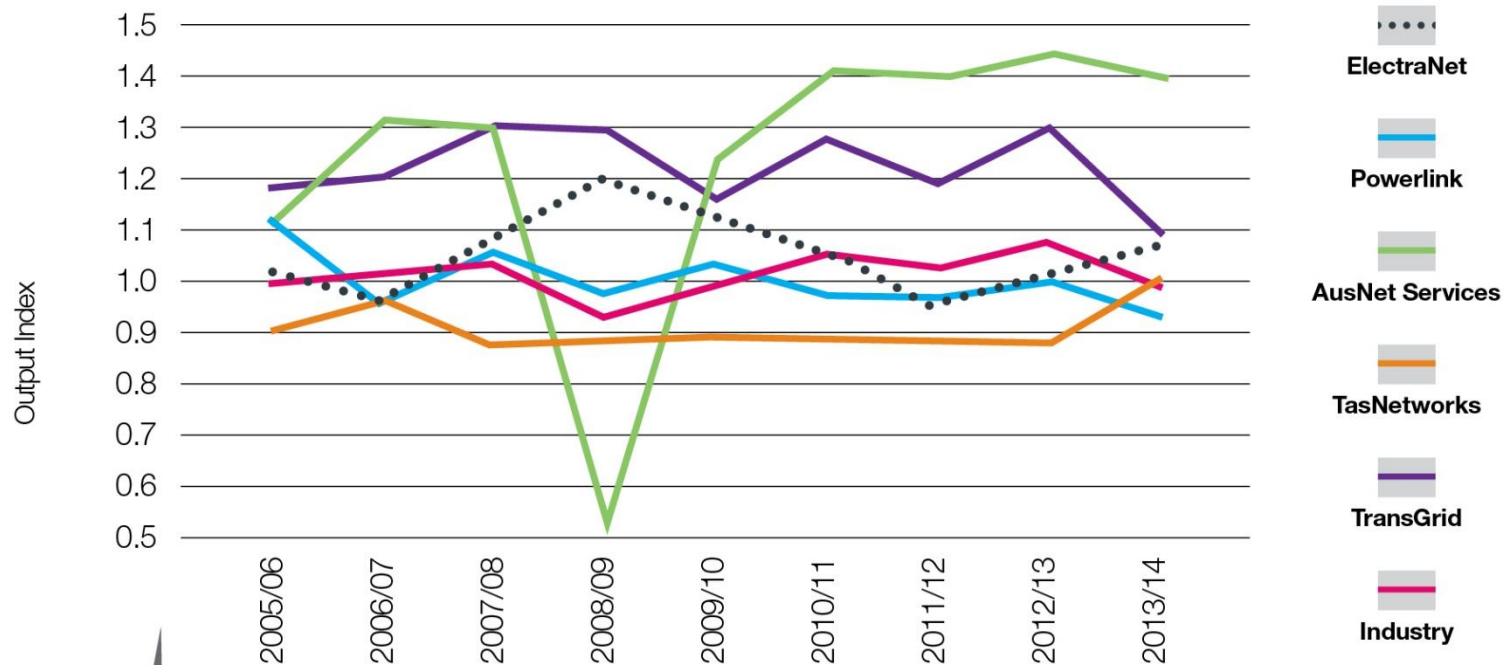


This means more poles and wires are needed to deliver each unit of electricity in South Australia at times of peak demand.

# OUR ASSETS ARE OLDER



# OUR PRODUCTIVITY COMPARES WELL



Our operating cost performance compares favourably with other networks, given the external factors that drive up costs in South Australia.

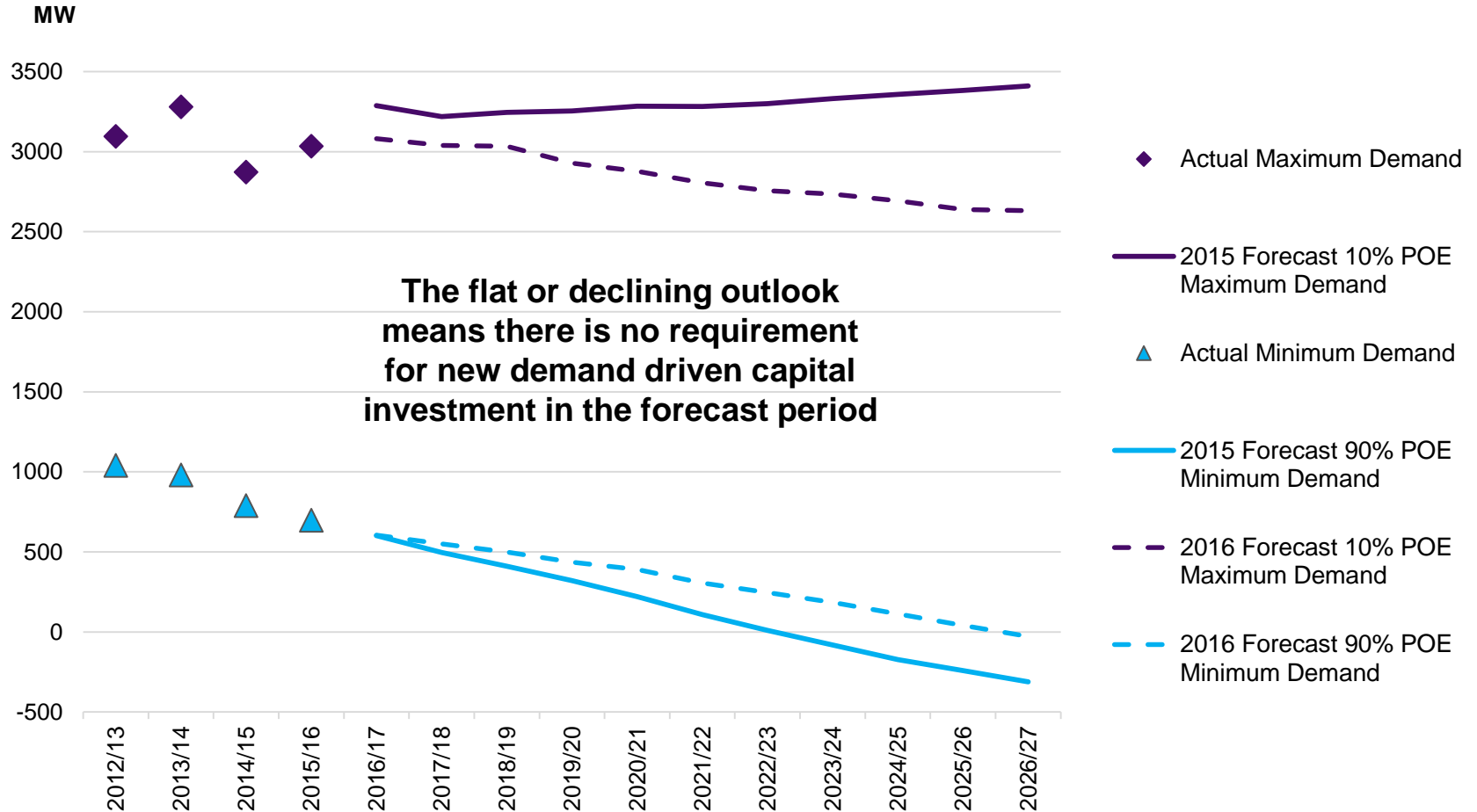




**A 46% REDUCTION  
IN CAPEX, WHILE  
MAINTAINING  
NETWORK  
RELIABILITY**

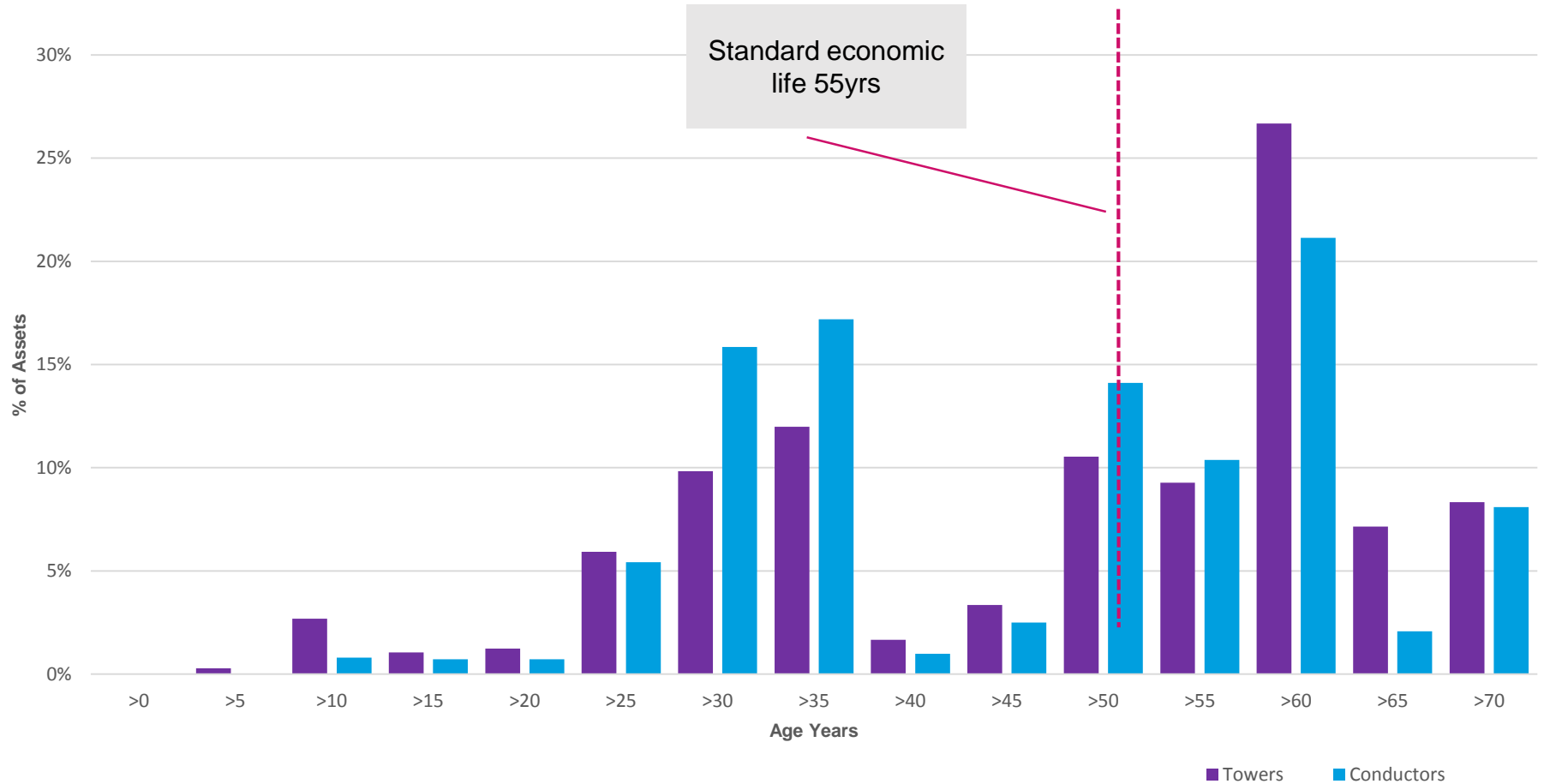


# ACTUAL AND FORECAST DEMAND ON THE SOUTH AUSTRALIAN TRANSMISSION NETWORK

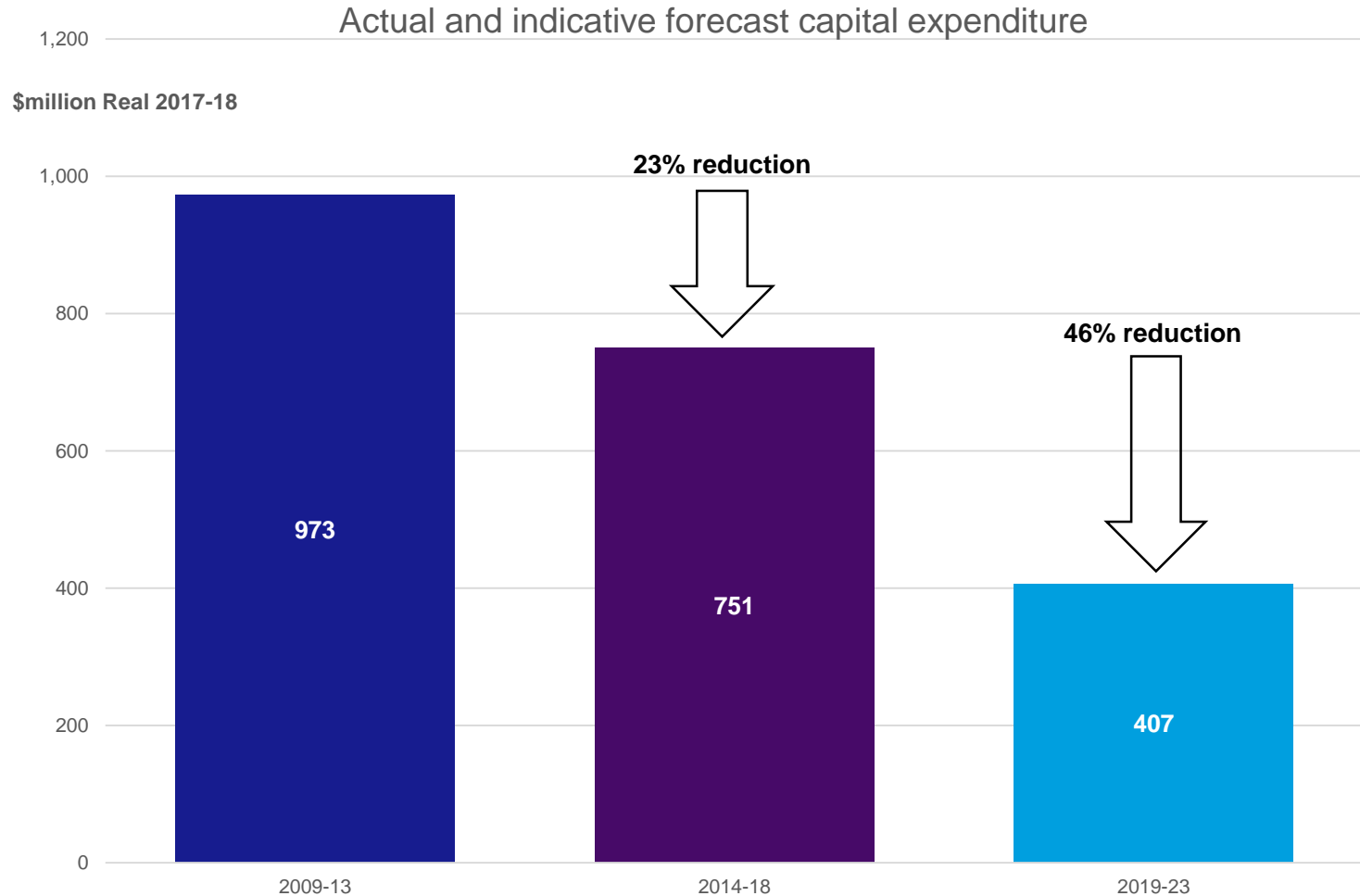


# FOCUS WILL BE ON REFURBISHING OLDER LINES TO EXTEND THEIR USEFUL LIFE

Transmission Powerline Age in 2023



# ACTUAL AND INDICATIVE FORECAST CAPITAL EXPENDITURE



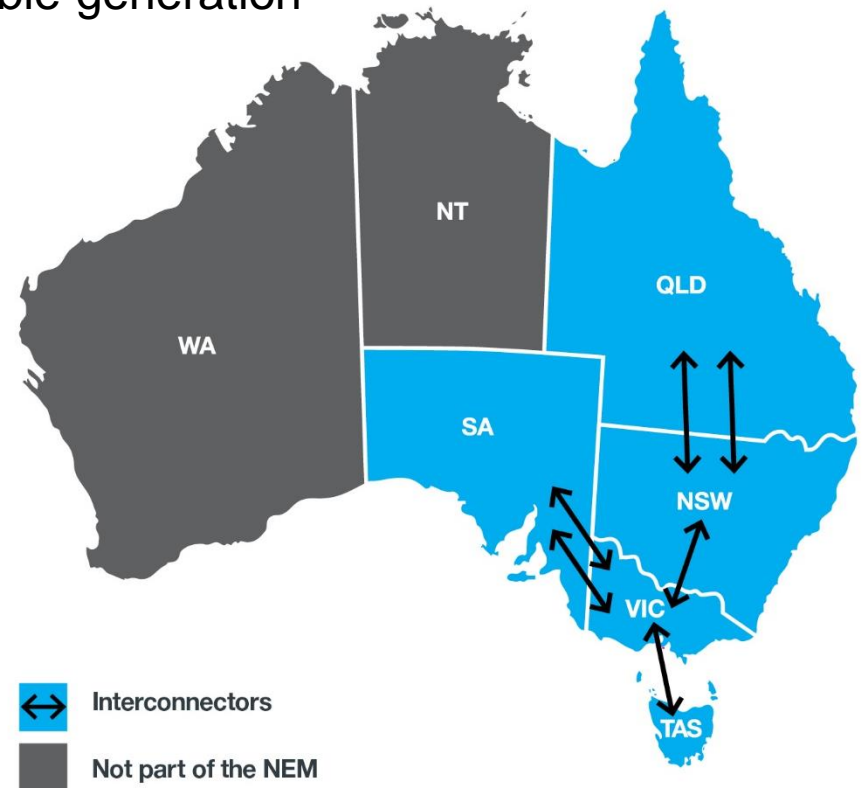
# BREAKDOWN OF ACTUAL AND INDICATIVE FORECAST CAPITAL EXPENDITURE

| Category                         | Total forecast expenditure 2014-2018 (\$ million) | Indicative forecast 2019-2023 (\$ million) | Change       | Driver                                                                                                                                                                                        |
|----------------------------------|---------------------------------------------------|--------------------------------------------|--------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Demand driven</b>             |                                                   |                                            |              |                                                                                                                                                                                               |
| Augmentation                     | 100                                               | 5                                          | ↓ 95         | No new load driven augmentation, connection or strategic land requirements in declining demand environment                                                                                    |
| Connection                       | 40                                                | 5                                          | ↓ 35         |                                                                                                                                                                                               |
| Easement/land                    | 34                                                | 0                                          | ↓ 34         |                                                                                                                                                                                               |
| <b>Replacement/Refurbishment</b> |                                                   |                                            |              |                                                                                                                                                                                               |
| Replacement                      | 367                                               | 209                                        | ↓ 159        | Focus on component asset replacements with reduced need for large scale rebuilds – key expenditure drivers are to manage reliability and safety risk and contain escalating maintenance costs |
| Refurbishment                    | 74                                                | 86                                         | ↑ 12         | Key expenditure drivers are to extend the useful life of ageing transmission lines and manage safety, reliability and fire start risk                                                         |
| <b>Security/Compliance</b>       | 61                                                | 40                                         | ↓ 21         | Reduced requirements based on risks and opportunities addressed in current period – largely completion of current projects                                                                    |
| <b>Other</b>                     |                                                   |                                            |              |                                                                                                                                                                                               |
| Inventory/spares                 | 12                                                | 12                                         | 0            | Ongoing replenishment program                                                                                                                                                                 |
| Information technology           | 57                                                | 44                                         | ↓ 13         | Reduced program largely focused on ongoing replacement requirements                                                                                                                           |
| Facilities                       | 5                                                 | 6                                          | ↑ 2          | Ongoing minor asset replacement                                                                                                                                                               |
| <b>Total*</b>                    | <b>751</b>                                        | <b>407</b>                                 | <b>↓ 344</b> | <b>Reduction of 46%</b>                                                                                                                                                                       |

\*Totals may not add due to rounding

# INCREASED INTERCONNECTION IS VITAL TO ACHIEVING AFFORDABLE AND RELIABLE SUPPLY

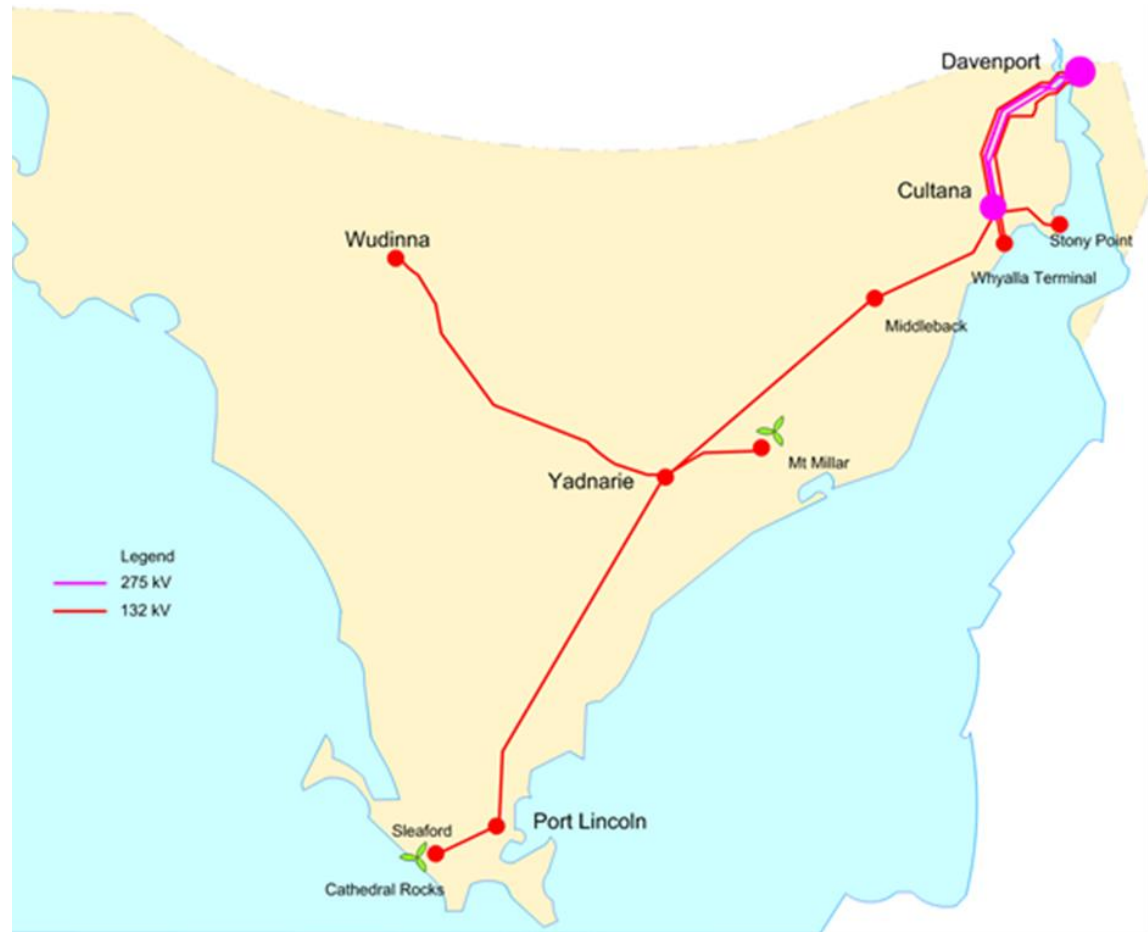
- The transmission network can help the nation meet renewable energy targets
- Increased interconnection across the National Electricity Market will
  - facilitate market competition between generation sources
  - open up the market to more renewable generation
  - deliver system security
- Formal consultation on new interconnector investigation to be published in coming weeks





# ENSURING RELIABLE SUPPLY TO EYRE PENINSULA

- ElectraNet is investigating the full rebuild of the transmission line supplying the Eyre Peninsula
- Partial line replacement is currently included in the forecasts at \$56m to replace component assets at end of life
- Full line replacement would only proceed if the benefits to customers exceed the costs

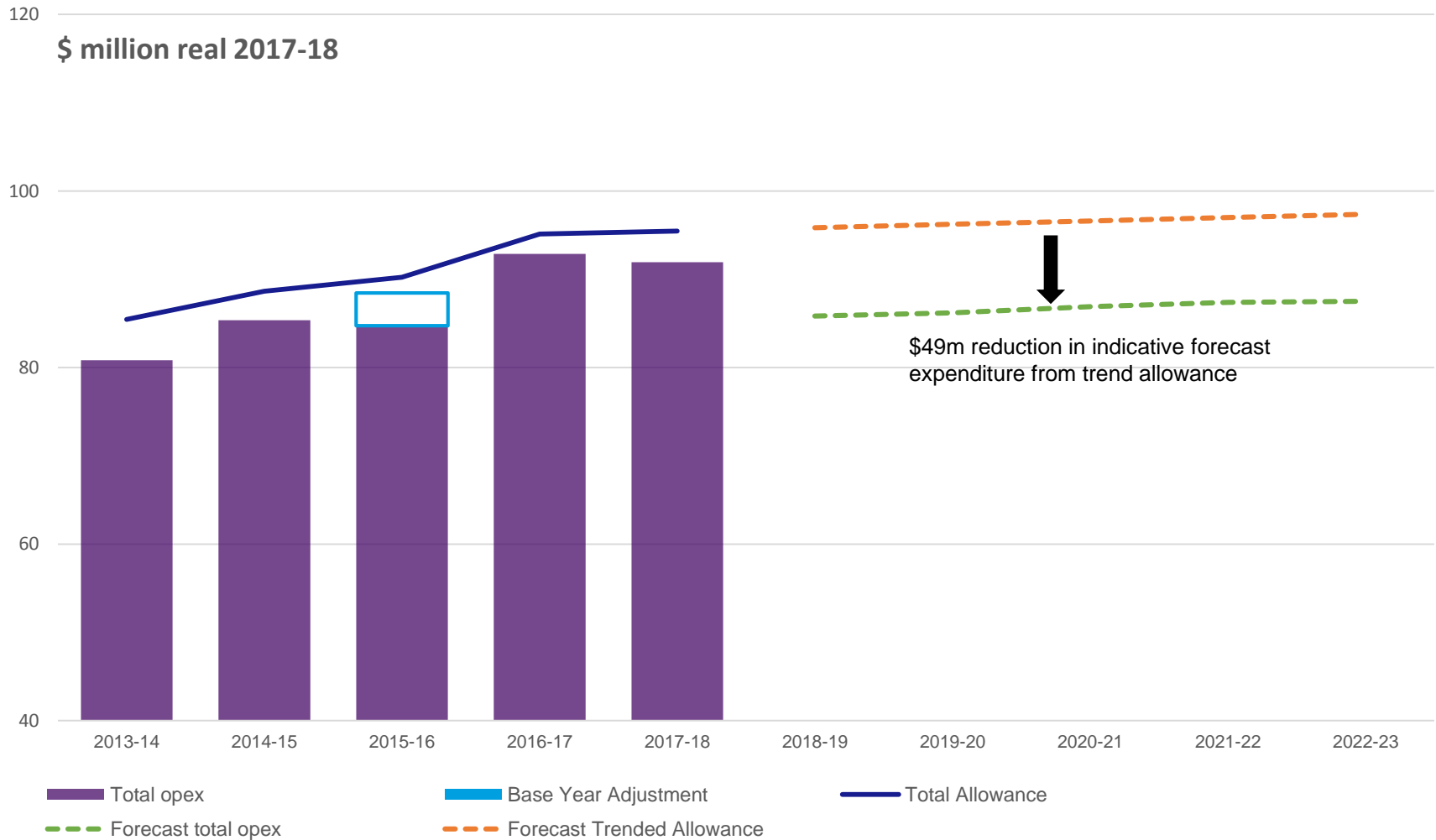


Electricity demand is about 100 MW south of Cultana with about 50 MW at Port Lincoln



# **A 10% REDUCTION IN COSTS TO OPERATE AND MAINTAIN THE NETWORK**

# ACTUAL AND INDICATIVE FORECAST TOTAL OPERATING EXPENDITURE



# BREAKDOWN OF INDICATIVE FORECAST TOTAL OPERATING EXPENDITURE



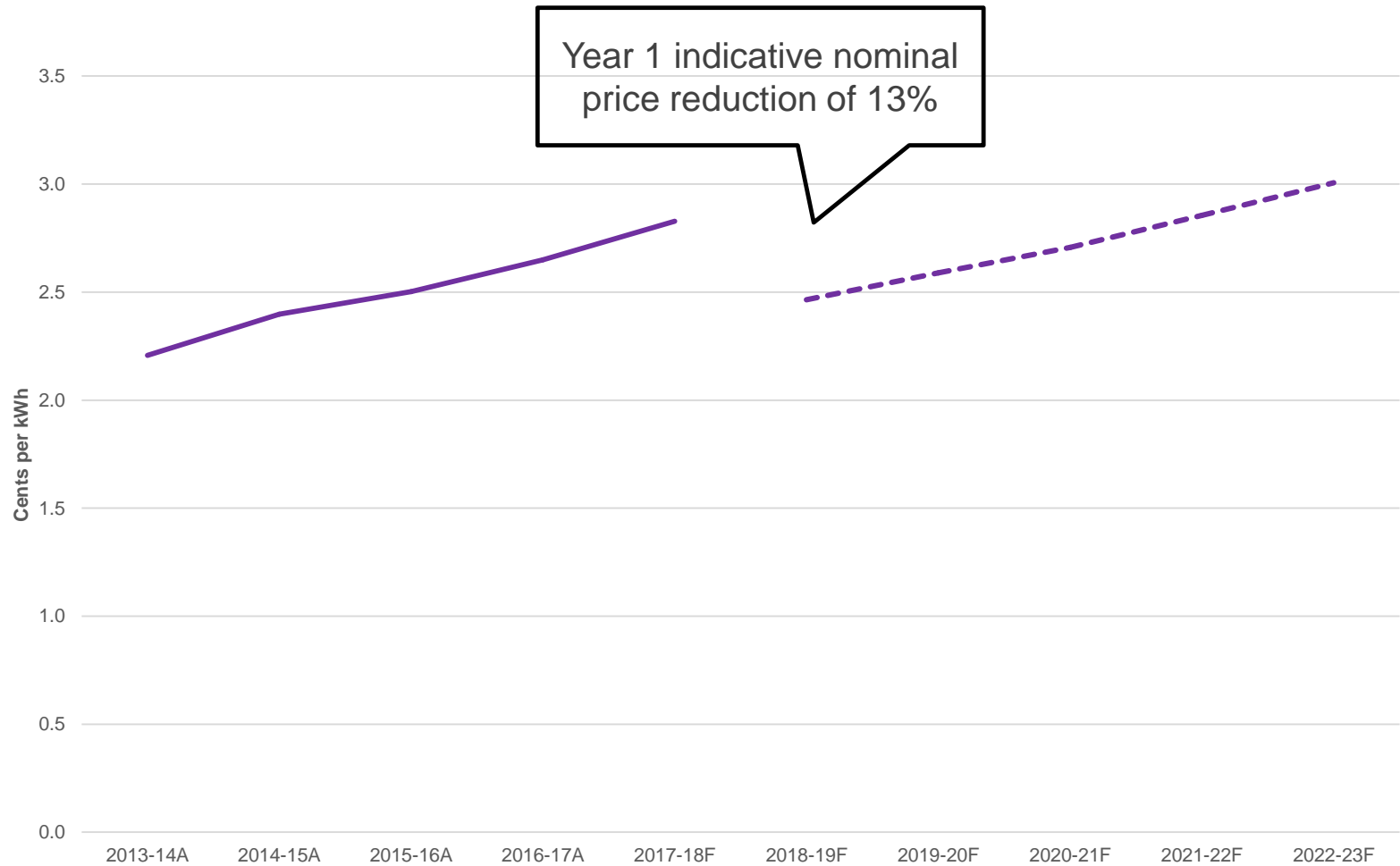
Around 70% of ElectraNet's annual operating expenditure is associated with direct maintenance and operation of the network





**TRANSMISSION  
PRICES ARE  
PROPOSED TO GO  
DOWN BY 13%**

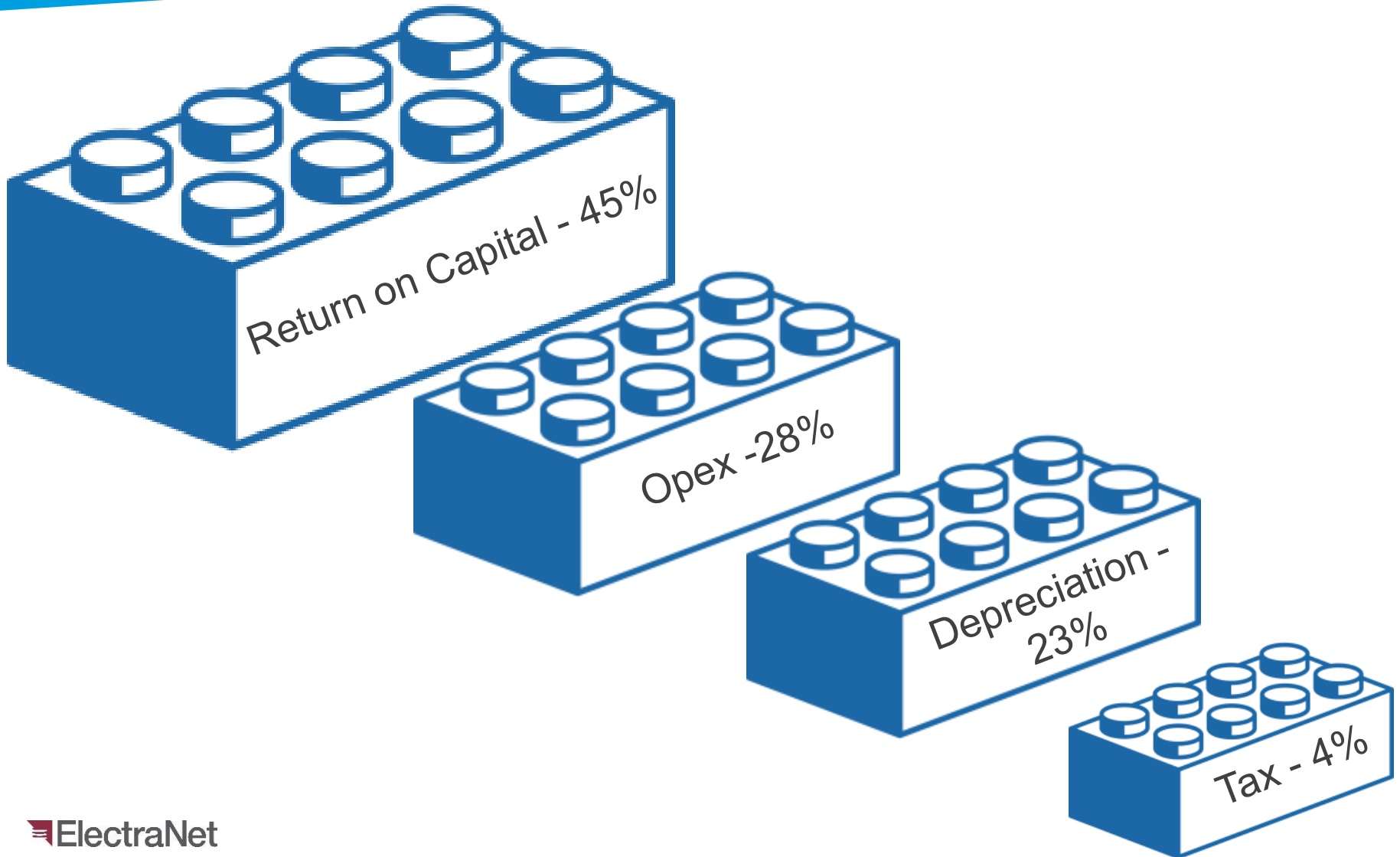
# INDICATIVE TRANSMISSION REVENUE PATH





# THE FINANCIAL 'BUILDING BLOCKS' FOLLOW ESTABLISHED APPROACHES

# THE FINANCIAL BUILDING BLOCKS







**WE'D LIKE TO  
HEAR WHAT YOU  
THINK**



- We're actively seeking feedback from electricity customers and our other stakeholders
- Online form to capture feedback
- Feedback due 11 October 2016
- Ongoing early engagement with the AER and customer representatives
- We will lodge a formal revenue proposal in January 2017, after reviewing and considering the feedback provided on the PRP



# QUESTIONS AND ANSWERS